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The Pastoral Aspects of the Treatment of Infectious Diseases

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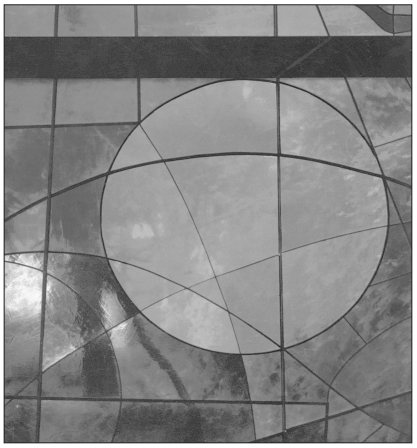

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ADDRESS OF HOMAGE TO THE HOLY FATHER

Most Blessed Father,

We greet you full of joy and gratitude. Five hundred people from sixty-four countries are here. Following the approval granted by Your Holiness of the subject of this twenty-first international conference, over these days we have studied the pastoral aspects of the treatment of infectious diseases.

We began with very many examples that illustrated the particular to us, examples that still in recent times we touch with our own hands through saints and heroes who even died in their pastoral service of care for people with infectious diseases, as a high point of fraternal charity. We remember, amongst so many, Blessed Damian de Veuster and, in our times, the medical doctor, St. Riccardo Pampuri, and Dr. Carlo Urbani.

We have deepened our study of our subject by dividing it into three parts: reality, light, actions. Our aim is to find the light of the Word of God that will lead us to more demanding and effective pastoral action in these days of globalisation in the most rigorous sense of the term. Infectious diseases, both new ones and emerging ones and those of the past that we thought we had overcome, today have greater strength and immunity because of the development of new strains that are resistant to antibiotics; human intercommunication and care for people afflicted because of this present us with great and urgent pastoral challenges.

Those taking part in this international conference – scientists, theologians and specialists in pastoral care, who have come from various parts of the world to study the question and to suggest more effective pastoral action for the treatment of, and care for, patients with these maladies – have gathered together here, Holy Father, to listen to your very high pastoral guidance so as to have renewed paths of work in the very vast field of pastoral care in health.

We thank you very much, Most Blessed Father, for receiving us and we place ourselves humbly and devotedly to listen, and to implement in the Pontifical Council for Health Care Workers, your illuminated words.

H. Em. Cardinal JAVIER LOZANO BARRAGÁN
President of the Pontifical Council for Health Care Workers, the Holy See

ADDRESS OF HIS HOLINESS BENEDICT XVI

In the First Place, Closeness to the Sick Person Afflicted by an Infectious Disease: This is a Goal for which the Ecclesial Community Should Always Strive

Dear Brothers and Sisters,

I am pleased to meet you on the occasion of the International Conference organized by the Pontifical Council for Health Care Workers.

I address my cordial greeting to each one of you, and in the first place to Cardinal Javier Lozano Barragán, whom I thank for his courteous words.

The choice of the theme: *"Pastoral aspects of the treatment of infectious diseases*", affords you an opportunity for reflecting, from various points of view, on the infective pathologies that have always accompanied humanity's journey. The number and variety of ways in which, even in our time, they are often a mortal threat to human life is striking.

Terms such as "leprosy", "the plague", "tuberculosis", "AIDS" and "Ebola" evoke dramatic scenes of sorrow and fear: sorrow for the victims and their loved ones, often crushed by a feeling of powerlessness in the face of the inexorable gravity of the illness; fear for the population in general and for those who, because of their profession or their own choice, are in contact with people suffering from these diseases.

Despite the beneficial effects of prevention that the progress in science, medical technology and social policies has brought, the persistence of infectious diseases continues to take a heavy toll of victims and highlights the inevitable limitations of the human condition.

The task of humanity, however, must be to never cease seeking the most effective means and ways to intervene in order to combat these illnesses and reduce patient suffering.

In the past, multitudes of men and women put their skills and their reserve of human generosity at the disposal of sick people with repulsive pathologies. In the context of the Christian Community, "Many consecrated persons *have given their lives* in service to victims of contagious diseases, confirming the truth that dedication to the point of heroism belongs to the prophetic nature of the consecrated life" (Apostolic Exhortation *Vita Consecrata,* n. 83).

However, these highly praiseworthy initiatives and generous acts of love are still obstructed by many forms of injustice.

How can we forget the numerous people afflicted by infectious diseases who are forced to live in segregation and sometimes humiliatingly stigmatized? These deplorable situations appear all the more serious in the social and financial disparity between the world's North and the South.

It is important to respond to them with practical interventions that encourage closeness to the sick person by a more lively evangelization of culture and by proposing inspiring motives for the financial and political programmes of governments.

In the first place, *closeness to the sick person* afflicted by an infectious disease: this is a goal for which the Ecclesial Community should always strive.

The example of Christ who, breaking with the

customs of his time, not only permitted lepers to approach him but also restored their health and dignity as persons, has "infected" many of his disciples down through the two millennia of Christian history.

The kiss that Francis of Assisi gave the leper has not only been imitated by heroic figures such as Bl. Damian de Veuster, who died on the Island of Molokai while treating lepers there, and Bl. Teresa of Calcutta as well as the Italian women religious who were killed a few years ago by the *Ebola* virus, but also by many who champion initiatives for the infectious sick, especially in developing countries.

This rich tradition of the Catholic Church should be kept alive so that, through the exercise of charity to those who are suffering, the values inspired by authentic humanity and by the Gospel are made visible: the dignity of the person, mercy and Christ's identification with the sick person.

No intervention will be adequate if it does not reveal love for the human being, a love nourished by the encounter with Christ.

The indispensable closeness to the sick person should go hand in hand with the *evangelization of the cultural context* in which we live.

Prejudices that hinder or restrict effective help to the victims of infectious diseases include the attitude of indifference and even of exclusion and rejection that surface from time to time in an affluent society.

This attitude is also encouraged by images of men and women mainly concerned with the physical beauty, health and biological vitality that are conveyed in the media. This is a dangerous cultural trend that leads to putting oneself at the centre, shutting oneself in one's own small world and turning one's back on the commitment to serve those in need.

My venerable Predecessor John Paul II, in his Apostolic Letter *Salvifici Doloris,* expressed the hope that suffering would instead help to "unleash love in the human person, that unselfish gift of one's "I' on behalf of other people, especially those who suffer".

And he added: "The world of human suffering unceasingly calls for, so to speak, another world: the world of human love; and in a certain sense man owes to suffering that unselfish love which stirs in his heart and actions" (n. 29).

What is further needed is a pastoral service that can uplift the sick as they face suffering and help them transform their own condition into a moment of grace, for themselves and for others, through lively participation in Christ's mystery.

Lastly, I would like to reaffirm the importance of *collaboration with the various public bodies* so that social justice may be implemented in this sensitive area of the treatment and nursing of contagious patients.

I wish to mention, for example, the fair distribution of resources for research and treatment, as well as the promotion of living standards which help to prevent the occurrence and limit the spread of contagious diseases.

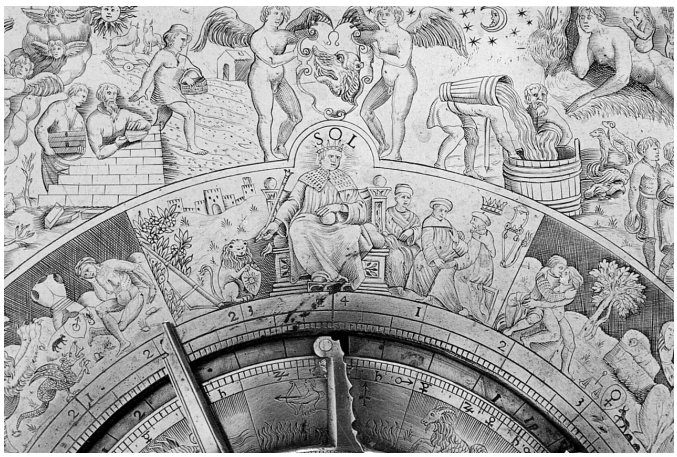
In this, as in other areas, the "mediated" task of contributing "to the purification of reason and to the reawakening of those moral forces without which just structures are neither established nor prove effective in the long run", is incumbent upon the Church, whereas "the direct duty to work for a just ordering of society, on the other hand, is proper to the lay faithful... called to take part in public life in a personal capacity" (*Deus Caritas Est,* n. 29).

Thank you, dear friends, for the commitment you devote to the service of a cause in which the healing and saving work of Jesus, the divine Samaritan of souls and bodies, is put into practice.

As I wish your Conference a successful conclusion, I warmly impart a special Apostolic Blessing to you and to your loved ones.

Friday, 24 November 2006

BENEDICT XVI



The Pastoral Aspects of the Treatment of Infectious Diseases

PROLUSION

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JAVIER LOZANO BARRAGÁN

Infectious Diseases in the Light of the Word of God

The subject of the this year's XXI international conference is 'the pastoral aspects of the treatment of infectious diseases'. This is a subject of contemporary relevance and of great interest for the Church. People afflicted by the Ebola virus, by SARS, by HIV or by avian influenza, who are in situations of weakness, however dangerous their infection may be, should be cared for, assisted and accompanied both spiritually and pastorally in the centres that belong to the various dioceses and religious orders and congregations of the Catholic Church.

During this international conference of the Pontifical Council for Health Care Workers we will be involved in exploring this task, which is performed so effectively, in order to find new light in the Gospel and thereby improve our actions.

As has previously been the case with our other international conferences, after an introduction to the light of the Word of God we will consider the reality of the question that we are studying, its illumination, and practical guidelines for action. I will take the liberty of outlining an introduction to this movement of the whole conference, that is to say I will make a reference to the reality of infectious diseases in today's world; I will engage in a reflection on the profound solidarity to be found at the basis of the whole Gospel Message in relation to infectious diseases; and I will suggest some guidelines for action. This is, therefore, a first approach which will subsequently be developed in a suitable way in the three parts of our international conference by very qualified speakers who honour us with their participation.

I. THE REALITY: THE CONTEMPORARY QUESTIONS AND ISSUES OF EMERGING DISEASES

Infectious diseases were thought until a few years ago to be a problem of the past but the recent appearance of AIDS, the epidemiological return of tuberculosis, the rise of unusual bacterial illnesses, and the spread of new virus infections all constitute serious threats to public health care in the world.

By an infectious disease one means a pathology due to the contagion of the human organism by micro-organisms: bacteria, viruses, mycetes, parasites etc., with a consequent development of the characteristic symptoms of that disease.

Throughout history great epidemics and pandemics caused by pathogenic agents have devastated the world: the plague, leprosy, smallpox, malaria, meningitis, cholera, syphilis, gonorrhea, tuberculosis, polio…After the discovery of antibiotics, medical science hoped that it would one day eliminate all infectious diseases. But recent defeats, such as the threat posed by new pathogenic agents, the return of old enemies, and the development of strains that are resistant to antibiotics, remind us that we must never let our guard down. Wisdom suggests that in the war against germs we should never rest on our laurels. Indeed, in recent years numerous diseases have appeared, for example AIDS, which emerged towards the end of the twentieth century and has today become a pandemic with forty million people infected with HIV in the world. Even more recently there has been SARS, the bola virus, and avian influenza.

Micro-organisms are everywhere. They live in animal and vegetal organisms, in earth and in water, and they are transported by currents of air. They survive without oxygen and the light of the sun. They form thick colonies on every type of artificial surface and have a life cycle that allows them to have a reproductive cycle and a specific metabolism.

1. Transmission

The transmission of an infectious disease requires the move from an infecting agent from a source of infection to one or more receptive entities, that is to say entities that are able to contract an infection. This move comes about in ways that may be different according to the type of micro-organism

involved and its diffusion within the environment. One may describe the so-termed chain of contagion in the following way: *the source of the infection*, which specifically means the origin of the infection that has allowed the transmission of the micro-organism from the reservoir of infection; *the reservoir of infection*, which is made up of the animal or vegetal organism or the environment in which the micro-organism habitually lives and multiplies; *the mode of elimination*, which is the way by which an infected organism eliminates micro-organisms. These are usually expelled through secretions and excretions: intestinal illnesses, illnesses acquired through oral-faecal transmission (germs acquired through the ingestion of contaminated water or foods and eliminated through faeces), and respiratory illness – those transmitted through air. Transmission takes place through microscopic drops of saliva that are expelled by a carrier through coughing or sneezing or also through phonation. Genital-urinary illnesses – venereal diseases. Transcutaneous illnesses – diseases contracted through parenteral transmission. Skin is an excellent barrier against micro-organisms but even small cuts are sufficient to allow germs to penetrate it.

2. Pathways of Transmission

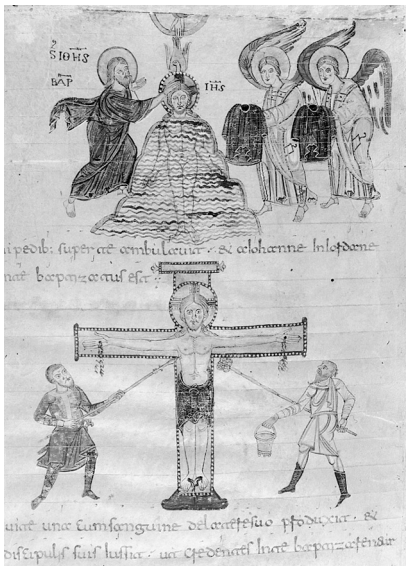
The principal ways by which these and other infectious diseases spread are five in number. The first is the cause of infections of alimentary origin. We may observe that the industrialisation of the food chain provides new opportunities for pathogenic agents to encounter their human hosts in an easy way. This is due to various causes, amongst which we may list: the intensive rearing of fish (salmon), chickens, and rabbits; the transportation of food products throughout the world with the possible interruption of the cold chain and the possibility of contamination (bacteria: Listeria, Yersinia etc.); and the industrial production of food products such as meat products.

The second pathway is respiratory infections linked to air conditioning systems and water conditioning systems. This is how infection by the bacterium Legionella pneumofila, which is caused by bacteria that grow in water systems, refrigerators, air conditioning machines etc., takes place.

The third relates to infections connected with travelling in the world: diseases involving diarrhoea and haemorrhages, malaria, yellow fever etc.

The fourth concerns infections connected with changes in the environment: with deforestation man can enter into contact with pathogenic germs.

The fifth involves infections connected with new medical techniques: hospital infections. Certain instruments used in medicine are able to transmit pathogenic germs – catheters, urinary probes etc. In a hospital environments there is always the risk of being infected by HIV or by hepatitis.



3. The Contemporary and Epidemiological Situation of Infectious Diseases

There are a very large number of infectious diseases and they affect a very broad range of organs and apparatuses. They also give rise to very varied clinical symptoms: respiratory illnesses, exanthemic illnesses, gastroenteritis, neuropathies and others in which they are a catalysing element, pathologies of the immunity system, and cancers. In this context, some infectious diseases may appear insignificant when compared to AIDS. However, in certain epidemiological contexts many of them have or have had a notably important impact. For example, infectious forms of diarrheic afflictions in developing countries, forms of viral hepatitis, malaria, smallpox, leprosy, influenza, tuberculosis…

For a long time infectious diseases such as bubonic plague, syphilis, cholera, tuberculosis, smallpox, diphtheria, Spanish influenza, scarlet fever, malaria, yellow fever, typhus and measles were the first cause of deaths in the world. In 1798 Edward Jenner discovered a vaccine against smallpox. In 1870 Louis Pasteur discovered for the first time the microbe responsible for an infectious disease – one that affects silk cocoons – and thus put an end to the theory of spontaneous generation when in 1878 he published his 'Theory of Germs'. In 1880 he also created a vaccine against chicken cholera. In 1882 Robert Koch discovered the tuberculosis bacillus. In 1885 Louis Pasteur created a vaccine against rabies. In 1923 Gaston Ramon discovered the anatoxin against tetanus and diphtheria. In 1921 Albert Calmette and Camille Guérin discovered BCG (the vaccine against tuberculosis). In 1929 Alexander Fleming discovered penicillin and its bacteria-destroying properties, thereby opening up the path to the treatment of infectious diseases with antibiotics.

4. The Years of Illusion

1940-1970, in the field of infectious diseases, were what we could call the 'years of illusion'. Penicillin was used for the first time in 1941 to treat a patient afflicted with staphylococcus septicaemia. After this, other families of penicillin were discovered. In Western countries during that period, therefore, thanks to the use of antibiotics, there was a drastic reduction in death rates. It was during the same period that vaccines against whooping cough, polio, measles, mumps, and chickenpox were also

discovered. In 1967 the World Health Organisation launched an international campaign to destroy smallpox, which at that time afflicted fifteen million people and killed two million every year. It is certainly the case that during that period spectacular advances were made in the fields of microbiology, immunology, molecular biology and genetic engineering which favoured diagnosis and the study and exploration of new pharmaceuticals and vaccines against these infectious pathogenic agents.

5. The Years of Disappointment

But from 1970 to the present day, we may well say, we have experienced the years of *scepticism and disappointment*. Indeed, microbes have developed forms of resistance. Because of the uncontrolled use of antibiotics and antivirus drugs, pathogenic bacteria and viruses have become resistant, indeed multi-resistant, because of the phenomenon of the selection of mutations or the transfer of resistance genes. Infectious diseases have appeared or re-appeared. Amongst the emerging diseases we may list: the Ebola virus, legionnaire's disease, HIV, HCV, HBV, SARS…(hepatitis C, hepatitis V). Diseases have re-emerged in large numbers and in more virulent forms, together with micro-organisms that are multi-resistant to pharmaceuticals. A typical example of this is tuberculosis which had been defeated in the past but which has returned, together with AIDS, to attack large numbers of people who have severely depressed immunity systems.

6. Death

Infectious diseases are responsible for 43% of deaths in developing countries as opposed to 15% of deaths in industrialised countries. One should add that 15% of tumours have an infectious origin. For example, liver cancer can be provoked by HBV and HCV; skin cancer can be caused by HHV-8 (the herpes virus); cancer of the neck of the uterus can be brought about by the papillomavirus; cancer of the nose-pharynges can be caused by EBV (the Epstein-Barr Virus); and cancer of the stomach can be provoked by the helicobacter pilori bacterium. However, 90% of deaths caused by infectious diseases in the world are caused by only six groups of infectious agents.

It is reported that the six principal infectious diseases that today afflict the world, and the number of people killed every year by them, are as follows: AIDS/HIV, 3.1 million deaths in 2004; acute respiratory illnesses caused by bacteria, 3 million a year; diarrheic illnesses (rotavirus, adenovirus, shigellosis, Escherichia coli, cholera, typhoid fever), 2.5 million people a year; tuberculosis, about 2 million people a year: malaria, more than a million deaths a year; measles, 750,000 deaths a year. Total deaths from these illnesses every year: 12,350,000.

The most important questions and issues relating to the treatment of infectious diseases at the present time are effective diagnostic tests, mutation and resistance to pharmaceuticals, the need for new pharmaceuticals and vaccines, and the difficulties encountered in finding funds and care personnel.

II. CHRIST AND THE TREATMENT OF INFECTED PATIENTS

In the above observations reference was made to certain scientific aspects of the contemporary reality of infectious diseases. But the purpose of this paper, taking into account these scientific observations and the reality of these diseases, goes beyond what has been said so far. This paper, indeed, is addressed to the pastoral aspects of the treatment of these sick people.

1. The Word of God

The illumination of infectious diseases with the Word of God is almost the same as with every other illness. We are dealing with the reflection often offered on suffering and pain. But in this case, in order to be more specific, it is necessary to examine the way in which Christ himself behaved in relation to these infectious diseases when he healed people who were suffering from them.

In this field the healing of the lepers stands out. In order to understand how Christ healed lepers it is necessary to look at the cultural approach that surrounded this disease at the time, an approach which came from the legislation of Moses in the Old Testament. Let us here be allowed a quotation from the Book of Leviticus, chapter 13: 'When a man is afflicted with leprosy, he shall be brought to the priest; and the priest shall make an examination, and if there is a white swelling in the skin, which has turned the hair white, and there is quick raw flesh in the swelling, it is a chronic leprosy in the skin of his body, and the priest shall pronounce him unclean… The leper who has the disease shall wear torn clothes and let the hair of his head hand loose, and he shall cover his upper lip and cry 'Unclean, unclean'. He shall remain unclean as long as he has the disease; he is unclean; he shall dwell alone in a habitation outside the camp' (13, 9-11; 43-44).

Two elements should be stressed: uncleanness and marginalisation. Because of their uncleanness, it was forbidden to touch lepers, and marginalisation was imposed by prohibiting them from living with the people.

Let us now move on to the Gospels and examine the procedures by which Christ healed these sick people. We have accounts in the three synoptic gospels of Matthew, Mark and Luke:

Matthew:
'When he came down from the mountains, great crowds followed him; and behold, a leper came to him and knelt before him, saying "Lord, if you will, you can make me clean." And he stretched out his hand and touched him, saying, "I will; be clean". And immediately his leprosy was cleansed. And Jesus said to him, "See that you say nothing to any one; but go, show yourself to the priest, and offer the gift that Moses commanded, for a proof to the people"' (Matthew 8:1-4).

Mark:
'A leper came to him (and kneeling down) begged him and said, "If you wish, you can make me clean." Moved with pity, he stretched out his hand, touched him, and said to him, "I do will it. Be made clean." The leprosy left him immediately, and he was made clean. Then, warning him sternly, he dismissed him at once. Then he said to him, "See that you tell no one anything, but go, show yourself to the priest and offer for your cleansing what Moses prescribed; that will be proof for them"' (Mark 1:40-44).

Luke:
'Now there was a man full of leprosy in one of the towns where he was; and when he saw Jesus, he fell prostrate, pleaded with him, and said, "Lord, if you wish, you can make me clean." Jesus stretched out his hand, touched him, and said, "I do will it. Be made clean." And the leprosy left him immediately. Then he ordered him not to tell anyone, but "Go, show yourself to the priest and offer for your cleansing what Moses prescribed; that will be proof for them." …As he continued his journey to Jerusalem, he travelled through Samaria and Galilee. As he was entering a village, ten lepers met (him). They stood at a distance from him and raised their voice, saying, "Jesus, Master! Have pity on us!" And when he saw them, he said, "Go show yourselves to the priests." As they were going they were cleansed. And one of them, realizing he had been healed, returned, glorifying God in a loud voice; and he fell at the feet of Jesus and thanked him. He was a Samaritan. Jesus said in reply, "Ten were cleansed, were they not? Where are the other nine? Has none but this foreigner returned to give thanks to God?" Then he said to him, "Stand up and go; your faith has saved you"' (Luke 5:12-14; 17:11-19).

2. Reaching Out and Touching

To carry out the laws and precepts of Moses, the lepers who met Christ stood 'far off'; they felt that they were impure, beyond human society. Those who touched them would remain impure. The Lord healed them and expressed his will to give health through words and two very important signs – he stretched out his hands and touched them. Christ not only agreed to draw near to the lepers, he also stretched out his hands, received them, and touched them. Christ identified with lepers and made himself fully at one with them. He destroyed their uncleanness and marginalisation, and he expressed his full solidarity with them.

3. Solidarity

It seems to me that here we can find a special illuminating key by which to approach pastoral care for patients with infectious diseases. This care must be totally impregnated with solidarity.

Today, reference is often made to solidarity and to such an extent that it would appear to be a secular concept or for the most part a virtue that Christ made an example of. But if we examine the solidarity that is expressed in these healings more closely we find something that is different. Namely, that this way of acting of the Lord with these infected people was not a matter of chance but sprang from the same divine life that he came to give us; here we are at the heart of redemption. True and profound solidarity is participation in the divine life that Christ gives us through Redemption.

In his healing of the lepers Christ makes this solidarity emerge as a source of life – divine life, in which one already participates through the physical healing of the sick.

4. Solidarity and Divine Life

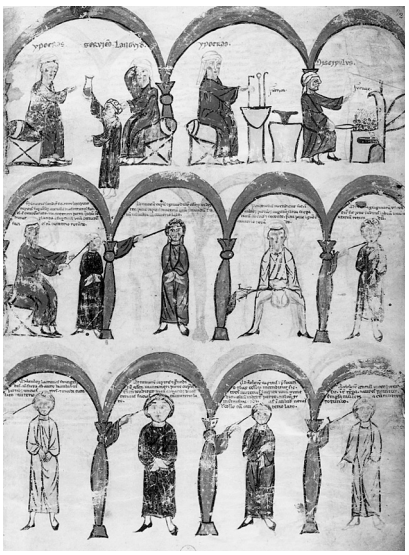
In entering the intimacy of this solidarity, we enter the intimacy of divine life and we find that this is personal solidarity, namely that this is the Third Person of the Most Holy Trinity – the Holy Spirit.

Solidarity thus coincides with authentic spirituality, that is to say the action of the Holy Spirit – love. The Holy Spirit is the love of God that becomes history in the solidarity-inspired mercy of the Eternal Father who sent us His redemptive Son through his paschal incarnation.

The Holy Spirit is infinite Trinitarian intercommunication in love. The third Person of the Most Holy Trinity shows us the divine nature of God as Love; a love that is the total giving of the Father to His Son and of the Son to his Father who, in his total devotion, has brings forth from Them the Person of Love, the Gift Person, who is the Holy Spirit. Thus the Holy Spirit means the infinite individual, personal possession both of the Father and the Son in themselves, a possession that enables him to give himself absolutely. Here we find the essence of solidarity. When we speak about human solidarity, this is authentic only when it is done in the image of God. Man becomes a son of God only through solidarity, which means receiving in a freely-given full donation everything that is, and also giving without limits to God and other people.

Only in this light can one understand the mystery of redemptive solidarity. Indeed, the greatest donation that one can think of is specifically self-giving to the point of death: 'no man has greater love than this, that he lays down his life for his friends' (Jn 15:13). From this self-giving, unto death, the Fa-

ther creates the solidarity of redeemed humanity. As a consequence, authentic solidarity is solidarity for which the risk of losing one's own life to the point of being able to give life to others has no importance.



III. SOME PASTORAL GUIDELINES FOR ACTION IN THE FIGHT AGAINST INFECTIOUS DISEASES AND THE TREATMENT OF INFECTED PEOPLE

If, beginning with this solidarity, we now want to reflect on infectious diseases in general, we will come to the pastoral dimension of infectious diseases, just as Christ himself made himself the pastor of these sick people.

We should begin with this spirituality and this pastoral dimension in order to know the meaning and significance, in our times, of what Christ did: stretching out his hands and touching infected people. It is certainly the case that this does not in a foolish way abandon the elementary rules of hygiene – quite the contrary. It is specifically through giving hygiene a primary position that one achieves solidarity towards these sick people.

I will now make various suggestions, beginning with Christian solidarity, which, without any doubt, will be better explained during the third part of our conference.

1. Research

In the field of medicine this means changing the reasons why we engage in research. Usually research is carried out according to the laws of the market. This determines what is produced and for whom it is produced. In the final analysis the driving factor is profit. In this field we encounter 'orphan' pharmaceuticals, that is to say drugs and medicines that are not produced to fight these diseases, and not because they are not necessary but because they are needed by the poor people of the third world who are unable to pay sufficient to provide an acceptable level of remuneration. For that matter, one should not neglect the fact that given the globalisation of the world infectious diseases that were previously thought to belong to the third world alone today are found everywhere because microbes and viruses do not recognise frontiers.

2. Ecology

This solidarity should also lead us to defeat the selfishness of the exploitation of the environment. The pollution of the atmosphere, and especially of the water system, clearly fosters the spread of infectious diseases. One must achieve a special approach to refuse which, when not well destroyed or recycled, damages both the soil and water. We should try to avoid those kinds of agriculture and the rearing of animals which, when carried out with such water and such soil, spread infectious diseases.

It has been demonstrated that deforestation is another factor that is of influence in the spread of infectious diseases. One guideline for action is direct action to conserve the environment where it is strongly influenced by the presence of forests. Deforestation, which is very often carried out for the economic profit of the few, clearly works against solidarity, and at the level of the fight against infectious diseases as well.

3. Industrialisation

A new look at the industrialisation of the food chain, at the intensive rearing of animals, at transgenic foods, and at the interruption of heat and cold in the transport of food products is required. We are not referring here to the elimination of these techniques, which have greater potential today than in the past to feed great numbers of people, but to examining the procedures involved and, in opposition to the approach which is so often dominant, to ensuring that the principal purpose of production is not profit but above all people's health and meeting the needs of populations.

4. Hygiene

Because of this solidarity we are also obliged to observe with great care the rules of hygiene and cleanliness that are required in domestic, public and work environments.

A correct approach to health care is thus required on the part of people who have infectious diseases to ensure that they do not spread their infections. International health-care controls must be well organised both for those who travel and by migration authorities.

It is true that health-care professionals and all those who care for and treat people with infectious diseases must take due precautions but these precautions must not come to deny the help that is due to such people or prevent the provision to them of the treatment that they require, with the expression of repugnance or fear which, instead of helping sick people, makes them become even more ill. In this field solidarity itself requires a rigid control of the hospital environment, adequate cleanliness in wards, and the sterility of the surgical and non-surgical instruments that are used.

5. Courses

Here it is necessary to plan courses of training and help for voluntary workers and pastoral agents who work in hospitals and nursing homes, as well as training meetings on pastoral care in health

and ethics for chaplains, medical doctors, and nurses in hospitals and clinics.

6. Assistance

At a practical level assistance for these kinds of patients and their family relatives must be promoted. This assistance means, in pastoral care in health, first of all providing them with the sacraments, especially the sacrament of reconciliation, the Eucharist and the sacrament of the anointing of the sick. From these sacraments will spring, both for the patients and for all those who care for and treat them, the solidarity-inspired strength to care for and treat them in the best way.

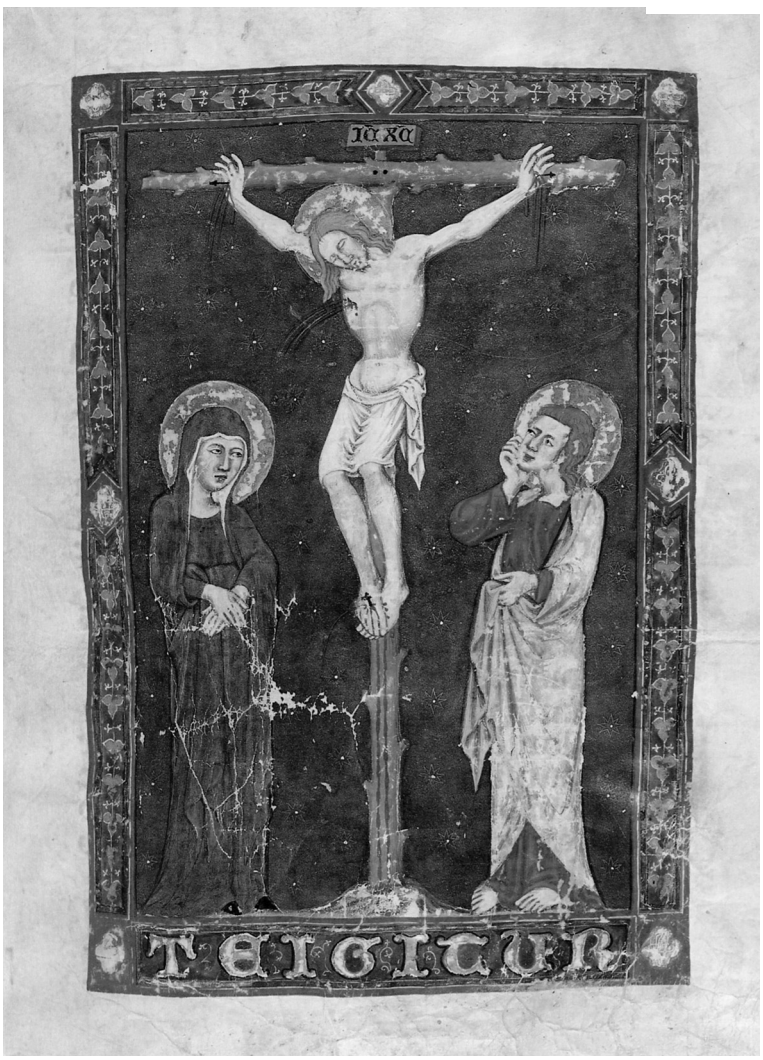
CONCLUSIONS

I have pointed out certain pathways by which to fill the care for, and treatment of, sick people with solidarity, spirituality and love. This care and treatment thus spiritualises, beginning and being permeated with the love that the Spirit generates in the hearts of believers, and becomes fully pastoral, following the example of Christ, the Pastor.

This is the root of so many other pastoral actions that may come to mind by employing a creative imagination so as to help these sick people even more.

Welcoming sick people and identifying with them will be the two columns of healing infected people and of the fight against infectious diseases. Thus Christian solidarity will be the soul of health-care workers and of all those who are involved in carrying out the Gospel commandment: 'heal the sick'.

His Eminence Cardinal JAVIER LOZANO BARRAGÁN
President of the Pontifical Council for Health Care Workers, the Holy See.



First Session

Reality

ANTONIO CARRERAS PANCHÓN

1. The History of the Treatment of Infectious Diseases

1. The Different Stages of the History of Illness

Transmissible disease have periodically been the first cause of death in populations until very recent times. Of these, the so-termed epidemic diseases (fundamentally: bubonic plague, smallpox, dysentery, yellow fever, cholera, influenza) have broken out periodically in populations, causing rapid and very high levels of death, without political institutions (states, local government) being able to impose other preventive measures than isolation and the collapse of interpersonal communication and communication between peoples. The provisional character of these measures and their immediate termination as soon as the epidemic was over, explain how until the middle of the nineteenth century the fight against epidemic diseases was nearly always ineffective. In was in the nineteenth century, when the first international conferences (Paris, 1851) debated the problem of cholera, that co-ordination was achieved of minimum level of effectiveness to stop the development of such processes. The debates between the European countries and the Turkish government with the intention of regulating the pilgrimages to Mecca, and the introduction of measures of control and the internment of those who were probably infected, demonstrate to what point political interests, religious sensibilities and epidemiological ideas intertwined during the decades that led to the achievement of a number of agreements that bound all countries equally.

But although epidemics, because of their rapid and high levels of deaths, are the most dramatic forms of infectious disease, one cannot ignore that many other transmissible diseases which have been endemically installed in many societies have had demographic consequences that have been no less significant. Indeed, still today in many countries diseases that are transmitted by water, together with malaria and tuberculosis, provoke high infant death rates and are responsible on a large scale for morbidity in the adult population that has very long-lasting effects on quality of life and on economic productivity. In addition, on a large scale they help to keep in the distance that life expectancy of those countries which, with their systems of health care, have developed a policy of care for their populations and the imposition of measures of hygiene fully suited to the principles and needs of preventive medicine as a scientific discipline.

The first period of great epidemics brought about by acute contagious infectious diseases is the one that lasted most in time and occupies almost the whole of historic time from the sixth century until the middle of the nineteenth century. Three stages may be discerned in this period.

1.1. From the sixth century until the eighteenth century, which was dominated by bubonic plague.

1.2. From the eighteenth century until the beginning of the nineteenth century, when small pox was the primary killer .

1.3. From 1830 to 1890, the decades of cholera.

Then there was a second period of chronic contagious infectious diseases from 1880 to 1950 (tuberculosis, typhoid fever, malaria, and diphtheria).

This was followed by the period that runs from 1950 to the present day, a period marked by non-infectious diseases and HIV.

This pattern corresponds to the history of industrialised countries with complete health-care systems. Obviously, a large number of countries presently find themselves still in the second epidemiological period which is even darker because in addition to suffering traditional chronic contagious infectious diseases, they also have to endure various emerging illnesses.

Until the development of what Ackernetch called laboratory medicine during the nineteenth century, people did not know about the causes and the mechanisms of transmission of these diseases, a fact that influenced the efficacy of the measures that were adopted to fight

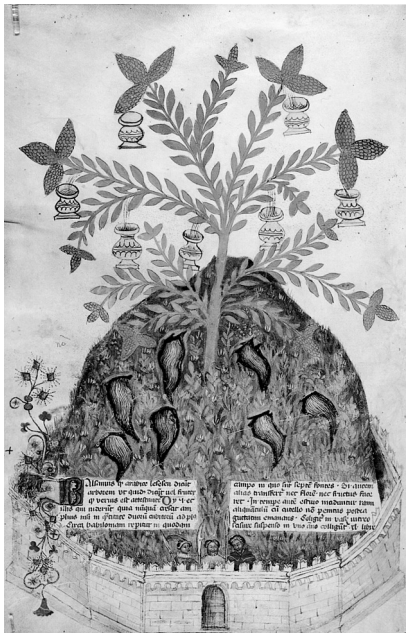
them. Care for the patient was always conditioned by the interpretation that his surroundings (medical doctors, surgeons, nurses, family relatives, ecclesiastics) gave of the origins of illness and the consequences that his proximity could have for the people responsible for treating him.

2. Miasma/Infection: the Rationalisation of Illness and Ethical Needs

It is known that in ancient Greece a technical interpretation of illness was formed that located the origins and evolution of an illness in natural phenomena and abandoned the idea of the intervention of mysterious forces which, out of whim, punishment or vengeance, subjected men to wrongs of every kind, including illness. The Hippocratic text 'On Sacred Illness' brings out in a categorical way this new vision of illness which located Greek medicine in a point of real inflection as regards the subject of this paper. From that moment onwards – the date of the composition of this text is considered by the majority of philologists to belong to the fifth century BC – it was not acceptable to refer to the action of gods or the malevolent intervention of witches or wizards to explain the causes of illness. 'As regards the illness that they call sacred', which as is known was epilepsy, 'the following happens: in no respect does it seem to me that there is something more divine or more sacred than the others, but rather that it has its own nature, like other illnesses, and hence it is proposed…And if it is thought that it is sacred because it is wonderful, many illnesses would be sacred for this reason, which I indicate as being no less wonderful or monstrous than those that no one considers sacred'.

Air played a fundamental role in the theories that were formulated to find a naturalist explanation for the always disturbing phenomenon of the so-termed epidemic diseases, that is to say those diseases that struck the whole of the population and moved from one place to another causing high levels of death. These were illness, compared to other illnesses that had a more irregular and capricious development according to the specific constitution of each individual, which had much more depersonalised and universal characteristics: a) they were malign, that is to say they caused high levels of death; b) they were common, that is to say they affected a large part of the population; and c) they spread from one place to another.

Through a natural association of ideas the ancient Greeks thought that the transmission of these diseases took place in a way that was analogous to the spread of odours. Air was the only element that had the property of being able to move from one place to another and in addition it was an element that surrounded all living beings in an equal way indiscriminately of race, sex, age or social status. Altered air, to which was attributed the origins of these diseases, was called *miasma* by the ancient Greeks, and here they used a word that to begin with had a very different meaning from that indicated here.



But the process of rationalisation, or if one prefers it 'secularisation', was not complete and always conserved in the ultimate analysis a moral or transcendent interpretation of illness. The Latin word *infectio,* the action of impregnating, by which the Greek term *miasma* was translated, maintained a religious origin that the naturalist efforts of physicians were not able to completely overcome. At a popular level a distinction was conserved between infectious diseases and the other processes of illness. There were connotations in particular of blame-attribution which had inevitable consequences for the treatment of, and approach to, patients.

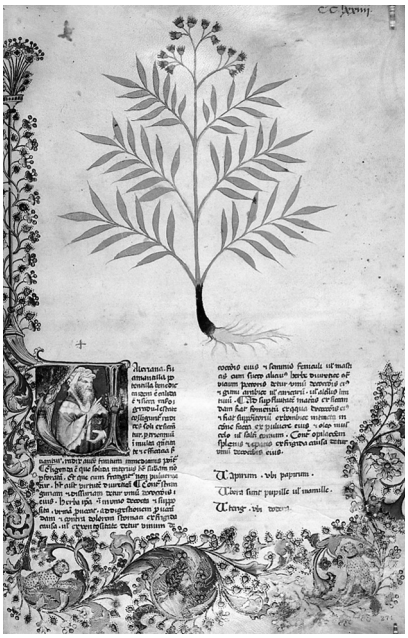
The formulation of these doctrines displayed the high level of intellectual competence of ancient Greek medicine. But in addition, reflection about medicine as technical knowledge (knowing what to do, providing information about why things were done in a certain way) was accompanied by reflection on the physician had to behave towards his patients and how he had to behave in front of his contemporaries, namely in a way that would gain esteem and respect. It is certain that this ethical concern was not only altruistic but also moved by a utilitarian search for public recognition in an activity that needed esteem and respect. The physician was first and foremost a tradesman who went from town to town and opened his physician's tent (*iatreion*). He had rapidly to obtain the respect of people who were ill because for him they were also his customers. Ethical concern was never absent from this concern to distinguish himself from the ignorant, from the profane in the art of healing, through behaviour that assured those who drew near to him that he was not trying to exploit their situation. The Hippocratic model of the relationship between the physician and his patient was built upon two positions that were inevitably asymmetric. The patient asked for help from a position of physical weakness and social vulnerability; the physician offered healing or at least relief through knowledge of the nature of the illness but also from his position of health. The emphasis in the ethical texts on it being advisable for the physician to have a moderate appearance and a good complexion which expressed his state of health was justified by the need for the ignorant to see that their knowledge of nature was applied first and foremost for their own sakes. It was in ancient Greece that this type of professional relationship which opposed conscience to trust began. To the undefended drawing near of those who were in a situation of

physical and moral vulnerability, there was the guarantee of those who treated them that they would not be injured (the first ethical principal of not doing harm which modern bioethics has translated with the *prima facie* principle of non-injury) and then there were the requirements of the office of the physician which placed the performance of certain well defined ethical rules before any self-interest.

But one cannot ignore that this interest both in medical etiquette (clothes, discretion, perfume) and in disinterested care (lack of economic self-interest towards those who were undefended and weak) constituted an element of singularity in Greco-Latin medicine and had a long-lasting survival in subsequent medicine. On the scale of duties to be performed, the first were always those due to the patient (first of all not injuring him, respecting him in his intimacy, guaranteeing him professional secrecy, knowing how to put knowledge about nature before the appeal of fees) and only in a rather subordinated position were those duties that had to be defended against the physician's professional colleagues or his *polis*.

But care for the patient was certainly not indiscriminate and general. Greek medicine applied itself according to the economic position of the patient. Thus there was as Jaeger pointed out many years ago a medicine for the rich and a medicine for the poor in accordance with the division of ancient Greek society. Whereas free citizens were treated by physicians attentive to knowledge about altered nature in line with the principles of technical medicine and who were concerned to comment with their patients on their assessment of their illness in terms similar to those used in philosophical discussions, the physicians of slaves, according to the authoritative description of Plato in his *Laws*, ran from one patient to another without speaking or commenting on their actions and acted on the basis of simple routine or experience. Obviously, Plato thought that the first was the more elevated and worthy way of practising medicine and the one that most drew near to the therapeutic ideal that made medicine a technique of the highest level.

But did the behaviour of physicians always correspond to these requirements? Certainly other sources that are more reflective of the immediate realities of daily life offer a much less flattering portrait. The theatrical authors (Aristophanes, Plato the Comic, Menander, Plautus) declared that the desire for unbounded profit and the tendency to charlatanry were some of the most censurable excesses of the behaviour of physicians. The absence of an institutionalisation of the activity of physicians (and thus the non-regulation of their intellectual training or of the immediate practice of their professions) left the initiative in the hands of each individual as to how to respond to the needs of sick people.



3. The Ambiguity of the Foundation of Medieval Hospitals

'During the Middle Ages', wrote Le Goff, 'the reality was Christianity'. The major efforts at evangelisation which were concluded during that long millennium had decisive consequences for the treatment and care of sick people.

It was in this situation that hospitals, the institutions of care *par excellence*, appeared. Hospitals in their origins were the outcome of the extension of Christianity and Christian preaching and a new vision of suffering and relationships with neighbour, and only to a certain extent a result of a recognition of the importance of illness and the need for treatment outside the home context. This approach, which was totally innovative, modified the conditions in which medical care had evolved within the paganism of Greco-Roman society. The spread of hospitals was therefore in parallel with the extension of Christianity during the early centuries of the Christian era.

It was specifically this approach that explains the finality and the characteristics that these institutions would have for a good part of their history. In these, and out of Christian motives, every kind of person in need, not only the sick but also pilgrims, the poor, the invalid, widows and orphans, were received and provided with care. Thus the finality was not only one of care but first of all and above all else to benefit people, and this influenced the structure, organisation and working of hospitals during the first centuries of the medieval period. [1]

During the Middle Ages and in modern times as well, the concept of a hospital was not only very widespread. It was also ambiguous. Various kinds of buildings or homes were given the name 'hospital' in which no kind of medical care was provided and which had the sole purpose of providing refuge or accommodation to poor people and to pilgrims. These kinds of institutions were very widespread and they were to be found both in small villages and in the large cities.[2]

During the first millennium of their history (from the sixth century to the eleventh century), the principal hospital institutions were ecclesiastical. The foundations located in the cities were built for the most part by the Church, whereas the hospital foundations in rural areas were generally extensions of the monasteries. Following this example, in some cities and towns the first foundations with secular origins began to be established, although in practice most of these foundations ended up by being controlled by the ecclesiastical hierarchy.

The urban development that took place beginning with the twelfth century and the birth of the first

boroughs brought about a point of inflection in the history of medieval hospitals. During this stage there was a notable increase in hospital foundations due to secular initiatives, both by nobles and by rich *bourgeois*, as private people exhorted by the Church donated their goods for the foundation of a modest hospital where their less fortunate fellow citizens could receive necessary help. During this stage there was also an increase in the number of hospitals for pilgrims which were situated along the pilgrimage routes to Rome and to Santiago di Compostela or in certain centres of especial religious significance. Lastly, within the context of medieval society, hospitals run by brotherhoods, guilds or fraternities were also frequent. On the whole in these institutions, the care provided was minimal and they were used solely for the coming together of devout people or people who belonged to a fraternity or brotherhood and aspired to a retired life but did not want to belong to a religious order. Others, in contrary fashion, had the purpose of providing care, but only to the members of that guild.

Care for sick people acquired greater complexity as a consequence of the development of the first monastic orders and then the mendicant orders. Whereas in the Greco-Latin world the fundamental role was performed by the physician and care for the patient was provided by servants or family relatives, during the medieval period there was a timid specialisation of health care with the appearance of monks who were nurses. The Rules of St. Benedict contained the happy sentence that would always legitimate care for the sick in the Christian tradition: 'First of all and above everything else, the sick must be cared for: in this way here Christ in person is served because he himself said: I was sick and you visited me'. In addition to recommending that the monks should not abuse their condition of being sick to ask for special care, a concession was made that demonstrates the high consideration that care for the sick should always have: these caprices should be borne 'because with them a greater prize is won'. Here we find already defined the figure of the nurse, with the division of functions and responsibilities that characterised the complex life of monasteries. The abbot is urged to select a 'nurse who is God-fearing, diligent and careful'. And one might say that it is here that one can find the first attempt in the European West to look for personnel specialised in providing daily care to the sick according to ability. Greek medicine was alien to this sensibility, obsessed as it was with ennobling itself and always establishing a barrier between physicians, who had a monopoly over health care, and the ignorant.

Monastic life was reserved to the minority within the monastery. It was certainly the case that other sick people could not gain access to such care. The most isolated contrast with this was that of the lepers. A set of dermatological afflictions was included in this category but the paleo-pathological remains that have been handed down demonstrate that many of the individuals placed in leper stations were indeed lepers. The segregation of these sick people from society assumed that the leper was a sort of social corpse and leper stations were made up of a dwelling, a small chapel in the garden and a cemetery, all in all a set of areas that were intended to allow lepers to live an autonomous life separated from the rest of their fellow citizens.

The dispersion of the leper stations and the limited number of lepers that they contained (on the whole no more than ten), had a dual justification. On the one hand, it was easy to achieve autonomous support for small groups from the property of the leper station or the alms that they received, but in addition the danger was avoided of a large concentration of people who would rebel against the harsh system of segregation that was imposed. The lepers subjected themselves to a civil-religious ceremony of separation – in the chapel of St. Lazarus and presided over by a priest – but on many occasions wives entered the leper station with their leper husbands. This decision was to take to its ultimate consequences the commitment to a life in common of marriage, although this decision was often motivated by the painful need to link the wife's destiny to her only source of economic support.

4. Theories about Contagion and the Medicalisation of Health Care

During the Renaissance a series of facts allowed the elaboration of a new theory about contagion. The development of diseases such as smallpox, typhus, and malign forms of diphtheria and syphilis, generated a new approach to infectious diseases. Although since ancient times various authors had formulated the hypothesis that certain infectious diseases were produced by living organisms (*contagium vivum*), the nature of these agents had not been made clear. It was precisely the reformulation of this doctrine that constituted the most important contribution to epidemiological thought during the modern age.

The medical doctor who modernised the theory of contagion was the Italian, Girolano Fracastoro (1478-1553), who is seen as the founder of modern epidemiology. In his treatise *De contagione, contagionis morbi set eorum curatione (Sul contagio, i mali contagiosi e della loro cura* (Venice, 1546), he made the first scientific formulation of the concept of 'contagion'. Fracastoro pointed out the two conditions that define contagion: the action of specific agents (which he called *seminaria*) and their ability to be transmitted from a sick person to a healthy person. The doctrine that he formulated was an insight because its author could never demonstrate at an experimental level the truth or exactness of the principles on which he had based his theory because during his epoch (the first half of the sixteenth century) medical science did not have the technical instruments that were required for such an undertaking.

The epidemic of the black death had its origins in China and spread rapidly along the silk route to the Crimean peninsula. From 1347 until 1729 epidemics of this disease followed one another in such a way that one can state that while it lasted every inhabitant of Europe, until the eighteenth century, had some experience during his life of a rela-

tionship (indeed a woeful relationship) with this disease. The plague in all its epidemics placed severe stress not only on the social, political and religious organisation of the European kingdoms but also on the measures taken to care for its victims. Theories on contagion went side by side with miasma theories which attributed the epidemic to the air and gave rise to a series of proposals intended to prevent the spread of the disease and contagion of the healthy. Because of their spectacular nature (the clothes worn by medical doctors, the disinfection of underwear but also of boxes and paper), these accentuated the most dramatic characteristics of the disease and helped to increase the abandoning of its victims and make the activity of those who cared for them even more meretricious.

Beginning with the late medieval period, hospitals began to acquire a special significance and importance. This was brought about both by their size and their functions and by their growing economic power. The majority of hospital institutions were created by private people and only a minority owed their existence to local guilds or to the Crown. The religious fervour of private citizens, expressed here in a 'theology of charity', was expressed in the form of almsgiving, extraordinary collections, donations or testamentary bequests which helped many hospitals to accumulate a great deal of property, income and tithes, generally imposed on homes and real estate, which in many cases allowed them have incomes that were high. These endowments very often took place under the juridical formula of patronages, chaplainries, memories etc., although the Church always exercised an effective control over them. The system of care was thus a reflection of a mentality that was expressed in Christian practice.

The transcendence of this system, which was important because of its dimensions, lay, as Callaham observes, not so much in its quantitative dimensions (which were certainly notable) as in being the visible expression of a kind of social contract between the privileged classes and a population that was at any time liable to suffer the acute poverty produced by frequent economic crises. The possession of wealth for the privileged achieved justification in the provision of help to the poor, and to such an extent that the poor had actual rights.

This mentality, which was very much rooted and widespread throughout Europe, explains the progressive development of hospital institutions. A variety of benefactors founded hospitals throughout Europe, and all of them had the purpose of admitting and caring for sick people, the poor, the weak, the elderly, and children abandoned definitively to being *pauperes Christi.* Some authors have referred to a sacralisation or mystic vision of poverty to explain the origins and expansion of these hospital institutions. However, it would be mistaken to think that the number and the spread of institutions of this kind was expressed in adequate care for the population at the level of providing benefits or offering medical care. There were many hospitals throughout Europe but most of them did not function and they had a minimal impact on social life.

The lack of health-care professionals in rural areas meant that only a part of the existing hospital foundations (generally the urban and semi-urban ones or those located in rural centres with a marked population) provided help that specifically involved health care. In the urban hospitals, care was organised around a medical doctor and one or more surgeons who dealt with following the illnesses of patients and prescribing treatment. They divided their hospital work with private practice but the direct responsibility for care for the sick was in the hands of nurses who, together with the administrators and the chaplains, were the only people who had complete dedication to their institutions.

The creation of religious orders such as the Brothers of St. John of God and the Fathers of the Good Death during the sixteenth century, and the Sisters of Charity in the seventeenth century, represented the highest level of the commitment of the Church to caring for the sick, although congregations with similar aims but of smaller size also arose within specific national territories.

During the process of the creation of a hospital, the normal practice was for a founder or founders to leave property and income that would aid in the future financing of the foundation. It was specifically the founders who indicated the owners (patrons) that were entrusted with the control and management of the hospital, and who specified by means of rules or a charter the aims of the institution, who could be admitted, and what their obligations were. Thus the organisation, the government and the economic support for these hospitals were decided by the will of their founders. At the same time they had ample autonomy in relation to their charters or rules, although in practice they were seen as being under ecclesiastical jurisdiction and has already been pointed out their property was seen as being Church property, specifically because of the governing role of the Church. In many of these foundations the management was in the hands of the 'hospital' ecclesiastic who was responsible not only for providing spiritual assistance to those who had been admitted but also but also for the direction and the discipline of the foundation. It is precisely the forward approach of the Church that explains the importance given to religious life in these hospitals, and this was expressed in communal prayer, in the divine offices and in the liturgy.

We should refer, albeit briefly, to one of the reasons that lay behind this change: the need to rely upon a specific space to treat patients. During the sixteenth century the process of the medicalisation of hospitals began, and this process was expressed not only in the creation of special hospitals for people suffering from syphilis or for people with acute illnesses (these were generally called at the time 'fevers') but also in the greater role of medical doctors and surgeons in the appointment of the employees of these foundations. This incipient medicalisation of hospitals did not involve a fracture with the medieval tradition and many of these foundations continued to have the function of being a refuge, but medical-assistance work was gaining ground. In this sense, of significance was the regulation of the obligations of the facultative personnel to be

found in the statutes and charters of many of these hospitals, something that had been rather unusual up to this date.

5. Secularity

The nineteenth century was full of discussions between the exponents of the miasma theory of disease (it spread through the air) and the champions of contagion as an explanation (microscopic living beings were responsible for the disease). This was a controversy that did not confine itself to strictly scientific terrain because an acceptance of the theory of contagion assumed the imposition of measures involving quarantine which were a series obstacle to free trade and the free movement of people. And it is not strange that the stronger financial and industrial middle classes, who were liberal in economics, showed themselves openly opposed to the measures proposed by the theories of contagion, the defenders of measures involving isolation, who were in their turn decided protectionists and the champions of tariffs and import duties.

Health care for people with infectious diseases encountered during the nineteenth century the scientific approach of microbiology and this was able to respond to most of its problems as regards the origins, the diagnosis, the prevention and the mechanisms of transmission of diseases. Effective treatment was late in arriving but measures of reform followed one another rapidly and provided public hygiene with a new theoretical foundation.

The liberal or authoritarian states that arose in Europe after the end of the French wars imposed substantial reforms on the organisation and government of hospitals. The measures in the first place were directed towards acting on the property and income that supported these hospitals. In some cases they were amalgamated to create a single hospital of a greater size and with a more centralised system of organisation. The French revolution and the new ideas that the Enlightenment spread in Europe contributed to the secularisation of many hospitals which moved to depending on the state and acquired the structure of the so-called general hospitals.

The authority of owners, chaplains and administrators was replaced by the role of officials employed by the local council or the state.

The hospitals of the nineteenth century was profoundly medicalised and the consequences were felt above all in their primary purpose which did not return to being that of a refuge but became instead primarily that of providing care to sick people. Concern about hygiene was dominant and had immediate effects in the architectural design of hospitals that were built afterwards. These were hospitals that also contributed in a decisive way to the growth of scientific knowledge and then allowed a division of labour that was decisive in the creation of medical specialisations. The diversification of responsibilities was also fundamental in fostering the profession of nursing. The profession of nursing, and this meant female nursing after the feminisation of the profession, endowed hospitals with people who were better trained at the level of scientific knowledge and practice.

Much less flattering, if we accept the views of its users, was the image of nineteenth-century hospitals. The patients of these hospitals were the less favoured members of a society of classes. These hospitals provided care but radicalised social division and offered a public perception of their image that was negative and dramatic. Care continued to be exceptionally competent as regards diagnosis and above all in the major cities prestigious medical doctors and surgeons engaged in medical direction from halls that were jammed up with patients. Compared to these public hospitals, the private sanatoriums offered much more personalised care that tried to conceal their health-care role and accentuated the elements that led them to be compared to a hotel.

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Notes

[1] *Ibidem,* p. 380

[2] For some examples of this kind of hospital see M. Jiménez Salas, *Historia de la asistencia social en España en la Edad Moderna,* pp, 210-211.

2. The Principal Infectious Diseases Today

NICOLA PETROSILLO

2.1 Rare Emerging Diseases and Re-emerging Diseases

Thanks to improved conditions of life, the development of vaccines and the introduction of pharmaceuticals against infectious diseases, many of the diseases of the past are today very rare or have even disappeared (for example smallpox). However, infectious diseases remain the principal cause of death in the world and are responsible for almost a third of deaths in the world.[1] They also constitute one of the principal causes of death in industrialised countries.

In recent years we have witnessed a substantial change in the three principal components of the epidemiological chain (infectious agent-modality of transmission-susceptible host) that is at work in bringing about infectious diseases. This has led to the emergence of new infectious pathologies and the reappearance of other diseases, which were already experienced in the past and seemed in most cases to be destined to diminish to a few cases or even to be eliminated.

The principal causes of these variations can be ascribed to:[2]

– The adaptation and modification of microbes: this is the case with the appearance in recent decades of an extremely virulent strain of *E. coli* – O157:H7;

– modifications in climate and temperature: heavy rains can bring about an increase in the number of sites for mosquito vectors with a consequent increase in diseases transmitted by mosquitoes;

– changes in ecosystems: the creation of a system of dams has changed the ecology of vectors and brought about the massive appearance of hemorrhagic fever in the rift valley in Egypt;

– demographic modifications and changes in human behaviour: sexual behaviour, drug addiction (e.g. HIV, HCV), the lack of vaccination programmes (the spread of diseases that can be prevented with vaccines), and activities such as body piercing with its risk of acquiring infection by the hepatitis C virus;

– economic development and use of local areas: the thinning of the forests in Venezuela has brought about an increase in the rodent population which constitutes the most probable reservoir for the guaranito virus;

– international trade and travelling: the importation of raspberries from Guatemala was the cause of epidemics of the cyclosporiasis virus in the United States of America;

– the movement of populations and goods (e.g. SARS, influenza, infections transmitted by vectors, cholera 0139);

– technology and industry: the use of fluorchinolonics to treat *E. coli* infections in chickens has led to the development of resistance in man as well;

– interruptions in public health-care measures: the interruption of policies for the control of vectors has led to an intense development and extensive distribution of *Aedes aegyptii*, the mosquito vector of hemorrhagic fever, with a consequent spread of this fever in the American continent; in countries of Eastern Europe the reduction/interruption of prevention programmes has been at the root of polio and diphtheria epidemics;

– poverty and social inequality: episodes of epidemics of intestinal anthrax in small villages, in countries of the third world in a state of acute poverty, caused by the eating of animals with anthrax;

– wars and famines: any tragic and/or violent event that involves great masses of people can cause a breakdown in public-health services, especially those involving prevention, with the suspension of programmes of immunisation and the control of vectors;

– lack of a political will, as in the case of SARS in China, when for political and economic reasons international organisations were not notified about the first cases of this new disease which soon spread to other parts of the world;

– the desire to cause destruction, as in the case of the case of the intentional spread of anthrax spores in the United States of America in 2001.

Many of these cases are inter-related. War, for example, creates conditions of the huddling together of large numbers of people in contained environments (for example refugee camps) which lead to the contamination of drinking water, unhealthy dwellings, a breakdown in basic health care, and, as a result, a faster spread of infectious agents.

At the same time war also means a lack of food and famine, with consequent malnutrition, which changes the susceptibility of humans to infections. The victims of war are often also the victims of sexual violence and exploitation, with a consequent spread of sexually transmitted diseases such as HIV.

In addition, one should take into consideration that fact that in recent decades the conditions of susceptibility of hosts has also changed (the increase in the proportion of general proportions with depressed immunity systems – individuals with HIV, individuals who have had transplants or immunity-reducing therapies, the elderly population, denutrition, alcoholism) and in some case the conditions of care (an increased use of invasive procedures in health-care structures with a consequent development of hospital infections) have led to the development of infectious diseases, at times emerging in character (e.g. epidemics of *Acinetobacter* in intensive therapy)[3,4] or re-emerging (infections with pathogens that are resistant to a large number of antibiotics).[5]

The appearance from 1980 onwards of cases of infection by HIV/AIDS was the prologue to a series of emerging infections, at times rare, and the re-emergence of old infections that were thought to be almost completely eliminated, such as tuberculosis[6] or of infections that it was hoped had disappeared, such as cholera, which in a few months caused nine hundred cases in Chad.[7] In recent decades we have witnessed, in fact, the appearance of epidemics of viral hemorrhagic fever caused by the Ebola and Marburg viruses, of human cases of monkey smallpox, and of cases of bovine spongiform encephalopathy and consequent Creutzfeltd-Jacob's disease in young adults, the West Nile virus disease, and sporadic human cases of infection by the bird flu virus.

Emerging or re-emerging infectious agents or infectious diseases began to be identified after 1960 but it was only at the beginning of the 1990s that their potential impact on public health began to attract general attention and the attention of experts in health-care policies. Since 1992, with the discovery of a hitherto unknown virus which was initially called the unknown virus[8] (later identified as the hantavirus responsible for lung syndromes), until today the list of new pathogens has increased and during the twenty-first century we have also had the coronavirus responsible for SARS, the monkey poxvirus responsible for a human epidemic outbreak in the western hemisphere, cases of human bird flu in Asia, hemorrhagic fever epidemics caused by the Marburg virus in Angola and the Ebola virus in the Democratic Republic of the Congo, and the endemic presence of the West Nile virus in North America.

Of the emerging diseases, those that have probably caused greatest concern because of their seriousness and their possible impact in terms of diffusion are the hemorrhagic fevers of the Ebola and Marburg viruses, SARS and bird flu.

The Ebola and Marburg viruses are the only viral agents of the family of filoviruses and cause fevers with a high death rate.[9,10] No known cure exists for these diseases and their animal reservoir is not known. The Ebola virus was identified for the first time during a human epidemic in 1976 in due epidemics that occurred at the same time in the Sudan and in Zaire (what is now the Democratic Republic of the Congo). Four sub-types of this virus are known about – the Zaire, Sudan, Reston, and Ivory Coast sub-types. The Reston strain takes its name from a locality in Virginia where an epidemic took place of this infection which had been present in macaco monkeys imported from the Philippines.[11] In an epidemic that took place in Uganda in 2000-2001 the death rate from this disease reached 50% (224 deaths out of 425 cases).[12] This epidemic also allowed the study of the principal conditions associated with the transmission of this infection, which were as follows: looking after a family relative who had died from the Ebola virus, intra-family contact, and hospital transmission. In this last case the lack of hygienic norms and the re-use of health-care instruments is probably at the base of many cases amongst the staff and other patients. The possibility of transmission by air, demonstrated in some cases in monkeys, has not been demonstrated in a human context. However, precautions in looking after these patients envisage measures of isolation from contact, from respiratory droplets, and from air transmission.

The history of the Marburg virus is even more intricate. This virus was identified for the first time in 1967 in Germany when some laboratory technicians of a pharmaceutical company in Marburg fell gravely ill during the processing of the tissues of green monkeys that had been imported from Africa. Almost in the same period there were other cases in Frankfurt and Belgrade. In all three cities green monkeys had been imported from the same consignment. In recent years there have been sporadic cases of infection by the Marburg virus, including the extensive epidemic in Angola, which began in October 2004 and was declared over in November 2005. It involved 374 cases and 329 deaths. These deaths included many health-care workers who looked after children afflicted by Marburg fever.[9] Amongst these we may refer to an Italian paediatrician, Maria Bonino, who belonged to a Catholic organisation that has worked in Africa for years.

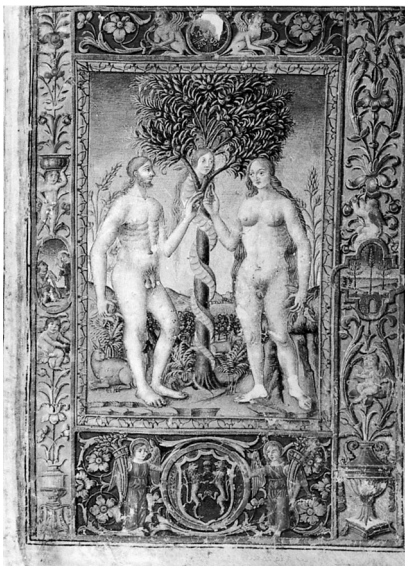
The transmission of the Ebola and Marburg viruses principally takes place by direct contact the with the biological matter and liquids (blood, saliva, vomit, respiratory secretions, urine, faeces) of in-

fected individuals and other contaminated objects in hospitals where health-care hygiene precautions are extremely deficient, as, unfortunately, is the case in many countries in Africa.[13]

Another example of a sudden appearance and a rapid spread of a new infectious agent responsible for a grave human illness is that of the coronavirus which causes SARS, a disease that has been defined as the first pandemic of the twenty-first century. At the end of 2002 news began to spread about a respiratory illness with atypical characteristics in the south of China. This was thought at the outset to be an influenza belonging to a new strain. It was only in February 2003 that the World Health Organisation referred to an epidemic of an 'acute respiratory syndrome' to be found in those who had been in contact with a medical doctor who had the illness during the incubatory stage during a trip from the province of Guandong to Hong Kong. The disease soon spread in Vietnam, Singapore, Canada, and Taiwan, transmitted by infected people who had come from those countries.[14] The most worrying aspect of this new disease was its high capacity to spread from infected patients to health-care workers and other patients in hospitals, its high death rate (out of 8,098 cases, there were 774 registered deaths). In addition to revealing the difficulties encountered by health-care structures, including industrialised countries, in tackling these epidemics, and the high level of transmission between humans, the SARS epidemic caused a major fall in travelling and commercial activities in many Asian countries, even in areas that were not affected by this disease.

In the case of SARS it was posited that the animal reservoirs were wild animals eaten in traditional Chinese cooking. In the case of bird flu, which is caused by the influenza strain A, sub-type H5N1, the reservoir is wild birds that expel the virus through saliva, nasal secretions and faeces and infect domestic animals, which in their turn develop the illness and cause extensive animal epidemics. The first documented cause of human infection with H5N1 virus was in 1997 in Hong Kong. Since then 256 cases have occurred, with 151 deaths.[15] Although the inter-human transmission of this virus has not as yet been demonstrated, the extreme promiscuity of life in some regions of Asia between domestic birds, men and animals such as pigs, in which the genetic rearrangement of influenza viruses is possible, may be at the base of the appearance of genetic mutations in H5N1 that are able to generate the emergence of epidemic strains, with grave possible scenarios for the whole world.[16,17]

The emergence and the re-emergence of infectious diseases involve many factors which are interconnected. International journeys and trade, economic and political interaction, and inter-human relationships and relationships between men and animals, all continue to bear upon the system of globalisation. From these forms of interaction may spring, either accidentally or deliberately, the appearance of new and unknown agents of infectious diseases, as well as the reappearance of diseases we have forgotten about for some time and the modification of infectious agents which bring about their greater spread and virulence. The solutions by which to limit the spread of emerging or re-emerging infections requires the co-operation of many disciplines and many bodies throughout the world. The keys to success in this endeavour are suitable financial resources, the exchange and rapid communication of knowledge, and co-operation between experts in public health and the biomedical disciplines and experts in human behaviour, politics, economics and other disciplines.



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Notes

[1] http://www.who.int/whr/2004/annex/ topic/en/annex_2_en.pdf

[2] LASHLEY F.R., 'Emerging infectious diseases at the beginning of the 21st century', *Online J Issues Nurs*., 2006, 11:2.

[3] PATERSON D.L., 'The epidemiological profile of infections with multidrug-resistant *Pseudomonas aeruginosa* and *Acinetobacter* species', *Clin. Infect. Dis.*, 2006, 43, Suppl. 2, S43-8.

[4] PETROSILLO N., CHINELLO P., PROIETTI M.F. *et al.*, 'Combined colistin and rifampicin therapy for carbapenem-resistant *Acinetobacter baumannii* infections: clinical outcome and adverse events', *Clin Microbiol Infect.*, 2005, 11, 115-21.

[5] PATERSON D.L and BONOMO R.A., 'Extended-spectrum beta-lactamases: a clinical update', *Clin. Microbiol Rev.*, 2005, 18, 657-86.

[6] MAHER D. and RAVIGLIONE M., 'Global epidemiology of tuberculosis', *Clin. Chest. Med.*, 2005, 26, 167-82.

[7] http://allafrica.com/stories/200610240806.html

[8] SHEFER A.M., TAPPERO J.W., BRESEE J.S. *et al.*, 'Hantavirus pulmonary syndrome in California: report of two cases and investigation', *Clin. Infect. Dis*., 1994, 19, 1105-9.

[9] FELDMANN H., 'Marburg hemorrhagic fever—the forgotten cousin strikes', *N. Engl. J. Med.*, 2006, 355, 866-9.

[10] PETERS C.J., 'Marburg and Ebola—arming ourselves against the deadly filoviruses', *N. Engl. J. Med.*, 2005, 352, 2571-3.

[11] PETERS C.J. and LEDUC. J.W., 'An introduction to Ebola: The virus and the disease', *J. Infect. Dis.*, 1999, 179 (Suppl. 1), ix-xvi.

[12] Centers for Disease Control and Prevention. Outbreak of Ebola hemorrhagic fever–Uganda, August 2000-January 2001. MMWR Morbidity and Mortality Weekly Report 2001; 50: 73-77.

[13] Centers for Disease Control and Prevention. Interim Guidance for Managing Patients with Suspected Viral Hemorrhagic Fever in U.S. Hospitals. MMWR Morbidity and Mortality Weekly Report 2005 (http://www.cdc.gov/ncidod/dhqp/bp_vhf_interimGuidance.html#).

[14] SKOWRONSKI D.M., ASTELL C., BRUNHAM R.C. *et al.*, 'Severe acute respiratory syndrome (SARS): a year in review' *Annu. Rev. Med.*, 2005, 56, 357-81.

[15] http://www.who.int/csr/disease/avian_ influenza/country/cases_table_2006_10_16/en/index.html

[16] LIGON B.L., 'Avian influenza virus H5N1: a review of its history and information regarding its potential to cause the next pandemic', *Semin. Pediatr. Infect. Dis.*, 2005, 16, 326-35.

[17] STÖHR, K., 'Avian influenza and pandemics – research needs and opportunities', *N. Engl. J. Med.*, 2005, 352, 405-407.

MARIO C. RAVIGLIONE

2.2 Infectious Diseases and Globalization

Preamble

The complex sets of phenomena that are called, in general terms, "globalization" have an influence on, and determine changes of, the lives of people. The impacts on human societies and their health appear to be profound, although still difficult to predict and understand in full. Since globalization affects in a complex way ecological, biological and social conditions, the emergence and transmission of infectious diseases in a community are in turn being affected. This paper will describe briefly the global burden of infectious diseases potentially affected by globalization and will attempt to assess how the complex processes of globalization can influence dissemination of such diseases. Various globalization aspects – such as the economic, environmental, social behavioural and demographic, and technological – will be described and potential risks for, and benefits to, the control of infectious diseases will be outlined.

The burden of infectious diseases

The latest estimates of the "Global Burden of Diseases 2006" suggest that in the year 2001, infectious diseases caused 26% of all deaths and 27% of disability-adjusted life years (DALYs) lost worldwide.[1] The differences between developing and industrialized countries are striking as exemplified by 60% of all deaths due to infectious diseases in Africa, compared with only 6% in rich countries. Infectious diseases affect greatly the young individuals and, particularly, infants and children due to their immunological and social vulnerability. The leading causes of mortality among children less than 14 years old are acute respiratory infections and diarrhoeas, followed by malaria and measles. Among adults, HIV/AIDS, tuberculosis, respiratory infections and other tropical diseases are the main causes of death. Overall, HIV/AIDS was estimated to result in over 2.5 million deaths in 2001, TB in 1.6 million, and malaria in 1.2 million: this corresponds to over 37% of all infectious deaths, similar to the mortality burden of acute respiratory infections and diarrhoeas, which are mostly among people less than 14 years old. Other diseases such as meningitis, hepatitis B and C, leishmaniasis, trypanosomiasis, Japanese encephalitis, and dengue caused 16% of deaths due to infectious causes, and vaccine-preventable diseases like measles, pertussis, and tetanus caused 9% of all infectious deaths.

Many of the infectious diseases we are facing today have emerged only in the last three decades, during which nearly 40 diseases have been newly described.[2] These include the well-known HIV/AIDS, hepatitis C, severe acute respiratory syndrome (SARS), and bovine spongiform encephalopathy (BSE). Globalization factors have played an important role in the spread of many of these new infections: the changing environment has caused their emerging in humans, and demographic and behavioural factors have led to their rapid dissemination world-wide.

Globalization and infectious diseases

A recent paper describing the linkages between globalization and infectious diseases[3] attempted to define globalization as "a complex and multi-faceted set of processes… that changes the nature of human interactions across a wide range of spheres, including the economic, political, social, technological and environmental" resulting into the "erosion of boundaries of various kind". Such a definition of globalization, whether fully comprehensive or not, nevertheless immediately reveals that a variety of factors operate at different levels to ultimately affect peoples and their health. It also suggests that infectious organisms are influenced heavily by environmental, socio-behavioural, and economic causes. Infectious pathogens, in fact, are highly sensitive to the environment where they thrive, and in our "global village" they can easily travel among humans, but also through insects, animals and food, and spread much more rapidly than in the past to far-away settings. For instance, the capacity of microbes to reproduce is influenced by climate changes and by the impact that such changes have on arthropod vectors. Global warming, water management, overcrowding linked to urbanisation, and tourism are factors linked to globalization that are dramatically changing the interaction between humans and vectors of diseases such as malaria, dengue, and schistosomiasis.

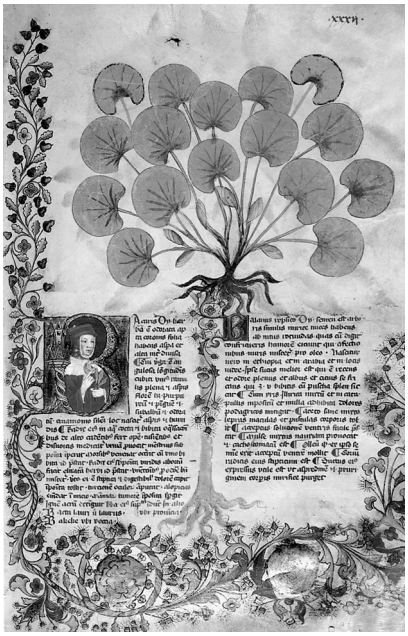
For the purpose of an assessment of the linkages between infectious diseases and globalization, four major factors need to be analysed: (i) economic; (ii) environmental; (iii) socio-behavioural and demographic; and, (iv) technological[3].

1. Impact of global economic factors on infectious diseases

A globalized economy is a complex structure evolving from a simpler "inter-national" economy based on exchange of products

among different countries to a structure where production is fragmented and, ultimately, assembled "across" countries. These processes clearly require a multiplicity of mechanisms that inevitably affect directly or indirectly human health.

To start with, investments in health are influenced by prevalent diseases in the rich countries that dominate the global economic scene. It is a fact that in industrialized countries the epidemiological transition from infectious diseases towards non-communicable diseases, often of the ageing population, has resulted in a sense of lack of urgency and neglect for the infectious diseases that today affect mostly the developing world.[4] This has generated a failure to invest financial resources for research and development of tools to control these diseases, while investments have increased for research on non-communicable diseases affecting rich countries or for those infectious diseases that are relevant to industrialized countries. In other words, new funding has been oriented towards rich country priorities at the detriment of poor country problems. This phenomenon is part of what has been named the "90/10 research gap": of the over 70 billion US$ invested yearly for health research, only 10% is invested in diseases accounting for 90% of the burden of disease worldwide.[5] Clearly, infectious diseases of the poor constitute much of such burden. A practical example is the total neglect of tuberculosis research for decades[6] which meant that the latest vaccine available, BCG, dates back to 1921, the latest diagnostic tool to the 19th century, and the latest drug to 1970. This situation began to change only when multidrug-resistant tuberculosis outbreaks and increased incidence were reported in rich countries. Not only investments in research on the infectious disease of poverty were progressively reduced, but also support to implementation of control measures was decreased. For instance, a reduction in vaccination programmes in Russia and other countries of the former USSR during the late 1980s and early 1990s has been among the main factors determining diphtheria outbreaks a few years later.[7] Similarly, interruption of mosquito control practices in the 1970s resulted in major dengue epidemics affecting nearly 60 countries by the late 1990s, as opposed to a handful of countries prior to 1970.[8] Other vector-borne infections, such as malaria and yellow fever, have registered similar increases after investments in mosquito control deteriorated, as the majority of resources were re-oriented towards non-communicable diseases of rich countries.



Another key economic aspect of globalization is that related to multilateral trade agreements and their consequences on health. Following World War I, international trade has been promoted and regulated by entities such as the General Agreement on Tariffs and Trade (GATT), replaced in 1995 by the World Trade Organization (WTO) that is responsible for enforcing international trade agreements.[9] These agreements have had a major impact on development and related social aspects, including health. It is still debated if the effects are more advantageous or detrimental, with arguments in both directions. Some believe that the globalization of economies has created more richness in poor countries and, as a consequence, better health outcomes. In addition, in a globalized world it is easier to exploit economic forces and invoke the need of support to infectious disease control worldwide in order to protect the entire world population. In a way, "global security" has emerged as a new focus, at times compounded with a sense of solidarity. Concrete examples are the new financial mechanisms established recently in support of the fight against certain diseases of poverty in developing countries that may affect the whole world if left un-checked. For instance, the creation of financial mechanisms such as the Global Alliance for Vaccine Initiative (GAVI) or the Global Fund against HIVAIDS, Tuberculosis and Malaria (GFATM) is a response mostly by rich countries to the financial needs of poorer countries that struggle to fight vaccine-related infections, AIDS, tuberculosis and malaria.[10] They are a mixture of true solidarity, often promoted by humanitarian groups, and the realization that in a "global village" global action is crucial to control infectious diseases which may affect all. Similar are other initiatives in support of the "big three" HIV/AIDS, tuberculosis and malaria, such as the new UNITAID, which will exploit taxation of those who afford to travel by air to mobilize funds for those, in the developing world, who do not afford access to life-saving drugs Therefore, regardless of the political reasons which may be behind some of these initiatives, a "globalization of solidarity" is also appearing.

On a more regulatory level, article 31 of the TRIPS agreement as part of the WTO agreement, by allowing compulsory licensing for the production of patent-protected drugs by generic firms in poor countries for declared health emergencies,[9] can help correct for inequities in access to drugs, showing that global agreements can be steered towards positive outcomes. The debate about TRIPS, however, is not yet concluded, as bilateral and regional agreements are often stricter and potentially harmful to access to drugs.

At the same time, others argue that inequalities have emerged

more clearly, with the richest individuals becoming richer and the poorest becoming poorer.[11] Major economic crises, such as the one in the former USSR at the time of its dismantling in the early 1990s, and the one in Asia in the late 1990s, have been followed almost invariably by serious effects on health with increased spread of infectious diseases such as HIV and STDs.[3,12] In the former USSR, tuberculosis, a classical disease of poverty, has risen to unprecedented levels during the last 15 years; this has been attributed to the socio-economic crisis ravaging those countries with increased malnutrition, poorer living conditions, house congestion, and interrupted care services, all factors capable of determining increased transmission and breakdown of tuberculosis infection to active disease.[13]

World trade in agricultural products is also linked to infectious disease spread. Globalization of markets has meant that the top 10 food corporations are either North American or European, and some of the basic agricultural products are monopolized by a small number of companies.[3] The implication of this situation is that foodborne diseases could potentially spread in a much more rapid way than in the past. Ingredients in any meal are today coming from different countries, thus providing opportunities for foodborne infections to spread. For instance, outbreaks of salmonellosis in the U.S. have been traced back to food production abroad. The recent serious concerns about bovine spongiform encephalopathy (BSE) and the resulting variant of Creutzfeld-Jacob disease in humans are also linked to the rapid distribution of animal products.[2, 3]

In conclusion, economic factors related to globalization constitute strong forces in favour of further neglect of infectious diseases of poverty and of spread of infections throughout the globe. At the same time, new "global" financial mechanisms, that raise resources mostly from rich countries to make them available to the poorest ones, and flexibilities around trade agreements represent a formidable chance for control of major diseases and increased access to life-saving medications.

2. Impact of global environmental factors on infectious diseases

Environmental changes occur naturally, but also as a result of anthropogenic activities. Industrial activities have dramatically increased in the industrialization era and are influencing climatic changes with repercussions on air, land and water. Most climatologists consider that excessive fuel combustion leads to green house effects and, as a consequence, global warming. Over the past one and a half centuries, such fuel burning, compounded with deforestation and land clearance initiatives, has contributed to an increase of the lower atmosphere concentration of carbon dioxide and other gases which are responsible for rising temperature.[14] In addition, over the past three decades, the global weather has been subject to major changes with an increased frequency of "extreme weather events". These may be linked to the global warming phenomenon. For instance, the El Niño Southern Oscillation has become much more frequent in the past decade than it used to be previously and has determined catastrophes, such as hurricanes and draughts, well beyond its normal geographical location in the South Pacific.[3, 15] Finally, modifications of water management, through the building of large and small dams, have changed the local environment in many settings worldwide.[3]

All these environmental factors, through humidity and precipitation changes, have altered the ecology of infectious disease vectors, besides exposing vulnerable population to thermal stress. Many examples of alteration of the life cycle of vectors exist. High temperatures are necessary for the transmission of malaria and dengue that depends on the life cycles of their mosquito vectors, *Anopheles* and *Aedes aegypti* respectively.[3] Extreme weather events have been linked to opposite phenomena: severe draught in Papua New Guinea has been linked to the creation of stagnant pools out of flowing rivers favouring the spread of Japanese encephalitis that is transmitted through mosquitoes.[2, 4] On the other hand, severe flooding in North Eastern Kenya and Southern Somalia following the 1997 El Niño has been associated with accumulation of large pools of water favouring reproduction of *Aedes* mosquitoes and, as a consequence, transmission of the virus responsible for Rift Valley fever.[3] Similarly, heavy rainfalls and floods in 1997 produced outbreaks of cholera and typhoid fevers in vulnerable populations of Tanzania, Kenya, Somalia and Mozambique.[3] Finally, rainfalls, compounded with environmental degradations in many urban settings of Africa, resulted in the spread of dengue and yellow fever. This is the consequence of accumulation of plastic containers and tyres, within which stagnant water represents an ideal breeding micro-environment for *Aedes* mosquitoes.[2, 3, 4]

Changes in management of water supply have dramatic consequences on infectious diseases. Worldwide, water demand has markedly increased recently due to population growth and higher requirements, although it is estimated that nearly a third of humanity has insufficient access to clean water. In addition, reliable water supplies to allow proper agricultural activities require rapid responses in terms of water management that often results in the construction of large and small dams. Such projects have altered local ecology and influenced spread of vector-borne infectious diseases. The consequences of the building of the Aswan dams on the Nile river have been studied in details, showing a marked increase of the prevalence of schistosomiasis, that rose from 10% to 75% over a two-decade period in the 1950s. Malaria outbreaks with high mortality have also occurred in the region.[3] Other diseases linked to smaller irrigation systems, for instance in Burkina Faso, are lymphatic filariasis and onchocerciasis, as these systems ultimately favour breeding of their re-

spective vectors *Culex* mosquitoes and black flies.[3] Finally, the re-emergence and spread of Buruli ulcer in West Africa has also been linked to small dam constructions in countries like Benin or Côte d'Ivoire. Even in Australia, small irrigation systems have produced outbreaks of Buruli ulcer.[16]

Another important environmental factor that is influencing the ecology of infectious diseases is land and forest management. Linked to economic and commercial reasons, deforestations are proceeding rapidly with enormous consequences on local and global health. Beside the climatic and atmospheric changes related to the loss of forests, the patterns of some infectious diseases have been modified. New infections have emerged as a consequence of human settlements in areas previously occupied by forests.[3] In Latin America, contacts with new forest pathogens produced in the past twenty years outbreaks of Venezuelan haemorrhagic fever, which is caused by the Guanarito arenavirus. Still in Latin America, Chagas disease, an old rural scourge caused by a trypanosome transmitted via a *Reduviidae* bug, has spread in the entire continent both in rural and urban settings as a result of new settlements and the adaptation of the bug to human lifestyles facilitated by poor quality, temporary housing. Lyme disease, a tick-borne infection originally described in North America, has been linked to extension of suburbs into previously wooded habitats where the transmitting ticks reside. Finally, the highly fatal haemorrhagic fevers of Africa caused by the Ebola and Marburg viruses have emerged in the past decades as humans encountered the unknown animal reservoir probably hiding in the African forests.

Another important disease with potentially enormous consequences on humanity and which is linked to environmental factors is influenza. Particularly in Asia, the crowding of individuals in close proximity to the poultry breeding and market settings has created an ideal environment allowing inter-species exchange of viruses with avian strains potentially transmissible to humans.[2] Many believe this may be how the expected future and highly fatal influenza pandemic may arise. The recent and well publicized spread of the avian influenza strain H5N1 among wild and domestic birds in nearly 50 countries in three continents and the occasional cases among humans in ten countries are indicative of the huge risk of a rapid pandemic spread nowadays.[17]

In conclusion, environmental factors linked to globalization are often determining major ecologic changes which influence, especially, vector-borne infections, but also other diseases of potentially high impact on human societies.

3. Demographic factors

Undoubtedly, the modern world is characterized by massive population movements. Currently available transportation technology allows rapid international travels to hundreds of millions individuals every year. Search for a better life determines large migrations, especially towards northern and western countries. War and civil unrest produce millions of refugees in neighbouring countries and internally displaced people.[18] It is estimated that 2% of the human population migrates yearly.[3] These events result in a variety of effects on infectious disease spread. Contacts of people with previously un-known pathogens favour outbreaks in the numerous non-immune individuals. Refugee camps are, by nature, an ideal environment for the spread of diseases such as cholera and dysentery, as seen in Rwanda and the D.R. of Congo, or such as malaria and leishmaniasis, as observed in Afghanistan and Pakistan.[3] Migrant workers are exposed to an increased risk of sexually-transmitted infections, including HIV/AIDS, as shown in South Africa. Finally, international tourism exposes million of people to the risk of malaria, yellow fever, or, as during the first and so far unique epidemic, SARS.[4]

A related phenomenon is urbanisation.[3, 19] During the last two centuries the world population living in urban settings has increased from 5% to 50% with the creation of metropolis with several millions dwellers.[20] This is the result of processes like industrialization, with its consequent concentration of people, away from the countryside, towards urban areas. While urbanization has positive aspects, such as ensuring easier access to health care education and social services, it also promotes overcrowding in poorly hygienic conditions for millions of people. This favours all types of infections prevalent where the ideal conditions for spread of viruses, bacteria, and protozoa exist. The original spread of HIV may have also been largely caused by movement of infected people from rural areas towards cities where commercial sex is favoured. Furthermore, tuberculosis has increased markedly in urban setting in developing, as well as developed countries. An additional indirect effect of urbanization may be development of drug resistance. The concentration of large masses of people in cities has in fact created a serious stress over already scarce health services, especially in the poorest and less equipped countries. This is associated with high demand for drugs and medical malpractice of overwhelmed health workers with wrong use of antibiotics and the generation of drug-resistance. Abuse or misuse of antibiotics is a frequent medical phenomenon and determines the natural selection of antibiotic-resistant mutants which pose, subsequently, a serious threat to the management of infections.[21] Drug resistance is known today for virtually all pathogens treatable with medications. The case of multidrug-resistant tuberculosis (MDR-TB) is an excellent example. MDR-TB is widespread where anti-tuberculosis drugs have been misused or were lacking, the latter also resulting from the economic transition in, for instance, the former USSR.[22] Thus, several forces linked to globalization can be invoked to explain increasing antibiotic resistance: wide availability of drugs worldwide with lack of control over their use; overwhelmed health workers in urban settings; socio-economic crisis

with stock-outs of essential drugs, etc.

In conclusion, demographic and socio-behavioural factors play a significant role in the spread of infectious diseases. Migrations, urbanization, and intense international travels are all potentially favouring dissemination of pathogens.

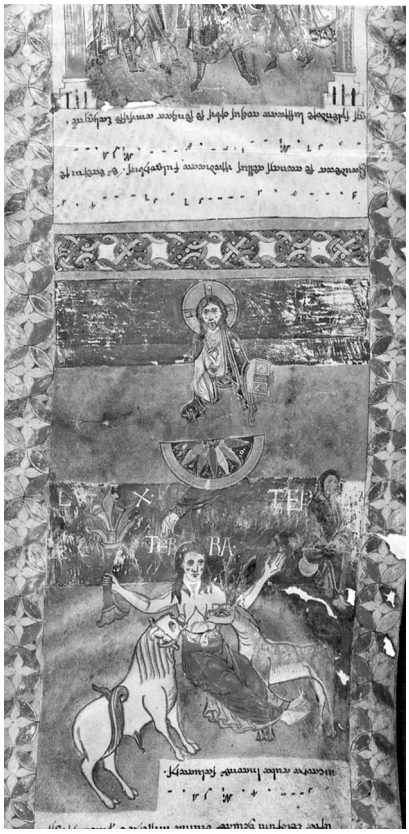
4. Technological factors

Beyond any doubt, the last few decades have been characterized by major and un-precedented progress in technology, especially in the areas of information, communication and transportation. Air flights have become affordable to many; the introduction of modern communication tools, such as internet, has facilitated global exchange of information in an extremely rapid way; information is more widely available thanks to development of multimediatic networks everywhere. These factors have a potentially favourable impact on management of health issues with rapid exchange of information on outbreaks and medical catastrophes, with powerful tools such as the Geographic Information System (GIS), and with immediate transportation capacity to neutralize long distances.[3]

At the same time, some of these factors – notably, air transportation – are also a potential vehicle favouring rapid dissemination of infectious diseases. Outbreaks of diseases like cholera, giardiasis, hepatitis, malaria, yellow fever, influenza, SARS, etc have been linked with tourism and rapid travelling around the globe[2,4]. Furthermore, internet sale of drugs may favour development of drug resistance with all its harmful consequences. Thus, while modern technology can certainly be exploited to benefit health, it also poses risks for the control of infections.

Is globalization good for health?

Therefore, the fundamental question to be asked is: "is globalization, in the end, good for health?". The correct answer to this question is that globalization is neither good nor bad, as complexities about what globalization really means and how it translates into health effects on individuals are huge. In a way, globalization affects people on the basis of their socio-economic status, gender, education level, ethnicity and setting where they live: it is good for some and bad for others.



A recent paper has argued that globalization is accompanied largely by positive effects.[23] Countries open to economic growth and free markets, such as China, India, Vietnam, etc, have experienced major benefits, including poverty reduction, better general nutrition and lower infant mortality rates. The argument about the inequalities of wealth distribution has been counteracted by the evidence that the growth of income per capita goes hand-in -hand with that of the poorest quintiles, although this may be confounded by other factors. Other countries that have not been able to "globalize", due to a number of reasons, have suffered a tremendous economic recession with much increased poverty at all levels.[23]

Similarly, those governments managing the issue of intellectual property rights and the TRIPS agreement in a flexible way have facilitated access to once un-affordable pharmaceuticals to their citizens, demonstrating that globalization forces may be fully exploited for the benefit of the poorest.

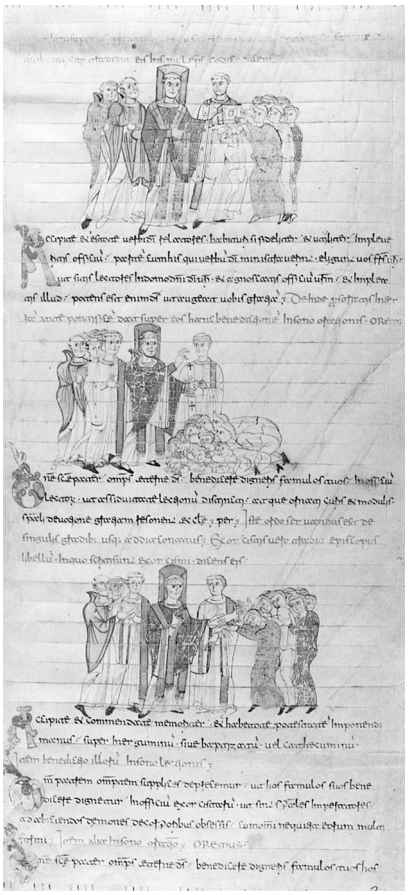
This means that such forces can be better used where compounded by proper policy reforms and adequate norms at international and, especially, country levels. That is also why, for instance, technological advances can be fully effective in contributing to the control of infectious diseases worldwide only if the principles contained in the new International Health Regulations (IHR) are pragmatically applied.[24]

Conclusions and open questions

This paper has described the remarkable changes due to globalization forces in economic, ecological, socio-demographic and technological terms that are impacting on infectious diseases world-wide, both in facilitating their spread and in supporting control efforts. It suggests that infectious diseases will likely keep emerging or re-emerging as a result of climate changes, market forces, urbanisation trends, intensification of exchanges among populations, and rapid human movements. Due to inequalities and specific vulnerabilities of certain fragments of the populations, it is predictable that infectious diseases will continue striking disproportionately the poorest, and the least informed and educated people with limited access to care and prevention in the least developed countries.

Measures to curb the impact of infectious diseases do exist and may be indeed augmented in their effectiveness by various factors, such as the easier access to life-saving commodities and technological advances linked to globalization. Flexibilities around international agreements and humanitarian forces, for instance, may facilitate provision of drugs and vac-

cines previously not affordable to the poorest countries. Modern technology may contribute to rapid information sharing about epidemics and accelerated responses, although these may require appropriate regulations from a global governance system. The International Health Regulations, for example, are a tool that, if properly applied, will surely boost international capacity to face threatening epidemics. Equally important will be adequate preparedness to face infectious disease resurgence through constant training of health care workers and strengthening of public health infrastructures. This depends upon national governments and their willingness to invest local resources in improving the health of their people. It also depends on external financing through those mechanisms, such as the Global Fund against HIV/AIDS, Tuberculosis and Malaria (GFATM), the Global Alliance for Vaccine and Immunization (GAVI) etc. that, besides representing a globalization of security, are also expression of international solidarity towards the poorest and most vulnerable people in the planet.



A number of open questions remain, the answer to which will determine our collective response. Can globalization benefits, if duly recognized, truly outweigh the risks induced by the globalization forces? What should be done to advocate more strongly for those aspects of globalization that negatively affect infectious diseases, such as environmental disasters and wild urbanization? How to ensure that global financing mechanisms deliver what is expected, thus resulting in a truly increased access to health for the poorest? What can UN organizations, like WHO, do to help mitigate the unwanted effects of globalization and allow countries to exploit fully its benefits? Finally, is there room for further expansion of a "globalization of solidarity" between rich and poor that would, in the end, generate access to health and to infectious disease prevention and care for all people? If the answer to the latter question is positive, then in the future globalization would be judged as a phenomenon that favoured human development and better health for all people. There are certainly ways to make it happen.

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References

[1] Global Burden of Disease and Risk Factors. Oxford University Press and The World Bank, 2006.
[2] HEYMANN DL, RODIER GR. Hot spots in a wired world. WHO surveillance of emerging and re-emerging infectious diseases. Lancet Infect Dis 2001; 1: 345-353.
[3] SAKER L, LEE K, CANNITO B, GILMORE A, Campbell-Lendrum D. Globalization and infectious diseases: a review of the linkages. TDR/STR/SEB/ST/04.2. World Health Organization, Geneva, 2004.
[4] HEYMANN DL. Effects of social, environmental and economic factors on current and future patterns of infectious diseases. In: Interaction between Global Change and Human Health. The Pontifical Academy of Sciences, *Scripta Varia* 106. Vatican City, 2006.
[5] Global Forum for Health Research. The 10/90 Report on Health Research 2003-2004. Geneva 2004.
[6] RAVIGLIONE MC. The TB epidemic from 1992 to 2002. Tuberculosis 2003; 83:4-14.
[7] DITTMAN S, WHARTON M, VITEK C et al. Successful control of epidemic diphtheria in the States of the Former Union of Soviet Socialist Republic: lessons learned. J Infect Dis 2000; 181 (supplement 1) S10-S22.
[8] Dengue/dengue haemorrhagic fever: situation in 2000. WER 2000; 75 (24): 193–196
[9] World Health Organization: Globalization, TRIPS and access to pharmaceuticals. WHO Policy Perspectives on Medicines. WHO/EDM/2001.2. Geneva 2001.
[10] BRUGHA R, DONOGHUE M, STARLING M et al. The Global Fund: managing great expectations. Lancet 2004; 364: 95-100.
[11] CORNIA GA. Globalization and health: results and options. Bull World Health Organ 2001; 79: 834-841.
[12] MACLEHOSE L, MCKEE M, WEINBERG J. Responding to the challenge of communicable disease in Europe. Science 2002; 295: 2047-2050.
[13] RAVIGLIONE MC, RIEDER HL, STYBLO K, KHOMENKO A, ESTEVES K, KOCHI A. Tuberculosis trends in Eastern Europe and the former USSR. Tuberc Lung Dis 1994; 75:400-416.
[14] MCMICHAEL AJ, HEINES A. Global climate change; the potential effects on health. BMJ 1997; 315: 805-809.
[15] SUPLEE C. El Niño/La Niña. National Geographic 1999; 195(3): 72-95,
[16] VAN DER WERF TS, STIENSTRA Y, Johnson RC et al. *Mycobacterium ulcerans* disease. Bull World Health Organ 2005; 83: 785-91.
[17] Epidemiology of WHO-confirmed human cases of avian influenza A (H5N1) infection. WER 2006; 81 (26): 249–257.
[18] PARFIT M. Human migration. National Geographic 1998; Millennium Supplement: 6-35
[19] ZWINGLE E. Megacities. National Geographic 2002; 202: 70-99.
[20] MCMICHAEL AJ. The urban environment and health in a world of increasing globalization: issues for developing countries. Bull World Health Organ 2000; 78: 1117-1126.
[21] World Health Organization. WHO global strategy for containment of antimicrobial resistance. WHO/CDS/CSR/DRS/2001.2. Geneva 2001.
[22] AZIZ MA, WRIGHT A, LASZLO A et al. Epidemiology of anti-tuberculosis drug resistance in the world, 1999-2002. Lancet 2006 (in press).
[23] DOLLAR D. Is globalization good for your health? Bull World Health Organ 2001; 79: 827-833.
[24] World Health Organization. Revisioni of the International Health Regulation, WHA58.3, Ginevra, 2005.

3.The Origins of Infectious Diseases Today

PEDRO A. REYES LÓPEZ

3.1. The Origins of Infectious Diseases Today and Human Behaviour

A few weeks ago a woman with a fever, pains in her chest and a cough, who was suffering from systemic Biett's disease controlled by immunity depressants, was admitted to our hospital. The case was very serious. Pneumonia that had been acquired within the community was identified and she was successfully treated. The patient observed that a few days before falling ill she had been at a social event where a man was coughing.

Every time that we cough without protecting others by using a mechanical barrier, we forget to wash our hands before preparing meals, we forget to take a vaccine (a vaccine for our dog) or worse or a vaccine for our children, we transgress an important principle, namely to treat others as we ourselves would like to be treated, we neglect our responsibility to care for life, health and nature, and we destroy the dignity of human relationships based upon esteem and mutual consideration. What is even more grave, we reject our condition of brotherhood, our condition of being the children of the Father, which raises our respect that we feel for each other above a social contract.

Expressions of respect and dignified relationships are not confined to polite co-existence between people: they must be extended to the community and the nation because otherwise we would have selfishness on a larger scale, overbearance, the thirst for money and power, and political decisions that damage international co-existence. All of this creates an absence of fairness, injustice and oppression, rejects the brotherhood of all the beings of the Creation, confuses behaviour, allows pride to take possession of us, thereby distancing us from Good and generating base decisions that impede our growth as individuals and as a community that is united by a universal spiritual familiarity, and delays our shared decision to look after our home, this blue planet that hosts us.

This personal being, individual or social actor needs education and not only information: the setting of good examples and expressions of solidarity and brotherhood specific to human dignity which is learnt through example and defended by laws and juridical measures throughout the world.

Since the middle of the nineteenth century, international meetings have been held to agree upon and to regulate measures that control people and goods so as to avoid epidemics. In 1902 the Pan-American Health Office was founded, in 1907 the International Office of Public Hygiene was created, and since 1948 the World Health Organisation has existed, but each one of us must do much more to reduce the number of infectious diseases. At times a more loving action is the lever that moves this change, adapted as it should be to the specific customs of each society.

Our species shares the planet with living beings, which are so large in number and so varied that every day new species are discovered in places that we thought were unable to sustain life. From the theory of microbes we know that we share the world, that is to say our biological beings, our bodies, with other organisms, and in many cases we receive benefits from this proximity. The creation took us, through evolution, to encounter, preserve and perfect to a high level ways of looking after our biological identity, to communicate our cells of the most varied strains through receptive-unitary mechanisms, to act without reference to the cells that perform their mission and to develop defence mechanisms that supplement our immunity system. Their presence and efficient working assures health for the 1,400 living organisms known until not so long ago; at times there are others that can cause illnesses which immunological vigilance can avoid or control. The appearance of the human immunodeficiency virus, the pandemic of HIV, and the development of bacterial resistance to miraculous pharmaceuticals and anti-microbes, that had already begun by the end of the 1980s when we had just four or five classes of these and the situation was not controlled, demonstrates to us beyond any doubt the value of paying attention to having an efficient immunity system.

At the very centre of the immunity system there is a fundamental mechanism developed for unicellular organisms millions of years ago for the first hominoid that lived on

the earth. Preserved down the ages, this enables us to recognise microbes, to incorporate them into certain cells, to transform them into chemical messages and to take them to special cells that will take responsibility for responding or otherwise according to convenience. I am referring here to phagocytosis which was described at the end of the nineteenth century by Elie Metchnikoff and constitutes the origin of the cell theory of immunity. Today we know that this goes beyond the context of immunity and the parasite-host reaction and that it there is a mechanism of internationalisation that uses free living amoebas such as *Dyctiostelium discoideum* to obtain nutrients from the environment. These are bacteria that incorporate into a phagolysis where hydrolysis and the acidic environment digest them and in the end secrete the residues that have not been absorbed through a process of expulsion. This remote ancestor of digestion is also used for multicellular organisms in processes of embryogenesis and tissue remodelling and has apotoxic cells so as to be able to degrade them without having recourse to inflammation. In many cases phagocytosis is done by nearby cells and not by professional phagocytes. In the fruit fly *Drosophila melanogaster* there is a mechanism that modulates phagolysis – receptors of the cell membrane that recognise the bacterial peptidiglicans and which is to be found up to the mammals; we humans have at least four of these receptors which form of a part of the mechanisms of innate immunity. In adaptive immunity, phagolysis is the cornerstone of the immunity system. The external pathogens incorporated in the phagolysosomes are fragmentary in small peptides which load in molecules of the greater complex of histocompatibility class II of the presenting cell, a macrophage generally through interaction with the T CD4+ lymphocytes. Meanwhile the peptides of intracellular synthesis or those that come from viruses or obliged intracellular parasites are processed in the cytoplasm and loaded in molecules of the major complex of histocompatibility class I that interacts with the T CD8+ lymphocytes. The adaptive immunity response and phenomena of inflammation develop to deal with infections, at times at the cost of grave tissue damage and illness.

Such a very complex process can be very fragile. The lack of nutrients has disastrous consequences for the working of the immunity system. Nutrition shapes us and good alimentation contributes to a healthy life that is free of illness; every living organism requires a daily consumption of nutrients, substances that are extraneous to the body which when ingested, modified and assimilated by the tissues allow growth, provide energy, and maintain health.

There are macronutrients: fatty proteins, carbohydrates and water; and there are micronutrients: minerals, vitamins. The micronutrients are not in themselves a source of energy but they favour processes whereby macronutrients generate energy through growth, development and the vital functions, including those of the cellular communication entrusted to the immunity system.

There are essential nutrients; the organism does not produce them but obtains them through aliments that are absolutely necessary to life and they include nine amino acids, thirteen vitamins, fifteen minerals and certain fatty acids in very small quantities through an interaction that is only just understood.

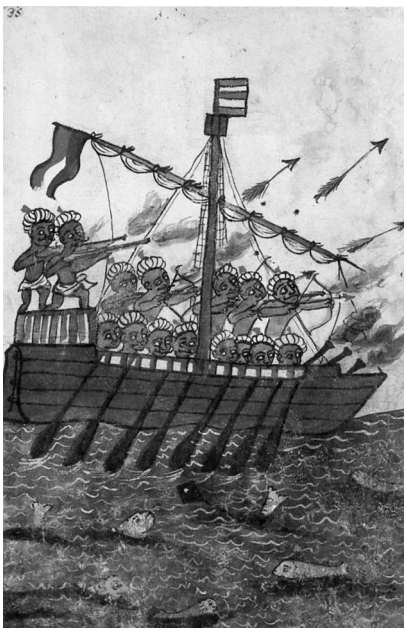
Good nutrition depends on access to, and the ingestion of, various groups of aliments, handled with hygiene, in proportions that are able to foster growth and development. Bad nutrition because of deficit or because of an excess of certain aliments has consequences for health. In cases of deficit there are dysfunctions of various levels of various cellular forms; the physical barriers on the skin and in the mucous become reduced and immunity recognition functions are depressed which can favour infections. In cases of excess, certain aliments can foster the accumulation of cholesterol in critical places such as inside arteries and initiate arteriosclerosis which ever day increasingly affects developed countries and is no longer a malady of poor countries. In addition, our foolish or ignorant actions lead us to fall ill by altering alimentation. This is something that happens with disorders such as bulimia and in capricious diets that break immunity homeostasis and stimulate inflammation.

The ingestion of combinations of aliments in correct proportions fosters cycles of assimilation and the elimination of nutrients. It is important to ingest proteins which are a source of amino acids to generate our proteins; fats are necessary and they are frequently accompanied by proteins in nearly all diets, but I should observe that one should not exaggerate in the consumption of these aliments. Carbohydrates are a source of immediate energy and are assimilated easily. In general a diet is recommended that includes fruit and vegetables, whole grain, white meat and in lesser proportions red meat, and clean water. Such a diet permits our alimentation. Together with physical exercise and with a positive approach, wellbeing and development are encouraged. Disorders in nutrition have notable consequences on our capacities at the level of immunity and on the tendency to acquire infections.

Protein-calorie malnutrition is the principal cause of secondary immunodeficiency in the world. Malnutrition caused by a deficit of macronutrients and micronutrients primarily affects poor children There are two classic forms of protein-calorie malnutrition: marasmus and Kwashiorkor. Marasmus, which takes place when there is a total insufficiency of food and in the context of hunger, at times generated by selfish decisions, is associated with weaning: there is rapid weight loss, the skin shrinks and the person looks like a corpse.

Kwashiorkor, a word of west African origins which means ‘the illness of the next child’, is the result of a diet that is deficient in proteins although there is a high ingestion of calories. A weaned child delays his or her growth and development and develops a hepatosplenomegalia oedema and fine, thin hair with dermatitis. Both have consequences for immunological efficiency and infections. The development of the immunity system is very much subject to nutrition; innate immunity and adaptive immunity both suffer. These

depend on the instructed cells of the thymus, the central lymph organ that regulates the organisation and working of immunity by generating the T cells. There is also damage caused to the secondary lymph organs and a reduction in the capacity of the immunological memory and the response of the antigens. The regulation of immunity suffers and there is an imbalance in the TH1/TH2, the mood adaptive immunity is maintained, and a response of the antibodies is obtained through a vaccine with deactivated viruses or with bacterial polysaccharides in malnourished children. However, the major lesion of the thymus and the T lymphocytes is very grave. In addition, the innate immunity which depends in the



professional phagocytes of the gastrointestinal, urinary, and respiratory mucous barriers is absent because of the lack of the migration of the leucocytes which do not eat efficiently the bacteria and the microbes that they subject to phagolysis as a result of which the bacterial flora of our mucous changes and favours invasion. In this way, an inflammatory response is produced, as a well as a vicious circle where susceptibility to infection permeates secondary immunodeficiency and the illness makes alimentation, therapeutic action and medical action more difficult, which, and this not only because of traditional practices and customs, can generate bacterial resistance and, paradoxically, aggravate the infections.

Action at the level of nutrition then becomes indispensable, with the rational and reasonable control of infections and parasites, together with complementary actions and health education, with the enthusiastic and responsible participation of mothers almost as a rule, and the implementation of programmes of food aid, improvement and hygiene, with the participation as well of the community within a horizontal approach supported by the government and at an international level through the promotion of sustainable initiatives at a local level. When the two forms of protein-calorie deficiency take place during weaning breastfeeding produces the best form of alimentation; mother's milk from the outset until the end provides leucocytes, phagocytes, T and B lymphocytes, NK cells and IgA cells that secrete lysozyme and nucleotides which improve the immunity response of the new born child and the baby. Breastfeeding should be stimulated and supported for as long as possible, and it has been proved that the interruption of breastfeeding facilitates not only protein-calorie deficiency but also illnesses, allergies, at times also auto-immune illnesses, and increases the possibility of contamination by aliments and infections.

I do not have time here to address the other side of the coin, namely the effects of malnutrition in terms of excess body weight and obesity, which is a problem throughout the world, and general if not notorious in children and adolescents. This defect in nutrition also transmits an immunological alteration because the leptin hormone that regulates satiety is also an immunity regulator and acts in the cytochins produced by the lymphocytes. And grenin, the nature link for the secretion of growth hormones by the hypophysis takes part in the regulation of body fat and this is from certain points of view important in the functioning of the immunity system. In the same way I cannot address the defects caused by malnutrition in special populations such as those who are over sixty years of age, pregnant women and groups who, for various reasons (often hedonism) go on diets that favour qualitative defects in nutrition. I will limit myself to demonstrating only some data on the deficits that micronutrients can cause.

A few moments ago I referred to the microrganisms that we live with. Almost 60% of the 1,400 living organisms that are pathogenic for man develop with or without illness in animals. There are many forms of zoonosis with or without clinical signs that can be transformed into human illness. The adaptation of an organism to our species is a permanent threat, something that we are aware of now with the H5N1 bird flu, but this is neither an isolated fact nor an exceptional one.

It is out duty to attend to instruments by which to reduce, control and at times eliminate risks and illness through a rational use of agricultural and pastoral resources, by watching over health care and hygiene, and by pointing out the enormous importance that a supply of clean water and the spread of simple habits, economic habits, and personal and community hygiene can have for the health of everyone.

Before ending this paper I would like to refer to two situations by way of example, one of which is directly linked with immunology. The World Health Organisation calculates that in 2003 1.6 million people, most of whom were children under the age of five, died because of neomoccocus pneumonia, meningitis and septicaemia caused by streptococcus pneumonia.

In some populations with high infant death rates, as much as 25% of such death rates can be attributed to infections by this agent and infection by HIV increases the risk twenty to forty times over. There is an additional problem. This microbe has developed resistance to penicillin, sulphatrimetoprim and other economic anti-microbe drugs. In some cases it requires quinolonas and there is also some resistance to this. But it has been demonstrated that heptavalent and nonavalent vaccination reduces the mortality (16%) of those who are admitted to hospital for all reasons (15%) as well as radiographic pneumonia (37%), and these advantages are also present in those people infected by HIV. Vaccina-

tion can include other serotypes of pnemococcus, when it is required in certain regions, and can be distributed using networks of vaccination and cold chains. It requires only three doses and it is easy to train personnel who have already worked with vaccination in its use. This is a kind of vaccination that is carried out with success in seventy countries on children and adults, and it reduces the general incidence of pneumonia, the decline of resistance to bacteria, colonisation by bacteria of the respiratory apparatus and transmission through the immunity of a group. An international agreement is required that makes this vaccination accessible in developing countries. Everybody will benefit from it and here there is an opportunity for government and individuals to support a policy where it is possible to strengthen health. I believe that it will cost less than an aircraft carrier or a frontier wall.

Malaria in broad areas of Africa, South East Asia, India and South America, a disease which is transmitted by mosquitoes, is for the most part caused by *Plasmodium vivax*, which is relatively easily combated, and by *Plasmodium falciparum* which is more pathogenic and resistant to chlorochin, the cheapest and safest anti-malaria drug.

In Africa alone over 800,000 children under the age of five die of this disease every year. In historical terms malaria has responded to the forms and intensity of control measures that form the basis of contemporary programmes. The World Strategy for the Fight against Malaria has existed since 1998 and has been engaged in the Roll Back Malaria (RBM) initiative: the aim is to reduce the death rates caused by malaria by 50% by 2010 and by 75% by 2015.

In addition to improvements and the rational use of insecticides and effective pharmaceuticals, an important element in controlling malaria is to use mosquito nets impregnated with insecticide and this can reduce the incidence of the disease by 50%. They are cheap, the usual cost is $5.7 and they last for five years. Bad government action and neglect by international agencies have reduced the distribution of mosquito nets.

In 2004 the press reported that only 6% of the budget of the International Development Agency of the United States of America is allocated to these nets and only 2% to drugs and insecticides. 92% of the expenditure is under other headings. This situation should lead to a change in international awareness so that international aid is redirected, the actions that are engaged in are re-examined, and agreements are made to respond to challenges which in theory we are able to meet. The Gates Foundation through the voice of Regina Rabinovich believes that there is 'potential for incredible impact or incredible failure'. It is to be hoped that the first will take place soon.

Scientific research is the lever of change and it has allowed us to accelerate our adaptation to the planet. With the defence of bioethics, this science of life and science for the survival of all the inhabitants of our unique home, there is a response based on the dignity of man to the challenges that incessant scientific and technological production generates; bioethics directs science to the cause of human welfare, of life in all its forms, and the harmonisation of our actions to privilege development, fairness and justice.

Mankind has proposed the Millennium Goals for a millennium that has just begun. Let us aim for these objectives without forgetting that our shared origins as creatures of Providence unite us in brotherhood. This international conference makes clear that this is possible. Let us ensure that the will that brings us together today is multiplied in our countries. Let us serve life, let us be brothers and let us pursue good.

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Bibliography

KUMATE J., 'Cooperación internacional en enfermedades infecciosas', *Foro Inter.-Académico en problemas de salud Global. Academia Nacional de Medicina*, Mexico 2-3 October 2006.

CHANDRA R.K. 'Nutrition and the immune system from birth to old age', *Eur. J. Clin. Nut.* 2002;56 (suppl. 3) S73-S76.

SAVINO W., 'The thymus gland as a target in malnutrition', *Eur. J. Clin Nut. Eur. J. C. Nut.* 2002; 56 (suppl. 3) S46-S49.

SOLOMON J.M., RUPPER A., CARDELLI J.A., AND ICEBERG R.R., 'Intracellular growth of Legionella pneumophila in Dictyostelium discoideum, a system for genetic analysis of host pathogen interactions', *Infect. Immun.* 2000;68:2939-2947.

DESJARDINS M., HOUDE M., AND GAGNON E., 'Phagocytosis: the convoluted way from nutrition to adaptive immunity', *Immunological Reviews* 2005;207:158-165.

JACKSON H., 'The AIDS pandemic', in *AIDS Africa. Continent in Crisis*, edited by Knight C. and Maine L. (Publisher SAFAIDS, PO Box A 509 Avondale. Harare,Zimbabwe. 2002), p. 1.

REPRESAS PÉREZ J., 'La nutrición', in *Las siete bioRutas para la salud, el bienestar y la longevidad* (Edición especial, Ed. Diana. Mexico, September 2003), p. 36.

CUNNINGHAM-RUNDLES S., MCNEELEY D.F., AND MOON A., 'Mechanism of nutrient modulation of the immune response', *J. Allergy Clin. Immunol.* 2005;115:119-1128.

KEUSCH G.T., 'The history of nutrition: malnutrition, infection and immunity', *J. Nutr.* 2003;133:336S-3406.

MEYDANI A., AHMED T., AND NIKBIN MEYDANI S., 'Aging, nutritional status, and infection in the developing world', *Nut. Rev.* 2005;63: 233-247.

JACKSON K.M. AND NAZAR A.M., 'Breastfeeding, the immune response, and long-term health', *J. Am. Osteopath. Assoc* 2006; 106:203-207.

LEVINE O.S., O'BRIEN K.L., KNOLL M., ADEGBOLA R.A., BÒACK S., CHERIAN T. *et al.*, 'Pneumococcal vaccination in developing countries', *The Lancet* 2006;367: 1880-82.

RODRÍGUEZ M.H., 'Paludismo. En Cooperación internacional en enfermedadea infecciosas' (Foro Inter.-Académico en problemas de salud Global. Academia Nacional de Medicina, Mexico October 2-3, 2006).

DIGGER C.W., 'Buscan cambiar estrategias fallidas contra malaria', *The New York Times-Regorma*, 8 July 2006.

RICCARDO COLASANTI

3.2 Human Migrations and Infectious Diseases

Human migrations constitutes a phenomenon that is continually growing. Even though the figures of the recent period have to be corrected because of the fact that they include, after the dissolution of the Soviet Union, international migrants who previously were internal migrants, one is obviously dealing with highly significant numbers.

The phenomenon of migration obviously depends on the polarisation between developed countries which need young workers and have a low level of population growth, on the one hand, and developing countries which in contrary fashion rely on remittances as an economic factor, on the other.

It is also evident that side by side with migration from the South to the North of the planet, there is also migration from another South towards the South. Indeed, the increase in the stock of migrants is parallel with the major increase in the world's population.

Lastly, it should be said that this phenomenon is changing at the level of individual countries. The first ten incoming countries of 1970 are no longer the same (with the exception of the top of the list in 2005). And as regards outcoming, there is a notable differentiation both as regards distribution and with respect to variation in time.

In 2005, in Italy, for example, the three million immigrants came from about 200 nations with a constant movement of flows in recent years in relation to multiple variables.

Now, addressing the subject of infectious diseases and migrations can involve different aspects:

1. The first is that of latent infectious diseases that are present before the migration of a person. It should be said that it is commonly observed that departure for the population is in a certain sense selected.

2. The second is that of migration as an aggravating or unleashing factor in the illness because of the stress of the infinite *via crucis* to which migrants are subjected. In the museum of migrations on Ellis Island in New York there is a large inscription which contains the thoughts of an Italian migrant of the beginning of the twentieth century that he wrote in a letter to his family, which had stayed behind on the other side of the ocean. 'When I came to New York I thought that the streets were paved with gold. I have understood not only that they are not made of gold but that they do not exist and that we Italians here have to build them'. It is obvious that difficult conditions of life can constitute a factor in decreasing resistance to infections.

3. The third is that of contagiousness in relation to the host population, which depends on the possibilities of exchange. Some forms of contagiousness, for example HIV, depend on behaviour.

4. The fourth is that of contagiousness of the host population in relation to the migrant.

5. Access to health-care systems.

6. Lastly, that of the risks that are run by the migrant when he or she returns to his or her home country.

All of this creates a very complicated matrix of data and observations, a matrix which it is difficult to make unitary.

Contagiousness through imported pathologies, for example pathologies transmitted by parasites, need an intermediary vector in our European latitudes. This enables us to understand how the importance of contagion is minimal for the host nation. In contrary fashion, it is highly possible for the migrant to return to his or her latitude without protection at the level of immunity and to be afflicted by a plasmodial pathology to which he or she thought he or she was immune. For that matter, the flow of migrants from tropical countries (or rather urban-.tropical countries) is a part of the whole picture.

The problem is that the data sources are very insufficient in relation to a phenomenon which is in

continual evolution. Migration is not a unitary phenomenon, it comes from different provenances, with different cultures and also different health-care cultures, in countries that have different health-care policies, and this prevents us from defining the process as unitary.

As with the other cases cited above, tuberculosis can emerge from a torpid latency to become a clear pathology because of the fact that the stress of migration accelerates that process of imbalance that reactivates a process that was silently chronic.

In fact, healthy people leave. Migration is an event involving strength, it is a heroic action, it is an adventure. A migrant is a always a person with a higher vital charge. Thus, with regard to contagiousness in relation to the migrant, different factors come into play. Loneliness, the state of being a single, can in-

volve a greater risk of contracting HIV, on in contrary fashion migration can be a preventive factor because access to health-care systems allows the acquisition of better knowledge of the questions and issues involved and in the case of access to a health-care system the migrant can be more protected than he or she would be in his or her country of origin.

In truth, the problem as a whole of migration is usually interpreted, above all by public opinion and politicians, as a matter of the prevention at the frontiers of the arrival of infectious pathologies that constitute a danger for the members of the host population.

In official language the words and phrases that are repeated are screening at the frontiers, imported disease, infected migrant, and migrants who are the carriers of a disease. The accompanying slides illustrate this fact.

The immigrant is blamed at two levels of factors: 1. as what is different, as dangerous, where fear of the enemy is identified with imported infectious pathologies; 2. as a source of economic burden because of the costs of health care, which is one of the most important sources of expenditure in national budgets.

With regard to the second point, this is a disadvantage that must be seen within the context of the incredible production of wealth that the migrant workforce produces, at least in developed countries.

With regard to the first point, as has already been observed a migrant is often a person who impoverishes his or her health because of difficulties correlated with a migration. In addition, the so-called blocking of the frontiers has no sense in a global society. The rough thermo-dynamic container with various bacteriological-viral concentrations separated by a tap, which is the frontier, no longer has value in a world in which together with a migrant stock of 190 million people, it was estimated that in 2000 there was a movement of tourists involving 698 million arrivals.[1]

After the first journey the migrants wait for years before returning to visit their countries, for obvious economic reasons. Thus their participation in mobility is absolutely partial compared to total movements.

The fact is that the static compartmentalised structure which has lasted for centuries is being transformed into an increasingly complex structure, which is multidimensional, multi-power, developing at an increasing speed, with a sharing that is no longer occasional but structural of a shared area, the global market, and the global village, which are essentially structured within our civilisation.

The new model is more of an organic and biological kind where an infinite network of communications and relationships make up the woven fabric of cosmopolitan society. The blocking of the frontiers and the creation of barriers still has a meaning for highly contagious infectious diseases with short incubation periods such as cholera, bubonic plague or yellow fever when epidemic points flare up.[2] But in this case this applies to everyone: tourists, migrants and every kind of traveller.

The migratory flow is part of a larger flow – the worldwide metro system of human mobility that makes up this single global city, which indeed the world is becoming, when the present-day nations are increasingly the satellite towns of a single megalopolis. Only a medieval vision, the vision of import duties and provincial frontiers can interpret prevention as a selective block – an infected person has to be put in quarantine.

A tap to be closed does not exist because this mobility is part of the very ideological structure of modernity. It is not of secondary importance to cite the ideological aspect, in serious documents as well. One may read here, for example, the UNAIDS/IOM Statement on HIV/AIDS-Related Travel Restrictions of June 2004. Not only does this document advise against implementing restrictive policies as regards granting access to people who are HIV positive because this is useless but it also argues that this contrary to a social conception of human rights, a conception clearly linked to the Western ideological apparatus.

All these theoretical analyses must, lastly, refer to concrete pathological situations. We may refer to infection by HIV and infection by the tuberculosis micro-bacterium.

The diocesan Caritas of Rome has since 1983 opened a series of free health-care centres for illegal and legal immigrants. In addition, it has taken part in the creation of the Italian Society for the Medicine of Migration, an initiative which has involved placing the experiences on tens of centres in Italy in a network. The data that I will give below come from Italy and relate to this in their entirety.

Infection by HIV

The data on migrants in developed countries indicate that they are often move affected by infection by HIV. Indeed, in Japan in 2002 33% of cases of HIV had a non-national provenance. This fact should be seen in the context of the fact that the total foreign population is only 2% of the general population. There are various factors: travelling, a decrease in ties brought about by the new condition of migrants, and above all difficulties encountered in obtaining access to health care and programmes of prevention translated into their own culture. All of this means that migrants have less protection.

According to Baglio, the data of national records indicate an increase in cases of AIDS in foreign citizens from 3% in 1992 to 16% in 2002. This is a significant increase but it becomes less significant if one takes into consideration that there has a been a parallel increase in the number of immigrants in Italy.

On the other hand, from 1992 to 2003 there was a decrease in the number of new cases (incidence) which is a result of the possibility on the part of migrants of having access to treatment by the national health service.[3] It is of fundamental importance to create prevention campaigns in relation to AIDS that are filtered towards the migrant population.

But infection by HIV is also a problem for migrants who return to their own countries. The report of the World Health Organisation of 2005 cites the case of Bangladesh where the percentage of HIV positive cases in migrants who return to

their countries is 41%. In the Philippines this percentage in 2004 was 32%.

As regards tuberculosis, the data clearly indicate that at least in Europe the registered cases of foreign patients with this disease are the same as those of the host population, and this indicates that foreigners run a strong risk of being infected by tuberculosis. In Italy in 2004 the number of cases of foreigners with tuberculosis was 39.4% (EuroTB). Of interest are the data of Issa El Hamad of the Centre for Pathologies of Migrants in Brescia. These bring out the interval that takes place after the diagnosis of the migrant has taken place. The average length of time in her statistics is 35.7 months. This indicates the difficulties of the first years after the arrival of the migrant. Other statistics in Norway (Farah) indicate that a risk of tuberculosis remains after seven years. In Canada a high risk remains after seven years and this indicates the difficulties of integration. It is also relevant (El Hamad) that in Italy extra-pulmonary tuberculosis is more common amongst migrants than it is amongst members of the host population.

One is dealing here, according to the SIMM data (El Hamad and Affronti), both with a) the reactivation of latent infection because of difficult conditions of life, and b) a new exogenous infection caused by promiscuous cohabitation in the presence of carriers with open wounds. The reality is that tuberculosis is the great companion of conditions of poverty.

All these statistics are certainly significant. The reality is that 1) migration is essential to the development of advanced nations and to developing countries; 2) migration does not only being bodies and labour but also cultural psychologies that frighten the host population beyond a certain limit; 3) migration has a good effect but involves infinite suffering for those who are struggling not only because of overwork and loneliness but also because of an increasing separation from their home country; and 4) migration involves a need for help from the Church, from Caritas, and from all Catholic associations.

Conclusions

One observation remains to be made which is little addressed. This is that migration, in addition to being a new contribution of labour, can also amount to a rejuvenation of the mental and moral forces of our society. It is a fact that the vitality of migrants is often in grave contrast with the tiredness, depression, distrust and fear to be found in the developed countries.

For some people this can be seen as a point of weakness and definitive defeat for a civilisation that is destined to decline, for example European civilisation. The fact is that the not having fear of Christ can be found more easily in those who have crossed seas is a raft than those who do not even manage to believe in affective ties, as is the case with so many Italian citizens.

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Notes

[1] UNAIDS/IOM Statement on HIV/AIDS-Related Travel Restrictions, June 2004.
[2] UNAIDS/IOM Statement on HIV/AIDS-Related Travel Restrictions, June 2004.
[3] G. Baglio, ASP Lazio.

JACQUES SIMPORÉ

3.3 The Origins of Infectious Diseases Today: Technological and Industrial Changes, the Modifications and Adaptations of Microbes

Introduction

Beginning with the thermophilic bacteria that live in thermal waters at over 70°C and going on the psycrophilic (cryophilic) micro-organisms that have colonised the glaciers and live at less than 0°C, there are microbes that have been able to adapt to all climatic risks and which live at high pressures (barophyls), survive in very dirty environments (alophils), at the bottom of the sea (chemo-synthetic bacteria), in dry places (polyestermophilic bacteria) and in acidic environments (acidophils) and also alkaline ones (alkalophils).

Today, with technological changes and globalisation, we travel carrying with us micro-organisms in the world, in aeroplanes, in ships, and in cars. By now in our cities we have them everywhere: in water courses, in bathrooms, in air conditioning systems, in refrigerators, on plates etc., and above all in ourselves. In our innards our good bacteria help us to digest food but the pathogenic ones, the Shigella, the Escherichia coli, the Salmonellae, and the cholera fibroin, cause enteropathies in us. Others infect our lungs (Koch's bacillus), our reproductive systems (HIV, Treponema pallium, Neisseria gonorrhoeae), or the central nervous system (Toxoplasma gondii, Trypanosoma gambiense, the alfa herpes virus, the rabies virus) etc.

At the present time infectious diseases are responsible for about seventeen million deaths every year. This is a third of deaths worldwide.[1] They are the cause of 43% of deaths in developing countries. This death rate runs the risk of getting worse given the climatic changes caused by the industrialisation of modern societies which contributes to the creation of a temperature that is ideal for the proliferation and propagation of pathogenic micro-organisms on the planet earth. Indeed, smog and the greenhouse effect provoked by industrialisation, the various genetic manipulations achieved by biotechnology, and abuse in the uses of antibiotics cause genetic mutations in pathogenic microbes. These ontological changes in our predators allow them to adapt better to our environment. In addition, the industrial manipulation of perishable food products and their transportation throughout the world can constitute a source for the spread of infectious diseases. This paper is organised into three parts. 1) I will describe first of all the effects of technological changes that favour the proliferation of pathogenic agents in the world; 2) I will present the industrial changes that cause the reappearance of infectious diseases; and 3) I will examine the challenges of genetic mutations and the adaptations of microbes and their involvement in resistance to pharmaceuticals.

1. Technological Change as a Cause of the Re-appearance of Infectious Diseases Today

It should be said first of all that at the present time the reappearance of infectious diseases is due not only to the extraordinary capacity of infectious agents to adapt to their environment but also to the technological changes achieved by man to adapt to his ecosystem. A certain number of emerging infectious diseases are due to pathologies linked to this process. Indeed, infections of an alimentary origin, the introduction of antibiotics as markers in the drawing up of genetically modified organisms (OGM), and abuse in the use of antibiotics can favour this reappearance of infectious diseases.

a. Food chains

Modern techniques of industrialisation, through the food chain, offer pathogenic microbes an opportunity to come into contact with human hosts throughout the world as a result of the phenomenon of globalisation:

– *The intensive rearing* of chickens (risk of the H5N1 influenza virus), of pigs, of cows…and the exportation/importation of these products in the world can be vectors that vector pathogenic viruses, bacteria, fungi and parasites.

– *The cold chain:* the transport of cold foods on the planet earth leads to frequent fractures in the cold chain and favours the development and propagation of pathogenic agents. Keeping refrigerated foods at a low temperature allows a slowing down in the growth of micro-organisms and thus a limitation of food poisoning. The efficacy of this cold chain depends on the temperature of the refrigeration but also on the maintenance of the refrigeration itself. There are two types of flora of micro-organisms to be found in food products: (i) non-pathogenic flora termed alteration flora because they are responsible for the contamination of surfaces (for example the lactobacilli), and (ii.) pathogenic flora which are able to induce food poisoning in consumers, for example Stafilococchi, Salmonelle, Listeria monocytogees, Yersinia etc.[2] Listeriosis is an illness that develops because of the advances connected with alimenta-

tion. The bacterium that causes it can multiply even at low temperatures, for example in a refrigerator. Accidentally contaminated food thus allows the development of Listeria which rises to sufficient numbers to able to infect man, and in particular people with their immunity systems depressed or pregnant women. It is certainly the case that refrigerators have pushed back the Salmonellosi but they have also allowed the Listeriosi to survive and make their impact felt.

– *The industrial production of foods*: the industrial production of foods, and particularly of 'processed' meat, in which there are risks of infection. Industrially produced frozen foods which are highly perishable such as meats, cooked meats, and certain milk products, once they have thawed during transport become good environments for bacterial culture.

– *The creation of OGMS using antibiotics*: the use of antibiotics as markers in transgenic plants. Often, to plan transgenic maize, rise or cotton, a gene terminator and another resistance gene to an antibiotic such as tetracycline and ampicillin are used. Transgenic plants can conserve in their genomes the transgene marker which confers resistance to antibiotics. In general, these antibiotics are used both in humans and animals against various kinds of infections. The presence of bacterial strains resistant to antibiotics causes high death rates in Africa. The greatest risk from the consumption of these products is the probability of absorbing exogenous genes that come to form a part of the so-termed enterobacterial genomes and confer resistance to pharmaceuticals during infections.

a. Bioterrorism

The smallpox virus, the virus of hemorrhagic fever, the anthrax bacillus and the botulinic toxin etc. can be chosen by certain politicians who have a programme of biological weapons and also by terrorist groups. This risk is not merely virtual.

In 1995 the Japanese sect *Aum Shinrikyo*, which put sarin gas into the Tokio underground, also had a laboratory for the culture of botulinic toxin and the anthrax bacillus.

In 1984 the American sect *Rajneeshee*, which wanted to influence the results of the local elections, contaminated the salad bars of about twelve restaurants of The Dalles chain in Oregon with samples of a Salmonella culture. 751 cases of salmonella poisoning were registered.

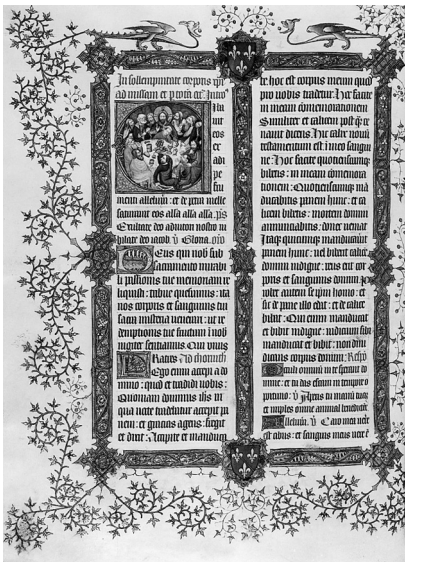
Between 18 September and 9 October 2001 letters containing anthrax spores were sent to various people in the United States of America, including Senator Daschle. It should be observed that at that time anthrax killed five people in the United States.

c. Modern therapy: infections in hospitals

Infections contracted in hospitals are one of the paradoxes of medical progress – certain equipment used by modern medicine can expose patients to the risks of infection. Indeed, the urinary catheters or probes applied to hospitalised patients are also possible paths of entry for certain bacteria: these two 'medical instruments' are responsible for 40% of hospital infections. The risks of the transmission of certain viruses such as HIV, hepatitis B and C are also linked to the use of injection material that is not sterile.

d. Antibiotic therapy and the resistance of pathogenic microbes

The question of resistance of pathogenic microbes is a worldwide problem. In developing tropical countries, where there a large number of infectious diseases but very few pharmaceuticals, there is a high prevalence of forms of resistance. For example in Tunisia the following examples of resistance occur: tetracycline, 54%; erythromycin, 82%; spiramicin, 64%; pristinamycin, 73%, trimethoprim-sulfamethoxazole, 91%.[3] In Nigeria: ciprofloxacin (49.4%), gentamicin (38.8%) and ceftazidime (36.7%).[4] In the Ivory Coast, in Abidjan in 2004, kanamycine, tobramycine, and gentamycine had a 13.5% resistance and cotrimoxazole and macrolids had a 40% and 58.7% resistance. The resistance to penicillin increased from 8.5% in 1997 to 23.5% in 2001.[5,6] As regards communal infections, the levels of resistance to penicillin of Streptococcus pneumoniae as revealed by the extensive research of the EARSS (Réseau Européen de Surveillance de la Résistance Bactériennes aux Antibiotiques) are: in France, 53%; in Romania, 50%; in Spain, 33%; and in Poland, 30%.[7] With respect to the percentages of resistance to meticillin in S. aureus, we have the following statistics: Greece, 44%; Italy, 38%; Portugal, 38%; France, 33%; Spain, 23%; Great Britain, 44%; Ireland, 42%; the United States of America, 34%; and Japan, 81%.[7] Thus it is that infectious diseases are one of the greatest threats to health at a planetary level and the weapons available to us to block them are becoming obsolete. We should see the appearance of resistance as a consequence of an on-going war of survival in which the micro-organisms, which are constantly attacked by modern man, strive to find countermeasures.



2. Industrial Changes as a Cause of the Reappearance of Infectious Diseases Today

a. Climate change, the greenhouse effects and their consequences

Today the climatic changes that are a source of the reappearance of infectious diseases often derive from a combination of purely man-made factors *(deforestation, agri-*

cultural and industrial development, the building of roads, air lines, water systems, etc.) and direct climatic factors (temperature, humidity, rainfall, irradiation, etc.) and indirect ones because of the modification of ecosystems and more in general of biodiversity. The climatic factors unleash the epidemics by amplifying the dynamic of transmission and the spread of pathogenic agents. Indeed, certain micro-organisms live in extremely hostile environment (heat, old, acidity, salinity etc.). A large number of bacteria exist that are resistant to the cold, these are called psycrophils or cryophils, and are able to grow at a temperature of around 0°C at the same speed as their mesophilic counterparts grow at higher temperatures. The psychrobacters and the arthrobacters are examples of psychrophilic bacteria. These are micro-organisms that have a good resistance to cold and can grow at temperatures ranging from 0 to 40°C. They can therefore survive in refrigerators and in high temperature environments. Industrialisation, with the question of the warming up of the earth and the greenhouse effect, involves the thawing of glaciers and the move of these cryophilic micro-organisms into human habitats. This fact seems to explain in part the major reappearance of infectious diseases today.

b. Intensive cultivation and the colonisation of habitats by micro-organisms

Modern industry, with its great transformations and productions, does not only pollute the environment – it also favours deforestation, desertification, and the construction of reserves of water for irrigation and consumption by great cities.

c. Deforestation or the building of water dams and the appearance of infectious diseases

Some viruses or parasites whose habitat is forests or countryside have infected farmers who cultivate these lands. The Guanarito virus in Venezuela in 1989, the proliferation of mosquitoes that carry the Rift Valley fever virus in Egypt in 1977, Leismaniosis in Ouagadougou in 2000, oncocercosis and Buruli ulcers in Benin, in Ghana and in the Ivory Coast, and malaria in all tropical countries are indicative examples of this. It should be made clear that the rise in temperatures favours the multiplication of the insects that are the vectors of infectious diseases such as malaria, yellow fever, dengue fever and encephalitis. When a mosquito is infected the parasite needs a certain period of time to develop. In the case of malaria, at 20°C the parasite requires twenty-six days to develop, whereas at 25°C it needs only thirteen. In addition to the rise in temperature, other climatic changes, influenced by the negative effects of industrialisation, contribute to an increase in, or the reappearance of, infectious diseases such as malaria, yellow fever, tetanus, cholera etc. Of these changes, the flooding linked to fluvial rains further favours this reappearance of pathogenic agents. In the years 2004-5, immediately after the flooding of certain tropical countries, epidemics of malaria and cholera spread through the populations that were the victims of these natural disasters.

d. Great urbanisations

During the eighteenth and nineteenth centuries great cities came into being around the major industries and these cities had large numbers of markets, storehouses, hospitals and places for entertainment such as football fields, cinemas, and theatres. These large human assemblies favoured the transmission of pathogenic micro-organisms. In addition, major cities have their own specific needs: running water, a sewage system, the building of dams, aid conditioning systems, refrigerators to conserve food etc. All these systems created by man can be infested by microbes. For example the Legionella pneumophila (Legionnaires' disease) is a bacterium that proliferates in aquatic environments and is able to infect man after it has been vaporised and inhaled. With the phenomenon of globalisation, people move and automatically micro-organisms spread from one city to another, from one country to another, and from one continent to another. Because of the major movement of people, every year travellers and tourists are exposed to endemic diseases (diarrhoeal illnesses, malaria, dengue fever and other hemorrhagic fevers). In addition, aeroplanes favour the rapid propagation of certain infectious agents, and in particular those responsible for respiratory illnesses (tuberculosis, influenza…): it is through air travel that the SARS epidemic rapidly spread from one corner to another of the planet in 2003. In addition to climatic warming, the greenhouse effect, which has been provoked by industrialisation, modern industry, with its smog and its carbon dioxide dumped in nature, produces mutagenic elements that influence the metabolism of micro-organisms. In order to survive, microbes must be able to adapt genetically to the influence of these new intoxicating factors produced by modern industrialisation.

3. The Modification and Adaptation of Microbes

a. An example of the adaptation of microbes: the mechanism of resistance to pharmaceuticals

Like the human genome, the genome of micro-organisms is still very dynamic and is always ready to mutate in order to confer resistance or adaptation to new environmental factors that arise. The resistance to antibiotics is the capacity of micro-organisms to resist the effects of antibiotics. It develops by mutation or exchanges of plasmids between the bacteria of the same species.[8,9,10] The bacteria that are the carriers of more genes that resist various antibiotics are the so-termed multi-resistant bacteria. Their resistance to antibiotics is the consequence of evolution by natural selection. The action of the antibiotic exercises a pressure of selection in the environment; the bacteria that have a mutation that enables them to survive continue to reproduce. They transmit to their descendants their own resistance gene and give rise to a generation of bacteria that are completely resistant.[11] There thus exist two types

of bacterial resistance: natural resistance, which is programmed in the bacterial genome, and acquired resistance, which is chromosomal and secondary to a mutation of the chromosome or an extra-chromosomal mutation through the acquisition of genes. Mutational resistance is spontaneous and pre-exists the use of the antibiotic. These forms of resistance are stable and are transmitted vertically in the bacterial clone. They are specific and relate only to one antibiotic or one family of antibiotics at a time. On the other hand, extra-chromosomal resistance, whose support is a plasmid or a transposone acquired by conjunction, is frequent, contagious and is transmitted horizontally between bacteria.[12,13,14] The bacteria defend themselves against the action of antibiotics by making themselves impermeable to their penetration and by producing enzymes that are able to deactivate them by modifying the structure of their target. The enzymes that they produce deactivate the antibiotic by modifying it or hydrolysing it.[15,16,17]

b. Two examples of concrete studies

From 6 May 2001 to 18 May 2006, 6,264 samples of blood, faeces, urine, saliva, skin, pus and vaginal secretions were gathers and subjected to culture in the biomedical laboratory of Sante Camille in Ouagadougou. In addition, from July 2004 to February 2006, 223 pregnant women who were HIV positive followed the programme of PTME (prevention of the vertical mother son transmission of HIV) by taking antiretrovirals during their pregnancy. After birth, their children received nevirapin.

Results

In this study the following were carried out: 1,335 coprocoltures, 1,878 urocoltures, 1,180 coltures of vaginal tampon, 245 of pus and 43 of other biological material such as blood, skin, milk and cephalorachidian liquid (CRL). After being cultivated and identified, the bacteria were exposed to various concentrations of antibiotics, in antibiogramme, in order to ascertain the efficacy of the anti-microbes in inhibiting their growth. Our results demonstrate that in Burkina Faso the Proteus spp have acquired multiresistances: to ampicillin (86,8%), to amoxicillin (95,6%) and to amoxicillin/clavulanic acid (94,3%). We also found strong multiresistances of Escherichia to ampicillin (77,4%), to amoxicillin/clavulanic acid (50,6%) and to amoxicillin (78,2%). Klebsiella spp also acquired numerous multiresistances to ampicillin (89.9%), to amoxicillin/clavulanic acid (42,8%) and to amoxicillin (89,9%). In our samples we found four strains of Klebsiella pneumoniae and a strain of Escherichia Coli that possess blaSHV and blaSHV-11 genes that confer their forms of resistance on anti-microbial pharmaceuticals.[18,19] In these samples for the first time in Africa we isolated a metallo-beta-lactamase bacterium, a Chryseobacterium indologenes[20] that hydrolyses beta-lactamase antibiotics most used as benzilpenicillin, ampicillin, amoxicillin cefalotin, cefaloridin and also the most powerful antibiotics such as cefotaxime, cefuroxime and imipenem. Only ceftazidime (the third generation of beta-lactamins) and cefalexine (the second generation of cephalosporins) could hinder their growth. In our second study we observed that subject to the aggressive action of antiretrovirals (ARV), the genome of the AIDS virus underwent numerous mutations in various patients: PR (M36I, K20I, V82IV), RT NNRTI (Y181CY) and RT (R211K).[21,22]

Conclusion

For some time numerous politician have been aware of this problem and immense advances have been made in the field of controlling environmental deterioration. In the same way, for almost twenty years innovations have been achieved in antibiotherapy. But the consequences of this kind of therapy is the appearance of bacteria which are increasingly resistant and constitute a heavy price to pay for our abusive and excessive consumption of antibiotics.[23] At the present time we also have the problem of multiple strains of Plasmodium which have adapted to the oxidising stress provoked by our remedies and have by now become resistant to clorochin. And what should we say about the numerous strains of HIV that are today resistant to our ARVs? These forms of resistance to modern pharmaceuticals make us understand how our victories in the field of the fight against infectious diseases are fragile ones because we are having to deal with a living world that adapts in order to survive our environment, to our way of living, to our medical practices, to our therapeutic weapons, and which takes advantage of the smallest weaknesses to gain territory.

An Alarm Bell

– As long as a good policy of solidarity between the North and the South of the planet is not implemented in order to fight together the pathogenic micro-organisms that no longer recognise national, regional and continental frontiers because of globalisation,

– as long as man does not use the synthesised microbicids of the modern pharmaceutical industries with parsimony and wisdom,

– as long as man does not become aware of the fact that transforming nature and polluting it in the form of a wild industrialisation

means stimulating the pathogenic micro-organisms to mutate in order to adapt to our ecosystem and thereby become ever more virulent, and without a collective awareness and without an international political will to respect nature more, we will walk inexorably towards the hegemonic rule of pathogenic microbes, towards the reappearance of infectious diseases, in short towards internationalised forms of microbial resistance. I do not want to be a bad prophet, but if this should come about our strongest, most powerful and most modern antibiotics and microbicids would be nothing else than appetising substrata and fresh water for our predators who would by then have become invincible.

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Bibliography

1. SIMPORE J., ZEBA B., KAROU D., ILBOUDO D., ESPOSITO M., D'AGATA A., PIGNATELLI S., NACOULMA O.G., and MUSUMECI S., *Bacterial epidemiology and emergence of multi-drug-resistance in Burkina Faso, Microbial drug-resistance* (2006).

2. AFSSA, *Recommandations sanitaires vis-à-vis des aliments*, http://bourgogne.sante.gouv.fr/themes/institutions/canicule/securite_alimentaire.doc

3. KLIBI N., GHARBI S., MASMOUDI A. *et al.*, 'Antibiotic resistance and mechanisms implicated in clinical enterococci in a Tunisian hospital', *J. Chemother.* 2006 Feb;18(1):20-6.

4. AKUJOBI C.N., 'Antimicrobial susceptibility pattern of Klebsiella species from Ebonyi State University Teaching Hospital Abakaliki, Nigeria., Niger', *J. Clin. Pract.* 2005 Dec;8(2):90-3.

5. KACOU-N'DOUBA A., GUESSENND-KOUADIO N., KOUASSI-M'BENGUE A. *et al.*, 'Evolution of Streptococcus pneumoniae antibiotic resistance in Abidjan: update on nasopharyngeal carriage, from 1997 to 2001', *Med. Mal. Infect.* 2004 Feb;34(2):83-5.

6. AKOUA KOFFI C., DJE K., TOURE R. *et al.*, 'Nasal carriage of meticillin-resistant Staphylococcus aureus among health care personnel in Abidjan (Cote d'Ivoire)', *Dakar Med.* 2004;49(1):70-4.

7. TRYSTRAM D., VARON E., PÉAN Y. *et al.*, 'Réseau européen de surveillance de la résistance bactérienne aux antibiotiques (EARSS) : résultats 2002, place de la France', *BEH Résistance aux antibiotiques* n. 32-33/2004, pp. 142-144, http://www.invs.sante.fr/beh/2004/32_33/beh_32_33_2004.pdf

8. DIAZ M.A., COOPER R.K., CLOECKAERT A., and SIEBELING R.J., 'Plasmid-mediated high-level gentamicin resistance among enteric bacteria isolated from pet turtles in Louisiana', *Appl. Environ. Microbiol.* 2006 Jan;72(1):306-12.

9. GEBREYES W.A and ALTIER C., 'Molecular characterization of multidrug-resistant Salmonella enterica subsp. enterica serovar Typhimurium isolates from swine', *J. Clin. Microbiol.* 2002 Aug;40(8):2813-22.

10. DALY M., BUCKLEY J., POWER E. *et al.*, 'Molecular characterization of Irish Salmonella enterica serotype typhimurium: detection of class I integrons and assessment of genetic relationships by DNA amplification fingerprinting', *Appl. Environ. Microbiol.* 2000 Feb;66(2):614-9.

11. FRIEDMAN L., ALDER J.D., and SILVERMAN J.A., 'Genetic changes that correlate with reduced susceptibility to daptomycin in Staphylococcus aureus.Antimicrob Agents', *Chemother.* 2006 Jun;50(6):2137-45.

12. FERRANDIZ M.J., ARDANUY C., LINARES J. *et al.*, 'New mutations and horizontal transfer of rpoB among rifampin-resistant Streptococcus pneumoniae from four Spanish hospitals, Antimicrob Agents', *Chemother.* 2005, 49(6):2237-45.

13. ENRIGHT M., ZAWADSKI P., PICKERILL P., DOWSON C.G. *et al.*, 'Molecular evolution of rifampicin resistance in Streptococcus pneumoniae', *Microb. Drug Resist.* 1998 Spring; 4(1):65-70.

14. OELSCHLAEGER P., MAYO S.L., and PLEISS J., 'Impact of remote mutations on metallo-beta-lactamase substrate specificity: implications for the evolution of antibiotic resistance', *Protein Sci.* 2005 Mar;14(3):765-74.

15. OELSCHLAEGER P., SCHMID R.D., and PLEISS J., 'Modeling domino effects in enzymes: molecular basis of the substrate specificity of the bacterial metallo-beta-lactamases IMP-1 and IMP-6', *Biochemistry* 2003, 5;42(30):8945-56.

16. ABRAHAM E. P. and CHAIN E., 'An Enzyme from Bacteria able to Destroy Penicillin', *Nature* (London) 1940;146:837.

17. OELSCHLAEGER P. and MAYO S.L., 'Hydroxyl groups in the (beta)beta sandwich of metallo-beta-lactamases favor enzyme activity: a computational protein design study', *J. Mol. Biol.* 2005 Jul 15;350(3):395-401.

18. ZEBA B., SIMPORÉ J., NACOULMA ODILE G. *et al.*, 'Prevalence of blaSHV genes in clinical isolates of Klebsiella pneumoniae at Saint Camille medical Center in Ouagadougou. Isolation of blaSHV11-like gene', *African Journal of Biotechnology* 2004, vol. 3 (9), 477-480.

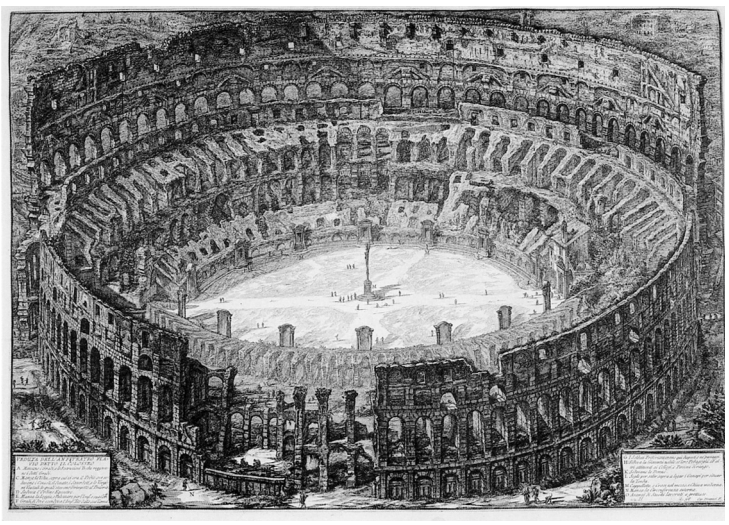
19. ZEBA B., SIMPORÉ J., and NACOULMA O.G., 'Production périplasmique de , -lactamases par des isolats cliniques', *Antibiotiques* 2005;7: 183-190.

20. ZEBA B., SIMPORÉ J., NACOULMA ODILE G. *et al.*, 'Identification of metallo-b bb b-lactamase from a clinical isolate at Saint Camillle medical Center of Ouagadougou/ Burkina Faso', *African Journal of Biotechnology* 2005,vol. 4 (3), 286-288.

21. NADEMBEGA W.M., GIANNELLA S., SIMPORE J., CECCHERINI-SILBERSTEIN F., PETRA V., BERTOLI A., PIGNATELLI S., BELLOCCHI M.C., NIKIEMA J.B., CAPPELLI G., BERE A., COLIZZI V., PERNO C.P., and MUSUMECI S., 'Characterization of Drug-resistance Mutations in HIV-1 isolates from non-HAART and HAART treated patients in Burkina Faso', *Journal of Medical Virology*, 2006, 78 (11) 1385-1391.

22. SIMPORE J., PIETRA V., PIGNATELLI S. *et al.* 'Toward the complete eradication of Mother-to-Child transmission of HIV at Centre Medical Saint Camille (CMSC) in Burkina Faso', *Journal of Medical Virology*, 2006.

23. BONFIGLIO G., SIMPORE J., PIGNATELLI S., MUSUMECI S., and SOLINAS M.L., 'Epidemiology of bacterial resistance in gastro-intestinal pathogens in a tropical area', *Int. J. Antimicrob Agents* 2002 Nov;20(5):387-9.



GIUSEPPE IPPOLITO

3.4 Political and Social Determinants of Infectious Diseases: Wars and Terrorism

Infectious diseases are the principal cause of death in the world. These pathologies strike most in the poorest regions of the planet and are responsible for 45% of the causes of death in low-income countries and for 5% of the causes of death in high-income countries.[1]

There is a strong association between the gross domestic product of a country and the incidence of infectious diseases – poverty is the factor that most fosters the development of infections.[1] In the same way, a high incidence of infectious diseases is an important obstacle to the economic growth and development of a country. There are various reasons for this association:[2]

– A high incidence of infectious diseases causes an important loss of working days and performance at work, with a consequent reduction of productivity. For example, a study carried out on Indian women who are employed in textile companies showed that those afflicted with lymphatic filariasis produce 27% of what is produced production by healthy women.

– Infectious pathologies, in the same way, bring about a reduction in schooling and a lower performance in studies. For example, it is estimated that the children of the Salomon Islands loss about seven school days a year because of malaria.

– The need to deal with frequent epidemics leads to a constant use of economic resources which cannot then be invested in the creation of a basic health system.

– The presence of an epidemic can strongly obstruct tourism, thereby reducing a important source of income for the poorest countries of the planet. During the plague epidemic in 1994 in India about 45,000 tourists decided not to visit the country.

As a result, the programmes to combat infectious diseases have a strongly positive impact on the development of a country. For example, it is estimated that the results obtained in the fight against malaria in Sri Lanka brought about an increase in the GDP of that country of 13% over a period of ten years.

Wars and Infectious Diseases

Within this context, wars and disasters in general, as is obvious, play a very important role by further fostering the development of infectious diseases. In addition, wars are usually associated with major movements of populations and generate a large number of refugees. Over fifty million people are at the present time in the condition of being refugees, asylum seekers or displaced people within their own countries, and their poor housing, hygiene and social conditions make them a group that is especially at risk as regards the development of infectious diseases.

Given that in every environment

pathogens and man have a complex and delicate relationship, it is clear that social, political and economic events play a fundamental role by modifying the existing equilibrium between microbes, the environment and their hosts. The relationship between wars or disasters and infectious diseases is a very strong, one as has been demonstrated on a number of occasions in ancient or very recent history.

Disasters take various forms:[3]

– Violent events caused by man: (civil or international) wars, genocides, terrorist attacks.

– Non-violent events caused by man: famines, industrial disasters.

– Natural events: earthquakes, hurricanes, floods, eruptions, etc.

These typologies of events are very difficult to deal with from a health-care point of view because they affect a large number of people, they appear for the most part suddenly, and it is often the case that health-care systems are not equipped to deal with them.

The health-care consequences of disasters may be defined as immediate, subsequent and delayed. The immediate causes are for the most part physical traumas, whereas the principal subsequent and delayed consequences are infectious diseases. The synergy between wars, hunger and the destruction of health-care services is especially strong and causes a frequently negative development of infectious diseases that is due both to their increased incidence and to the reduced resistance of the population.

There are very many examples of this.[4] During the wars that have taken place over the last thirty years there have been a large number of deaths caused by events directly connected with traumatic factors but an even larger number

of deaths have been caused by infections. During the war in Cambodia many deaths were caused by malaria, tuberculosis and diarrhoeal diseases; during the war in the Sudan malaria, tuberculosis, leishmaniosis and oncocerchiasis caused and are still causing a large number of victims; a notable number of infections contributed to the number of deaths caused by the war in former Yugoslavia, and diarrhoeal diseases caused a large umber of victims during the conflicts in Rwanda and East Timor

If we turn our attention to civil wars, in addition to the dramatic consequences of traumas, malnutrition or mutilations, infections are an important cause of illness and one of the principal causes of death, as was recently demonstrated during the civil war in the Sudan. In the Republic of the Congo, as well, fever-inducing diseases, acute respiratory infections, tuberculosis and meningitis caused about 405 of the total of the deaths due to this long conflict.

The same thing happens with international wars: the invasion of Kuwait by Iraq in the years 1990-91 caused few deaths in battle and the principal cause of death was sepsis brought about by the infection of traumatic wounds. In addition, during the war that lasted over ten years between Ethiopia and Eritrea, hunger and malnutrition caused a very high incidence of tuberculosis and pneumonia.

The situation becomes especially dramatic when a number of events combine: poverty, war, the lack of civil rights and the lack of health-care structures have so far caused two and a half million deaths in the region of Darfur in the Sudan, and most of these have been brought about by tuberculosis, malaria, and diarrhoeal and parasite diseases.

The large-scale movements of populations brought about by wars are also often accompanied by grave epidemics. All the epidemics of shigellosis and cholera that have taken place over the years at various times and in various countries in refugee camps are a dramatic example of this situation. Cholera in some especially dramatic contexts has even caused death rates as high as 30% compared with a global average of only 2.3%.

If we take into consideration the data on death in countries that have been recently struck by war, we can observe an increase in the incidence of infectious diseases. In Serbia the progressive reduction of the incidence of infectious diseases was rudely interrupted during the period 1987-90 and at the present time the number of deaths caused by infectious diseases is higher than was the case before 1997.[5] In Afghanistan, both during and after the recent conflict, respiratory diseases, measles and diarrhoeal diseases have caused a large number of victims. The epidemiological data from Kosovo demonstrate that respiratory infections alone cause almost a half of the cases of infection of children and a quarter of the total number of cases of infection in adults.

Following industrial disasters as well, infectious diseases are a major factor in causing disease and death. For example, after the disaster of Chernobyl there were a large number of deaths as a result of infections that emerged during the neutropenia caused by exposure to radiation. In the same way in Bupal, following an accident that took place in the factory of Sverdlovsk, there was a spread of anthrax spores which caused about four hundred deaths because of pneumonia.

In the same way, take into account that following natural catastrophes there are a large number of events connected with infectious diseases. For example, in Iran last year gangrene played a particularly important role in the victims of the earthquake. Immediately after the Tsunami that took place in the Indian Ocean in December 2004 there was an epidemic of diarrhoeal diseases and subsequently there was an increase in the incidence of Dengue's diseases and malaria. Lastly, it is well known that infectious diseases play an important role in deaths following hurricanes and volcanic eruptions.

A subject that deserves special attention is the relationship between war and infection by HIV/AIDS. The levels of incidence and prevalence of HIV/AIDS is very high in the poorest countries of the world and the spread of this infection causes a further impoverishment of a country. It is estimated that in countries such as Tanzania, HIV/AIDS will cause a decrease in GDP of 20% by the year 2010.[2] This infection most afflicts the age band of sexually active young people and thus all the productive activities of a country come to be strongly compromised, with relevant consequences in socio-economic terms for the country involved. Amongst the reasons for the widespread diffusion of HIV in Africa we find the high incidence of sexually transmitted diseases, ignorance about the way in which this disease is transmitted, a series of socio-cultural factors, and a large number of conflicts. A conflict contributes in a decisive way to the spread of a pathology, such as infection by HIV/AIDS, above all because it causes the collapse of health-care systems. The inability to guarantee health care, the interruption of public health-care measures (information campaigns, prevention and vaccination) and the destruction of hospitals are only some of the consequents of the events of war. In addition, acts of violence and the social consequences of war (rape, an increase in prostitution) foster the spread of sexually transmitted diseases. An example of this is provided by Uganda: in this country the incidence of HIV/AIDS following a number of information campaigns

has fallen everywhere, except in the regions of the north of the country where an armed conflict is presently underway.[6]

A collapse of the health-care system at times takes place independently of events connected with war. Probably the most famous example of this is the breakdown of the health-care system following the break up of the Soviet Union, with the consequent very large epidemic of tuberculosis in all the countries that belonged to the former USSR. But more frequently health-care systems fail following international conflicts or civil wars. A study carried out in twelve African countries in which a conflict had recently taken place demonstrated a reduction of 30% in the availability of drinking water and of 20% in the availability of health-care resources.[4] Another study demonstrated that only 66% of urban health-care resources and only 24% of rural health-care resources were available in Djibouti during the conflict of 1990-94 compared to the situation before the beginning of the war.[4] Another example of a brusque interruption of health-care campaign due to war is provided to us by East Timor where Caritas before the conflict had invested a great deal of resources in a programme for the control of tuberculosis. Only after seven years following the end of the way was it possible to reconstruct a health-care system that at least was able to quantify the cases of tuberculosis and many years will be needed to reach the levels that obtained before the war in that country.[7]

Terrorism and Infectious Diseases

The relationship between infectious diseases and acts of terrorism is not limited solely to the use of infectious agents as biological weapons but also involves the consequences of terrorist acts of another kind: during the attack on the Twin Towers of 11 September most of the deaths took place later because of sepsis, pneumonia and infected wounds.[4] A similar situation has also occurred in Israel where a study analysed deaths following terrorist attacks between 1960 and 2006 and demonstrated that up to 20% of deaths were due to infectious diseases following traumas (infected wounds, sepsis.[4]

Certainly the greatest danger is represented by the possibility that certain infectious agents will be used as biological weapons. One may say that bio-terrorism is 'the nuclear bomb of poor countries'. It is indeed the case that biological weapons are relatively cheap and easy to produce and to love around. In many African countries it is easy to obtain the biological agents that are needed for such weapons. Other factors that make the use of biological weapons very effective are the ease with which they can be transported, urbanisation – which creates great concentrations of people in limited areas, and the presence, at least in Western countries, of a large number of immunity-compromised individuals (elderly people, cancer patients, people who have had organ transplants, people who are HIV positive, etc.).

An example of the possible use of such agents was the spread in 2001 in the United States of America through the postal system of anthrax spores. These terrorist acts, whose authors remain unknown, caused twenty-two cases of anthrax, of which eleven by inhalation, and five deaths, and gave rise to a state of alert in many other countries.

The agents involved have been divided into three separate categories (A, B and C) by the Center for Disease Control and Prevention of Atlanta (CDC), according to the ease with which they can be spread, the death rates that they cause, and their impact on public health.[8] The agents of 'category A' are *Bacillus anthracis*, *Francisella tularensis*, *Yersinia pestis*, *Clostridium botulinum*, and the smallpox virus (*Vaiola major*) and the haemorrhage fevers (the Ebola virus, the Marburg virus, the Lassa virus, and others). These micro-organisms have certain shared characteristics that make them especially suitable to being used as biological weapons: they cause pathologies that are responsible for a large number of deaths; they are the cause of illnesses that are difficult to treat or to prevent; they are relatively easy to produce and to transport; they can be transmitted relatively easily with aerosols; they can cause alarm in a population; and they require special measures by a health service.

The micro-organisms that belong to categories B and C, although they are highly dangerous and can potentially be used for the purposes of bio-terrorism, have only some of these characteristics.

Conclusions

We can state that the fight against infectious diseases has a relevant role in the lowest-income countries because the present burden that they impose on the economies of these countries is very great. In low-income countries infectious diseases, together with wars and natural and humanitarian catastrophes, cause political instability and constitute a brake on their democratic growth and development.

We have to get used to the idea that the majority of infectious diseases are not eradicable. Smallpox is an exception but this has very specific characteristics. Many other attempts to eradicate infectious agents have turned out to be a failure. In contrary fashion it is possible to implement strategies involving the prevention and the control of these pathologies.

Rudolf L.K. Virchow, a pathologist who lived in the nineteenth century, declared: 'if illness is the expression of the suffering of an individual, epidemics are the expression of the suffering of a country'. Today this statement appears to be still valid. In very recent times, in a leading article that appeared in *The Lancet*, I.J.P. Loefler argued that to be afraid of epidemics is perfectly justified today. 'Many parts of the world are at the present time not ready to face up to an epidemic. We do not have enough water, enough food, enough protection and enough peace to face up to the risk posed by infectious diseases'.

At the present time effective strategies at the level of vaccines do not exist in relation to the principal pathologies that cause death and illness, HIV/AIDS, malaria, and tuberculosis, and only the correct organisation of health-care ser-

vices can intervene in an effective way.

To conclude, today it is impossible to predict where and when a new epidemic will take place or whether there will be a new deliberate release of micro-organisms, nor how this will take place, but we can with certainty know that new epidemics will take place regularly and that new infectious diseases will emerge in the future. Only with planning and social and civil commitment will we be ready for these emergencies and thus be able to reduce their impact as much as possible. The worst thing that we could do would be to ignore the problem or to hope that the next emergency due to infectious diseases will take place elsewhere. If we do not invest today for the needs of the future of everyone, it will be extremely difficult to address in the future the emergency of infectious diseases. 'In the world there is enough for the needs of everyone but not for the greed of everyone' (Mahatma Gandhi).

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Bibliography

[1] WHO, 'World Health Report 2001', accessible at http://www.who.int/whr/2001/en/index.html.

[2] WHO, 'Infectious Diseases Report 1999. Removing Obstacles to Healthy Development', accessible at http://www.who.int/infectious-disease-report/index-rpt99.html

[3] PETROVIC S., *Medicine of Catastrophes*, (Slovak Medical University Society Publishing House, 2002).

[4] KRCMERY V., GOULD I.M., NABER K.G., and KALAVSKY E., 'ISC working group on infections in catastrophic areas (ISC-WG ICA)', accessible at http://www.ischemo.org/abstracts/ISC-WH_ICA_11July06.doc

[5] VLAJINAC H.D. *et al.*, 'Infectious diseases mortality in central Serbia', *J. Epidemiol. Comm. Health* 1997, 51(2), 172-4.

[6] LUBOOBI L.S. and MUGISHA J.Y.T., 'HIV/AIDS Pandemic in Africa: Trends and Challenges', Social Sciences Research Network . FEEM Working Papers: Economic Theory & Application Series, Working Paper No. 103.0, 2005.

[7] MARTINS N., KELLY P.M., GRACE J.A., and ZWI A.B., 'Reconstructing tuberculosis services after major conflict: experiences and lessons learned in East Timor', *PLoS Med.* Oct. 2006, 3(10), e383.

[8] CDC, 'Bioterrorism Agents/Diseases', accessible at http://www.bt.cdc.gov/agent/agentlist-category.asp

FERNANDO ANTEZANA ARANIBAR

3.5 Health and the Environment: the Impact of Transmissible Diseases

1. To What Extent can a Healthier Environment Help in the Avoidance of Transmissible Diseases?

This is the question around which gravitate our efforts at an international level to combat the fundamental causes of health problems with more effective strategies of prevention in which we use all the policies, the initiatives and the technologies to be found in our arsenal of knowledge.

In studies carried out by the World Health Organisation, we examined the quantity of morbidities that can be attributed to the most important environmental risks at a world and regional level, and we calculated the number of deaths and sick people caused by factors such as the use of unhealthy water and insufficient sewerage or the contamination of air inside buildings or the contamination of outside air.

Beginning with these data, one can examine to what extent environmental factors influence specific illnesses and traumatisms and which regions and populations are most inclined to suffer illnesses and traumatisms that can be attributed to the environment.

Thus one comes to the conclusion that about a fourth of world cases of morbidities, and more specifically more than a third of infant deaths, are the consequences of environmental factors that can be modified.

But these studies went beyond this and engaged in a systematic analysis of the impact of environmental factors on various illnesses and the importance of this impact. The principal illnesses analysed were: diarrhoea, infections of the lower respiratory passages, various kinds of accidental lesions, and malaria. The number of morbidities caused by environmental factors is much higher in developed countries that in developing countries, with the exception of certain non-transmissible illnesses such as cardiovascular illnesses and cancers, the number of incidences of which *pro capita* is higher in developed countries.

The infant population is the most afflicted by illnesses caused by environmental factors and these affect the lives of four million children every year, principally in developing countries. Equally, the death rates for newly born children where such deaths are caused by environmental factors is twelve times higher in developing countries than in developed countries, and from this one may deduce that it is possible to improve human health if one encourages healthy environments.

These reflections are the outcome not only of a systematic revision of the bibliography on all categories of relevant morbidities. They are also the product of an investigation carried out by more than a hundred experts from all over the world. As a result, this analysis is the result of a systematic process of reflections on the incidence of morbidities which is unprecedented in terms of rigour, transparency and exhaustiveness. In it are to be found the best scientific data available on the risk of environmental factors. This is not an official estimate by the World Health Organisation of the level of morbidities that can be attributed to the environment but one may assume that a significant contribution has been achieved.

The conclusions can already be used to point out the most promising areas of immediate action and the shortcomings in relation to which more surveys should be carried out to specify existing constraints and quantify the population at risk (number of morbidities) as regards the various factors of environmental risk.

In addition, numerous measures can be implemented without delay to reduce the fraction of morbidities that can be attributed to the environment. Amongst these, reference should be made to the phenomenon of the storing of safe water in people's homes and a greater use of hygiene, the use of cleaner and safer combustibles, and the wiser management and use of toxic substances in people's homes and places of work.

In parallel, measures must be urgently taken in sectors such as energy, transport, agriculture and industry, in co-operation with the health-care sector, in order to combat the basic environmental causes of health problems.

If we act together on the basis of health-care policies, environmental policies, and policies of co-ordinated development, we can strengthen this platform and open up new possibilities by which to improve general welfare and people's quality of life.

Co-ordinated inversions can promote the setting in motion of development strategies that are more effective and which can create multiple social and economic benefits, in addition to bringing about an improvement in health throughout the world, both in the immediate future and in the long term. Thus it is of fundamental importance that the efficacy of the health-care sector is improved in the sphere of policies relating to preventive health and at the same time that forms of inter-sector co-operation are promoted in order to combat the environmental factors that provoke transmissible diseases, in solidarity with the less

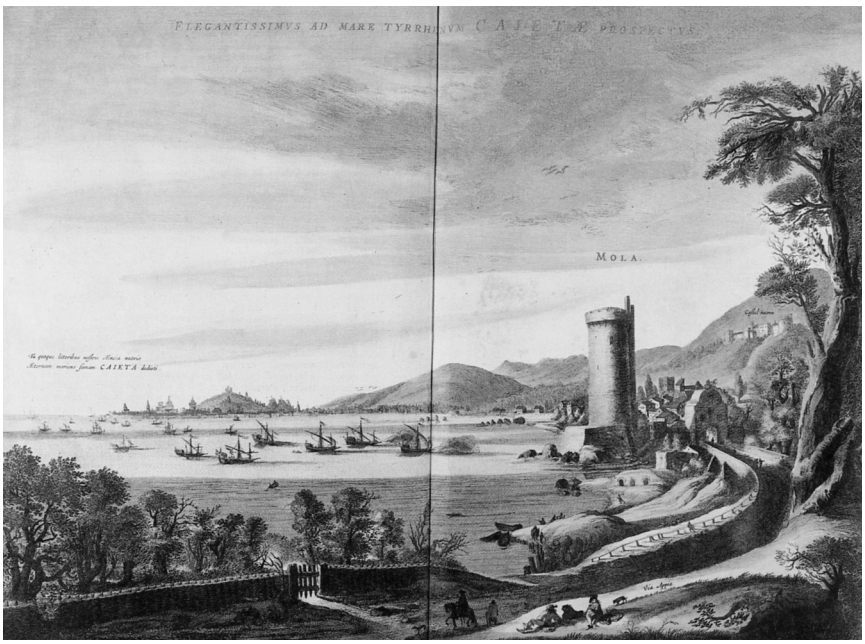
favoured in a Christian spirit, as expressed in the parable of the Good Samaritan.

2. Healthy Environments and the Prevention of Illness

This is based upon an estimate of the number of morbidities that can be attributed to the environment.

The analysis is based upon a comparative assessment of risks carried out by the World Health Organisation in 2002 which examined the total number of morbidities that can be attributed to some of the most important environmental risks and other quantitive studies on the repercussions of the environment on health. When quantitive data for the carrying out of a well-based statistical analysis were not available, the experts on environmental health and health care provided their own estimates. More than a hundred experts from all over the world provided references to eighty-five groups of diseases and traumatisms. The estimates were quantified taking into account the fraction attributable to the environment associated with each pathology and 'age adapted to disability', a weighted measure of death rates. Although there are disparities in the giving of notification of illnesses in many countries, this analysis used the best data available on the number of global morbidities, at a world and regional level, in line with what the World Health Organisation has published ('Report on Health in the World 2004').

In addition to reducing the number of morbidities, many of the measures in the health-care sector and in sectors unconnected with health that reduce environmental dangers and exposure to these can also generate other secondary benefits such as, for example, improvement in quality of life and welfare, and even an improvement in educational and employment opportunities. In general, therefore, an improvement in the environment will also help to realise the Millennium Development Goals.



Below is a brief summary of the specific conclusions that were reached in relation to the principal questions that were examined.

3. What is the Importance of the Effects of the Environment on Health?

It is calculated that 24% of the number of world morbidities and 23% of all deaths can be attributed to environmental factors.

Of the 102 principal illnesses, groups of illnesses and traumatisms that are contained in the 'Report on Health in the World' of 2004, environmental risk factors contribute to the number of morbidities in eighty-five categories. The fraction of morbidities that can be specifically attributed to the environment varied a great deal according to the illness subjected to examination.

It is calculated that in the whole world 24% of the number of morbidities (years of life lost) and approximately 23% of all deaths (premature death) were attributable to environmental factors. In children between the age of 0 and 14, the percentage of deaths that could be attributed to the environment was on a scale up to 36%. There were great differences between regions in the contribution of the environment to the various illnesses and this was due to differences in exposure to the environment and access to health care between the various regions of the world. For example, although 25% of all deaths registered in developing regions were attributable to environmental causes, in developed regions only 17% of deaths were attributed to these causes.

Although this assumes an important contribution to the number of global morbidities, this estimate is a moderate one because proved data do not as yet exist for many illnesses. In addition, in many cases the causal route between environmental risk and the appearance of an illness is complex. To the extent that this is possible, an attempt was made to understand these indirect effects on health. For example, the malnutrition associated with illnesses that are transmitted by water and the number of morbidities connected with aspects of physical inactivity attributable to environmental factors (for example urban planning) was quantified. However, in other cases the number of morbidities was not quantifiable despite the fact that the effects on health were clearly visible. For example, the number of morbidities associated with the alteration, the deterioration or the exhaustion of eco-systems was not quantified.

Amongst the illnesses with the greatest absolute incidence that were attributable to modifiable environmental factors there figured: diarrhoea, infections of the lower respiratory passages, 'other' accidental lesions and malaria.

– The number of morbidities is associated approximately at the rate of 94% with factors of environmental risk such as the consumption of water that is not fit for drinking and insufficient sewerage provision and hygiene.

– Infections of the lower respiratory passages are associated with the contamination of air in enclosed areas and connected to a major extent with the use of solid combustibles in homes and possibly with passive exposure to tobacco smoke, and with the contamination of outside air as well. In developed countries approximately 20% of these infections are attributable to environmental causes, and in developing countries this percentage can reach the figure of 42%.

– Amongst the 'other' accidental lesions there are those caused by dangers in the workplace, radiation and industrial accident; 44% of these traumas are attributable to environmental factors.

– As regards the percentage of malaria cases attributable to modifiable environmental factors, 42% is associated with policies and practices involving the exploitation of land, deforestation, the abuse of water sources, the irrigation of temporary settlements and the modification of the design of dwellings – for example the improvement of sewerage systems. As regards this study, the use of mosquito nets treated with insecticides is not considered a measure that involves the management of the environment.

Approximately 42% of cases of chronic obstructive pneumopathia, a gradual loss of lung use, is attributable to environmental risk factors. Occupational exposure to dust and chemical substances, and the contamination of air in closed areas because of the use of solid combustibles in homes, seem to be the two principal factors that contribute to an increase in the fraction of the number of morbidities connected with the environment. However, other forms of contamination of the air in closed areas and of outside air, which range from what is produced by cars and other vehicles to passive smoking, also have a certain influence.

4. In which Countries of the World do Environmental Factors most Influence Health and in what Ways do they Influence it?

Developing countries have a disproportionately high number of transmissible diseases and traumatisms.

The major overall difference between the countries of the World Health Organisation is to be found in the category of infectious diseases. The total number of healthy years lost per inhabitant as a result of environmental factors was fifteen years higher in developing countries than was the case in developed countries. The percentage of diarrhoea-related illnesses and infections of the lower respiratory passages connected with the environment was 120 to 150 times higher in certain sub-regions of developing countries belonging to the World Health Organisation than in the sub-regions of developed countries. This difference is due to variations in exposure to environmental risks and in access to health care.

No general difference can be observed between developed countries and developing countries as regards the percentage of non-transmissible illnesses attributable to the environment.

However, in developed countries there is a higher number of cardiovascular illnesses and cancers that can be attributed to environmental factors.

At the same time, developing countries have a greater number of morbidities caused by involuntary traumatisms and traumatisms caused by moving that morbidities that can be attributed to environmental factors.

In developing countries, the average number of healthy years of life lost per inhabitant as a result of traumatisms associated with environmental factors was approximately double the number to be found in developed countries; the difference was even greater at a sub-regional level. As regards traumatisms caused by moving, the number of environmental morbidities in sub-regions whose situation is better was fifteen times lower than in the sub-regions whose situation is worse, and the figures on other accidental lesions was ten times lower. The results suggest that as countries develop, an important transition in environmental risk factors takes place. For some diseases such as malaria it is predicted that the number of environmental morbidities will diminish with development but that the number of other non-transmissible illness, such as chronic obstructive pneumopathia, will increase to levels near those to be found in the most developed regions of the world.

5. Which Populations Suffer most from Risks to Health Associated with the Environment?

Children suffer from a disproportionate percentage of the number of environmental morbidities. In the world as a whole, the number of healthy years of life lost per inhabitant due to environmental risk factors was approximately five times higher in children between the ages of 0 and 5 than was the case in the general population.

6. The Principal Diseases that Contribute to the Number of Morbidities Associated with the Environment

Diarrhoea, malaria and respiratory infections involve a high percentage of morbidities attributable to the environment and in this category there also some of the most fatal maladies for children under the age of five. In developing countries these three illnesses, attributable to the environment, are responsible on average for 26% of all deaths of children under the age of five.

Prenatal illnesses (for example premature birth and ponderal insufficiency in new born children), protein-energetic malnutrition and accidental lesions, which are the other principal factors that cause deaths in infants, also have an important environmental component, and this is especially the case in developing countries.

Children in developing countries on average lose eight times more healthy years of life per inhabitant

than those in developing countries because of illnesses caused by the environment.

However, in some very poor regions of the world the difference is much greater; in these regions the number of healthy years of life lost per inhabitant because of infections of the lower respiratory passages in childhood is 800 times greater; that of traumatisms caused by moving is 25 times higher; and that of diarrhoea-related illnesses is 140 times higher. These statistics do not reflect the long-term effects of exposures in an early age where the illness emerges only years later.

7. What Can Politicians and the Public do in Relation to the Risks to Health Caused by the Environment?

Strategies for public and preventive health that study the possibilities of implementing environmental health-care policies can be very important. These initiatives have manageable costs and bring benefits that can contribute to the general welfare the community as well.

Many measures at the level of environmental health are economically competitive with more conventional therapeutic measures in the health-care sector. An example of this is the gradual elimination of leaded petrol. It is calculated that mental retardation caused by exposure to lead in general is thirty times higher in regions where leaded petrol is still used than in countries where leaded petrol has been eliminated in a gradual way.

The World Health Organisation has calculated that in the world as a whole the economic benefits from investments to reach this goal are approximately eight times higher than costs. These benefits include increases in economic productivity, the reduction of the costs of health care and lost years of life, in particular because of illnesses connected with diarrhoea, intestinal infections and related malnutrition. If access were provided to better sources of drinking water in developing countries, there would be a notable reduction in the time that women and children in these countries dedicate to obtaining water. If better access were provided to better sewerage and better behaviour at the level of hygiene, one would help to interrupt the general cycle of contamination of vast quantities of water by faecal-oral pathogens, and this would involve benefits for health, the reduction of poverty, greater prosperity, and economic development.

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Second Session

What Should Be Thought?

1. Revelation

AUGUSTINUS GIANTO

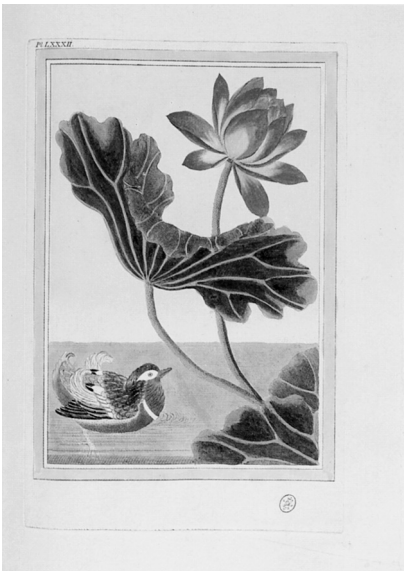
1.1 Infectious Diseases in Sacred Scripture

This session is dedicated to the question what can be said about infectious diseases according to sacred traditions as found in the Bible, both the Old and New Testament. I understand that my task here is to briefly present how these traditions show some awareness of what we today understand as infectious disease. At the same time I will also have to look at how they understand and make use of such awareness, and hence their interpretation, of the pathology. This awareness is not first and foremost about the nature of the disease or its spread, but about the people who are affected by it. Such a concern will provide a common ground for all of us who seek to develop better ways in the management and treatment of infectious diseases, including pastoral care of those who suffer from such diseases. We will also see how their understanding is closely linked with their faith, and even grew out of their faith rather than from an acquired knowledge of sickness and disease. The nature of the texts also makes it clear that the Bible is not a treatise, even an ancient one, on pathology and medicine. It is first and foremost a document of faith and for the life of faith. It deals with various human experiences in encountering the divine presence in countless ways, including the experience in dealing with sickness and disease. Nonetheless it is still legitimate to inquire whether the Bible has some awareness of infectious diseases, however different it can be if compared to our present knowledge of these diseases.

As understood today, an infectious disease is a communicable disease caused by a biological agent such as a virus, bacterium or parasite, as distinct from physical causes, such as poisoning or burns. This is the understanding of modern medicine. The Bible of course has almost nothing in common with this though there are passages which tell about the spread of some afflictions. It is obvious that the existence of microbes that are responsible for the disease was not yet even suspected, let alone the ways in which diseases were transmitted or the processes by which microorganisms replicate themselves in new surroundings. Even the awareness of contagiousness of an illness was very rudimentary. There are regulations to keep those who suffer from some kind of skin disease – often called "leprosy" in the Bible – away from healthy people. But all the texts we have deal with exclusion from the cultic activities of the community. People with obvious skin afflictions are considered not fitting to be part of worship in a temple not because of the possibility of the spread of the disease, but because they are considered unclean. I will come back to this in due course. This is important in order not to confuse similar phenomena right from the beginning. For us today an infectious disease is said to be contagious if it is easily transmitted from one person to another. This was not the kind of awareness underlying the regulations which exclude so-called "leprous" persons from communal worship. They would even continue to live a normal life outside cultic events. Simon the Leper in Mt 26:6 Mk 14:3 is a case in point despite rationalistic interpretations that he was already cured. Again, notions like immunity from infectious disease are something the Bible does not speak of. We can even say that the people of the Bible down to the latest period did not have any idea of what being immune was. So what we now understand as immune response against invasion of microbes, including its possible symptoms such as high fever, and inflammation, was thought to be part of the affliction itself.

The Bible naturally sees sickness and disease, including those we understand as infectious, as part of the fabric of human life and because of that they have a significant place in it. The material found in the Bible is vast, even if we limit ourselves to those passages that may have something to do with infectious diseases. None of these, again, are meant as medical treatises even by ancient standards. Therefore we should not take them too readily as a description of objective facts and as being historically true. A good number of these accounts are part of a theological message for a believing community. My presentation today will also emphasize the importance of this aspect. But first let me outline some biblical accounts that are usually thought to be about infectious diseases and the experience of them.

Curiously, after what was said above, there are indeed a good number of biblical passages that speak about communicable diseases and their effects. The emphasis here is of course on their understanding of the contagiousness of the diseases, which is not necessarily ours. First of all, we may remember that in Hebrew there is a word which is usually translated as "plague" or "pestilence". The basic meaning of the root that of this word is "to touch, to affect, to hit". If taken somewhat graphically, the idea represented by this root may tell us something about the relationship between contact or even proximity and the spread of the disease. What is said about pestilence in biblical stories shows that the event might have been what we today call an epidemic. One of these is found in the account of the plagues of Egypt (Exod 9:14 – the threat by the God of the Israelites, speaking through Moses, to send plagues on the population if the Egyptian king does not let the Israelites worship their God). The use of plagues as punishment is not limited to foreigners. The Israelites themselves once were struck by a severe sickness after eating quails, simply because they had been acting out of distrust of God. This sickness was experienced as a great plague in Num 11:33. Certainly this is based on the idea that a plague was an act of God, see for example Lev 26:21; 1 Sam 4:8. The same can be said of the plague as punishment for the Philistines who seized the ark of God from the Israelites (1 Sam 5-6). The plague of the Philistines, whose symptoms are swellings, is associated with mice or rats and therefore would be a case of infectious diseases spread by the fleas carried by these animals, probably bubonic plague. In this connection, the word that is normally translated as "plague" can represent the spread of infectious disease which we now call epidemic even if not strictly in its technical sense. However, the affliction appears as a new case in a given human population, such as here among the Philistines, or in a text such as Exod 9:14 mentioned earlier. The disease spread during a given period, at a rate that goes beyond what people will calculate based on experience.



It makes little sense to analyze whether the event in Egypt and among the Philistines was restricted to one region, i.e., epidemic in its technical sense, or more general, thus endemic or even global, in which case it will be a pandemic. Given what we know, what is imagined to take place in Egypt was far from being similar to the bubonic plague epidemic of Medieval Europe known as the Black Death, or the Great Influenza Pandemic toward the end of World War I. The Biblical epidemic was far more limited both in its spread even if the fear caused by it may be the same.

It is true that a serious epidemic must have lain behind the imagery in Ezek 7:15, with the whole city devoured by pestilence; or see Lev 26:25, which mentions crowded cities thought to be safe from enemies, but plagued by pestilence; and again Num 25:9 where a plague is said to take 24,000 deaths among the Israelites who were sojourning in Moab. The last mentioned example is interesting. The context (vv. 1-8) suggests that the disease was transmitted to a large number of people by sexual intercourse. However, such a disease may not spread at that rate and with that number of victims. It is more reasonable to think of an infectious disease to which the local people, namely the Moabites, were immune or, technically said, were acting like carriers, while the Israelites did not have any defense and were therefore liable to contract the disease. Whether the number of deaths was that high is a matter of interpretation and is not directly relevant to our discussion now. Contracting a disease while travelling and coming into contact with other people seems also to be the case in Num 14:37 which tells about the Israelite spies who became sick and died upon their return.

The Bible also tells of several cases of fever which, despite our scanty knowledge about the historical facts, will give us some idea of what we now call malaria. Deut 28:22 mentions "fever", and "inflammation" among the diseases sent as curses if people fail to obey the Lord. These conditions are very similar, both having something to do with the sensation of heat. It has been suggested that they are technical terms for different types of fever; the first would represent quotidian fever, the second tertian or quartan fever. If correct, then such periodic fevers will be malaria. This disease is known to have been endemic in the Eastern Mediterranean of the Roman Period. It comes as no surprise if in the New Testament it is simply known as "fever" (Mt 8:15; Mk 1:31; Lk 4:38-39; Jn 4:52). The

Greek word used in those passages is also the one indicating the fever known to happen to people living in areas with marshes, which provide the typical environment for malaria.

The disease normally labelled as "leprosy" in the Bible, according to most scholars is not the same as the pathology known as Hansen's disease, which is true leprosy, a chronic illness caused by bacterial infection (*mycobacterium leprae*) of the skin and other less visible bodily tissues. The Hebrew term usually translated as leprosy is *tsara'at* and refers to the itchy, powdery or scaly thickening of the skin also known as psoriasis or fungal infection. It commonly causes red scaly patches to appear on the skin. This is what in antiquity (*Corpus Hippocraticum*) was usually understood by the Greek term *lepra*, also used to render Hebrew *tsara'at*. In this case, the condition itself is not contagious, and thus it is not an infectious disease though one can get serious infection while suffering from psoriasis, for example, by scratching. Ancient Greek writers referred to the disease which we now know as leprosy with the word *elephas* or *elephantiasis*, which is unfortunately quite different from the pathological condition now called elephantiasis. It was not until the 8th century AD, when for the first time the Greek word *lepra* was used, notably by John of Damascus, to denote true leprosy, that is, Hansen's disease.

Nonetheless, in the Bible this skin disease is very much present and plays an important role in connection with many other aspects of human life. For that reason let us take a closer look at some of the passages where *tsara'at* or *lepra* is found.

Tsara'at is often associated with divine punishment for sins. The villainous and devious Gehazi, Elijah's servant, was punished with it, but the Syrian general Naaman was cured of it because he humbled himself before God (2 Kgs 5). Miriam, who opposed Moses, was punished with it Num 12:10-15). *Tsara'at* was invoked as one of the curses by David upon Joab and his posterity for the murder of Abner (2 Sam 3:29). The disease broke out on King Uzziah's forehead when he illicitly offered a sacrifice in the temple (2 Chr 26:16-21, see also 2 Kgs 15:5).

The most important passage in the Bible about this disease is Lev 13:1-14:57. Curiously, what is usually translated as leprosy here (Hebrew *tsara'at*) was seen not only in humans (Lev 14:2), but also in clothing (Lev 13:47) and buildings (Lev 14:34). In these two latter cases, it is clear that what is meant is the growth of mildew in fabrics and on walls. In humans, the condition could progress and spread rapidly (Lev 13:5-8). The symptoms mentioned, however, do not point to the disease known as true leprosy which has a steady but very slow progress. Furthermore, true leprosy is not curable without drug therapy, thus quite unlike *tsara'at* from which people may recover without medication during the quarantine period. Again, the passage fails to mention clear symptoms of advanced leprosy such as necrosis of feet, hands, and facial bones and loss of feeling. On the other hand, the passage mentions boils, blisters, and skin eruptions (Lev 13:18-23.24-28), discoloration of hair (Lev 13:3.10.20. 25.30). A careful reading of the condition called *tsara'at* here leads to several types of skin lesions in the form of scaling of the skin, i.e., exfoliation, which persist and do not disappear during the prescribed quarantine periods. The cause seems to be fungal infection.

It has been suggested that the Biblical author here has put together some observations on the disease called *tsara'at* and integrated them into their awareness of what is pure and impure in matters of cultic interest. And it is precisely in that direction that we should inquire further.

This passage on leprosy is found in the part of the Book of Leviticus that deals with Legal Purity (Lev 11:1-15:33) consisting in the laws about clean and unclean animals and cases of temporary uncleanness such as affecting women after childbirth. Leprosy belongs to such temporary uncleanness. Why does *tsara'at* render unclean and therefore the person affected is cultically impure? Due to their outward appearance, those who suffer from skin diseases called *tsara'at* are often shunned and kept at a distance. People seem to have a common natural aversion toward reddish boils, scaly skin conditions. It is generally known that skin diseases generate similar social reactions in different, unrelated cultures. Anthropologists like Mary Douglas explain this natural fear with her theory of impurity, that is, what is considered impure is generally that which is abnormal or out of place. Skin disease is such irregularity. In the Old Testament, *tsara'at* is connected with death (Num 12:12, see also Job 18:13) and for this reason it belongs to the impure and if one comes close to it without proper precaution, one will become impure.

In Lev 13-14 there is also a whole rite for determining whether a person is affected by *tsara'at* and therefore is unclean and conversely whether the person is already cured from it after a period of quarantine. The one who has the authority to do so is the priest. The priest will have to diagnose if the person has *tsara'at* (Lev 13:1-59) or not, or for that matter, has been cured from it. The symptoms are special skin eruptions (vv. 1-8), boils (vv. 18-23), reddish-white skin lesions (24-28; 38-39), itching (29-37), and loss of hair preceded by its discoloration (40-44). If the affliction is chronic, then quarantine is useless (vv. 9-17). All these symptoms will allow the priest to declare the person unclean and therefore to be segregated from community gatherings. This is connected with the belief that, being ritually impure, his defilement could be transmitted to others.

Even after the person was cured, he was not "clean" until he had been ritually purified (Lev 14). This cleansing ritual consists of various parts. The first is the examination by the priest that the *tsara'at* has indeed been healed and thus the person can be cleansed ritually. He has to bring two clean birds, wood, scarlet stuff and hyssop. One of the birds is to be killed and its blood sprinkled seven times upon him and fi-

nally the priest should pronounce him clean, while letting the other bird go free. The person declared clean has to fulfill certain other ritual acts: wash his clothes, bathe, and stay for seven days in a tent in the open camp. On the seventh day he should shave all his hair and other hair on his body, and then he should wash his clothes again and bathe. On the eighth day he should bring two male lambs and a one-year old kid, a cereal offering, floor, oil. These are to be sacrificed by the priest at the entrance of the tent of meeting – later in the temple – and this will be the atonement for the person already declared clean again. There are also regulations concerning the sacrifice for poor people who cannot afford the sacrifice.

Throughout the Old Testament, the image of God as healer is central to the relationships to his people. Though not all texts specifically mention the kind of illness, it is clear that the Bible means that God is capable of healing all kinds of disease should he so will. This is the faith that nourished the people of the Old Testament from cradle to tomb. Yet it is in the prophetic literature that his role as healer becomes more articulate. Just to mention several examples. The people were repeatedly encouraged by Isaiah to return to God in order for them to be healed of their sickness (Isa 6:10; 19:22; 30:26). The image of God as Healer is even clearer when Ezekiel rebuked the people for their neglecting the sick and the crippled (Ezek 34:4), the ones that God himself never fails to care for. Similar pronouncements are found in Zech 11:15-17. This role of healer is combined with his role as smiter through plagues and illness. The Old Testament people had the conviction that God gives and restores health to those who obey his commands but uses diseases and plagues to punish the disobedient and those who are hostile to his people. Stating that he is the God of illness is also affirming that he is above all the forces of the evil that cause diseases. He even uses them to punish, to make people aware of his real power.

The Gospels also presents the Jesus as healer and indeed his healing activities are the most impressive of all what he did during his earthly life. Many of the accounts of exorcism are also stories of healing. When he teaches the crowd about the merciful Father in heaven they believe that liberation from illness is also a manifestation of such mercy from heaven. He also sends his disciples to go to different places to heal those who are afflicted by evil spirits, hence from sickness. Again not all the illnesses reported in the Gospels would qualify as being the same as our modern day infectious diseases. Yet the theological message is still valid all the same. God has sent his Messiah to his people and this Messiah is the one who shows compassion to fellow human beings who are afflicted by sickness caused by a force too strong for them. Only help from above will save and heal them. And this is what they saw in Jesus. This is also the sign they see that God has now acted for his people.

The story of Jesus' healing of ten lepers (Lk 17:11-19) is explicitly placed, as is clear from v. 11, in the course of his journey to Jerusalem. The disease meant here is the same as *tsara'at* in the Old Testament discussed above. It is characteristic of the Gospel of Luke to present Jesus as the one who is marching toward this city from Galilee. During this journey he teaches and heals people. On one such occasion, ten lepers beseeched him – from a distance – to have pity on them. The text mentions that they were standing at a distance. Certainly this is because they had been segregated from any contact with healthy people. No one would be coming close to them and they were not supposed to approach anyone. We are told next that Jesus gazed at them – as if trying to assess their situation. And then he told them to go and show themselves to the priests. The Gospel mentions that while they were on their way, they found themselves healed from their disease. An alert reader will notice the relation with the text from Leviticus we discussed earlier. Note that the priests are supposed to examine whether they are cured and then they should see to it that the person be declared ritually clean. Here in Luke, the order seems to be reversed. Jesus told the lepers to go and seek the priests and when they obeyed him they were healed. The ten lepers themselves must have seen that their afflictions were gone. What are they to do? Of course they will ask the priest to perform the purification ritual in order that they can be reintegrated into society. It is not said that Jesus heals them or declares them clean from the disease. These ten people must have taken him at his word and because of that they are healed. And we can think of what comes next. They will have themselves be purified according to the rites given in Leviticus. But the story does not finish here. One of the ten came back and thanked him. And Luke adds, this man was a Samaritan. It is clear that for him to be cured from his illness is enough. He does not need to be declared pure. Even if he is already cured, he will always be an outsider simply because he is a Samaritan. But Jesus expresses his surprise that only one out of ten came back to praise God – and the one who did so is a foreigner!

The exegesis of this event is multi-layered. At one layer is that this Samaritan knows that this man Jesus was the one who actually restored his human dignity. He has no access to the temple. The person who heals him will also be capable of declaring him pure. Thus he would think. On another layer, he now receives far more than what the other nine would receive. While the nine will only receive a ritual declaration of their restored status, this Samaritan receives faith that heals his life. Jesus himself says, "Get up and go, your faith has saved you!" (Lk 11:19). The story is a story of healing and of faith. It is about healing from a disease that, in contemporary awareness, is highly infectious; it is also a story about restoration from a condition that prevents people from living as decent human being. This is one of the acts of this Jesus who is fulfilling his task to save humankind.

The reading above, however, is what comes immediately to our mind. We have not explored the story in its depth yet. How come,

for example, that the ten lepers approached Jesus? Of course we may answer this question by saying that he was known as a powerful healer. But note that the ten people did not ask him to cure them of their bodily affliction; rather they ask him to have pity on them. Pity for what? For being cast out from human society, I guess. But there is something more. These people were already desperate. Their condition made them outcasts and they did not have any means to free themselves from this bondage. Other people shunned them. Precisely this is where the Gospel of Luke says something about Jesus' coming. No single lost sheep will be abandoned. No repentant prodigal son will be kept outside of the Father's house. No outcast should be left alone. This is, in a nutshell, the message of the Gospel of Luke.

The ten lepers came to Jesus asking for mercy. But Jesus told them to go and see the priests! They must have been disappointed. What they expected most is not cure, but divine mercy. And this person who is supposed to be the only hope does not understand them. He sees them as asking for a cure and of course he, observing the old revered legal tradition, will send them to the priests! The lepers now felt completely abandoned. So they went off, not to go to the priests who will do what is supposed to be done, but to return to their miserable life of segregation. But what happens? As they walked away, their leprosy is healed! But this only puts them in another predicament. How can they pay for all the rituals to have them declared clean and therefore socially restored? This unexpected healing does not do anything but put them into another crisis. Such was the situation of the ten cured lepers. But not all of the ten abandoned themselves in apathy. One, notably the Samaritan, came back. He understood what was going on. He found what he had asked for, actually the same as what the other nine had expected from Jesus: compassion. And compassion is what the story of the healing of the ten lepers is about.

On that note I wish to wind up my presentation. The Bible has a certain awareness of what we now know as infectious disease and the dreadful effects it has on human life. It integrates the experience of epidemic and plagues into its view of the world and society of its time. It is precisely in this context that the God of the Bible shows compassion.

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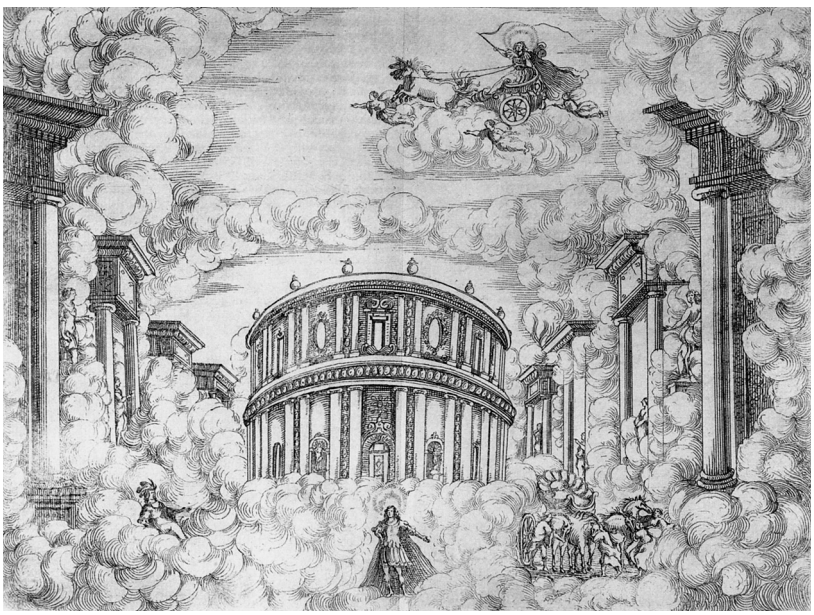
For Further Reading

The literature on sickness and diseases in the Bible is enormous and for that reason I will only mention several useful encyclopaedic articles in the multivolume *The Anchor Bible Dictionary,* edited by D.N. Freedman (New York: Random House, 1992): "Sickness and Diseases" (by Max Sussman in vol. VI pp. 6-15) "Leprosy" (by D.P. Wright and R.N. Jones in vol. IV pp. 227-282) "Medicine and Healing" (H.C. Kee, in vol. IV pp 659-664.) Ample bibliographical material is found in these articles. The definitive work on Biblical *tsara'at* remains that of E.V. Hulse, "The Nature of Biblical "Leprosy" and the use of Alternative Medical Terms in Modern Translations of the Bible" in *Palestine Exploration Quarterly* 107 (1975) 87-105. For the general interpretation of the laws concerning *tsara'at* in Lev 13-14, the reader is referred to *The New Jerome Biblical Commentary*, edited by R.E. Brown, J.A. Fitzmyer, and R.E. Murphy (New Jersey: Prentice Hall, 1990), "Leviticus" (by R.J. Faley, pp. 61-79), which introduces the literary and theological aspects of the passage. For the interpretation of Luke 17:11-19 offered here, see my *Langkahnya...Langkahku!* (Yogyakarta: Kanisius 2005), 186-191.



GABRIELE MARASCO

1.2 Infectious Diseases and the Fathers of the Church

The approach and behaviour of people towards infectious diseases was one of the fields where the advent of Christianity had the strongest impact and brought about radical changes in thought and real life. In antiquity the belief was widespread that these diseases were the effect above all else of the wrath of the gods because of the sins and errors of men. As regards epidemic diseases, in relation to which the ancients used general terms, which raise difficulties as to their identification with diseases that are now known about, this idea was already clear at the beginnings of the Greek world in the plagues which in Homer afflict the Achaeans as a punishment meted out by Apollo for the offence that had been made to him.[1] A similar belief is to be found in the myth of Oedipus[2] and in relation to the plague of Athens the rationalist Thucydides, who do not want to express personal opinions about its causes,[3] relates that Pericles himself attributed it to supernatural forces.[4] This belief remained extremely widespread, and to such an extent that the outbreak of the very grave epidemic that struck the empire under Marcus Aurelius was attributed to the sacrilege that had been committed against a statue of Apollo.[5] It was, therefore, common in cases of epidemics for the state to try to stop them by having recourse to the gods and engaging in purifications and atoning ceremonies for the wrongs that had been committed.[6] Similar beliefs were widespread throughout the peoples of the East: for the Jews, in particular, pestilences were the consequence of divine punishment for the sins of men[7] and could, therefore, only be stopped with prayer and suitable ceremonies of atonement.

In medical science, instead, pestilences were seen as the effect of miasmas which, in turn, were the outcome of the corruption of air or water;[8] as a result, even though the concept of contagion was not unknown,[9] the most logical policy by which to escape a pestilence appeared to be a radical change of location and flight from the pestilential miasmas.[10] At the time of the epidemic that struck Rome at the time of Commodus, the emperor, on the advice of his physicians, retired to Laurentum which was held to be a safe place because it was well aired and shaded by trees whose scent prevented the corruption of the air. The doctors advised those who remained in the city to fill their nostrils and ears with perfumed essences and to use inhalers to stop the access of corrupt air.[11] For that matter, at the beginning of the plague epidemic Galen stated that he himself had decided to leave Rome.[12] With such premises, it is clear that both the medical doctors and those people ready to help the sick could do very little. Thucydides states, for example, that during the plague in Athens many people kept their distance from sick people who thus died in an abandoned state, whilst the medical doctors and those people who, to demonstrate their virtue and out of respect for human beings provided care, died more frequently.[13] For that matter, the lack of adequate instruments to engage in prophylaxis and to hinder the spread of epidemics[14] made the work of medical doctors inefficacious.[15] Medical doctors, indeed, limited themselves to treating the most obvious symptoms of the malady for as long as this was possible.

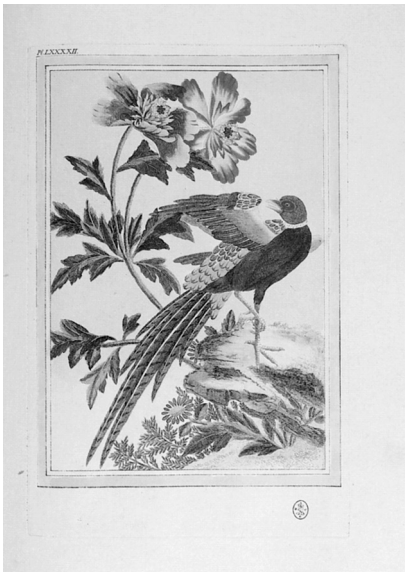
Even more grave was the condition of people afflicted by leprosy, a term with which the ancients defined not only elephantiasis, namely Hansen's disease, but also a broad range of diseases, of varying degrees of gravity, which disfigured their sufferers.[16] The disgust and terror provoked by the signs provoked by this disease, and the fear of contagion,[17] explain the almost complete absence of portrayals of it in ancient art,[18] which, however, was also the result of notably rooted religious beliefs. Herodonus, in fact, observed that in Persia it was forbidden to help lepers enter cities or draw near to other people. It was believed, indeed, that the malady was the result of a sin committed against the sun god and foreigners afflicted by this disease were expelled from the country, as indeed were white doves which were accused of the same offence.[19] According to Plutarch, in the fourth century King Artaxerxes I, whose daughter and wife Atoxa were afflicted by leprosy, prayed for them before the goddess Era, prostrating himself in front of the divinity's statue and bestowing upon it gifts and offerings.[20] The leprosy that afflicted Atoxa was here, it clearly emerges, a purported manifestation of the contempt of the goddess for their incestuous marriage which must have scandalised the Greek authors of *Persikà* of the time, from whom, indeed, the tale derives.[21] The fact that subsequently Atoxa still appears as the wife of the king, whom she survived,[22] also demonstrates faith in the efficacy of offerings and prayers as a treatment for this malady of divine origin.

The attitude of the Jews was even more rigid. For them leprosy was also a manifestation of the anger of God against sinners; its presence was a factor of impurity not only for the sick person but also for the society in which he or she lived, given that he or she had to be isolated and distanced from any contact with the

members of society.[23] Thus Miriam, the wife of Aaron, was struck by leprosy by the will of God and was forced to be isolated for seven days before the intercession of Moses ensured her healing and her readmission to the camp.[24] The detailed rules that required the isolation of a leper from society and then that person's future possible readmission, subject to the control and authority of a priest,[25] confirms the religious character attributed to the exclusion of lepers: they were held to be sinners especially unworthy in the sight of God. This belief and the consequent rules applied to lepers were kept intact within the Judaism of the first centuries of our era when rabbis debated at length about the number of forms of leprosy and their characteristics but never called into question the rules of Moses in this field.[26]

The only episode involving the healing of leprosy in the Old Testament witnessed the prophet Elisha healing Na'aman, the commander of the army of the Syrians. He ordered him to bathe seven times in the waters of the Jordan. Na'aman held back because he thought that Elisha would heal him by touching him on the sick part of his body with his hand. However his servants convinced him to obey the prophet and after bathing in the Jordan he was cured. Elisha then refused the valuable gifts of Na'aman and punished his servant who had tried to exploit the generosity of the Syrian with deceit by afflicting him and his descendants with leprosy.[27] The conclusion of the event confirms the character of the disease which Elisha invoked from God to punish the unfaithful servant. But it should be emphasised above all else that the prophet did not touch the hand of the leper, as this last expected, thereby provoking his ill-feeling, but remained faithful to the precept of Moses not to break the isolation of those who are still affected by impurity.

The impact of the teaching of Christ on these beliefs was very great and full of consequences, both through words and through deeds. According to the accounts provided by the synoptic gospels, in fact, Christ healed a leper by touching him with his hand and then told him to show himself to a priest and to make a sacrifice as prescribed by Moses for his purification.[28] Notwithstanding the respect paid to the rules of Moses, which was underlined by the role attributed to a priest as a the guarantor of the healing and by the ordering of a sacrifice, the behaviour of Jesus was a notable fracture with the past, above all else because of the act of touching the leper which broke the taboo of impurity and at the same time was a demonstration of the divinity of Christ, who was above any possibility of contamination, and a demonstration of pity for, and sharing in, the condition of the leper. The special concern of Jesus for the situation of these kinds of sick people, the most abject and abandoned and thus the most worthy of special action, was confirmed not only by the healing of ten other lepers,[29] but also and above all else by the mission entrusted to the Apostles of healing the sick and cleansing lepers,[30] and the urging of the faithful to visit the sick which made this action a duty for all Christians.[31]



However, the view that diseases, and in particular epidemic diseases, were the effect of a divine punishment remained nonetheless very widespread during the Christian epoch in all contexts and within all confessions. In the middle of the third century, for example, Cyprian observes that the pagans attributed to Christians the blame for the pestilences which, together with other disasters, had struck the Roman world.[32] Libanius, lamenting the death of Julian and the consequent anti-pagan reaction, thought that the epidemics sent down on the men of the Ores was a consequence.[33] At the end of the fifth century Pope Gelasius engaged in a fierce polemic against the pagans who thought that the epidemics that had struck Rome were a consequence of the suppression of the *Lupercali*, observing that the epidemic of 467, at the time of the arrival in Rome of the Emperor Artemius, had taken place when these pagan festivals were still celebrated.[34] These beliefs were also rather widespread amongst the Christians. For example, the epidemic that struck the East in the winter of 312-13[35] was interpreted by the contemporary Eusebius as the result of a punishment sent by God because of the sins of the persecutor Maximinius Daia and as an instrument to end this tyranny.[36] In 383 Ambrose sent a letter to certain bishops in Macedonia to comfort them after the death of Acolius, the Archbishop of Thessalonica, a death that had occurred during an invasion by barbarians; the prayers of the dead man, like those of the prophet Elisha[37], had induced God to strike the Goths with a terrible pestilence which had forced them to flee and then to sue for peace.[38] The epidemic which in 434 had struck the army of the Huns that had invaded the empire, forcing them to retreat, was ascribed by the Orthodox Socrates to the work of the pious Emperor Theodosius II who through his prayers had obtained that scourge from God.[39] The members of other confessions did not think differently given that the Eunomian Philostorgius listed epidemics amongst the scourges that had struck the Roman world during the reign of Arcadius, the persecutor of his confession.[40]

The power and persistence of these beliefs is well demonstrated, for that matter, by their presence in the sixth century as well, in a context that was by now totally Christianised. Victor of Tunnuna,[41] for example, narrates that in 507 a strange epidemic had struck the inhabitants of Alexandria and the whole of Egypt: losing their power of speech they dribbled like dogs and bit their own hands and arms. An angel appeared to them and an-

nounced that what was taking place was occurring because they had placed an anathema on the faith of Chalcedony.[42] This kind of interpretation became almost universal during the great epidemic of plague during the epoch of Justinian,[43] which because of its scale and its taking place at the same time as other disasters well lent itself to such an interpretation.[44] The most ancient hagiographer of Simon the Younger, for example, attributed the plague to the wrath of God and narrated how the saint had obtained salvation for himself and for those who turned to God in his name.[45] Victor of Tunnuna held that it was a punishment for the action of the Empress Theodora on behalf of the monophysites,[46] whereas the monophysite historians thought that it was a result of divine wrath at the victory of orthodoxy and an invitation to abandon the faith of Chalcedony.[47] Procopius, who in his historical work did not take a stance on the subject[48] but provided a 'classical' narration of the plague that was founded on an imitation of Thucydides[49], in his *Secret History* adjudged it a punishment for the wickedness of the 'demon' Justinian and Theodora.[50] But what most matters is that Justinian himself seems to have officially accepted a supernatural explanation because statements contained in the preface to a law against homosexuals made specific general reference to the plague: they complain of a punishment of God handed down because of widespread sins.[51] Even more explicit is the interpretation of the plague as a scourge of God in a document that seeks to put a brake on the grave increase in prices that took place after the epidemic.[52]

A perception of the divine origins of epidemics did not, however, in the least paralyse the action of Christians. Not only in many cases did they recognise that illnesses derived from natural causes and thus required treatment by a medical doctor,[53] but they also thought that caring for sick people was an obligation of faith in line with the precepts of Christ. Such care belonged to the duties of deacons[54] and was an important element in assessment of the catechumens.[55] Interest in the matter was rather marked and was also direct and indeed to such an extent that not only was the presence of physicians amongst the clergy known about,[56] but it was also borne witness to by the medical activity engaged in by bishops from the third century onwards.[57]

But the commitment to charity that the message of Christ imposed on the faithful went beyond the care of specialists and involved all Christians with a direct participation by the Church, and in forms that were in net contrast with the previous behaviour of the pagans. This reality was manifested in particular at the time of the grave epidemic that struck the Roman world and above all Egypt and Africa, which Eusebius dates to 253, citing as witnesses Dionysius of Alexandria and *De mortalitate* which was written at the time by Cyprian.[58] Indeed, in this work the Bishop of Carthage comforted his faithful, who were troubled by the fact that the epidemic afflicted them in the same way as their pagan persecutors, by stating that the disease was a trial wanted by God with a view to eternal salvation. But Cyprian returned to the subject in *Ad Demetrianum* when he observed, in opposition to the pagans, who attributed blame for the pestilence, wars, famines and droughts of the time to the Christians, that in contrary fashion the plague was intended to demonstrate the faults of the pagans who not only had not shown mercy towards the sick but had also stolen from the dead. They had avoided caring for the sick precisely so that the sick would not avoid the plague through treatment and they could then secure their possessions. In addition, the pagans had refused to attend to the burial of the dead.[59]

But the action of the Bishop of Carthage in this situation went well beyond a condemnation of the sins of the pagans. His biographer Pontius, who also, following Cyprian, dwelt upon the deplorable behaviour of the pagans,[60] laying stress on particulars linked to unburied bodies,[61] emphasised above all else the active work of the bishop to alleviate the effects of the epidemic and deal with the sick. Indeed, Cyprian gathered together the faithful and exhorted them to charity, teaching them about the importance of works of piety to gain the favour of God. He exhorted them not only to help their brothers but also to help their pagan persecutors and reminded them of the teaching of Christ.[62] The faithful responded to his appeal and distributed tasks to themselves according to capacities and resources given that those of them who were poor dealt with the inability to offer money by providing their own work.[63]

It should be emphasised that the perfectly organised character of this action, which Pontius presents for that matter as *militia*, thereby following a terminology well known in Christian texts:[64] this was the outcome of the preaching of Cyprian who imposed himself on the faithful and with every probability remained to help the pagan persecutors, and of the organisation of the Carthaginian Church as well. But the behaviour of the Christians of Carthage was not in the least an isolated fact.

Within the same kind of situation took place the action of Bishop Dionysius of Alexandria which is described by Eusebius when he cites a letter for a religious feast written at the time of Easter.[65] In this letter Dionysius, after providing an account of the persecutions of the Christians, of the war and of the famine, referred to the epidemic which had spread more widely amongst the pagans, even though it had indeed struck the Christians, for whom, however, it was no less a reality and a trial. Most of the Chris-

tians, in fact, moved by charity (*agápe*) and by love of neighbour (*philadelphía*), visited the sick without taking precautions. Many of these, after caring for and healing other people, themselves died; presbyters, deacons and lay people thus died as martyrs after holding the bodies of the sick in their arms, after arranging the corpses, and after preparing them for burial. The pagans, instead, got rid of people who fell ill, avoided their relatives as well, threw the dying into the streets, left corpses unburied and tried to escape the contagion, something that was not easy even though they took all precautions possible.

There stands out in this description a net contrast that we have already seen in the testimonies connected with Carthage, that is to say between the selfish behaviour of the pagans, who were concerned only with saving themselves and who did not even care about burying the dead, and the Christians, who were moved, by charity, to care about bringing not only spiritual help to the sick but also material help, which went beyond treating the symptoms of the disease to relieving their needs, to the point of washing and burying the corpses, which in the Christian faith was a primary requirement.[66] Their actions were also clearly distinguished from those of the best of the pagans specifically because of the faith that inspired them. Indeed, whereas in the account by Thucydides it was the physicians and certain people moved by a desire to demonstrate their virtue who sought out the sick,[67] the Christians were moved by their own faith and were inspired by *agápe*.[68] The difference was also of a practical character. In the first case, in fact, the choice was an individual one, made on the basis of ethical motivations and the character of the individual concerned, and care, therefore, was limited to family relatives and to friends. In the second case, on the other hand, the choice was one taken by the community which was totally committed, as we have already seen in the case of Carthage where it was based on the concrete resources of each person, to helping the sick and to burying the victims of the epidemic. The action was coordinated and organised by the Church, with results that were clearly more effective, and was even extended to the pagan persecutors, on the basis of the precepts of the Gospel.

The initiatives of Cyprian and Dionysius might appear ill-advised because they exposed to the risk of contagion many Christians who were involved in providing care to the sick and to burying the dead. But even though Dionysius in particular laid emphasis on the analogy with the destiny of martyrs, their choices must in my view be understood on the basis not only of faith but also the widespread ideas of medical science of the time. It seems to me to be illuminating on this point to consider a passage that is in general neglected which in the work of Eusebius immediately precedes the citation of Dionysius on the epidemic. This passage, too, comes from the letter for a feast day written by the Bishop of Alexandria at the time of Easter, perhaps the same letter from which the passage discussed above was taken.[69] Dionysius, who is complaining about the grave consequences, of a demographic character as well, of the recent revolt of the Alexandrians, observes that the Nile is bursting its banks and flooding the surrounding regions, and its waters are always full of rubbish, blood and drowned bodies, and to such an extent that it will never be possible to purify it, to make the air, which has been made foul by exhalations from every quarter, from the earth, from the sea, from the rivers, and from the orts, such as to be greater that the exhalations from the rotting bodies, clean again He goes on: 'We are amazed by the constant pestilences, we ask the grave illnesses, the infections of every kind, the vast and multiform extermination of men come from' and he stresses the grave demographic consequences, with their very great decrease in the number of inhabitants.[70]

It seems to me clear that Dionysius, a man of great learning and the student of Origen,[71] accepted the theory of miasmas: he thought that pestilences were the effect of the corruption of waters and the air, and it was specifically on the basis of this theory that he explained the epidemic that had struck Egypt while he was alive. The apparent contradiction with the statements of Dionysius himself, who as we have seen exalted the Christians who had died because contaminated by the maladies of others while they cared for the sick or buried the dead, seems to me to be resolved by the conclusion to the account in which Dionysius emphasises the inefficacy of the precautions taken by the pagans who distanced the people towards whom they were most affectionate but without managing to obtain appreciable results.[72] Indeed, the essential problem, which made it completely impracticable at a medical level to combat the contagion, was the inefficacy of all the measures of prophylaxis then known and the absence of an administrative structure that could impose such measures. In such conditions, the isolation of a sick person from society was not in any way a feasible solution.[73] For that matter, the observation of the fact that people who veered away from any contact whatsoever from sick people also fell prey to the epidemic could only strengthen the conclusion of medical science according to which the malady was a result of miasmas and thus it was useless to try defend oneself against it through isolation. The behaviour that Dionysius exhorted the Christians to engage in was therefore not only in harmony with faith but also was not in contrast with the medical science of the time. As regards Cyprian, we do not have evidence on what his opinion on the subject was but his good knowledge of medical science[74] leads us to believe that he had a good knowledge of the theory of miasmas and of the application of this theory to epidemics.

However, the behaviour of the Christians at that time did not represent an isolated case but was, rather, an example of what was to happen during subsequent epochs. Eusebius, indeed, tells us of a famine and a pestilence to which was added an epidemic of anthrax that struck the regions of the East during the winter of 312-3, during the reign of Maximinius Daia.[75] Eusebius emphasised the exceptional gravity of the epidemic which filled the cities with lament and heavily afflicted the well-off classes, including the magistrates and the

members of the clergy. In these circumstances as well, the Christians manifested in particular their zeal and their devotion and demonstrated compassion and humanity. Some Christians, in fact, attended to the burial of the dead and others obviated the famine by distributing bread to everyone.[76] The testimony of Eusebius was in this case generalised and not limited to the initiative of an individual bishop in an single city: in this testimony the role of the Christians was choral and emerges as the single effective response possible to an extreme crisis that the pagan state was not able to deal with in the least.

The advent of the Christian empire subsequently somewhat modified the situation: even though we do not have precise information on the subsequent situation we know that the Church carried on with its action, with all likelihood improving its own organisation. In Alexandria, for example, we have evidence of the existence of a special corps of nurses (*parabalani*) which had the task of transporting and caring for the sick and which was subject to the authority of the bishop but which was also recognised by the state.[77] But above all, certain information on the great epidemic of plague that struck the East during the reign of Justinian is of great interest.

Procopius, in particular, when providing an account of the pestilence that struck Constantinople and of which he himself was a witness, states that those people who looked after the sick were in a state of constant tiredness and were the subjects of pity because of the very major problems that they had to deal with given, in addition, the mental conditions of the sick to whom it was difficult to give food and drink and whom they had to put back in their beds when they fell out of them, but not because they thought they were threatened by the plague because of the fact that they drew near to its victims. Indeed, neither the medical doctors nor others contracted the illness through contact with the sick or with their bodies; indeed many people who were constantly involved in burying or looking after individuals who were not in the least their relatives resisted the illness against all expectations, whereas others died suddenly, struck down by the disease without any warning.[78] Procopius describes the useless efforts of the medical doctors to find an adequate cure and describes the measures adopted by Justinian, which he thought were the emperor's natural task.[79] In particular, when the number of dead people became so great that their relatives were no longer able to organise a burial, the emperor entrusted the *referendarius* Theodorus to bury the bodies that nobody had take care of and gave him money and soldiers to do so. Theodorus performed this task and also spent his own money in doing so. On that occasion even the members of the factions of the circus abandoned their traditional enmity and worked together to bury the dead.[80] Procopius ended his account in the following way: 'at that time it was not easy to see people in the streets of Byzantium: all those who had the good fortune to be in good health stayed in their homes, cared for the sick, or wept for their dead'.[81]

The account provided by Procopius attests, therefore, to the fact that looking after sick people at the time of a grave epidemic had become in the Christian capital a shared duty to which the whole of the population dedicated itself. For his part, the emperor, very differently to the previous practice of the pagan rulers, considered that it was his duty to intervene to the extent that this was possible, taking upon himself in particular the duty, which was fundamental to the Christian faith, of burying the dead, and the *referendarius* who was entrusted with this task did not skimp on his own means in order to carry out this task. For that matter, during this epoch the belief was still widespread that epidemics were not contagious, a belief that appeared to be confirmed by the survival of many people who had been in constant contact with sick people and by the death of many others who had avoided any such contact. This conclusion is for that matter clearly confirmed by the account provided by Evagrius who refers to a wider chronological and geographical spread of the epidemic. Evagrius, indeed, states in particular that the ways in which the contagion was spread were very varied: some people, in fact, died because they had been near to sick people, others died simply because they had touched them, and yet others, who had fled from the city, were saved after transmitting the disease to those who were still healthy. And others remained completely immune, even though they had lived amongst the sick and had touched both the sick and dead bodies. Lastly, others, who wanted to die because of the pain that had been caused to them by the deaths of their loved ones, were not in the least afflicted by the malady.[82] As can be seen, Evagrius as well, even though he had the idea of the possibility of contagion, in reality minimised its importance on the basis of the observation of facts which demonstrated the same destiny for those who had been in contact with the sick as for those who had tried to keep distant from them.

This widespread belief was of significant help in overcoming suspicions and fears and made care for the sick and the burial of corpses in the case of an epidemic a distinctive feature of the behaviour of Christians, who were encouraged and organised by bishops and their helpers with the establishment of the Christian empire, and also by the civil authorities, who finally became participants in the efforts to combat the effects of plagues.

The choral role of the Christians, however, encountered notably greater difficulties and forms of resistance in the case of non-epidemic infectious diseases that struck individuals, in particular leprosy, which was widespread in the Roman world and was an affliction that was notably feared. In the first century AD the physician Aretheus of Cappadocia, who offers an accurate analysis of elephantiasis, saw it as a terrible disease that offered no hope and attested to the fact that those suffering from it were often expelled by their own relatives and loved ones, who acted out of fear, and were forced to withdraw to isolated places. Aretheus also relates that a large number of lepers were induced by pain and desperation to commit suicide and he does not appear to deplore this extreme solution.[83] But the appeal of Christ for help that was one and the same time

spiritual and material in character (an appeal that often came up against a mentality that was widespread amongst Christians as well, amongst whom leprosy provoked fear and revulsion given its exterior signs and was considered a sign of sin and divine punishment) was specifically stronger and more explicit in relation to this disease.[84]

Awareness of the importance of the appeal of Christ is attested to in particular[85] by the tradition regarding St. Zoticus, communicated in a life on him[86] and in shorter form by the information in the synassary of Constantinople.[87] Born in Rome, Zoticus moved to Constantinople at the time of its foundation. Because leprosy had spread widely, the Emperor Constantine ordered that all the lepers, whatever their social rank was, were to be expelled from the city or drowned at sea. Zoticus went to the emperor and asked for a large sum of money from him to buy gems and pearls to increase the fame of his power. After receiving this sum of money, he spent it to free all those lepers who were about to be expelled or drowned and to put them in a settlement of tents on a hill on the Asian side of the Bosporus. Subsequently Zoticus, who had reported to the new emperor, the filo-Arian Constance, led him to the hill and pointed out the lepers to him, telling him that these were the gems and the pearls that gave lustre to the crown of the Kingdom of Heaven which Constance had inherited thanks to their prayers. Amongst the lepers the emperor also saw his own daughter whom he had exiled and whom Zoticus had redeemed, saving her from exile or death. However Constance had Zoticus bound to wild mules which dragged him along the ground to the point that he died. But when the mules spoke and said that the martyr had to be buried on the hill where the lepers were held, he changed his mind, had the body buried in that spot, and also had a lepers' hospital built in the same place, providing money for this purpose and for the future as well. According to the hagiographer of St. Zoticus, the lepers' hospital was maintained and on more than one occasion rebuilt by the Byzantine emperors as late as Michael IV, who marked himself out by his actions and even came to embrace and treat the lepers himself.[88]

Scholars consider this tale a hagiographical invention,[89] and indeed to such an extent that the foundation of the lepers' hospital is dated by local ancient tradition to the reign of Justin.[90] But it remains no less important because of this, first of all because it bears witness to the forms of resistance that the idea of caring for lepers encountered in a social context that was used to isolating these kinds of sick people and to distancing them in every way from the cities and towns. The fact itself that the policy of expelling sick people was conjoined with the even more radical policy of drowning them further confirms, in my view, the persistence of the strong religious significance which in the widespread pagan mentality was attributed to this disease, a mentality which saw it as the result of divine punishment: drowning at sea (*katapontismós*) was the policy applied in the pagan religion in order to be freed of those phenomena and wonders that indicated divine wrath and could therefore contaminate the whole community.[91] For that matter, the role attribute to Zoticus in caring for the lepers and avoiding the policy, which was apparently more simple but contrary to the teaching of Christ, of distancing them, illustrates the importance of this question within the Christian faith, for which specifically lepers, because of the very sad conditions they had to endure, appeared to be an extreme example of those situations of social evil which Christians were obliged to obviate.

This role was supported and practiced in a intense way above all in the fourth century by the Cappadocian Fathers. Basil of Caesarea, in particular, was the promoter of an initiative that occupied a fundamental position in the development of care for the sick. A short away from the city of which he was the bishop he founded the Basiliad, a large complex in which foreigners were accommodated and the sick were cared for.[92] In his letter written to the governor of the province to defend himself against accusations that had been made against him on the subject, Basil himself stated that in the Basiliad foreigners were accommodated and the sick were looked after, adding that medical doctors and nurses also lived there.[93] Basil for that matter had engaged in detailed studies of medicine and himself provided the forms of treatment that were required for his patients.[94]

Further details were offered by Gregory of Nazianzus in the funeral oration that he gave in 381 in memory of Basil.[95] He made clear that the Basiliad was at one and the same time a hospital which treated lepers in particular, a place of hospitality, and a storehouse for the gifts of the faithful. Basil did not disdain to treat the lepers himself by medicating their sores and imitating a Christ who healed leprosy not with words but with facts.[96]

The example of Basil[97] later inspired the thought and the actions of the other Cappadocian Fathers. Gregory of Nazianzus himself, in particular, dedicated his sermon *De pauperum amore*[98] to the subject of caring for lepers. In this sermon he exhorted people to help those who were in need; amongst these those suffering from the sacred disease (leprosy) were particularly to be commiserated and helped – people consumed in their flesh, bones and spines and betrayed by their miserable, low and untrustworthy bodies.[99] Gregory offered a terrible description of their lives[100] and rejected the opinion of those who saw leprosy as the result of divine punishment, observing that it is not up to us to say whether a person who is suffering is being punished for his or her sins or being purified of them

so that he or she can achieve holiness.[101]

Gregory of Nazianzus, as one can see, openly confuted the first fundamental motive that obstructed involvement in caring for lepers, namely the belief, which was clearly still widespread at the time, that leprosy was the consequence of sin and divine wrath. Indeed, he overturned this idea completely and employed for leprosy the term 'sacred disease', which the pagans had previously applied to epilepsy. This choice of words, which reflects an intention to present a leper as a privileged being specifically because of his or her suffering and because of the mortification of his or her body, which drew the leper near to holiness and promised reward in the other life, was shared by Gregory of Nyssa.[102]

This last as well devoted a sermon to the subject of looking after lepers, namely the second *De pauperibus amandis* in which in pained terms he lamented the condition of lepers who had been exiled wherever they had been and refused human ties.[103] The very strong similarities, at the level of the words chosen as well, between this text and the sermon of Gregory of Nazianzus have indeed led some people to think that they come from the same shared sources, which could have been a work by Basil.[104] Gregory of Nyssa then stated that it was not sufficient to complain at the level of words about the condition of lepers and that they should not be given separated places in which to live. Indeed, this policy, under the pretext of mercy, concealed the real purpose of this policy which was to allow these people to die far from men's eyes. Gregory emphasised that people who are apparently healthy can also conceal in their own bodies illnesses that are even more terrible and which would later consume them.[105] He then attacked the opinion that leprosy was contagious and observed that many people had worked to care for them from childhood to old age without in any way injuring their own health, and he also observed that at the time of pestilences and other similar diseases, which were caused by external factors such as the corruption of the air or water, many people believed that the malady was transmitted by contagion. He confuted this opinion and stated that the disease attacked others only because of such external factors and that the malady remained confined to those who were affected by it. He confirmed this with an idea of a clearly philosophical character: given that the sick did not obtain any improvement from the constant relationship with those who looked after them despite their attempts to treat them, it was not credible that the opposite took place, namely that the malady passed from the sick to those that took care of them.[106]

The line of argument of Gregory of Nyssa, although based first and foremost on the foundations of the Christian faith, found support in the knowledge of medical science of the time. Indeed, he well knew and fully accepted the theory of the origin of pestilences, namely that they came from miasmas, and he employed it to reject the fears of those who feared contagion. Gregory of Nazianzus did not think any differently. He was rather expert in the theory and practice of medicine[107] and also accepted the miasma theory.[108] But Gregory of Nyssa also extended the refutation of the possibility of contagion to leprosy as well[109] and he was supported in this not only by experience, which demonstrated how many people who had looked after the sick had not been afflicted by any contagion, but also by a logical argument based upon the antithesis between illness and health, which was also characteristic of ancient medical thought.[110] With this line of argument he strove to combat fear of contagion which was the other reason, in addition to the idea of divine punishment as a cause of leprosy, which obstructed people from becoming involved in looking after those who were affected by it. The efforts made by Gregory of Nyssa to convince his faithful were supported in this case, in my view, by the great variety of diseases that went under the name 'leprosy', only some of which were in reality contagious and incurable for the science of the time. But it should be remembered that ancient medical science explained leprosy exclusively with reference to causes located within the organism of the afflicted person, seeing them as an effect of the corruption and decay of the humours,[111] an idea which served to exclude fear of contagion.

The involvement of the Cappadocian Fathers in looking after lepers marked in a very notable way the thought and the actions of Christians thereafter. Although, on the one hand, the idea that they had supported that leprosy was a special trial to which God called the sick with a view to eternal salvation was reflected in the application to leprosy of the phrase 'sacred disease', which achieved a special success in subsequent Christian literature,[112] on the other hand the actions that Basil first and foremost engaged in remained an example afterwards as well. The hospital that he founded became famous and remained active well after his death, under the direction of ecclesiastics who were appointed by the bishop.[113]

The example of the Cappadoccian Fathers did not remain in the least isolated. Indeed, activity on behalf of these kinds of sick people, those people, indeed, who were most in need of help, characterised the Church during this epoch. For example in Sebaste nel Ponto, in the middle of the fourth century, Bishop Eustace founded a hospice in which lepers were also looked after and appointed the presbyter Aerius to run it. However this latter soon entered into a controversy with him.[114] For that matter, Palladian narrates that John Crysostome founded a large number of hospitals in Constantinople and placed medical doctors in them to look after foreigners who were passing through and fell ill and, the manu-

scripts and, 'in particular the so-called sacred disease'.[115] Even though the editors expunged this last clarification as a glossary, the very fact that it recurs confirms that taking care of Christians was strongly felt by Christians to be a mission especially suited to a bishop and saint such as Chrysostome.

The commitment of the Church to taking care of lepers remained constant during subsequent epochs and in the Byzantine empire to this was joined the role of the state. During the twelfth century the *typikon* of the Pantokrator of Constantinople bears witness to the existence of a special section for a lepers' hospital.[116] Of even greater importance was the role of the Church in the West where state institutions were notably weaker. However, the spread of this disease and changes that took place in medical ideas imposed new policies.

In 549 the Fourth Council of Orleans established that all priests and all those amongst the faithful who had the possibility to do so should help those in need, and in particular lepers, and that every bishop should provide food and clothing to lepers paid for out of the funds of the Church so that they would not fail to have the help of mercy given that their illness forced them into poverty.[117] These decisions were also made by the Council of Auvergne of the same year.[118] In 583 the Third Council of Lyons unanimously established that bishops should provide sufficient food and necessary clothes to lepers who were born or anyway resident in their respective areas 'so that they are impeded from having the freedom to wander to other cities'.[119] The final clarification, in my view, makes clear the purpose of the decision of the Council – this confirmed the commitment of the Church to sustaining and helping lepers which became a clear task of the bishops who were officially authorised to spend money of the Church but associated this with the aim and the task of impeding the lepers from moving freely from the territory of one city to the territory of another, with the evident aim of hindering the spread of the disease. With the influence of ancient medical science with its theories of humours and miasmas now reduced, the Church itself was concerned about the possibility of contagion and tried to unite taking care of lepers, in relation to whom it emphasised its help, with taking care of the rest of the population which it wanted to defend against the danger of contagion.

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Notes

[1] Hom. *Il.*. I 44-52; cf. more in general, *Od.* 15, 411.

[2] Soph. *Oed. Tyr.* 22-30.

[3] Thuc. II 48, 3. Cf. in particular J.C.F. Poole and A.J. Holladay, 'Thucydides and the Plague of Athens', *Class. Quart*., N.S. 29, 1979, 282-300; K.-J. Leven, 'Thukydides und die "Pest" in Athen', *Medizinhistorisches Journal*, 26, 1991, pp. 128-60.

[4] Thuc. II 64, 1-2.

[5] Ha *Ver.* 8, 1-3; *Amm. Marc.* XXIII 6, 24.

[6] Cf. e.g. W. Siebenthal, *Krankheit als Folge der Sünde. Eine medizinhistorische Untersuchung* (Hanover, 1950); V. Nutton, *Ancient Medicine* (London, 2004), p. 281 ss.

[7] Cf. *Num.* 25: 3-9; *I Sam.* 5, 6; *II Sam.* 24: 13-17; *I Chron.* 21: 10-17; *Jer.* 15; 2; *Ez.* 5:12. See in particular A. Gianto, 'Le malattie infettive nella Sacra Scrittura', in this publication

[8] Cf. above all V. Nutton, 'The Seeds of Disease: An Explanation of Contagion and Infection from the Greeks to the Renaissance', *Medical History* 27, 1983, pp. 1-34; R. Parker, *Miasma. Pollution and Purification in Early Greek Religion* (Cambridge, 1983); K.-H. Leven, 'Miasma und Metadosis. Antike Vorstellungen von Antsteckung', *Medizin, Gesellschaft und Geschichte*, 11, 1993, pp. 44-73; *Die Geschichte der Infektionskrankheiten. Von der Antike bis ins 20. Jahrhundert* (Landsberg/Lech, 1997), pp. 21 ss. e 31-2; S. Bazin-Tacchella, D. Quéruel, and É. Samama (eds.), *Air, miasmes et contagion. Les épidémies dans l'Antiquité et au Moyen Age* (Langres, 2001).

[9] On this see above all O. Temkin, *The Double Face of Janus and Other Essays in the History of Medicine* (Baltimore/London, 1977), pp. 456-71; M.D. Grmek, 'Les vicissitudes des notions d'infection, de contagion et de germe dans la médecine antique', in G. Sabbah (ed.), *Textes médicaux latins antiques* ('Centre Jean Palerne', Mémoires 5, St. Étienne, 1984), pp. 53-70; K.-H. Leven, *Die Geschichte*, pp. 22-3 and 25; V. Nutton, 'Did the Greeks have a Word for it?', in L.I. Conrad and D. Wujastyk (eds.), *Contagion. Perspectives from Pre-modern Societies* (London, 2000), pp. 137-62.

[10] Cf. e.g. Galen. *De diff. febr.* I 7, Kühn VII 295-96.

[11] Herodian. I 12, 1-2. Herodian's faith in the 'miasmatic' explanation of diseases is confirmed by another passage (Herodian. VI 6, 1-2, on which see V. Nutton, *Ancient Medicine*, pp. 25-6).

[12] Galen. *De libr. propr.* 1, Kühn XIX 15; cf. V. Nutton, 'The Chronology of Galen's Early Career', *Class. Quart.*, 23, 1973, p. 159.

[13] Thuc. II 47, 4; 51, 4-5.

[14] Cf. in particular V. Nutton, *Ancient Medicine,* pp. 26-7 and for the instruments employed to this end, K.H. Leven, *Die Geschichte*, p. 29.

[15] The legends on the roleof Hippocrates and his son Thessalus as healers of epidemics, actve in Greece and sought after by the King of Persia as well (on which see above all J.R. Pinault, *Hippocratic Lives and Legends* (Leiden 1992), pp. 61-68; J. Jouanna, *Hippocrate* (Paris, 1992), pp. 51 ss.) have no relevance here.

[16] On this see above all F.W. Bayer, s.v. *Aussatz*, in: *Reallexikon für Antike und Christentum*, I, (Stuttgart, 1950), coll. 1023-26; M. Grmek, *Les maladiies à l'aube de la civilisation occidentale* (Paris, 1983), pp. 227-60; F. Kudlien, 'Lepra in der Antike', in J.H. Wolf (ed.), *Aussatz, Lepra, Hansen-Krankheit. Ein Menchheitsproblem im Wandel,* II, *Aufssätze* (Würzburg, 1986), pp. 39-44; K. Manchester, 'Leprosy: the Origin and Development of the Disease in Antiquity', in D. Gourevitch (ed.), *Maladie et maladies: histoire et conceptualisation,* (Geneva, 1992), pp. 31-50; K.H. Leven, *Die Geschicht*, p. 50-1; Nutton, *Ancient Medicine,* pp. 29-30; K.H. Leven, 'Lepra', in *Antike Medizin. Ein Lexikon,* hrsg. v. K.-H. Leven (Munich, 2005), coll. 565-67.

[17] Cf. e.g. Ps.-Aristot. *Pr.* 7, 8, 887a, 33-35; Thphr. *Char.* 19, 2.

[18] On this point see above all M.D. Grmek and D. Gourevitch, *Les maladies dans l'art antique* (Paris, 1998), pp. 247-52 and for the Christian documents F. Bisconti, 'Lebbroso (iconografia)', in *Dizionario patristico e di antichità cristiane,* edited by A. Di Berardino, II (Casale Monferrato, 1983), coll. 1917-18, with bibliography.

[19] Hdt. I 138.

[20] Plut. *Artax.* 23, 7.

[21] Cf. G. Marasco, 'Ctesia, Dinone, Eraclide di Cuma e le origini della storiografia "tragica"', *Studi Italiani di Filologia Classica* , Ser. III, 6, 1988, pp. 62-63.

[22] Plut. *Artax.* 26, 2-3; 27, 2; 30, 1.

[23] On this point see above all J. Preuss, *Biblisch-talmudische Medizin* (Berlin 1911), pp. 369-90; A. Paul, 'La guérison d'un lépreux', *Nouvelle Revue théologique*, 102, 1970, pp. 601-4; O. Betz, 'Der Aussatz in der Bibel', in J.H. Wolf (ed.), *Aussatz, Lepra*, pp. 45-62; P.P. Gläser, *Der Lepra-Begriff in der Bibel,* ibid., pp. 63-8; J.J. Pilch, *Healing in the New Testament. Insights from Medical and Mediterranean Anthropology* (Minneapolis, 2000), pp. 39-54.

[24] *Num.* 11, 10-15; cf. *Deut.* 24, 9.

[25] *Lev.* 13-14; cf. *Num.* 5:1-4; *Deut.* 24:8-9.

[26] Cf. in particular A. Paul, 'La guérison d'un lépreux', pp. 602-3.

[27] *II Kings* 5. This event gave rise to the widespread belief about the powers of the waters of the Jordan to heal leprosy (cf. Philostorg. *Hist. Eccl.* XII 10, p. 147 Bidez-Winckelmann).

[28] Mt 8: 1-3; Mk 1:40-45; Lk. 5:12-13; cf. in particular A. Paul, 'La guérison d'un lépreux' pp. 592-601; *Commentario teologico del Nuovo Testamento. Il Vangelo di Marco*, I, Commento di R. Pesch (Italian edition) (Brescia 1980), pp. 237-50.

[29] Lk 17:11-19.

[30] Mt 10:8; cf. 11:5; Lk 7:22.

[31] Mt 25:36.

[32] Cyprian. *Ad Demetrianum.* 2.

[33] Liban. *Or.* XVIII 289-93, Förster, II, pp. 363-65.

[34] Gelas. *Adv. Andromachum* 3 and 13, 'Sources Chrétiennes', n. 65, Paris 1959, pp. 164 and 172.

[35] On this epidemic and the dating see above all D. C. Stathakopoulos, *Famine and Pestilence in the Late Roman and Early Byzantine Empire: a Systematic Survey of Subsistence Crises and Epidemics* (Birmingham Byzantine and Ottoman monographs, 9, Aldershot, 2004), pp. 179-82.

[36] Euseb. *Hist. eccl.* IX 7, 16- 8, 15.

[37] Cf. *IV Reg.* 7, 6-8.

[38] Ambros. *Epist.* VI 51, 60-67, CSEL 82, 2, p. 63: *Nonne in Macedonia similia dominus per orationes sancti Acholi fecit mira aut prope*

maiora? Non enim inani metu nec superflua suspicione, sed saeviente lue et ardenti pestilentia perturbati Gothi ac territi sunt. Denique tunc fugerunt ut evaderent, regressi postea pacem rogarunt ut viverent. On the dating and the context of the event see in particular J.R. Palanque, *Saint Ambroise et l'Empire romain* (Paris, 1933), pp. 508-9; Stathakopoulos, *op. cit.*, p. 207.

[39] Socrat. *Hist. Eccl.* VII 43, 2-3, p. 391 Hansen. On this event, the dating and the providentialistic dating propagated by Theodosius II see in particular B. Croke, 'Evidence for the Hun Invasion of Thrace in A.D. 422', *Greek, Roman and Byzantine Studies*, 18, 1977, pp. 347-67.

[40] Philostorg. *Hist. Eccl.* XI 7, p. 137 Bidez-Winkelmann; cf. G. Marasco, *Filostorgio. Cultura, fede e politica in uno storico ecclesiastico del V secolo* (Rome, 2005), pp. 220 ss.

[41] On him and his doctrinal position see in particular G. Fatouros, 'Victor', in *Biographisch-Bibliographisches Kirchenlexikon*, XII, 1997, pp. 350-51.

[42] Vict. Tunn. *Chron.* 88, 'Corpus Christianorum', *Ser. Lat.*, CLXXIII A, p. 28; cf. E. Platagean, *Pauvreté économique et pauvreté sociale à Byzance 4^{e}-7^{e} siècles* (Paris/The Hague, 1977), p. 83.

[43] For these dates see Stathakopoulos, *op. cit.*, pp. 110-54 and 277-94, with its collection; K.-H. Leven, 'Pest (Justinianische)' in K.-H. Leven (ed.), *Antike Medizin,* coll. 689-91 with bibliography.

[44] Here see above all the accurate study of M. Meier, *Das andere Zeitalter Justinians: Kontingenzerfahrung und Kontingenzbewältigung im 6. Jahrhundert n. Chr.* (Göttingen, 2003), pp. 373ss; for the presence of this in historiography see M. Weir, 'Prokop, Agathias, die Pest und das "Ende" der antiken Historiographie, Naturkatastrophen und Geschichtsschreibung in der ausgehenden Spätantike', *Hist. Zeitschr.*, 278, 2004, pp. 281-310.

[45] *Vita Sym.* 69-70 (*La Vie ancienne de S. Syméon Stylite le Jeune (521-592),* ed. by P. van den Ven (Subsidia Hagiographica, 32, I, Brussels, 1970), pp. 59-60).

[46] Vict. Tunn. *Chron.* 130, 'Corpus Christianorum', *Ser. Lat.*, CLXXIII A, pp. 42-43.

[47] Joh. Ephes. *Hist. Eccl.*, fr. II G, ed. by W.J. van Dowen and J.P.N. Land, pp. 233, 7-20; 236, 12-18; Ps.Zachar. *Hist. eccl.* X 9 (ed. by E.W. Brooks, 'CSCO' 83, *Script. Syri* 38, Louvain 1924, p. 129-30), according to whom in Emesa many people saved themselves by taking refuge in a church in which the head of St. John the Baptist was conserved.

[48] Procop. *Pers.* II 22, 1-5. On his account in particular K.-H. Leven, 'Die "Justinianische" Pest', *Jahrb. Inst. Gesch. Med. Robert Bosch Stiftung*, 6, 1987, pp. 137-61; M. Meier, 'Prokop, Agathias, die Pest', pp. 281-310.

[49] Cf. e.g. recently A. Cameron, *Procopius and the Sixth Century* (reprint, London, 1996), pp. 40-41; A. Kaldellis, *Procopius of Caesarea: Tyranny, History, and Philosophy at the End of Antiquity* (Philadelphia, 2004).

[50] Procop. *Arc.* 12, 14-17; cf. Meier, *op. cit.*, pp. 86ss.

[51] *Cod. Iust. Nov.* 141, *praef.*; cf. e.g. B.V. Heigemöller, 'Die "widernatürliche Sünde" in der theologischen Pest- und Lepra-metaphorik des 13. Jahrhunderts', *Forum Homosexualität und Literatur*, 21, 1994, p. 5; Stathakopoulos, *op. cit.*, p. 305; K.-H.Leven, 'Pest', col. 690.

[52] *Cod. Iust. Nov.* 122, *praef.*

[53] E.g., for the thought of Basil of Caesarea on this cf. O. Temkin, *Hippocrates in a World of Pagans and Christians* (Baltimore, 1991), pp. 169ss.

[54] Polycarp. *Epist. ad Philipp.* 6, 1, *PG* V, 1009; *Const. apost.* III 19, 3-5, 'Sources Chrét.', n. 329, Paris 1986, pp. 160-62. Later epigraphic evidence attests to deacons that joined religious functions to medical functions: cf. G. Dagron and D. Feissel, *Inscriptions de Cilicie* (Paris, 1987), nr. 116 with comment.

[55] Hippol. *Trad. Apost.* 20, 'Sources Chrétiennes', n 11bis, Paris 1968, p. 78.

[56] Cf. e.g. A. Harnack, 'Medicinisches aus der ältesten Kirchengeschichte', *Texte und Untersuchungen zur Geschichte der altchristlichen Literatur*, VIII 3, Leipzig, 1892, pp. 37-50; M. Leclercq, 'Médecins', in *Dictionnaire d'archéologie chrétienne et de liturgie*, XI 1 (Paris, 1933), coll. 160-65; P. Canivet, *Le monachisme syrien selon Théodoret de Cyr* (Paris, 1977), pp. 131-32.

[57] Cf. G. Marasco, 'Vescovi e assistenza medica', in *Cultura e promozione umana… Convegno Internazionale di Studi (Oasi "Maria Santissima" di Troina, 29 ottobre-1 novembre 1999),* edited by E. Dal Covolo and I. Giannetto (Troina, 2000), pp. 49-57.

[58] Euseb. *Chron.*, p. 219 Helm: *Pestilens morbus multas totius orbis provincias occupavit maximeque Alexandriam et Aegyptum, ut scribit Dionysius et Cypriani de mortalitate testis est liber*. On this epidemic and its dating see in particular A. Alföldi, *Studien zur Geschichte der Weltkrise des 3. Jahrhunderts nach Christus* (Darmstadt, 1967), p. 422 and n. 196; M.M. Sage, *Cyprian* (Philadelphia, 1975), pp. 269ss.

[59] Cyprian. *Ad Demetrian.* 10-11: *Pestem et luem criminaris; cum peste ipsa et lue vel detecta sint vel aucta crimina singulorum: dum nec infirmis exhibetur misericordia, et defunctis avarizia ac rapina. Idem ad pietatis obsequium timidi, ad impia lucra temerarii; fugientes morentium funera, et adpetentes spolia mortuorum; ut appareat in aegritudine sua miseros ad hoc forsitan et derelictos esse: ne possent dum curantur evadere. Nam perire aegrum voluit qui censum pereuntis invadit. Tantus cladium terror dare non potest innocentiae disciplinam; et, inter populum frequenti strage morientem, nemo considerat et se esse mortalem.*Cf. in particular Sage, *op. cit.*, pp. 276 ss.

[60] Pont. *V. Cypr.* 9, 1-4; cf. *Ponzio. Vita e martirio di San Cipriano,* ed. by M. Pellegrino (Alba, 1955), p. 131; *Cipriano. A Demetriano,* ed. by E. Gallicet (Turin, 1976,) p. 208.

[61] Pont. *V. Cypr.* 9, 3: *Iacebant interim tota civitate vicatim non iam corpora, sed cadavera plurimorum et misericordiam in se euntium contemplatione sortis mutuae flagitabant*.

[62] Pont. *V. Cypr.* 9, 6-9.

[63] Pont. *V. Cypr.* 10, 2: *Distributa sunt ergo continuo pro qualitate hominum atque ordinum ministeria. Multi qui paupertatis beneficio sumptus exhibere non poterant, plus sumptibus exhibebant, compensantes proprio labore mercedem divitiis omnibus cariorem.*

[64] Pont. *V. Cypr.* 10, 3: *Et quis non sub tanto doctore properaret invenire partem aliquam talis militiae, per quam placeret et Deo patri et iudici Cristo et interim sacerdoti?*

[65] Euseb. *Hist. Eccl.* VII 22, 1-10. Cf. in particular A. von Harnack, *Mission und Ausbreitung des Christentums,* I (Leipzig, 1965^{4}) pp. 195-97; K.-H. Leven, 'Medizinisches bei Eusebios von Kaisareia', *Düsseldorfer Arbeiten zur Geschichte der Medizin*, 62, Dusseldorf, 1987, pp. 116ss.

[66] Cf. e.g. with special reference to the thought of Ciprian, V. Saxer, *Vie liturgique et quotidienne à Carthage vers le milieu du III^{e} siècle* (Vatican City, 1969), pp. 284ss.

[67] Thuc. II 47, 4; 51, 4-5.

[68] On this see above all Temkin, *Hippocrates,* pp. 160 ss.; K.-H. Leven, '*Athumia* and *philanthrôpia*. Social reactions to plagues in late antiquity and early Byzantine society', in Ph. J. van der Eijk, H.F.J. Horstmanshoff and P.H. Schrijvers (eds.), 'Ancient Medicine in its Socio-Cultural Context. Papers Read at the Congress Held at Leiden University (13-15 April 1992)', II, *Clio Medica*, 28, Amsterdam/Atlanta, 1995, pp. 394-95.

[69] Cf. C.L. Feltoe, *The Letters and Other Remains of Dionysius of Alexandria* (Cambridge, 1904), p. 79.

[70] Euseb. *Hist. Eccl.* VII 21, 5-10.

[71] Cf. e.g. J. Quastren, *Patrology,* II (Utrtecht/Antwerp, 1952), pp. 101-9; F.W. Bautz, 'Dionysius von Alexandrien', in *Biographisch-Bibliographisches Kirchenlexikon*, I, 1990, coll. 1318-20; P. Nautin and E. Prinzivalli, 'Dionigi di Alessandria', in *Nuovo Dizionario patristico e di Antichità Cristiane,* edited by A. Di Berardino, I (Genoa/Milan, 2006), coll. 1431-32, with bibliography.

[72] Euseb. *Hist. Eccl.* VII 22, 10.

[73] Cf. in particular V. Nutton, *Ancient Medicine,* 26.

[74] Cf. in particular E. Peiter, *Zu den medizinischen Anschauungen des Kirchenvaters Cyprian von Karthago* (Berlin, 1970).

[75] Euseb. *Hist. Eccl.* IX 8. Cf. in particular R. Laquer, *Eusebius als Historiker seiner Zeit* (Berlin/Leipzig, 1929), pp. 103-6; K.-H. Leven, *Medizinisches bei Eusebios*, pp. 65-6; Stathakopoulos, *op. cit.*, pp. 179-82.

[76] Euseb. *Hist. eccl.* IX 8, 11-14.

[77] *Cod. Theod.* XVI 2, 42-3; *Cod. Iust.* I 3, 17-18; cf. A. Philipsborn, 'La compagnie d'ambulanciers "Parabalani" d'Alexandrie', *Byzantion*, 20, 1950, pp. 185-90; W. Schubart, Parabalani', *Journ. Egypt. Arch.*, 40, 1954, pp. 97-101; R. Volk, 'Gesundtheiswesen und Wohltätigkeit im Spiegel der byzantinischen Klostertypika', *Miscellanea Byzantina Monacensia*, 28, (Munich, 1983), p. 41.

[78] Procop. *Bell.* II 22, 22-23.

[79] Procop. *Bell.* II 23, 5.

[80] Procop. *Bell.* II 23, 6-13.

[81] Procop. *Bell.* II 23, 17.

[82] Evagr. *Hist. Eccl.* IV 29, pp. 178-79 Bidez-Parmentier.

[83] Aret. IV 13, 19, *CMG*, II, p. 89-90.

[84] Evident proof of the strong diffusion of this belief is the great popularity in late antiquity and the whole of the Medieval period of the legend of Constantine who was struck by leprosy as a punishment for the massacre of Christians and then converted by Pope Sylvester by baptism: see on this above all W. Pohlkamp, 'Kaiser Konstantin, die heidnische und der christliche Kult in den Actus Silvestri', *Frühmittelalterliche Studien*, 18, 1984, pp. 357-400; V. Aiello, 'Costantino, la lebbra e il battesimo di Silvestro', in *Costantino il Grande dall'Antichità all'Umanesimo. Colloquio sul Cristianesimo nel mondo antico (Macerata, 18-20 dicembre 1990),* ed. by G. Bonamente and F. Fusco (Macerata, 1992), I, pp. 17-58 with bibliography.

[85] For the controversial interpretation of Canon 17 of the Council of Ancira (in C.J. Hefele and H. Leclercq, *Histoire des Conciles d'après les documents originaux,* I 1, Paris 1907, p. 318), in which however leprosy does not seem to be meant in a literal sense but used as a reference to sin, see in particular Hefele and Leclercq, *op. cit.*, I 1, pp. 319-20; F.W. Bayer, *Aussatz*, col. 1027 with bibliography.

[86] Edited by M. Aubineau ('Zotikos de Constantinople, nourricier des pauvres et serviteur des lépreux', *Analecta Bollandiana*, 93, 1975, pp. 67-108).

[87] H. Delehaye, *Synaxarium Ecclesiae Constantinopolitanae* (Brussels, 1902), coll. 359-62.

[88] *Vita* 11-14, pp. 82-84. For parallel evidence that confirm the patronage of the Byzantine emperors see Aubineau, *art. cit.*, pp. 96-97.

[89] Cf. Aubineau, *op. cit.*, pp. 95-108; G. Dagron, *Costantinopoli. Nascita di una capitale (330-451)* (Italian edition, Turin, 1991), p. 519.

[90] *Patria* III 47 e 164 (in *Scriptores originum constantinopolitarum*, rec. Th. Preger, II, Lipsiae 1911, pp. 253 e 267); cf. R. Janin, *La géographie ecclésiastique de l'Empire byzantin*. Première partie, *Le siège de Constantinople et le patriarcat oecuménique*. Tome III, *Les*

églises et les monastères (Paris 1953), pp. 142-43 and 578-79.

[91] Cf. e.g. L. Breglia Pulci Doria, *Oracoli sibillini tra rituali e propaganda (Studi su Flegonte di Tralles)* (Naples, 1983), pp. 41ss.

[92] Cf. in particular S. Giet, *Les idées et l'action sociale de saint Basile* (Paris 1941), pp. 419-23; M.M. Fox, *The Life and Times of St. Basil the Great as Revealed in his Works* (Washington, 1939), pp. 152ss.; D.J. Constantelos, *Byzantine Philanthropy and Social Welfare* (New Brunswick, 1968), pp. 152 ss.; D.W. Amundsen, 'Philanthropy in Medicine: Some Historical Perspectives', in E.E. Shelp (ed.), *Beneficence and Health Care* (Dordrecht 1982), pp. 15 ss.; Temkin, *Hippocrates,* pp. 162-63; T.S. Miller, *The Birth of the Hospital in the Byzantine Empire* (Baltimore, 1985), pp. 85ss.; P. van Minnen, 'Medical care in late Antiquity', in van der Eijk, Horstmanshoff, Schrijvers, *Ancient Medicine*, I, pp. 153-69.

[93] Basil. *Epist.* 94; cf. B. Gain, 'L'Église de Cappadoce au IV[e] siècle d'après la correspondance de Basile de Césarée', *Orientalia Christiana analecta*, n. 225, (Rome, 1985), pp. 277-89.

[94] Cf. G. Marasco, *Vescovi e assistenza medica*, pp. 54-57.

[95] Cf. in particular J. Danielou, 'La chronologie des sermons de Saint Grégoire de Nysse', *Revue des Sciences Religieuses*, 29, 1955, p. 351.

[96] Greg. Naz. *Or.* 43, 63, *Sources Chrétiennes*, n. 384, Paris, 1992, pp. 262-64.

[97] It is, however, possible that the initiative of Basil was preceded by analogous initiatives. Miller (*op. cit.,* pp. 80 ss.), for example, supposes that the Aryans had previously adopted similar care initiatives and that Basil wanted to respond to them. For that matter the creation of the *xenodochia* to care for foreigners, which was a speific inititiave of Julian was openly understood as a countermove to the activities in the field of care of the Julian Christians. *Epist.* 84; cfr. Sozomen. *Hist. Eccl.* V 16, pp. 216-19, Bidez-Hansen); it is believable that such institutions also provided care to the sick: cf. F. Kislinger, 'Kaiser Julian und die (christlichen) Xenodocheia', in *Byzantios. Festschrift für Herbert Hunger zum 70. Geburtstag* (Vienna, 1984), pp. 171-84.

[98] On the dating and the context of this sermon cf. in particular J. Bernardi, *La prédication des Pères Cappadociens. Le prédicateur et son auditoire* (Paris 1968), pp. 104-8.

[99] Greg. Naz. *De paup. am.* 14, 6, *PG* XXXV 866.

[100] Greg. Naz. *De paup. am.* 10-13, *PG* XXXV 869-73.

[101] Greg. Naz. *De paup. am.* 29-34, *PG* XXXV 897-904.

[102] Greg. Nyss.. *De anima et resurrect.*, *PG* XLVI 140.

[103] Greg. Nyss. *De paup. am.* 2 (ed. Van Eck, pp. 24, 23 ss.).

[104] Cf. *Gregorii Nysseni De pauperibus amandis orationes duo*, ed. by A. Van Eck (Leiden, 1964), pp. 120-24.

[105] Greg. Nyss. *De paup. am.* 2 (ed. Van Eck, pp. 29, 16- 31, 11).

[106] Greg. Nyss. *De paup. am.* 2 (ed. Van Eck, pp. 34, 7- 35, 4).

[107] Cf. M.E. Keenan, 'St. Gregory of Nazianzus and Early Byzantine Medicine', *Bull. Hist. Med.*, 9, 1941, pp. 8-30; G. Marasco, *Vescovi e assistenza medica,* pp. 54-5.

[108] Greg. Naz. *Or.* 2, 11, *Sources Chrétiennes*, n. 247, Paris, 1978, p. 104.

[109] In opposition to what is understood by R. Le Coz (Les pères de l'église grecque et la médecine', *Bull. Litt. Eccl.*, 98, 1997, p. 145) who completely overlooks the meaning of the step of Nazianzus.

[110] Cf. e.g. Galen. *Meth. Med.* 1, 7, Kühn X 51-2; A. Labisch, 'Gesundheit', in K.-H. Leven (ed..), *Antike Medizin*, pp. 350-53 with bibliography.

[111] Cf. K.-H. Leven, *Die Geschichte*, p. 50; *Lepra,* coll. 565-66.

[112] Cf. in particular F.W. Bayer, *Aussatz*, coll. 1026-27; O. Temkin, *The Falling Sickness* (Baltimore, 1971[2]), pp. 19ss.; H. Brakmann, 'Heilige Krankheit', in *Reallexikon für Antike und Christentum,* XIV (Stuttgart, 1987), coll. 64-6.

[113] Sozomen. *Hist. Eccl.* VI 34, 9, 'Sources Chrétiennes', n. 495, Paris, 2005, p. 432.

[114] Epiphan. *Panarion haer.* 75, 1, 7, ed. b K. Hohl, III, p. 333; cf. J. Gribomont, 'Saint Basile et le monachisme enthousiaste', *Irénikon*, 53, 1980, pp. 123-44.

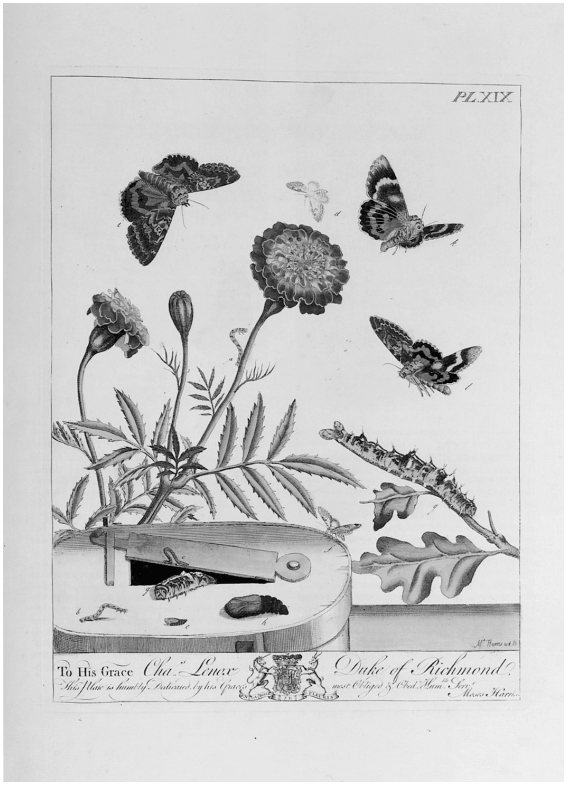
[115] Pallad. *Dial.* V 134-35, 'Sources Chrétiennes.', N° 341, Paris, 1988, p. 122.

[116] P. Gautier, 'Le typikon du Christ Sauveur Pantokrator', *Rev Ét. Byz.*, 32, 1974, pp. 111-13; cf. A. Philipsborn, 'Hiera nosos und die Spezial-Anstalt des Pantokrator-Krankenhauses', *Byzantion*, 23, 1963, pp. 223-30; E. Kislinger, 'Der Pantokrator-Xenon, ein trügerisches Ideal?', *Jahrb. Österr. Byz.*, 37, 1987, pp. 173-79.

[117] *Canon* 21 (in J.D. Mansi, *Sacrorum Conciliorum nova et amplissima collectio,* IX, Florentiae, 1763, col. 134): *Et licet propitio Deo omnium domini sacerdotum, vel quorumcumque haec cura possit esse fidelium, ut egentibus necessaria debeant ministrare, specialiter tamen de leprosis id pietatis causa convenit, ut unusquisque episcoporum, quos incolas hanc infirmitatem incurrisse, tam territorii sui quam civitatis agnoverit, de domo ecclesiae iuxta possibilitatem victui et vestitui necessaria subministret, ut non eis desit misericordiae cura, quos per duram infirmitatem intolerabilis constringit inopia.*.

[118] *Canon* 21 (in Mansi, *op. cit.*, IX, col. 146): *Omnes leprosi victum et vestimentum ab ecclesia habeant*.

[119] *Canon* 6, (in Mansi, *op. cit.*, IX, col. 943): *Placuit etiam universo concilio, ut uniuscuiusque civitatis leprosi, qui intra territorium civitatis ipsius aut nascuntur, aut videntur consistere, ab episcopo ecclesiae ipsius sufficientia alimenta, et necessaria vestimenta accipiant, ut illis per alias civitates vagandi licentia denegetur.*



FIDEL GONZÁLEZ FERNÁNDEZ

1.3 Infectious Diseases in the History of the Church

Is man is a being for death (Heidegger) or a being for life (Jn 3:16)? This is a worrying question not only for contemporary man but, I believe, also for man throughout history. For those who believe in Christ, man is a being for life. Thus care for man, the protection of man, and the promotion of man, are an integral part of their mission, which is witness to that integrating dimension of the ministry of the Lord while he was on this earth when with sensitivity he healed all those who turned to him. The healing activity of Jesus was, and still is, an expression of the mercy of God for every person, and above all for those who are afflicted.

The mercy of God has been made visible, concrete and tangible through His innumerable interventions in the history of humanity. It is precisely the mercy of God that leads those who are touched by it to bear witness to the need to change their own values of reference and directions of life, infusing into them a supplement of trust, hope, active charity and courage. In order to embody in experienced life such witness to the charity of God towards mankind, the Church has in history created organisations and institutions such as religious Orders and Congregations, pharmacies, hospitals and medical schools in order to receive and treat, without any distinction, people afflicted by infectious and contagious diseases or people who have been abandoned to themselves. Like Christ, the Church welcomes those who have been distanced from society or feel alone, and takes care of them.

In her initiatives and activities on behalf of sick people, the Church always fixes her gaze beyond the present; she looks to the Lord and Redeemer, he who defeated death which is the synthesis of every evil, who now sits at the right hand of God the Father where he awaits each one of us. The gaze of faith neither ignores nor neglects those who are marooned in the difficulties of life here on earth. On the contrary, it invites them to raise their eyes to he who stretches out his hand to us and attracts all of us to him (Jn 12:32).

For the Church, suffering is at one and the same time an evil to be fought and an appeal to turn our gaze to realities beyond this world: man is created for eternal life (Jn 3:16). Care for health is a prelude to care for salvation, though recourse to the Word of God, prayer and the sacramental life. For this reason, and in contrast to what has happened in certain historical epochs, the Church has never distanced herself from medical research or separated care for the body from care for the soul. She looks at the person who suffers thinking at the same time of his call to holiness and eternal life. In this spirit, believers have always addressed epidemics and infectious diseases, without holding back in the least.

One could dwell at length and widely on the question of 'the pastoral aspects of care for infectious diseases' from a historical point of view: one goes here from Medieval monastic medicine to the institutions for sick people of the fifteenth century, from the great founders of the hospital Orders of the sixteenth and seventeenth centuries to the large numbers of charitable, care and social foundations that began in the nineteenth and twentieth centuries, and from the works of numerous Christians such as Mother Teresa of Calcutta, the large numbers of men and women of charity, to Christians such as Follereau, who worked for lepers, and the contemporary contributions to the fight against AIDS and other infectious diseases in the countries of the South of the world. This is a vast but fascinating subject. How should the question be addressed? To which aspects should we confine ourselves from a historical and thematic point of view? Should we engage in a more 'technical' analysis of certain sample realities in different historical and geographical contexts? Or should we analyse only the impact of the pastoral aspect on the structure and organisation of health care from a historical and contemporary perspective? To confine ourselves, for example, to the last century would be rather reductive. One could, however, present a retrospective or prospective framework that is broader, emphasising the unity of the 'charitable method' that has come down the centuries unchanged, albeit with different forms of expression because it derives from a 'way of living' and 'experience' that are those that Christ himself displayed to men ('heal the body' is symmetrical with 'save the soul': this is shown by Christ in the Gospels through his 'medical actions'. In this paper, I will therefore confine myself to pointing out certain aspects that I consider of importance in this long and complex history and subject.

I. THE CHURCH AND THE GREAT PLAGUES OR PANDEMICS

1. The tragedies of the great pandemics or plagues

One of the gravest health tragedies in the history of mankind

has been the periodic outbreak of pandemics and plagues of various kinds.[1] This phenomenon acquired graver and more universal dimensions beginning above all else with the Medieval period. Plague has very ancient origins[2] and because of its destructive force it became within the collective imagination 'the black death'; the disease that accompanied mankind for centuries and for this reason it is often present in great literary and artistic works.[3]

2. The great 'black death' in the early Medieval period

In European history the so-termed 'Justinian' plague described by Procopius of Cesarea began in 542-543 and finished towards the end of the seventh century. It reappeared in the fourteenth century with the name 'black death', which arrived in Europe from the East through the trade routes, raging through the plains of the Volga and the Don.

But the first real major and terrible plague was the plague that desolated Europe from 1437 onwards. During the siege of Caffa (now Feodosia), a Genovese trading post in the Crimea, the Tartar Khan Ganī Be had infected corpses thrown over the walls of the city. In this way a terrible plague spread which became a killer and was chronic for the rest of the century. Indeed, it caused the death of almost a third of the population of Europe and infected every European country, from the Mediterranean to Scandinavia and Russia, within the space of five years. It was also, and this was a major new development, the consequence of a deliberate act of bioterrorism. In 1347, in fact, the army of the Tartars was laying siege to Caffa, a trading outpost of the city of Genoa in the Crimea. The ranks of the eastern army were afflicted by an epidemic of plague which had been widespread from some years in Asia and thus the Khan, Ganibek, decided to use the bodies of his dead soldiers to seize the city and catapulted them over the walls. The Genovese sailors who fled from Caffa brought the plague with them to the ports of the Mediterranean and from there the disease spread throughout Europe and with time also spread to the rest of the world.[4]

The Genovese galleys transported the plague first to Pera, in the port of Constantinople, and then to Messina. Genoa refused to receive its infected ships and these had to go to the port of Marseilles, but by that time the contagion had spread to all the ports of the Mediterranean. But the cause of this dramatic spread of the plague in Europe should also be looked for in a series of events prior to 1347, such as the population increase, the system of trade, climatic change (with the abandonment of certain crops in the north of Europe such as cereals in Iceland and grapes in England), and a reduction in agricultural production throughout Europe. There were a large number of famines and malnutrition led to people becoming weakened. This was one of the reasons, together with poor conditions of hygiene, for the spread of diseases such as the plague.

The death rate was very high. Given that there was no longer an 'immunity memory' for this disease its most frequent form was pulmonary caught by inter-human infection (that is to say not through fleas), with a death rate near to 100%. Subsequently, and especially during the epidemics that followed, the plague took a bubonic form, and was markedly less lethal.

3. Its rapid spread

At the beginning of 1348 the plague had reached the centre and the north of Europe. On 20 August of that year it reached Paris and on 29 September it reached London. 1349 saw the plague spread throughout Europe. After that year the plague re-emerged every ten to twelve years, causing innumerable victims and upsetting the whole of European social life. As Giovanni Boccaccio wrote in his Decameron, the plague nullified human laws and destroyed every social and civil order: 'others…engaged in drinking a great deal and enjoying life and went around singing and having fun and satisfying every appetite that they could and laughed and jested at everything that happened, holding it to be very certain medicine for so much evil'. Once the epidemic had ceased, civil and Church life remained very affected: the cities and the monasteries were half empty, mores fell into decadence, and life was weaker. A chronicler of the epoch, Matteo Villani, in his 'Chonicle' reported that 'being few in number, and abundant in possessions because of legacies and bequests of earthly goods, they forget about the past as though it had never happened, and gave themselves over to the lowest and most dishonest life which previously they had not engaged in'. Paradoxically, the plague created major wealth in those who survived because few people died leaving wills behind them, not least because notaries were loath to go to the homes of dying people. After the plague the courts were besieged with hundreds of cases linked to disputes over inheritance.

4. The social and religious effects of the plague

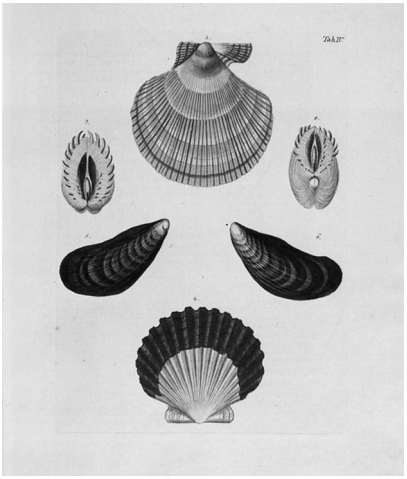
The plague stopped growth in Europe during the low Middle Ages and a grave economic crisis began that lasted for about a century and a half. Some of the main causes of this depression were, amongst others, pestilences, wars and climatic changes. The wars led to sackings, burning and devastation, in addition to withdrawing men from work and productive activities. During previous epochs

wars usually lasted a short time and were very local; now, during the fourteenth century, the phenomenon extended in space and time. Many regions of Europe lived in unending war situations on small and large scales. It was specifically in this period that mercenary armies began to operate and the soldiers systematically used looting to get rich and supplement their pay.

The war led to destruction and devastation, poverty, orphans and widows, hunger and misery, as was well observed by the litanies of saints where the invocation was '*a fame, peste et bello…libera nos, Domine*'. This was a fertile field for pestilences which specifically in the fourteenth century spread in a terrible way, provoking as they passed thousands of victims and remaining endemic; they reappeared periodically from one region to another in Europe. The plague thus devastated the whole of Europe. It is not easy to ascertain how many deaths were brought about by this evil but one may state that no disease had never before caused so much damage. Population growth was obstructed by the frequent character of the epidemics which reappeared at intervals of about ten years. Some scholars believe that the percentage of deaths was between thirty and fifty per cent of the population of Europe.

Italy was one of the countries of Europe in which the plague was present with greatest virulence and left consequences that would last for centuries. A climate of fear and drama was created that lasted in time and which emerges from the accounts of the chroniclers of the time. Fear and uncertainty caused a barbarisation of mores and morals and extreme forms of behaviour. Christian respect and compassion grew weaker; selfishness, and fear of the living and the dead, gained the upper hand. People tried not to have contact with people who could be infected and cities closed their gates to outsiders. But the epidemic continued to spread and generated an atmosphere of suspicion, superstition and terrible fear, which imagined that 'plague-spreaders' and 'wizards and witches' caused the disease and its spread. And the fact that the plague arrived in one city from another increased conflicts between cities and inflamed ancient hostilities.

Suspicion and hostility could also arise between the inhabitants and neighbourhoods of the same city with the generation of suspicion and distrust between people. The fear of being infected was also present amongst the clergy and the religious and this helped to aggravate the situation because one of the greatest fears was to die without managing to confess and receive the last rites.



Fear also continued in those few people who survived the illness. They were marked by the stigma of suspicion and were abandoned by friends and relatives. In literary works that speak to us about this period and the plague, reference is made at times to wives who no longer wanted to see their husbands or parents who did want to have anything to do with children who had been struck down by the disease. Those with the plague were abandoned in their homes from which emerged cries for help that were ignored and their closest relatives kept themselves at a distance and wept. People believed that the end of the world was at hand.

5. Seen by many as a scourge of God

It was also believed that the disease was a scourge sent by God to punish depravation in morals and mores. There was thus a reawakening of religious fervour in the population which led to a return of the penitential movement in the south of France and the cities of the centre and the north of Europe: a host of people went into the squares and the streets, formed processions that went to the churches of the local cities, and flagellated themselves and invoked the name of Christ and the Virgin Mary to protect a world that seemed to be about to end.

A lack of sufficient medical knowledge also caused a powerlessness in relation to the disease and a sense of frustration which led to people searching for people who were the cause of the disease and responsible for it. It is was thought that by identifying and punishing those who were responsible divine fury would be placated. Thus the blame for the epidemic was placed on the 'diverse' of the epoch, the Jews, who were accused of poisoning the wells of the cities and often the processions of people flagellating themselves ended up by engaging in an authentic pogrom. The authorities tried to contain the phenomenon, albeit with great difficulty, and there was a condemnation of it by the University of Paris and then by the Supreme Pontiff.

A great devotion spread for those saints who in some way were linked to the plague and from whom was invoked protection to escape the disease and the salvation of the world from this immense catastrophe. In particular, the cult of St. Sebastian underwent a major growth because this saint, who was portrayed tied to a column and full of arrows, was considered the symbol of a mankind that was wounded by the blows of the plague, an image that was already appreciated by the artists of antiquity. During the frequent epidemics that followed the year 1348, the cult of St. Rocco also spread. According to tradition, while this saint was going on a pilgrimage to Jerusalem from Montpellier he encountered the black death at Rome and stayed in that city for three years to look after the sick. While returning to his own town he himself fell victim to the plague near to Piacenza but thanks

to the help of a dog and an angel managed to recover and to go on his way.

6. But the disaster was not always a reason for moral advance

Faced with an apocalyptic scenario like the one created by the plague, the reaction of the majority of the people, paradoxically, was not that of becoming downcast and praying or repenting for their sins in the context of the imminent end of mankind. But, as Boccaccio narrates in his Decameron, after a first stage of despair and bewilderment whereas some sought to lead an upright existence and to avoid contact with other people in order to escape the disease, 'others in contrary fashion engaged in drinking a great deal and enjoying life and went around singing and having fun and satisfying every appetite that they could and laughed and jested at everything that happened, holding it to be very certain medicine for so much evil: and thus what they said they did in so much as they could, day and night, going now to this tavern, now to that, drinking without restraint and moderation, and they did many other such things, only those things that they felt they wanted or was pleasure for them'.

The situation as regards morals and mores did not change even when the worst was over and the survivors, instead of thanking God for saving them by behaving in line with Christian teachings, 'gave themselves over to the lowest and most dishonest life which previously they had not engaged in' (Matteo Villani, a chronicler of the time).

In reality, the degeneration of morals and mores had already begun before the spread of the epidemic but it was this event that provoked an increase in standards of living and a taste for luxury, something that was due to the abundance of possessions available to people after they had inherited from people who had been killed by the disease. It is even argued by some that it was specifically the plague that fostered the formation of patrimonies and thus helped to generate those characteristic historical phenomena that emerged during this period.

Many priests and religious who continued to look after those in need died of the plague, and to such an extent that in many dioceses bishops were forced to consecrate young priests who had not yet finished the required studies. Losses amongst lay people who belonged to the brotherhoods who looked after the sick were also very high, as for example was the case in the Venetian School of Charity and School of St. John, where about three hundred brothers died. The high death rate also blocked the activities of the public bodies, the work and the economies in both town and country. The phenomenon as a whole led to a demographic crisis. The cities and towns had become a cluster of very small houses which meant that contagion became easier. Subsequently, because the cities and towns became smaller because of this development, the spaces within them grew and during subsequent centuries the populations had greater economic opportunities and thus great palaces were built, with a consequent change in the character of cities and towns.

However, the wealth achieved by many of the survivors was in the long term an illusion: in the space of a few years new economic crises caused by various factors occurred. The great plague of 1348 not only caused radical changes in the appearance of cities and towns or in economic life but also changed the way in which the men and women of the time thought. The experience of the plague stressed in a dramatic way the uncertainty of tomorrow. However, it should be pointed out that precisely at that time that historical process began which was open to the call of modernity, with the beginnings of humanism and the Renaissance. This was a historical period when there were new problems in the health-care field as well.

7. And the Church was present during the tragedy through the work of many Christians

The carrying out of works of mercy is the natural expression of the true Christian life. It was not possible for Christians to be absent in the face of so much pain and so much disaster. The growth in charitable initiatives, the foundation of new brotherhoods, and the creation of new hospitals are all an example of this. Thus the Blessed Giovanni Colombini (b. 1367), a merchant from Sienna, who at the age of fifty donned the habit of the penitent to help the sick, was taken for a 'little priest' and expelled from the city. He returned to his home city when it was struck down by the plague in order to look after the sick. His cousin, Caterina Colombini (b.1387), was near to him in this undertaking. The severity of the times, weighed down by calamity and bouts of the plague, offered a large space of activity for works of mercy. These were also favoured by the example of saints (for example St. Alexis) and new feast days, such as that of the Visitation.[5]

This spirit of charity was helped by a new impetus towards spiritual renewal promoted by the so-termed '*devotio moderna*': true contemplation was to be achieved through the exercise of charity. It is certainly the case that here we are by now on the threshold of humanism, but new currents of observance and renewal in certain religious orders also favoured this phenomenon. Ancient institutions of charity were renewed and new ones came into existence.

Faced with the immense tragedy of the plague and its massacres, the Church was not inactive. Although in past centuries the charitable and social activities of the Church had always remained alive, the ancient orders, congregations and brotherhoods were now joined by new ones. New hospital realities came into existence such as the widespread phenomenon of the 'voluntary poor' or 'cellites' (because they lived in cells near to hospitals (these were also called 'Alessians' because St. Alexis was their patron saint) and the birth of the '*Gesuati*'. These were men and women who, in separate communities, lived out their total religious consecration to God through vows, poverty, humility and continence, and dedicated themselves

to looking after sick people and burying the dead. They were also called 'Lards' (because they had a certain affinity with the Goliards) and 'Tobiasites', from Tobias who buried the dead. In Germany there were the so-termed

Rollbrüder ('Brothers of the Register'), called such because of the register of the dead that they buried. These were new appellations that bore witness to new secular brotherhoods that came into being specifically during the epoch of the plague and were approved by the Popes between the end of the fourteenth century and the beginning of the fifteenth century. In that society, which was in a state of crisis and was undergoing an epoch-making evolution, there thus arose new forms of charity such as that of the '*Gesuati*' (because the name of Jesus was always on their lips); of the Apostolic Clerics of St. Girolame, founded by Giovanni Colombini (1304-1367); and of the Sisters of the Visitation (1366), founded by his cousin, Caterina Colombini (b. 1378).

The conversion of the banker/merchant of Sienna, Giovanni Colombini, is perhaps to be related to the spread of the black death and the popular tumults in relation to the creation of the lordships.[6] Giovanni Colombini formed contacts with other founders and ascetics of the time and with other exponents of charity consecrated to the very marginalised. With his wife Biagia, who followed him in this consecration, and together with Francesco Vincenti, he dedicated himself to carrying out works of mercy: they helped the dying in the Hospital of Santa Maria della Scala. Their example of 'the humble poor of Christ' was followed by others, above all nobles and notaries. In the various other forms of Dominican consecrated life would arise from this matrix, such as that from which St. Caterina of Sienna (b. 1380) sprung. They experienced a strong contemplative spirit and at the same time a life totally dedicated to charity. They would light the fire of love in everyone, until the end of the world. The men, the *Gesuati*, at the beginning avoided becoming priests; they consecrated their lives to the sick and lived off manual work and offerings.

Following the outlines of these strong experiences of evangelical life, we can see that during the fifteenth century other movements arose which took various clerical and secular forms according to each individual case and lived amongst people and were concerned about their problems. In time, they became the centre of numerous companies of consecrated life during the fifteenth and sixteenth centuries, such as those called 'oratorial', a phenomenon that became important in Italy and brought together members of the clergy and secular people, men and women, around churches, hospices, hospitals and works of various kinds of charity for the less fortunate. We thus encounter a flowering of institutional forms of brotherhoods of charity and mercy, often dedicated to the incurably ill, as in the case of the Hospital of the Incurables which was founded in Naples by the aristocratic Spanish widow Maria Lorenza Longo (b.1542) and by her companion the aristocratic widow Maria Acerbe d'Aragona (b.1543). This was a future centre for the Capuchins specially dedicated to street prostitutes. Something similar took place in Brescia around Angela di Merici, who established a company as a 'support' for the Hospital for the Incurables to protect girls who had to stay at home.[7]

The Christian life, at the level of charitable activity, has thus been notably rich and has constantly accompanied the life of the Church and society. The list and the history of these works and foundations forms a part of a rich history which often has to be looked for in individual local monographs or the hagiographies of the time.

II. THE SPANISH CHRISTIAN EXPERIENCE IN AMERICA

1. In the Spain of the 'Catholic Kings'

The history of charity is one of the facts that most demonstrates the response to the concrete needs of man and to specific care of the sick as a person in the Christian experience. When referring to the history of care for the sick in the descriptions to be found above we saw the special approach of many at the time of humanism and the European Renaissance when emphasis was placed on the human body from an anatomical, artistic (beauty and harmony) and humanistic point of view. At the same time, however, this interest led to a neglect of sick people, almost as though their defective bodies were despised and as though their was a desire to 'conceal' illness and poverty, which were seen as factors that disturbed that dreamed-of harmony.

Given that I cannot provide a panoramic vision of the history of this practical charity in the history of the modern and contemporary Church, I would like at the least to refer to a significant experience during a period when a humanistic vision prevails whereby man is 'the measure of all things' but when, at the same time, the true nature of man in his totality is often forgotten.

Such was not the case when a strong renewal of Christian life was underway, namely in the Spain of the 'Catholic Kings' at the end of the fifteenth century. At that time a notable Catholic reformation was underway that bore fruit in the evangelisation of America as well. This reformation was also seen in the history of charity, health care, and thus in the creation of a large number of hospitals as well. One of these, which we may take as an example (in architectonic terms as well) was the Tavera Hospital of Toledo, which was founded in the first part of the sixteenth century by the Toledo Cardinal of the same name. At that time in Spain a religious order came into being that was totally consecrated to providing service to the sick. The Fatabenefratelli were founded by St. John of God and beginning in Grenada they then spread throughout the world.[8]

The Portuguese Giovanni Ciudad (John of God) (1495-1550)[9] had lived in Spain, had been a soldier under Charles V, and had lived an aimless life until his meeting with St. John d'Avila who provid-

ed a new direction to his existence. In Grenada he began to gather beggars and sick people together in the courtyard of the villa of a local gentleman. Afterwards they were placed in a rented house. This was his first hospital. He went around the streets of the city asking for alms for his sick people and employed the phrase '*Fate bene, fratelli*!' ('Do good, brothers!') when addressing others and the sick themselves because charity embodied the highest good of Christ. He was seen as one of the founders of modern hospitals: he was a medical doctor, a nurse, a washer of clothes, a washer of dishes, a cleaner, and the servant of all of his poor patients. He worked only for them and especially for those who were discriminated against. Christ lived in them and to him he entrusted his work. His 'Fatebenefratelli' or 'Brothers of St. John of God' soon spread that charity that had become a religious work to the whole of Europe and to America.

2. The history of hospitals and charity in the New World

The history of hospitals in the New World (the Americas) coincides with the history of its evangelisation.[10] The first hospital in the New World was created in 1503, in Santo Domingo, by Don Nicolás de Obando, and had about fifty beds.[11] In 1509, Diego Colón, the son of the discoverer and the continuator of his work, provided news of another two hospitals on the island. In Mexico, immediately after the conquest and before building any churches, Hernán Cortés built the Hospital of the Conception and the Hospital of St. Lazarus. '*El conquistador, como buen cristiano, consideró que el mejor homenaje que podía hacer a Dios, que le había dado la victoria, era una obra de caridad. Una obra mediante la cual hallasen consuelo en sus enfermedades los desvalidos'*.[12] This initiative has remained alive during the centuries and still remains with us. Clement VII approved the creation of a patrimony to support it in a papal bull dated 1529.

Another paradigmatic example of this missionary charity, which also took place in Mexico and more precisely in what is now the state of Michoacan, was the work of the great bishop, Vasco de Quiroga. On his arrival in Mexico in 1531 he encountered a world bent double with pain, acute poverty and disorganisation: '*cosa de no poder creer si no se ve*', he himself wrote. At that time he was an ordinary member of the laity sent by Emperor Charles V as a judge of the Audience of Mexico and he reacted to this painful situation according to the Bishop of Mexico, the Franciscan friar Juan de Zumarraga, with '*un amor visceral por los indios", "pero con la pequeñez de aquel que entiende que cumple su cristianismo teniendo al día algunos momentos de caridad, sino con esa plenitud de cristiano íntegro que sabe que la caridad es la vida entra, y que por tanto vive en caridad*'.[13]

Don Vasco created 'hospital villages' in which he brought together orphans, and above all displaced people, the bewildered members of the Indios populations. He gave a home to the disabled and those without homes, and a homeland, and took care of the sick. In a few words he created what were kinds of 'hospital republics', as he himself called them, with the aim of making them places of Christian memory and human dwelling where the sufferings of everyone were reduced and treated and people found a hearth. These 'hospital villages' were a true example of the healing of deep wounds, of a physical and above all mental and moral kind, caused by the traumas caused in many populations by the conquest; of Christian living together; and of a response to the problems of the indigenous peoples of the centre of Mexico at a very dramatic moment in their history.

One of the greatest missionaries and experts on missions of the sixteenth century in Mexico and Peru, Rev. José de Acosta, wrote in his tract *De procuranda indorum salute* (chap. XII): '*nadie se ama a sí mismo como conviene, si abandona el cuidado de su salud corporal y espiritual o no persevera en ella. Lo primero que es necesario inculcar a los indios, sobre todo a los bárbaros, es que miren por su propia vida y salud y no a enten contra ella, como muchas veces hacen, por deseperación o por obstinación*'. This Jesuit missionary went on to say '*Hay que enseñar a los bárbaros* […] *a que aprendan a amarse a sí mismos, su sentido y su cuerpo, y a conservarse conforme a la naturaleza*'.[14]

3. A history also marked by health-care tragedies ranging from plagues to pandemics

The history of the European discovery of the New World and its conquest was accompanied from the outset by authentic tragedies in humanitarian terms which were tragedies from a health-care point of view as well. The Europeans brought with them, both in their own bodies and in their imported domestic animals, numerous diseases that soon became the causes of pandemics and health-care catastrophes. It is certainly the case that diseases and pandemics, precarious health and relatively short lives were phenomena that were experienced and frequent in the Americas before Columbus. I am not referring here to the wars of conquest or to the frequent and bloody wars in the pre-Hispanic world. I am referring here to the new diseases that arrived with the Europeans and that were often unknown in the New World and against which the native populations had no biological defences or

systems by which to defend themselves. Some historians, when referring to the Antilles, talk of at least some twenty diseases that were introduced and were in large measure responsible for mass deaths and in a relatively short period of time for the elimination of most of the native population. The phenomenon repeated itself subsequently in other places: Mexico, Central America and South America, Peru etc.

One of the most studied cases is that of ancient Mexico. The first great epidemic to break out in the region of Mesoamerica was smallpox which arrived in 1520 with a person who had landed in Vercurz (Mexico) from Cuba in an expedition to arrest Cortés. Smallpox spread everywhere in a short period of time and reached Tenochtilán, the capital of the Aztec empire. Very many people died, including Cuitlahuac, Moteczuma's successor. The disease irrupted in a fragile ecological system and spread by direct infection specifically for this reason. The disease would not disappear for years and reappeared sporadically with virulence, perhaps cooperating in the spread of other epidemics. Thus in 1545 another epidemic with grave consequences appeared, probably measles. It was at that time that many peoples, which were already weakened, disappeared, especially along the coast. Some scholars refer to the death of millions of people, an authentic demographic catastrophe, the disappearance of 'ancient principalities', and the weakening and social and economic dislocation of the whole region. The population was thus reduced to a minimum and both natives and the newly arrived fell victim to these diseases. A terrible hopelessness took hold of the minds of many people. By about 1550 New Spain (Mexico) had perhaps been reduced to a population of about three million people.

4. The response of Christian charity

The history of charity in the Spanish part of Latin America was expressed in dedication to the sick and to all those in need by missionary religious of the first wave, such as the Franciscans, the Dominicans, the Augustinians, the Mercedarians and the Jesuits, and after them by orders founded with this same goal in mind such as the 'Brothers of Charity', the 'Juaninos' or Brothers of St. John of God (the Fatebenefratelli), the Antonians, the Bethlehemites,[15] the Brothers of St. Hippolitus, and later the Camillians, and by many members of the secular clergy and individual members of the laity and brotherhoods formed by them. The Mexican historian Josefina Muriel, in her work *Hospitales de la Nueva España*, offers us a monumental study of more than three hundred hospitals that were created in Mexico alone between the sixteenth and the eighteenth centuries (two hundred alone in the sixteenth century), many of them in remote places and in out of the way places. Some of these hospitals came to care for five hundred sick people, especially during the frequent epidemics.

Hospitals were present from the outset and had a special importance both because of their number and because of their role in the social fabric of the New World. Open to every need, they defended the human life of all races, gave the homeless a roof, gave food to the hungry, and gave shelter to orphans and widows. Their work was so important that a Franciscan chronicler of the time, Agustín de Betancourt, said that it was because of them that the king had subjects.[16] These hospitals responded to concrete needs: both of those who had newly arrived who were often victims of grave illnesses (often the result of long journeys), of the events of the expeditions and conquests, and were wounded, mutilated, and the victims of hunger and acute poverty caused by plagues and unknown diseases, and of the natives who were also the victims of the disastrous consequences and forms of the conquest and the new diseases and lethal epidemics that destroyed millions of people.

From the outset the work of the hospitals had three components: the ecclesiastics, the laity and the Catholic state. The three components were more or less equal. The secular people, for example, were a very important group made up of Spanish men and women, Creoles, people of mixed race, Indios, Afro-Americans and *Castas*. Full of human and divine virtue, they consecrated themselves to works of charity, creating them, supporting them, and serving them often in heroic fashion. They usually did this by coming together in brotherhoods and congregations, such as the Marians led by the Jesuits and the Third Orders which were subject to the great Mendicant Orders that were then present. Other secular people, on their own, created various works of charity which at times attracted other Christian men and women who, with the passing of time, subsequently formed hospital orders. These centres and works of charity were in urban and rural areas – hospitals for workers, orphanages, homes for the elderly – and in areas of maritime routes, mining centres, and thus there were also homes to house and help girls and women in difficulty. And in the areas of the tragedies of the pandemics there was always the heroic presence of religious and of secular people consecrated to helping those who were often abandoned by everyone.

Often these hospitals were maintained by brotherhoods or religious orders. Of these, one of them, that of the Bethlehemites,

was the first religious order to be founded in the New World, and more specifically in the city of Guatemala, by San Pedro de Betancour in 1660. This saint facilitated work in hospitals '*primero a sacerdotes, después a seglares distinguidos, y luego a familias enteras, como lo fue la del Virrey Duque de Alburquerque*'.[17] Another significant exponent of this history of charity towards the suffering and the sick was Bernardino Alvarez, the founder of the Brothers of Charity and of two hospital networks consecrated to care for the mentally ill. *'Contando ya setenta años de edad, cansado y enfermo, seguìa saliendo a las calles y con gran humildad reclamaba de la sociedad el auxilio para sus pobres. Incansable en el pedir, invencible ante las humillaciones y trabajos que esto le implicaba, mereció que se le llamara: 'limosnero heroico'. Formaba sus compañeros y los alentaba para soportar las penalidades de los trabajos que implicaba el tratar con locos, idiotas, incurables y con enfermos de la más baja esfera social como eran los esclavos y los forzados*'.[18]

Special reference should be made to the brotherhoods, congregations and third orders, formed by secular people, priests, religious, with members who came from every social and ethnic grouping: whites, those of mixed race, Indios, blacks, mulattos, and creoles. These brotherhoods dedicated special care to the sick and those in need. They nourished their lives of Christian piety and charity with prayer. In Lima alone, roundabout 1630, fifty-seven of these brotherhoods existed. '*Particularmente activas eran las de indígenas, la más antigua de las cuales era la fundada en Santo Domingo en 1554. Como todas las similares, sus miembros daban de comer a los pobres, visitaban a los enfermos.* […] *De todas nos parece ser la más interesante la de la Caridad, instituida para el enterramiento de los pobres*'.[19] Many religious and secular people gave their lives in service to those in need and the sick. Amongst the secular people some notables *'a via de ejemplo, entre los indios, Don Pablo, Rey de Michoacán, que muere vistiendo el hábito de la Compañía de Jesús, atendiendo a las víctimas de la peste de 1576, o Don Juan Cacique de Patzcuaro, que vistió el sayal franciscano renunciando antes a su inmensa forturna, que distribuyó entre los pobres*'.[20] The history of charity often became not only care but also social promotion and an attempt to improve the standard of living and conditions of health of people. Everything was done in the name of Christ and out of love for man, his image: work in the *reducciones*, the slums of the city, the draining of land, water projects and works of all kinds. '*El misionero aparecía como la encarnación de la providencia para el indio*', comments the famous historian Robert Ricard, when referring to Mexico[21]. Fra Pedro Juárez de Escobar, in his report sent to Philip II of Spain, wrote that '*los religiosos son* [para los indios] *sus padres y sus madres, sus abogados, sus representantes, sus defensores y sostén, sus escudos y protección, que en su lugar reciben los golpes de la desgracia; sus médicos y enfermeros, lo mismo para sus llagas y dolencias corporales, que para las faltas y pecados en que por su miseria caen; ellos recurren en sus sufrimientos y persecuciones, en sus hambres y escasezes, y en su regazo se refugian para llorar y lamentarse, como los niños en su madre*'.[22] Examples of devotion often coincided with the history of canonised holiness, as was the case with San Martino de Porres, who turned the porters' lodge of the monastery of Santo Domingo di Lima into an authentic hospital for the poor. He was called '*Martín de la caridad*'. San Pedro Claver did the same with the slaves brought from Africa in the holds of slaving ships which landed at Cartagena de Indias. He converted a part of the home of the Jesuits of that city into a place to lodge and help those that were most ill and covered with sores. He signed the '*esclavo de los esclavos negros*' and involved in this work of charity not only his religious brothers but also many other secular people of the city. The same may be said of the Blessed Fra Junípero Serra, the apostle of charity amongst the Chichimecas Indios of the Sierra Gorda di Querétaro in central Mexico and subsequently the evangeliser of California. San Toribio de Mogrovejo, the Archbishop of Lima and patron saint of the American bishops, engaged in his ministry at the end of the sixteenth century and the beginning of the seventeenth century looking for sick people and those who had disabilities in their homes, especially during the dramatic moments of the epidemics of smallpox and other diseases. He had no fear of becoming infected or of dying. As his biographer Nicolás Sánchez Prieto writes and observes: '*Que por estar todos los indios en sus cass caídos con la dicha enfermedad* [viruelas], *se andaba el dicho señor arzobispo de casa en casa a confirmarlos, sufriendo el hedor pestilencial y materia de la deicha enfermedad. En lo cual conoció este testigo que el amor de verdadero pastor y gran santidad de dicho señor Arzobispo lo haría sufrir y hacer lo que* […] *ni persona particular pudiera hacer'*.[23]

III. A CHRISTIAN STORY THAT CONTINUES TO OUR DAYS

1. The European and world history of the modern epoch is marked by plagues and pandemics

The modern epoch, beginning with the sixteenth century, has been very much marked by wars, epidemics, major social wounds, and thus by health-care disasters of various kinds. To refer to them all or make a simple list of these human tragedies is beyond the scope of this paper. The fifteenth, sixteenth and seventeenth centuries in Europe were marked by wars of every kind. And we know what wars produce: deaths, wounds and devastation, the abandonment of the fields, orphans and widows, invalids and beggars, hunger, diseases and chronic plagues. In Rome, for example, after the sack of the city in 1527, there was looting, devastation and very quickly the plague as well. But this picture was to be encountered again along the roads of Europe over the next two centuries.

I would like to refer to the fa-

mous plague in North Italy in 1630 and the last epidemics of the modern epoch. The years 1628 and 1629 witnessed a terrible famine in the north of Italy. The cities were attacked by vagabonds and beggars looking for better conditions than those that prevailed in the countryside; riots and tumults broke out. The plague, too, arrived, as the apex of the woes that afflicted the population. To avoid the infection spreading, the authorities imposed the isolation of villages, where the first cases of the plague were noted, by closing the roads that led in and out of them. However, the plague spread through the whole of the north of Italy. At the end of May 1630 it seemed that the epidemic had burnt itself out but in June it appeared again and caused innumerable victims. The plague of those years is described by Manzoni in his famous novel *The Betrothed*, in which the whole of Manzoni's attention seems to be directed to the study of the plague in Milan in 1630. Historical analysis, however, also offers Manzoni an opportunity to explore the hearts of men. Milan, like other places in Europe at the time, was the location of a tragic famine, which attracted Manzon's attention in his novel. He speaks to us about the 'ardent and versatile' charity of Cardinal Federigo who every morning 'handed out two thousand bowls of rice soup' and who sent out food and helped 'the most needy places in the diocese'. Indeed, this becomes in the sad and cruel pages of the famine a living example of Christian charity and of the love of man for neighbour. The setting was also the location of a terrible plague.

In Manzoni's novel there are three religious: Don Abbondio, Fra Cristoforo and Cardinal Federigo. These three figures express different ways of living and operating as religious. For Don Abbondio the priestly ministry becomes in a difficult world a system to assure a calm way of living. In the face of the tragedy of the famine and the plague, Manzoni emphasises the heroic dedication of a number of ecclesiastics and religious, such as Borromeo and the Capuchin friars, in one of the numerous hospitals that were created by Christian charity to receive those suffering from the plague and other people as well.[24] The figure of Cardinal Federigo Borromeo works in the world and overcomes it through his example: he knows how to oppose the falsehood of the world with a model of truth that is specifically the word of God. In different fashion, Fra Cristoforo is the image of a religious who works in the world to the point of opposing, even with aggression, the evils of eighteenth-century society. He is a preacher who believes that the world of God created the world. Thus his works do not remain mere words but become concrete actions (he faces up to Don Rodrigo, goes to serve the suffering, and dissolves the vow of chastity of Lucia, for example). In the pages of his book there then appear the examples of great Christian charity of those who, 'during the raging of the contagion', visit the sick in order to provide them with comfort and help. 'But faced with these sublimations of virtue' there was no absence of examples of 'perversity' on the part of those 'for whom the attraction of robbery' was stronger than fear of illness. These men entered as though they were their owners in the homes of the sick, and ill-treated people, stole and looted without pity. The picture of the plague thus became a new picture of humanity which was described by Manzoni in all its aspects.

The Thirty Years War (1618-1648) brought devastating effects with it in all fields and throughout the heart of Europe wrought upheavals and social miseries that were to last in time. In the logic of the facts of a war that lasted years, and thus a war that was chronic, 'plague, hunger and deep social wounds followed one another and were concatenated'.

The last plague epidemics in Europe were in 1720. The last was in France and its principal centre was Marseilles. This plague, however, did not reach Paris. In 1743 the last outbreak in Italy occurred and there was an important epidemic at the end of the nineteenth century (in 1889) in Russia, in the main in Moscow. Various other kinds of epidemics took place later, for example influenza. The epidemic of Spanish influenza, which took place during the Great War of 1914-1918 is famous. This epidemic claimed thousands of lives throughout Europe. Similar cases were to follow, for example the 'Asian' flu of the 1950s. During the modern age there are about 1,000 to 3,000 cases of plague every year in the world.

The number of major illnesses that are in a certain sense chronic and epidemic in certain regions of the world varied during the twentieth century. Amongst these we should list malaria.[25] Called '*mal aria*' in line with the popular belief that it was transmitted by swamps and stagnant air, this disease today threatens over 40% of the world's population, above all in the countries of the South of the globe. It is endemic in vast regions of Asia, Africa, Latin America, the Antilles and Oceania, with hundreds of millions of victims every year and almost a million fatalities. Together with tuberculosis and AIDS, malaria is today one of the principal health-care emergencies in the world. In addition to being endemic in many regions, malaria is increasingly imported into regions where it had been eliminated as a result of migratory movements and travelling.

The most recent epidemics have taken place in Uganda (November 1998),[26] in Namibia (May 1999), Malawi (July1999), where there

were outbreaks of Ebola. There has also been avian influenza in Asia and at the present time there are other forms of emerging epidemics which come from the Asian world and have already made their presence felt in certain areas of the Antilles. But it is above all else the by now universal situation of people living with AIDS, which although one is not dealing here with an epidemic is certainly an example of a 'new' disease', which still presents the international community with serious problems.

2. The history of charity within the Church is often a history of heroic holiness and of care and concern for the most marginalised and oppressed

The encyclical *Deus Caritas est* of Benedict XVI devotes its second part to *caritas* as the practice of love by the Church as a community of love. The Supreme Pontiff offers us an overall picture of this history beginning with the early Church (nn. 20 and ss); he explains to us the meaning of the 'deaconries' of charity (n. 23) and meets the objections of certain Marxist thinkers who criticise the activities of the Church at the service of charity to the detriment of justice, observing, however, the development of the social thought of the Church in relation to social justice (nn. 26-29). He then goes on to examine the multiple structures of charitable service in the contemporary social context and the specific profile of charitable activity in the Church (nn. 30-39). In his conclusion the Pope observes that the history of the Church is a history of dedication to service to neighbour, the most in need and the discriminated against. He thus refers to the case of monasticism and writes: 'in his encounter "face to face" with the God who is Love, the monk senses the impelling need to transform his whole life into service of neighbour, in addition to service of God. This explains the great emphasis on hospitality, refuge and care of the infirm in the vicinity of monasteries. It also explains the immense initiatives of human welfare and Christian formation, aimed above all at the very poor, who became the object of care firstly for the monastic and mendicant orders, and later for the various male and female religious institutes through the history of the Church. The figures of saints such as Francis of Assisi, Ignatius of Lodola, John of God, Camillus of Lellis, Vincent de Paul, Louise de Marillac, Giuseppe B. Cottolengo, John Bosco, Luigi Orione and Teresa of Calcutta – to name but a few – stand out as lasting models of social charity for all people of good will. The saints are the true bearers of light within history, for they are men and women of faith, hope and love' (n. 40).

Above I made a specific reference to the case of the Christian history of Latin America. This history of charity and full care for sick people is notably rich in every locality. The history of hospitals in Spain during the modern era, for example, is a clear example of this. The case during the seventeenth century of the nobleman of Seville, Manuel Mañara,[27] is well known. He was a public man who consecrated the whole of his life to service to the sick and founded various hospitals and brotherhoods. Once he had become a widower he went to live amongst the sick with total consecration to their service. Many of these hospitals continue to this day.

A significant number of the founders of the modern epoch, from St. John of God, St. Camillus of Lellis, St. Vincent de Paul and on to the great male and female founders of the nineteenth century, have been a full example of the charity of Christ towards the poor, the suffering and the sick, with large numbers of foundations created by their specific charism precisely at a moments when secularised societies or societies on their way to neo-paganism were totally neglecting the overall needs of the most discriminated against, the most in need, and the most sick. The list of martyrs to charity in the whole of the Church is incalculable. This list in the specific case of every region constitutes in itself a rich list of martyrs and accompanies the history of evangelisation and the daily events of each local church.

The sixteenth century, which was so very much martyred by wars and plagues, was also marked by the presence of a large number of saints of charity. Reference has already been made in this paper to St. John of God in the context of care for the sick and the history of hospitals in Spain. Here I would like to refer other saints by way of example.

Of importance in the life of St. Gaetano da Tiene (1480-1547),[28] who belonged to the Oratorian movement and was the co-founder of the 'Teatini' clerical order, was his painful experience in Rome which began in 1523. In 1527 the sack of Rome took place and in 1528 there was a plague epidemic. Gaetano and his companions performed miracles of charity during those tragic months. They then built the 'hills of pity' to help the poor, hospitals, and hospices for the poor and for abandoned sick people.

His contemporary, St. Girolamo Emiliani (1481-1537),[29] was also a part of the Oratorian movement. A military man and an adventurer, previously a prisoner with a harsh experience of prison, he became a priest in 1518. When the Germans invaded Italy they brought with them devastation, sackings, shameless abuses, famine and pestilence. Gioralamo sold his worldly goods in order to help the victims. By day he looked after the sick and by night he buried the dead. The wars created a large number of wounded, sicknesses, orphans and teenage mothers. In 1531Girolamo consecrated himself definitively to service to the poor, and above all to orphans. He received them, became their father, and taught them a trade. He also looked after teenage mothers. A religious family thus came into being that continued his charity which had become a religious work. He himself died of the plague while looking after the sick in Somasca in 1537.

Ignatius of Loyola and his companions, and this was an experience common to all these founders, at the outset went to hospitals and dormitories to serve the sick. One of the young sons of the Company of Ignatius, Luigi Gonzaga (1568-1591),[30] died while

helping the afflicted in Rome. Hunger and plague attacked Rome in 1590 and 1591. Luigi and his brothers worked tirelessly to help the sick at the an Sisto Hospital and then at the Santa Maria della Consolazione Hospital. When carrying a sick person on his shoulders he contracted the plague. He lay ill for some months and was visited by his director an confessor, the Jesuit, St. Roberto Bellarmino. He finally died on 20 June 1591.

The other great figure of the history of charity towards the sick is St. Camillus of Lellis (1550-1614).[31] He, too, had led an adventurous and risky life. He had been a soldier, was wounded in war, and was also the victim of a malady that he had all his life in the form of a wound on his leg that never healed and a sore that would torment him until his death. He moved to Rome to the S. Giacomo Hospital to be treated and here he began to work as a nurse to earn money to pay for his treatment. He was headstrong, difficult, playful, and for this reason he was expelled. Mysteriously, grace reached him on the road from Manfredonia to San Giovanni Rotondo. He then decided to become a capuchin. But his wound prevented him from becoming a friar. He thus returned to Rome, to the hospital for the incurably ill, to the S. Giacomo Hospital, this time transformed by grace. This was the beginning of that experience of charismatic grace that led him, together with a number of companions, a chaplain and four employees, to found the future religious family of the Camillians to serve the sick, and especially the most segregated, the incurable, and the poor. He became a priest and with the help of St. Filippo Neri as well he dedicated the whole of his life to service to the sick; he fell in love with Christ in the sick. When he died in 1614 he left behind him fifteen religious houses and about 142 religious 'Camillians'. His life was a gospel of charity towards the sick, the afflicted, and those with infectious diseases. 'When he served one of them he seemed to overwhelmed by love and compassion and he would most willingly have taken upon himself every woe to have lightened their pain and alleviate their infirmities' (*Vita di san Camillo, scritta da un suo compagno*).[32] He thus bent before every sick person, his physical suffering, who for him was the ill Christ.

During the seventeenth century various saints of charity stood out who dedicated themselves to the sick. We may remember St. Vincent de Paul (1581-1660).[33] This priest, who at the beginning of his life looked for advantages and privileges, underwent a great interior transformation after a strong trial of faith. In 1617 he organised would what be the first of his future 'charities' when he went to help a family that was sick. He then extended his charity wherever there was misery of any kind: prisoners, prisoners for life, and the sick. A fruitful founder and a trainer of popular missionary priests, Vincent was recognised as the apostle of charity towards these very disinherited groups. The meeting with Louise de Marillac, the widow of Antoine Le Gross, led Vincent de Paul to organise groups of charity that were mostly made up of women who worked for the most part in hospitals. Subsequently these groups grew and companies of the virgins of charity were created. Thus were born the 'daughters of charity'. Vincent defined their lives in the following terms: 'the homes of sick people are their convents, a rented room is their cell, the parish church is their chapel, their cloister is the roads of a city, obedience is their '*clausura*', modesty in their veil…'.[34] The charismatic work of St. Vincent generated a heroic history of charity throughout the world always dedicated to those abandoned by others, above all the excluded and contagious sick people (with tuberculosis, for example), and a thousand other works connected with this great charism. One could say that many foundations of the Church from the sixteenth century until today have also been 'timely' responses to situations of social degradation or examples of special concern for needs that civil society was not able to provide a satisfactory answer to in the field of education, the field of the welfare of women, and in other fields of social life, such as the health-care field, in which the world of marginalised people has grown increasingly larger and social wounds have grown greater. There thus grew up a notable network of reception houses, hospices for abandoned elderly people, for street women, for marginalised women, for women separated from their husbands, orphanages, and for extreme situations, such as the case of mentally ill people, or sick people with illnesses considered incurable an infectious, etc. Thus in 1833 F. Ozanam (who has since been beatified), together with a number of friends, inspired by the work of St. Vincent de Paul, created the first 'Conference of St. Vincent' for charity for the poor.

3. The modern explosion in foundations of charity

Many 'modern' congregations have their origins in the situations that have just been listed. With the passing of time the ancient forms of consecrated life were joined by new ones and secular congregations came into being. The practice of the mercy of God and the social needs and wounds produced by modern society led to the birth of these new forms of Christian charity. The Kingdom of God made itself present through the practice of mercy. This led Christian women and men to reduce social wounds such as pauperism, injustice and

illness (including infectious diseases) and to provide a response to the painful situations that afflict modern society. This was a work of charity and not of philanthropy or ascetic social work. In this field the practice of Christian charity was so vast that there is no country with a Christian presence, however small, that did not witness the flowering of charismatic foundations of this kind. Perhaps it is the case that in our epoch, which is dominated by nihilistic relativism, the flowering of ecclesial movements, where *caritas Christi* is placed at the centre of the Christian experience as a clear and precise announcement of the Event of Christ working in Christians, has not been so strong. One may recall the consequences of this charity at work in the large number of foundations of the last two centuries. Works such as that of Mother Teresa of Calcutta, of Raoul Follereau for lepers, and other Christians, on the one hand, or the constant action for justice and peace, such as that of the recent Popes (one need only refer here to the venerable John Paul II), on the other, demonstrate this working presence of Christ amongst his faithful.

The history of canonised holiness and the history of the religious foundations of the nineteenth and twentieth centuries demonstrate this concern of Christians within the Church as well as a consecration to alleviate all social wounds, and especially those most neglected by society itself. During these two centuries numerous saints flourished within the Church: men and women totally consecrated to such ministries. With reference to the nineteenth century alone, marked in the history of the Church as well as a century that was especially rich in figures of holy women consecrated to charity, it must be said that there was no sector of the world of marginalised men and women where such figures cannot be found. In our specific case one should recall their dedication to people with tuberculosis, leprosy and other infectious diseases in a large number of hospitals, leper colonies, and wards to combat malaria in a thousand ways, blanket vaccinations in the 'outskirts' of the south of the world and other institutions of this kind managed by them throughout the world. We find these people present amidst the epidemics of yellow fever, of smallpox, and of cholera in list that would be unending. Various women and men have also fallen victim to their consecration in such situations both because of their permanent dedication and during moments of emergency. One should list first of all the infinite array of male and female missionaries who fell on the frontiers of their mission because of their charity and also the mortal victims of the epidemic disease of the regions they worked in. We may recall here the names of the Marion de Bresillac and his first missionary companions in Sierra Leone who fell shortly after arriving in that country, the victims of yellow fever, aware of the risks that they were running; of the more than a hundred missionaries of Central Africa, who fell in the field, often days or months after their arrival, during the first twenty years of that history of missions, at that time already called a 'permanent obituary'. Amongst these the names stand out of their first bishop, St. Daniele Comboni, who died of malaria, typhus and exhaustion when he was only fifty; Damiano di Veuster, in Polynesia, and his religious brother Giosué dei Cas in Sudan, who both died as lepers because they had consecrated themselves to working amongst their brothers and sisters with leprosy. Recently in Uganda, the medical doctor and Combonian missionary, the Servant of God Rev. Giuseppe Ambrosoli, died in Lira (Uganda), the victim of his charity, after saving all the patients of the missionary hospital of Kalongo (Uganda) by evacuating all of them (nearly 500) when the war was at its height in a long *via crucis* that involved nearly two days of walking. At the end of it he himself, gravely ill, delivered up his soul to God, but he had saved all those poor innocent people. A missionary sister and a missionary medical doctor both died of Ebola, after taking care of the large number of people who had fallen victim to this previously unknown epidemic, at St. Mary's Hospital in Gulu (Uganda), which had opened a ward for these patients and for AIDS patients as well. The history of missions is rich with such examples. Charity became work precisely in those situations of social marginalisation. One could write a copious history of this charity towards people sick with all kinds of infectious diseases. I would like to refer to just one case, that of the position of the Church in relation to the drama of HIV/AIDS in Africa, with reference to the practical example of what has been done in Africa.

IV. CHARITY CONTINUES BY BECOMING WORK

I would like to make two observations that emerge from the experiences of two health bodies of the Catholic Church in Uganda in relation to the epidemic known as HIV/AIDS.

The first relates to the unity that is given to charism and the institution and which involves applying the principle of subsidiarity to ecclesiastical institutions and the gifts of charity that the Spirit generates in the Church.

The second is the pathway of action that the Church engenders through her sons and daughters in this field and especially in those who work in her health-care institutions as a fundamental part of her work of charity. These two methodological aspects are in fact inseparable in the life of the Church. They have been so down her history and they are still so today.

1. The epidemic of HIV/AIDS in Uganda and role of the Church

At the end of the *ad limina Apostolorum* visit of the bishops of Uganda in September 2004, amongst the suggestions of the Holy Father John Paul II there was one about the efforts of the bishops 'in the fields of health, education and development' to demonstrate with clarity 'the role of the Church in the overall welfare of her sons and daughters and all Ugandans'. The history of the evangelisation of Uganda demonstrates the role of

the Church in all fields of social life, and especially in the three fields mentioned above. In the health-care field alone the Catholic Church in 2006 was responsible for twenty-seven hospitals (a quarter of all the hospitals in the country), more than 230 health-care centres (dispensaries), with a staff of health-care workers that number more than 6,000 – the second largest health-care staff after that of the state. The same may be said of the educational field.

The Catholic Church established the Catholic Medical Bureau (UCMB) in the health-care field to study and direct the health-care and medical aid provided by the Church in Uganda.[35] This bureau is supported by a permanent secretariat which, together with the UCMB and the Bishops' Conference of Uganda, established two other technical offices in the Catholic Secretariat – the HIV/AIDS Focal Point and the Global Initiatives Fund and Management Unit – GIFMU,[36] which are specially dedicated to the treatment of, and the fight against, AIDS, which has been one of the most devastating diseases in the country since the 1980s. This disease has become of the most notorious and gravest challenges to life in Africa in general and in Uganda in particular. For this reason, care and treatment for people with AIDS has become a challenge to the mission of charity of the Church.

The role of the Church in Uganda in the fight against AIDS and in helping people afflicted by this illness and their families is not something that is new in the history of the charity of the Church. In the case of AIDS the Catholic Church has been a pioneer in helping the sick. The first test of a biological character that led to the diagnosis of HIV/AIDS in Sub-Saharan Africa was carried out in the Hospital of St. Francis, Nsambya, by Sr. Nelezinha Carvalho, a Franciscan nun, on 23 May 1986. It arose out of worry about the real danger of the spread of the infection through blood transfusions. This hospital established, once again in the year 1986, a specific department with laboratories, a clinic and a service of mobile assistance for this disease. This subsequently became a 'model of care' that was followed by other hospitals in Uganda and elsewhere.

Thus when the epidemic first exploded and the health-care agents became aware of the drama that was then underway (I myself worked as a missionary priest at that time in the north of the country, which was at war, and I well remember the chain of deaths that were caused by a strange disease which people called by the significant name of 'slimming disease'), the Church mobilised all its energies immediately, starting with its health-care institutions. Its hospitals immediately began to study that strange disease and to implement various measures, creating hospitals wards that were exclusively intended to receive the large number of sick people that were arriving and to offer them the care and treatment that could be given. An entire preventive action, in line with the approach of Catholic doctrine and the methods propounded by that doctrine, produced the results that won the admiration of many observers.[37] This took place during the first years of the disease when HIV/AIDS was not as yet the subject of great attention in the world. In 1989 the bishops of Uganda published a pastoral letter with bearing title 'The AIDS Epidemic'.[38] The bishops explained to people that they should not see AIDS as a divine punishment, as, indeed, some sectors of society had already begun to consider it. For the bishops this illness was certainly an opportunity for many people to change their behaviour, a call to conversion, an opportunity to see what the natural law of God required as regards the use of sexuality, marriage, and also the value of chastity itself. With regard to the fact that HIV/AIDS was seen as a curse and a terrible stigma, the letter of the bishops laid stress on respect for those with this disease and on how they should not be seen with suspicion or with eyes of condemnation but with eyes of solidarity, understanding, love and Christian compassion. The bishops wanted to mobilise the important health-care network of the Church with all its energies and with all its means in the fight against that feared disease. They also established that a specific office subject to the UCMB should be opened specifically for this purpose.

The Ugandan Catholic experience can be summarised in the following way:

– Total commitment in the fight against HIV/AIDS, with openness to the nature and gravity of the epidemics and the commonest forms of transmission of the epidemic.

– Strong ecclesial and civil commitment to the fight against the disease.

– Rejection of positions involving the segregation, condemnation and stigmatisation of people sick with AIDS.

– A clear unambiguous message on the need to prevent the transmission of the diseased based upon the ABC (abstain, be faithful, use a condom if you cannot abstain or be faithful) that was launched and later communicated with the right order of priority.[39]

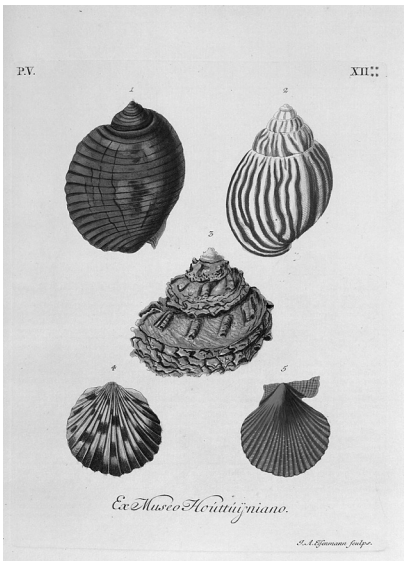
Much has by now been written on the Ugandan experience. What perhaps is less well known is the organisational aspect. One thing remains clear: the importance of the bishops through their actions in this field and in educating the consciences of the faithful at a time that was becoming devastatingly tragic because of the painful consequences of the epidemic.[40]

2. The Spirit and personal freedom

In the life of the Church everything moves through the impulse of the Spirit of God. This is even more evident in all the actions that tend to give practical implementation 'here and now' to the mission of Jesus Christ. A person receives inspiration and energy, sees a particular aspect of what the mission of Jesus calls for in specific circumstances, and acts in conformity with that inspiration. Other people, attracted by such 'news', come together and act together. They thus create a work that certainly has its origins in God Himself. With time, it is thought advisable to give such a work a structure that corresponds to its nature. Thus are born ecclesial organisations or

communities with a specific charism. At the opposite pole of this dynamism we can speak about 'institution'. This happens through a constant discernment of the people involved and under the guidance of authority in the Church.

Mother Kevin and her sisters, following the charism of St. Francis of Assisi, arrived in Uganda at the beginning of its missionary history and began to heal the wounds and ulcers of sick people in Kampala under a large tree on the hill of Nsambya on the same day that they arrived in Kampala. A hundred years later that same tree is surrounded by one of the largest hospitals in Uganda, a solid and famous institution of the country which bears the name of St. Francis of Assisi. This hospital was in the vanguard in the mobilisation of the Catholic Church in Uganda in its fight against the epidemic of HIV/AIDS.



What has been observed about Uganda has happened in thousands of cases in the history of the modern world. One need only recall one case amongst many. The action of Mother Teresa of Calcutta, her charism and the work of her sisters and religious and other friends begun in a simple but precise way in India in the 1940s and thereafter it was extended down the most painful and discriminated against roads of the world, continuing today. In all these cases we are in the presence of a response given by the numerous charisms of the sons and daughter of the Church to the most dramatic needs of the men and women of every epoch. In this sense, the charisms given by the Holy Spirit to the sons and daughters of the Church have always been *timely and in line with* the needs of every epoch. Sons and daughters of the Church, born of specific charisms experienced as grace by the saintly founders of the past, when rediscovered, become once again a source of timely charity for the present day. These lay or consecrated people thus rediscover the charismatic vitality of saints. They recognise the challenges of the contemporary world and its problems, such as diseases that were unknown in the past (AIDS, Ebola) and find anew the strength of a new creativity in charity (as in the cases of the examples mentioned above and many others), as the venerable John Paul II reminds us in his *Novo Millennio Ineunte.* In the case of Uganda the attentive indication of that immense drama by the bishops of that country reawakened the people of God in Uganda. In Uganda there thus arose a whole movement of people, men and women, moved by the same Spirit, who put themselves to work with a very large number of initiatives and an exemplary creativity, co-operating with the institutions that the Church had brought into being during the first years of its establishment in Uganda. These ecclesial institutions worked from the very first moment with a precise policy of subsidiarity and of co-operation with state bodies. And this constituted in that country also a new sign of co-operation and mutual respect.

3. From the charismatic moment to the creation of institutions

There are two points of method that refer to one of the two poles of the continual dynamic relationship between the charisms and the creation of an institution. The charismatic moment is a personal event. It is an act of freedom of a person who is touched by the Spirit; it is the charismatic moment that forms, from that moment onwards, the identity of that person and the works that he or she generates. We have no control over this moment. It takes place and it continues to take place. What is fundamental is to know when it happens and how to serve it. The previously cited example of Mother Teresa of Calcutta, of our epoch, belongs to and explains this aspect; we should read in a similar way all the charismatic events in the case of the long list of founders such as Benedict, Dominic, Francis, Ignatius, Teresa of Jesus, Vincent de Paul, John Bosco and tens of others in the history of the Church who were real gifts of the Spouse, Christ, to his Spouse (the Church), as Urs von Balthasar loved to say. The great temptation for bureaucracies (including ecclesiastical bureaucracies) is to want to limit what they cannot manage. Often in the history of the church the great initiatives of renewal, of mission and of charity have a specifically charismatic origin. When a few years ago the Ugandan bishops approved the mission and the policy of the Catholic Health Service they introduced in one clause[41] the principle that recognised all the health-care services that were dependent in a juridical sense on the Church and thus of the services offered by the Bishops' Conference through its bodies and offices. Indeed, it specifically created bodies and offices to address the new problems raised by the painful and dramatic situation of HIV/AIDS (i.e. the HIV/AIDS Focal Point and the GIFMU). Thus the new bodies and offices of the Bishops' Conference extended the same principles to all Catholic bodies, associations and movements that had the goal of serving the sick person and his family in the name of Jesus.

4. Lessons learnt from the moment of institution

Institutions usually take stable juridical and organisational form. Stability assures the continuity of the charism by helping the works that it generates to last. The life of the institution is determined by the dynamic relationship between the government (whose point of constant reference is the charism) and the administration of the work.

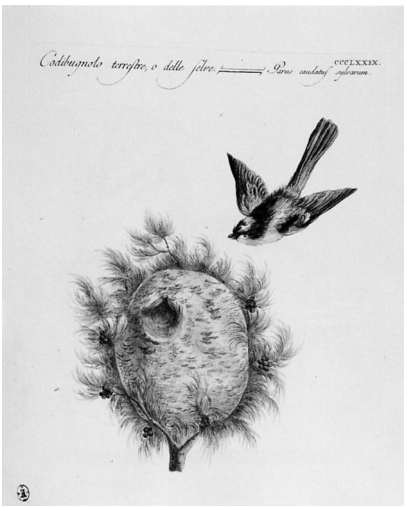
The correct polarity of these two functions is not always clear and thus there is a risk that these institutions become in a certain sense entrapped by the need to remain within history and this to the detriment of the real reason for their existence and the reason for their creation (mission). Committees and administrations at times run the risk of looking for continuity and lose from sight the purpose of the mission that the charism set in motion. This temptation is not something that is new in the history of the Church.

A pathway where this danger is less evident is that traditional pathway in the life of the Church that entrusts the administration of these institutions to the sons and daughters of the charism (religious congregations). But this is not automatic because today, at times, religious institutes do not have enough personnel or personnel that is sufficiently trained to respond in an adequate way to these new situations of sick people who are the victims of these large-scale diseases. In this sense, the Church is faced with grave challenges in the formation of vocations that are totally consecrated to this service of Christian charity. This is not a matter only of offering a technical training but of knowing how to promote real vocations of charity. Here the fundamental aspect of Christian charity as a vocation and the freedom of each person who is called to such a responsibility come into play.

The above-mentioned case of Uganda and the grave and imposing situation created by the epidemic of HIV/AIDS show how the Catholic Church, once again, has not abandoned its fundamental vocation of being near to those who suffer in body and soul. The Holy Spirit continues to be 'timely' with his graces (charisms) and with the strength given to the Church to respond to such situations of marginalisation and pain that is immensely dramatic and human.

By Way of a Conclusion

One can address the subject of the history of the involvement of Christians in the provision of assistance and care to people with illnesses in general, and infectious diseases in particular, through a list of facts with the purpose of demonstrating this involvement. These facts are always essential. The method of study requires an overall vision of the various ways the Spirit works within the Church, a point that was made in my book.[42] This method requires a look at the history of the Church as a whole with reference to its various aspects: the aspect of pastoral care, the aspect of the healing action in the Church through the extraordinary interventions of God (the mediation of saints and the prayer of the Church), the history of charity and care for the very poor and all sick people, and especially the most discriminated against and the most in need.



An examination of the saints is a fundamental part of this. 'Looking at the faces of the saints' is a part of methodological realism, according to the ancient observation of the *Didaché*. The history of the action of the Holy Spirit in the life of the Church, of the presence in that life of specific charisms and ministries at the service of the building up of the Church herself, should be studied precisely in order to identify the presence of specific charisms and the particular ways of operating of the Holy Spirit in her. What Jesus and the Apostles did and ordered to be done should be examined in the subsequent history of the Church. In this sense this examination is important to discover or to ascertain the subject of carisms in favour of the sick, ministries in this sense, and the meaning of care for the sick. *The lives and miracles* of the saints is a demonstrative history of the Christian event and shows how the promise made by Christ to his disciples has been fulfilled. In the company of these saints the fellowship of Christ is more fascinating and one has a better understanding of the history of the Church in this sense. In the saints the grace and freedom of Christ is evident. The saints do not pass through the history of the Church like meteors without leaving a trace behind them. Not only do they bear witness for the Church but they also transform the Church, they put her constantly in movement, they demonstrate the reforming efficacy of holiness experienced within the Church, and they are the builders of the history of the Church. Saints are always gifts of God to His Church. Lastly, holiness should be recognised as having a timely character in a providential sense.[43] Bulls of canonisation emphasise that the people whose holiness they consecrate arrived 'at the right time' to respond to the profound needs of the Church and the world with the coming and going of different epochs. Although it is true that miracles do not make holiness, they can nonetheless demonstrate it, as some of the first companions of St. Francis observed when they wrote to the chapter general of Greccio and referred to the saint of Assisi. The lives of saints such as Antonio da Padova, the holy 'Curato d'Ars', St. Riccardo Pampuri, Padre Pio, Mother Teresa, and John Paul II (to list some of the most famous), abundantly demonstrate these miracles of 'healing' and care for some of the most discriminated against amongst the sick. In this sense, the list of the saints of recent centuries constitutes a clear expression of Christians totally consecrated to alleviating human wounds and offering through their large number of foundations, which still exist today, concrete responses to these needs. These were clearly charisms poured down in particular by the Holy Spirit on these Christians as special gifts. These saints of charity exercised Christ-

ian charity as an essential part of their lives.

Being cured of an illness is always a victory over physical death but the definitive victory is always the eschatological victory, which is a grace: participation in the Resurrection of Christ (cf. 1 Cor 15). This perspective must never be forgotten about when there are sick people or in the context of every kind of 'treatment'. The Church has never forgotten this during her history. She has emphasised that care for the sick is a sacrament. She always implores the total cure of man, without ever forgetting about the eschatological dimension. If healing comes about in an extraordinary way (miracles), this has always been seen as an expression of the divine power that can raise the dead.[44]

John Paul II ends his apostolic letter *Salvifici doloris* in the following way: 'This is the meaning of suffering, which is truly supernatural and at the same time human. It is *supernatural* because it is rooted in the divine mystery of the Redemption of the world, and it is likewise deeply *human,* because in it the person discovers himself, his own humanity, his own dignity, his own mission… The mystery of the Redemption of the world is in an amazing way *rooted in suffering,* and this suffering in turn finds in the mystery of the Redemption its supreme and surest point of reference'.[45]

The decree *Ad gentes* of the Second Vatican Council says that 'The presence of the Christian faithful in these human groups should be inspired by that charity with which God has loved us…Just as Christ, then, went about all the towns and villages, curing every kind of disease and infirmity as a sign that the kingdom of God had come (cf. Mat. 9:35ff; Acts 10:38), so also the Church, through her children, is one with men of every condition, but especially with the poor and the afflicted. For them, she gladly spends and is spent (cf. 2 Cor. 12:15), sharing in their joys and sorrows, knowing of their longings and problems, suffering with them in death's anxieties'.[46]

Specifically for this reason, the mystery of suffering, and thus of the pursuit of care for the sick, should be seen historically in the history of the Church within the context of her origins, her purpose and her interest in the person, created by God and redeemed by Christ with a specific meta-historical end, in the light of which everything in the life of man takes on meaning: his birth, life, health, illness and death.

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Notes

[1] The plague is an infectious disease of bacterial origins that is still present in many parts of the world. It is caused by the bacterium *Yersinia pestis* whose host is normally the fleas of rodents, rats, some species of squirrels, and prairie dogs.

[2] Some Egyptian texts of the second millennium BC describe a number of grave epidemics. The Hittites of Mesopotamia also speak about them. Reference is also made to pestilences in the Bible. In the First Book of Samuel we read that God sent a pestilence to the Philistines (roundabout 1030-1076 BC), who were guilty of having stolen the Ark of the Covenant. The painter Nicolas Poussin immortalised this Biblical passage in his painting 'The Plague of Ashdod' or 'The Plague of Azoth' (c. 1630), which is kept at the Louvres in Paris. The first history to describe a plague epidemic correctly was the Greek, Thucydides, who narrates the events of the Peloponnesian War (431-430 BC). This epidemic of smallpox or typhus or cholera is said to have come from Ethiopia and spread through Persia and Egypt before reaching Greece during the war. Thousands died. Amongst the first victims was Pericles himself (in 429 BC).

[3] The last great pandemic of plague began in China at the end of the nineteenth century and from there spread to other continents, infecting over thirty million people and killing twelve million. This new spread of the disease was met with an unusual multinational research effort which led to the identification of the agent of the disease. In 1894 Yersin and Kitasato, working separately, described a negative gram bacterium isolated in Hong Kong from the glands of people who had died of the plague. Subsequently, because of the results achieved by the first two researchers, the bacterium acquired the name *Yersinia pestis*. It was immediately clear that the carriers of the disease were rats given that the human epidemic usually broke out following the large-scale dying of rats. The observation that human contact was not necessary to spread the disease led to an understanding of the role of fleas in its transmission. Today a large number of studies exist on the transmission, the epidemiology and the pathogenesis of the plague. One of these, by Gage, which appeared in the *Bacteriological review* in 1998, analyses the scientific journey that led to the diagnosis of the illness by researchers. In 1894. The Swiss doctor Alexandre John-Émile Yersin, during the Hong Kong epidemic, isolated the bacillus that for millennia had spread death throughout the world. He baptised it *Pasteurella pestis*, in honour of Louis Pasteur, the man whose theories had made possible the bacterial approach. The same year the Japanese doctor Shibasaburo Kitasato, who in 1889 had already isolated the tetanus bacterium, independently obtained the same results as his Swiss counterpart. But history would only remember Yersin: in his honour the bacillus of the plague was changed from *Pasteurella* to *Yersinia pestis*.

[4] The last urban epidemic of plague in the United States of America took place in 1924-5, in Los Angeles, and since then the disease has been noticed above all in the rural area at the level of 10-15 cases every year, above all in two zones, New Mexico, North Arizona and South Colorado and between California, the south of Oregon and west Nevada. At a world level, instead, the WHO reports from 1,000 to 3,000 cases every year, distributed above all between Africa, Asia and South America. In Asia, the plague is present in areas of the Caucuses, in Russia, in China and in some areas of south-west and south-east Asia. Regular outbreaks of the disease occur in Madagascar, in Uganda and in South Africa. Recently, significant epidemics have occurred in Kenya, Tanzania, Zaire, Mozambique, Botswana and in some isolated areas of the west and north of Africa. In South America there are still two zones where the disease is active, the mountainous region of the Andes (in Bolivia, Peru and Ecuador) and Brazil. The plague is not present in Europe or Australia.

[5] Cf. E. SANTRE SANTOS, *op.cit*., p. 491.

[6] Cf. E. SANTRE SANTOS, *op.cit*., p. 520.

[7] Cf. E. SANTRE SANTOS, *op.cit*., pp. 581-582.

[8] In Rome, for example, there was a flowering of charity towards the sick during this period. The charismatic experience of St. Camillus of Lellis, a violent mercenary, who was also afflicted by an incurable disease of venereal origins, was emblematic. After his conversion, Camillus consecrated the whole of his life to service to the sick, whom he saw as bearing within them the presence of God. A company of friends all dedicated to this end grew up around him.

[9] John of God was canonised in1690. Leo XIII declared him the patron saint of hospitals.

[10] Cf. the good summary of the history of charity in A.L. in ALEJANDRO CRAVIOTO LEBRIJA, 'La historia de la caridad en la evanglización de América Latina'*, in Historia de la Evanglización de América. Trayectoria, identidad y esperanza de un Continente. Simposio Internaciona. Actas. Ciudad del Vaticano, 11-14 de mayo de 1992* (Librería Editrice Vaticana, Vatican City, 1992), pp. 458-469. Some of the facts and figures quoted in this paper come from this work.

[11] WALTER PALM ERWIN, *Los Hospitales antiguos de la Española* (Dominican Republic, 1950).

[12] JOSEFINA MURIEL, *Hospitales de la Nueva España*, vol. I, (UNAM-Cruz Roja Mexicana, Mexico, 1990), p.37.

[13] *Ibid*, pp. 58-59.

[14] JOSÉ DE ACOSTA, *De procuranda Indorum Salute* (CSIC, Madrid, 1987), pp. 277, 291.

[15] The first hospital religious order in America, in Guatemala, was founded by the 'Canario' of Tenerife, San Pedro de Betancourt (1626-1667), who was canonised on 30 July 2001 in Guatemala by John Paul II.

[16] JOSEFINA MURIEL, *La Iglesia y la Beneficencia*, en P. BORGES*, Historia de la Iglesia en Hispanoamérica y Filipinas,* I (BAC, Madrid, 1992), pp. 761-780

[17] JUAN ANTONIO PRESAS, *Grandes Testigos de Nuestra Fe*, (CELAM, Bogotá, 1986), p. 73.

[18] JOSEFINA MURIEL, *op. cit.*, pp. 211-244.

[19] GABRIEL GUARDA, *Los Laicos en la Cris-*

tianización de América (Universidad Católica de Chile, Santiago de Chile ,1987), p. 97.

[20] *Ibidem*.

[21] ROBERT RICARD, *La conquista espiritual de México* (FCE, Mexico, 1986,) p. 250.

[22] *Ibidem*.

[23] SANDRO DAVILA,' Irigoyen', II, p. 134, in A. CRAVIOTO LEBRIJA, *Historia de la caridad en la evangelización de América Latina*, p. 468.

[24] AA.VV., '"Settimana manzoniana" omaggio dei Frati Minori Cappuccini nel Primo Centenario dei Promessi Sposi (1827-1927)', *Annali Francescani* (Milan, 1928); 'I Cappuccini nei Promessi Sposi', in *L'Italia Francescana*, 2 (1929), pp. 444 ss.

[25] The isolation of *Plasmodium*, the protozoa agent of the disease, goes back to the end of the nineteenth century when it was understood that the disease broke out following a bite by the female of the mosquito *Anopheles* which transmits its parasite to man.

[26] Ebola is a *filovirus* that is able to provoke grave hemorrhagic fevers. It owes its name to the river in the Democratic Republic of the Congo where it was isolated for the first time in 1976. Of the four strains of the virus that have so far been isolated, three are lethal for human beings. Probably the contagion of our species took place through monkeys and some other mammals of the African forest but the origins and the modality of transmission of this disease remain a mystery. Hitherto five epidemics of Ebola have taken place: in the Congo, in the Sudan, in Uganda, in Gabon and in the Ivory Coast. The death rate reached 88% of registered cases. Contagion takes place through direct contact with blood (often through infected syringes), semen, secretions and vomit that is already infected, usually 4-16 days after exposure to the viral agent. Death takes place after about 72 hours after the appearance of the first symptoms. At the present time a cure for Ebola is not known, and there is no vaccine. Ebola as been listed by NATO as one of the thirty-one agents that can be used in actions of bioterrorism.

[27] His process of canonisation has been initiated. Manuel Mañara was not the 'Don Juan' of a certain line of romantic literature which made him wrongly famous as an untiring sinner who in the end converted.

[28] Beatified by Urban VIII in 1629 and canonised by Clement X in 1671.

[29] Canonised by Clement XIII in 1767

[30] Beatified by Paul VI in 1605 and canonised by Benedict XVI in 1726.

[31] Beatified by Benedict XVI in 1742 and canonised by the same Pope in 1746. Leo XIII declared him and St. John of God the patron saints of hospitals in 1886.

[32] In Lesson of the Office of Readings, 14 July

[33] Beatified by Benedict XIII in 1729 and canonised by the same Supreme Pontiff in 1737. Leo XII declared him the patron saint of all works of charity.

[34] VINCENZO DE' PAOLI, *Correspondance, entretiens, documents* (Gabalda, Paris, 1910), vol. 10, p. 661

[35] The Catholic Medical Bureau (UCMB) was created in 1955. Its purpose is to offer technical help to its dependent institutions, directives as regards health-care action, guidance and development, training for health-care staff, technical and legal consultancy and necessary information in the health-care and medical field.

[36] Whereas the UCMB is concerned with the life of health-care institutions, the HIV/AIDS Focal Point has the goal of serving union between the different services that the Church offers in relation to HIV/AIDS (education, pastoral care, social care, etc.) and the GIFMU is concerned with the various mechanisms of funding.

[37] STONEBURNER, R.L and Low-Beer D., 'Analyses of HIV trend and behavioral data in Uganda, Kenya, and Zambia: Prevalence declines in Uganda relate more to reduction in sex partners than condom use' (Abstract ThOrC734, XIII International AIDS Conference, Durban, South Africa July 7-14, 2000.

[38] *The AIDS Epidemic: Message of the Catholic Bishops of Uganda* (Marianum Press, 1989).

[39] The local version, which is very simplified and perhaps a little crude but nonetheless effective became 'zero grazing message'.

[40] The Catholic Church accepted the first part of the message ('abstain and be faithful') and was never forced into compromises with its position or to accept the promotion of the condor as part of its action in order to gain acceptance and be able to take part in the national campaign against the epidemic. The presidency of the Uganda AIDS Commission – the highest body at a national level in Uganda to combat HIV/AIDS – has always been entrusted to Catholic and Anglican bishops. For that matter, the emphasis laid on the promotion of the condor appeared very much later in the history of the epidemic in Uganda and once the positive results of the priorities promoted by the ABC message had begunn to produce their effects. For greater information on the subject see HOGLE J. GREEN E., NANTULYA V. STONEBURNER R. AND STOVER J., *What happened in Uganda? Declining HIV Prevalence, Behavior Change and the National Response*, published by USAID, in the *Project Lesson Learned Series*, September 2002.

[41] *From the Mission and Policy Statement of RCC Health services, Part IV, par. 2.3. Relationship with privileged partners*. 'Partners' can be all the Christian organisations, NGOs and health-care units that work moved by the same evangelical spirit, identify with the same mission, even though at times they can be separate from the dioceses.

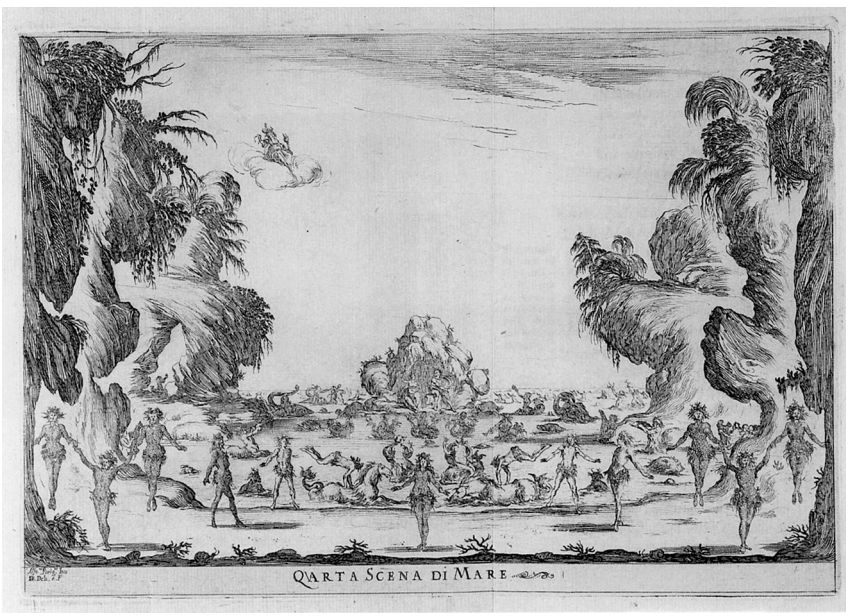
[42] F. GONZALEZ, *Los movimientos en la Historia de la Iglesia* (Encuentro, Madrid, 1999); *I movimenti. Dalla Chiesa degli Apostoli a oggi. Prefazione di Giorgio Feliciani. Postfazione del cardinale Joseph Ratzinger* (Biblioteca Universale Rizzoli, Milan, 2000).

[43] Cfr. U. von BALTHASAR, *Sorelle nello Spirito. Teresa di Lisieux e Elisabetta di Digione* (Jaca Book, Milan, 1974, pp. 1-32.

[44] THOMAS TALLEY, 'Healing, Sacrament or Charism?', in *Worship*, 46 (1972), 518-527, cf.p. 521; DAVID STANLEY SJ, 'Salvation and healing', in *The Way*, 10 (1970), 298-317.

[45] *Salvifici doloris* (11 February 1984), n. 31.

[46] *Ad gentes*, 12; specifically for this reason material necessities must be assured to people who are sick (*ibidem*; cf. also *Apostolicam actuositatem*, n. 8). The documents of the Second Vatican Council make numerous references to care for the sick and the texts that refer to the meaning of suffering following in the footsteps of Christ and his approach to the suffering are very rich. The Church and Christians must have the same approach. In *Lumen gentium*, n. 41, reference is made to the union of the suffering and the sick in a special way with the Mystery of Christ (n. 41). The same is emphasised in the message of the Council (8.12.1965) to the poor, the sick, and all those who suffer. *Lumen gentium*, n. 46, when referring to religious consecration, lays specific emphasis on these apsects of the total consecration of a religious to Christ.



2. Reflection on Revelation

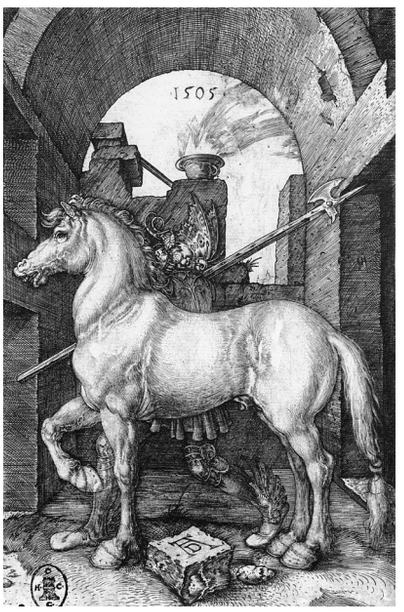
WOJCIECH GIERTYCH

2.1 Faith, Charity and Infectious Diseases

1. Edmund Wojtyła, the older brother of John Paul II, was a doctor. He died in 1932 after having been infected with scarlet fever in the hospital where he was working. Shortly before his death, he asked his father to ensure that his younger brother Karol would not become a doctor or a priest, so that he would not be obliged to have contacts with many people and would not run the risk of being infected with some serious disease.[1] When during the war years Karol Wojtyła discovered his vocation, he had become accustomed to the proximity of death and he did not bother with his brother's fears. Little did he know that in his priestly life he would meet with more people than anybody else in the history of humanity! And somehow he lived his vocation to the full, as *Totus Tuus*, trusting in the support of divine grace, without contracting a dangerous infectious disease.

2. The drama an infectious disease brings bewilders those who are sick themselves, their families and friends, society at large and above all the medical staff who have to be in contact the sick. The natural fear of suffering and death in such a situation becomes acute. How is this fear to be handled? What sort of contact with the patient is to be established, so as not spread the disease and so as not to be infected? Should the patients be treated in special closed sanatoria, expelled from society, like the lepers in the Old Testament, or should they be allowed contact with wider society? Are doctors and nurses to be obliged to have contact with such patients, when even their closest relatives are inclined to leave them out of fear of contagion? Is it morally permissible to risk one's own life for the good of a patient who will soon die anyway? Particularly in countries where there is a shortage of medical staff (and where they may be dying out, as in some African countries dramatically touched by the AIDS pandemic), should not the running of the risk of being infected convince doctors that they should above all save their own lives for the good of the greater number of people, whom they may serve?

3. These issues, being casuist questions, like all moral questions, can be viewed from various angles. It is possible to analyse them from the point of view of natural law, and that of revealed law, which has been given to humanity in two stages. The law of the old dispensation, composed of commandments, excludes basic evil actions and leads towards a higher ethic given by Christ. The new law of the Gospel is primarily an interior law, conditioned in the soul by the Holy Spirit himself, who infuses virtues and divine gifts, and who, through the teaching offered in the Gospels and the Magisterium of the Church, leads towards a deeper faith in Christ and manifests how the freely given grace of God may be applied in various human situations. That is why the new law, apart from the moral commandments, known from natural law and from the old dispensation, proposes evangelical counsels that may be lived out only on the basis of a deep faith and trust in divine support.



4. Searching for the grounds of a public policy on the treatment of people with infectious diseases, ethical reflection at best turns towards moral principles that can be drawn from natural law, or in the atrophy of cognition of the metaphysical foundations of natural law, it turns towards procedural ethics, worked out on the basis of experience, mutual consent or utilitarianism. In countries where a litigious culture prevails, written policies are enacted specifying de-

tailed procedures that are to be followed in every possible situation. Through these institutions defend themselves against expensive court cases. Hospitals possess clear-cut mission statements and refined rulings about the obligations of the hospital staff, which include cases of dealing with patients suffering from infectious diseases. Are dentists obliged to extract the teeth of HIV positive patients, thereby running the risk of coming into contact with their infected blood? What sort of protection, apart from a clean overalls or masks over their faces, are nurses and doctors expected or allowed to wear when coming into contact with patients suffering from tuberculosis, not only in view of the good of the patient, but also in view of their own good? A natural law reflection, commencing with the fundamental intuition that good is to be pursued and evil avoided, works out conclusions from the basic inclinations of human nature, such as the inclination to preserve life, the inclination to transmit life and to educate children, and the inclination to know truth and live in society. From these basic inclinations focused on principal values, taking into account the dignity both of the patient and of the medic, their inherent human and acquired rights, solutions may be worked out. The arriving at practical conclusions on the basis of purely natural reasoning is not easy and it is not in all cases convincing, in particular when agreement on philosophical foundations is lacking.

5. A Christian response towards moral challenges goes beyond the conclusions that can be arrived at through a rational philosophical reflection. While it may not be always possible to formulate and defend a public policy on the basis of the fullness of the Gospel message, the specifically Christian ethic can and should permeate from within the attitudes and witness of Christians. The supreme Christian moral law, the new law of grace is not only an external law that would offer precise solutions to the perplexed mind.[2] Its foundation is the mysterious presence of the grace of the Holy Spirit, who from the depths of the soul offers spiritual intuitions and support that transform the mind, opening it towards perspectives that transcend its natural perceptions and calculations, that elicit in the will an attraction towards the supreme good of charity, and enkindle in the heart, that is in the emotions and in the intuition, a compassion and concern that grants a humane flavour to all actions. Openness towards the inner movement of the Holy Spirit requires a true faith in Christ as its foundation. The externally transmitted word, found primarily in the Sermon on the Mount and in the manifold teaching of the Church, with its concomitant spiritual dynamism, coming from the divine Person, disposes towards a deep faith in Christ and orders the use of grace in numerous human situations. Following the conclusion of St. Paul in his *Letter to Galatians*, who strongly insisted on the uniqueness, interior liberty and moral fecundity of a life based on faith in Christ, St. Thomas Aquinas, as he defined and spelt out the specific elements of the new law and its functioning in the soul, recognised the manifestation of the Holy Spirit in "faith that makes its power felt through love" (Gal 5, 6). While the mysterious workings of grace together with other truths of faith cannot be experientially noted and rationally proven, the experience of undertaking acts that have a practical faith in Christ as its foundation and that aspire towards a supreme charity can be noted both by the agent himself, and by others, who witness a heroic act of charity that can only by motivated by a deep faith.

The positing of the new law of grace as the apex of Aquinas's moral synthesis is fully in accord with the teaching of St. Paul.[3] A reflection on the natural law and its moral implications has its place within a Christian moral theology, because the mystery of faith does not deny the rights and competence of reason, but a truly Christian presentation of the moral life would be stunted, if the dynamism of the grace of the Holy Spirit, functioning within the workings of the moral act would be ignored or set aside. The Gospel word that is the Good News, capable of changing the world from within is a word that is graced by the power of the living God Himself. This means that a two-level presentation of moral dilemmas is possible: one that is centred on the dilemma itself, searching for rational, philosofically defendable arguments that may serve in the working out of prudential solutions; and another that is centred not on the dilemma itself, but on the saving presence of the living God, who through the interior dynamism of the Holy Spirit illuminates, inspires and instigates a solution of a concrete moral dilemma that far surpasses the limited, risk-free conclusions of the calculating mind or even more, creates a moral dilemma, where the purely rational mind does not see any problem. The believer knows that a living faith, provoking unimaginable acts of charity, transforms completely all moral situations, making them occasions in which the fecundity of God manifests itself. In addressing moral issues often attention has been given only to purely rational reflection in the conviction that moral questions need to be interpreted in the light of philosophical arguments, working out the ultimate justification of obligatory moral norms and thereby opening a field of dialogue with unbelievers, whose willingness to engage in intellectual, ethical debate on the basis of metaphysical assumptions was presumed. Difficulty in accepting rational moral arguments however, is caused not only by the weakness of minds, but also by the weakness of wills and feeble hearts that retreat from even convincing moral conclusions. Furthermore, a unique focus on rational argumentation in moral reflection has led to a practical Pelagianism, depriving moral agents of an initiation into the life of grace which offers the only available dynamism, capable of mustering the will and moving feeble hearts in their striving for the supreme good and enabling the living out of moral challenges that the weak mind often dimly perceives and yet in its knowledge of its own limitations rejects.

What is needed are not further rational arguments in defence of difficult moral obligations, but an introduction into the spiritual life that generates trust in the power of the living Word of God, which can touch minds, wills and hearts more deeply than philosophical reasoning, and this means that a moral discourse needs to be truly theological, focused on the real presence of the power of the Holy Spirit, exactly within the heart of concrete moral dilemmas. Only then the presentation of a moral challenge will simultaneously be an initiation into an encounter with grace that makes the taking up of the challenge possible. If in the Western world the Church is facing widespread rejection, this is for the most part because the Church's discourse is primarily interpreted as moralising and not sufficiently as an annunciation of the power of grace, which Christ offers.

6. The spiritual life needs for its commencement a living faith, centred on the Person of Christ. The act of faith is a moment of the humility of the intellect, when the mind perceives its own limitations and yet continues to reach out towards the mystery that has been transmitted to it in the Church from the apostles. Faith is not an amputation of the intellect, but an acceptance that the intellect is drawn out deeper into the divine mystery. The object of faith is God himself, not just knowledge, even theological knowledge about God, but the living God himself. And the motive for the act of faith, which is undertaken under the impulse of the will, is also God. We believe God, because of God, because we are moved by God. The origin of faith in the soul comes from a freely given movement of grace, even though the growth of faith and its application in thinking and decision-making depends upon human effort and cooperation. The supernatural character of faith explains why it is not possible to convince anybody about the truths of faith. Apologetic arguments may show that the act of faith is not absurd, that there is an inherent logic within the truths of faith, that they are based on Revelation, but they cannot force the transfer from unbelief to belief, from the natural to the supernatural level. That comes as a gift of God. In baroque theology influenced by the writings of the Jesuit L. Molina, it was held that while the object of faith is supernatural, the motive for it could be natural. This is not the position of Aquinas, who claimed that also the motive for faith is supernatural, because it is God himself. This means that purely natural reasons for faith, like the belonging to a Christian culture, the authority of respected individuals, philosophical arguments or surprise caused by miracles, are insufficient for faith. Faith as an infused virtue entails the penetration of the human intellect by God Himself, and this is faith's grandeur and not weakness.

Since faith is supernatural, it enables the contact with the living God.[4] In prayer, whether vocal or contemplative, when faith is exercised, a point of contact is established between the soul and God. And since God is supreme love, God has an inherent need to give Himself. Whenever a true act of faith is made, even on the basis of a simple cognitive formulation: "I believe that Jesus is present here in the tabernacle", God is touched and immediately an invisible movement of grace, like a subterraneous stream penetrates the soul. It is necessary to believe in the supernatural character of faith, in that it enables a direct contact with God. That is why, it is extremely important to ensure regular moments in life, when faith is exercised. That faith is to be child-like, and at the same time adult. In a mature adult way, through the regular practice of prayer, the keeping of faith alive needs to be ensured, but that faith is to maintain a simple, child-like trust focused on the goodness of God, expecting to receive everything from Him. Only then, when exercised faith will become the dominant impulse in life, grace will begin to transform from within the spiritual life, infusing the gifts of the Holy Spirit, that is, those spiritual capacities that enable the recognition of divine intuitions, and infusing moral virtues that provoke a generous and creative reaction to concrete human challenges.

The life of faith requires the support of theological reasoning, which nourishes, strengthens and defends it, habituating the mind to the revealed and transmitted teaching. It also requires the reception of the sacraments that are food for faith. But ultimately, it is the exercise of faith itself, within private prayer, within the liturgical reception of the sacraments and above all within the living out of concrete human acts that have faith as their foundation, which strengthens faith. Faith is nourished by itself, because it opens to the divine life. A living faith, since its object is God Himself accepts not only dogmatic truths as true, (which is not particularly difficult), but it accepts the mystery of divine guidance as it unfolds itself in daily life as the foundation of practical decisions. That divine guidance remains mysterious and as faith is strengthened and as its influence penetrates the entire personality, the darkness of the mystery of faith remains and even becomes darker, and not lighter. The darkness of faith flows not from sinfulness, but from the nature of the intellect, that searches for light. There is an inherent contradiction between the natural aspiration of the intellect and the mystery of faith, which requires the humility of the intellect, and this is cause for pain. But precisely because God hides in the mystery,

He cannot be reduced to the level of an object of cognition over which it would be possible to have power. Where the contact is through faith, God is not reduced to the level of a solution of a riddle, and in the approach to Him there is then room for trust, hope and love. Paradoxically, by hiding in the mystery, God enables a trustful contact with Him and in this reveals His paternity. To lead a truly spiritual life, courage is needed to go forward on the basis of the solid foundation that is walking on water. As St. Peter believed in Christ, he walked towards Him upon the waves (Mt 14, 29). As his faith trembled, he started to sink. Sometimes it may seem that going forward is easy, like walking on the ice of a frozen lake. At other moments, profound acts of faith need to be mustered so as to go forward towards a future that is mysterious and incomprehensible, despite insecurity, doubts and the emotions of fear, disgust or even anger. A living faith, since it establishes a contact with God and opens the soul to the invisible movements of grace, expanding the mind to horizons that exceed its natural capacities, it disposes to receive the movements of the gifts of the Holy Spirit. With the mediation of the Gospel word, that includes the parable about the Good Samaritan (Lk 10, 29-37) and the numerous evangelical counsels, inviting to walk the extra mile, to offer the cheek, to forgive (Mt 5, 38-42), to visit the sick (Mt 25, 35), the Holy Spirit inspires and provokes acts of charity, which require an act of faith as their foundation. It is only when reason is crucified by faith that the fullness of charity is elicited in the soul. The Good Samaritan had to have profound faith to invest in the poor man, not only concern and the money that he had with him at the moment, but also the money that he did not have, and he hoped to earn in Jericho. In charity a love is offered, the power of which is not experienced, on the basis of a faith centred on Christ, in the belief that His Spirit will infuse the love that will be needed. Divine invitations, like the evangelical talents (Mt 25, 14-30) need to be put into practice in an intelligent and creative way, but on the basis of faith. The capacity to give freely and intelligently, uniquely on the basis of a divine intuition, recognised only in faith, and sometimes struggling against contrary emotions, grows through exercise. The more one responds to God, the more subsequent graces become demanding. The more transparent one is to the inner movements of grace, the more God invites to a greater generosity, always with the mystery of faith as the foundation.

Classical theology, following Aquinas, defined an active faith as faith that is formed by charity.[5] It is a faith that is characterised by movement. Precise distinctions, made possible by Latin grammar, bring this out. An unformed faith may refer to two acts: *Credo Deum esse* and *Credo Deo*. The first refers to belief in the existence of God and the second refers to belief in the truthfulness of God. It is possible to believe that God exists, because unbelief is absurd and leaves the puzzle of all existence unresolved, without really engaging in a living faith. Similarly it is possible to accept in a general act of faith, the truthfulness of Scripture and all the dogmas taught by the Church, without really being bothered by them. The act of faith that is formed by charity: *Credo in Deum*, where the preposition *in* is followed by the accusative case, refers to a belief that includes movement towards the object of faith. It could be translated as: "I believe towards God", meaning that the act of faith draws with it a movement of charity and all the other moral virtues. The focus of God in a formed faith is not a mere assent or approval of the existence of God and His teaching. It involves the functioning of the foundation of faith within human action, in all its stages, from intention, decision, sometimes deliberation and execution. An active openness to God involves therefore the invitation of God and His ineffable mystery into the very process of decision-making and action. The extension of the mind's perception towards the divine mystery by faith makes it lucid in intuitively seeing challenges and moral dilemmas, where a crude mind sees nothing, and the infusion of divine charity in the will awakens its inherent attraction towards a true and often difficult good, against which a callous and indifferent will will shirk.

7. In between faith and charity, there is place for hope. The theological virtue of hope like faith is centred on God. It is distinct from the emotion of hope or ambition that supplies the psychic energy to undertake arduous tasks, and from the virtue of natural hope, called magnanimity that is focused on natural, difficult ends. Being a virtue, the theological virtue of hope needs to be cultivated, habituating the will in its directing itself towards the mystery that God has planned. It grows through the letting go of attachments, including the attachment to memories, both good and bad, that may prevent the acceptance of the will of God. Just as faith understands that there is an unknown in daily life, within which there is a hidden presence of God, so hope accepts that the future is ultimately in the hands of God, and that it is full of surprises, because God leads through life in a way that could never have been imagined or planned out.

8. Charity is a participation in the love that "has been poured into our hearts by the Holy Spirit" (Rm 5, 5). It is a supernatural but created love that conditions the will in its choices, and often it has

an echo in the emotions, generating compassion, concern and attachment. Charity enables one to enter into a friendship with God and with others in view of God. Friendship requires that there will be the same level with the friend, a common end, and an exchange in the process. It is possible to become a friend of God, only because God has elevated the soul by grace to a supernatural level. Otherwise, an encounter with God would not have been possible. The end of the friendship of charity is the final union with God in eternity. To keep this friendship alive, there has to be an exchange, a regular dialogue. In fact, God is more concerned about the quality of the encounter with Him than with the actual success of the work that is undertaken. It is not so much important what we do in life, as how we encounter God as we do it. The relationship with God can be entertained even while things are done, which are not seen as important and great according to human standards. It is not activism, which may be a field for pride that is decisive in Christian life, but the regular encounter with God, through a lively faith and a generous response to divine impulses. These are invitations to a greater generosity, to a gift of self, to true service, to a smile.

The love of God spills out into the love of others. Those who love God love those whom God loves, and with that same love. The perspective of faith enables the perception in another person, beginning with oneself, that fact that he or she is included in God's love. The doctor or nurse, in loving the patient, recognizes that the patient is also a child of God, an object of divine love. In loving a person, the good of the person that is loved is desired. That good desired for the other is perceived in faith and it includes also the supreme good that is the final union with God. The eschatological perspective of faith influences the quality of the love of the other. It is not only the physical well-being of the other that is desired in charity, but also the moral and spiritual. That is why our own moral good is placed on a higher level than the good of the other. We may sacrifice our physical good, for the good of the other, but we cannot sacrifice our spiritual and moral good. There is no rivalry between the love of God, the love of self, and the love of brethren, because it is that same divine love that is addressed directly towards God and towards others. There will only be a rivalry, when the love of charity is faced with a purely natural, willed or passionate attachment. A love however, that may initially be passionate and egoist, as it will be elevated through faith in God to the supernatural level, it will focus on the supreme good of the other, and it will be purified of any residual egoism, without losing anything of its natural, emotional humanity.

The love of charity is incarnated into human relationships, transforming them and giving them a spiritual depth. It may begin with a purely natural attachment, or even with a dislike, but if the primacy of faith in God is maintained, that love will be elevated, and something of the love of God will transpire through into the human relationship. The love of charity has a divine fecundity. God is pleading for our hands and hearts, for our choices and creativity, to make His love present, here and now, exactly where we happen to be, and where that love will bear fruit. In fact, this living out of "faith that makes its power felt through love" within the context of human relationships and responsibilities is a way of making the Church present in the world. The quality of human relationships, transformed by divine love changes the world from within. It is understandable then that this divine love, as it is incarnated in diverse situations and human relationships, is not moved always by an equal affection. Not all people are loved with the same concern, when they are loved through divine love. To think that all people are to be loved equally means that nobody is loved. There is a greater responsibility for those who are close, due to family connections, natural friendships and social ties, than for those who are distant, and this is normal.[6] The love of charity will therefore always be preferential, and this should not be questioned. The loving of those who are close and who respond with a mutual love gives psychic strength, which regenerates the personality and enables then the loving of those who are distant. If a doctor loves his family dearly, (not uniquely on a purely natural basis, but also through faith), and through this love experiences psychic regeneration, this will give the affective capacity to love those who are met on a serial basis, that is the patients. The doctor, who does not love anybody in a profound way, will find it very difficult to love patients, with whom relationships are not so close.

9. The presented theological principles concerning the theological virtues describe the basic elements of a mystical approach to life. In every vocation and every human situation, there is place for faith and divine love. In particular this is true for the representatives of the medical professions, who every day come across sickness and human tragedies, who face the mystery of death and the joy of life. The doctor or nurse, meeting with patients who are suffering from serious contagious diseases, apart from taking measures that will be technically appropriate according to medical science, may look towards the tragedy of the patient, seeking to console, to uplift, and also to help to face the coming death and the meeting with the Maker. They may also, in fear of their own contagion, reduce the medical procedures to the bare minimum, manifesting their fear, disgust or distance that will be humiliating for the patient. In the choice of attitudes and concrete acts, there is place for a lively faith, open to God, for a hope that goes beyond personal calculations, for a love that trusts in the presence of God within the heart, the gestures, and the choices made for the good of the patient. It is not really possible to legislate about procedures and attitudes that flow from a personal encounter with God. But it is possible to propose such attitudes and internal dispositions in which a vivid openness to the mystery of God will be maintained.

The person suffering from a contagious disease knows that all

human contact may endanger the other. This is extremely humiliating and it adds to the suffering and fear of death that the patient experiences. Every sick person experiences loneliness, and separation caused by contagious disease only aggravates that loneliness. The time of sickness however, may also be like a retreat, a moment of spiritual renewal, a God-sent period of coming to terms with oneself, with resentments, anger, hidden resistances to grace, and a preparation for death. The fear of death, and the incapacity of facing it and interpreting it, generates sometimes among the medical staff the contradictory attitudes of both desperately attempting to prolong life through extraordinary means and of terminating it prematurely through euthanasia.[7] A Christian understanding of death as the moment of the final and eternal encounter with God, and an understanding of dying as a process in which the openness to God's grace and the allowing of oneself to be loved freely by God is developed, will enable the medical staff to assist the dying person in the final, spiritual journey. The doctor's and the nurse's overcoming of their own fears through a lively faith, and their true and devoted charity may help the patient to grow in trust, and accept the loving hands of God. Palliative measures should not deprive the patient of the possibility of approaching death in a humane and dignified manner. Seeing the generous gift of self of the doctor and nurse, explained only by their faith, the patient may sometimes finally and in a decisive way, perceive the merciful love of God, and that He awaits only the trustful heart of His child. In previous centuries, people lived in a greater dependency on God, and so they had a trustful relationship with Him. Today, many throughout their lives have no need for God because they are self-sufficient. God in His mercy, however, has extended now the length of life and sometimes the final period is experienced in suffering and solitude. This is a God-sent moment to learn how to be a child before God. The transmission of faith based charity by those that accompany the dying is a wonderful ministry that is far more important than the strictly medical services that are administered. The intuition and witness of Blessed Mother Theresa of Calcutta in a vivid way, has shown this to the world.

Rev .WOJCIECH GIERTYCH OP
Theologian of the Papal Household, the Holy See

Notes

[1] I heard this story in Kraków.

[2] ST. THOMAS AQUINAS, *Summa theologiae, Ia-IIae*, q. 106-108.

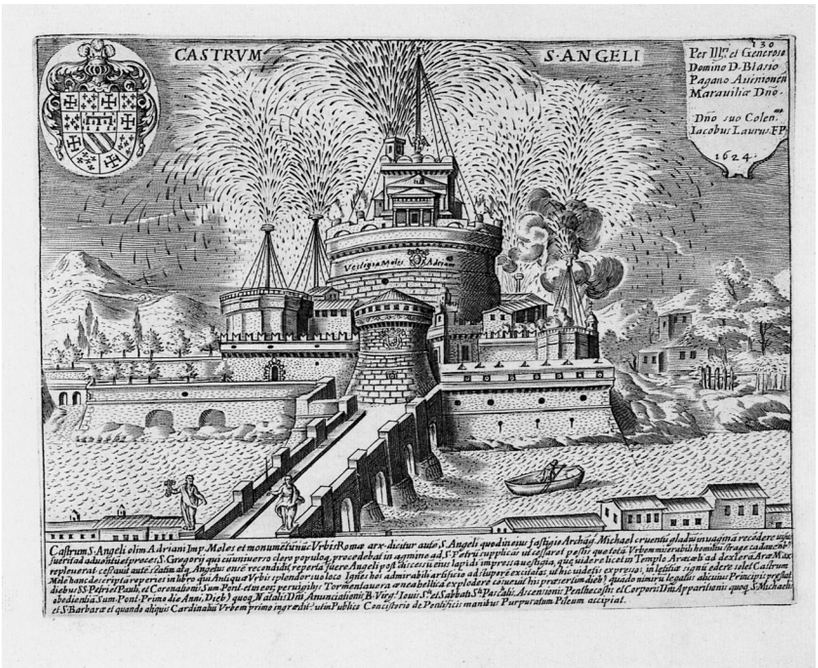
[3] Servais Pinckaers OP, *Les sources de la morale chrétienne*, (Fribourg- Paris: Éditions Universitaires, Cerf, 1985), p. 178-194.

[4] ST. THOMAS AQUINAS, *Summa theologiae, IIa-IIae*, q. 1, art. 2, ad 2: *Actus autem credentis non terminatur ad enuntiabile, sed ad rem.* John Paul II, *Dominum et vivificantem*, nr 51. *Faith, in its deepest essence, is the openness of the human heart to the gift: to God's self-communication in the Holy Spirit.*

[5] ST. THOMAS AQUINAS, *Summa theologiae, IIa-IIae*, q. 2, art. 2.

[6] In a rare case of anger, St. Thomas Aquinas strongly rejected the idea that the love of charity has to be equal: *IIa-IIae*, q. 26, art. 6: *Quidam enim dixerunt quod omnes proximi sunt aequaliter ex caritate diligendi quandum ad affectum… Sed hoc irrationabiliter dicitur.*

[7] JEAN-MIGUEL GARRIGUES, *À l'heure de notre mort. Accueillir la vie éternelle*, (Paris: Éditions de l'Emmanuel, 2000) p. 52.



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PASCUAL PILES FERRANDO

2.2 The Witness of Saints who Dedicated Themselves to Care for People Afflicted by Infectious Diseases

1. Following Jesus Leads us to Live Loving Other People

In the Church we are called to follow Jesus Christ, her founder, and to follow the Gospel, which, as good news, he transmitted to us. We know that the principal commandment of the Law is the commandment of love: 'And one of them, a lawyer, asked him a question to test him, "Teacher, which is the great commandment in the law?" And he said to him, "You shall love the Lord your God with all your heart, and with all your soul, and with all your mind. This is the great and first commandment. And the second is like it, You shall love your neighbour as yourself"' (Mt 22:36-39). The large number of actions performed by Jesus described in the gospels, the parables he employed during his preaching, the observations of the last supper which St. John brings together in chapters 13-17 (which culminate in the priestly prayer), confirm this. Jesus says this in a clear way. He is the Messiah.

He expresses this clearly when beginning his public life in the synagogue of Nazareth. He is given the Book of Isaiah and after opening the scrolls he goes to the passage which reads: 'The Spirit of the Lord is upon me, because he has anointed me to preach good news to the poor. He has sent me to proclaim release to the captives and recovering of sight to the blind, to set at liberty those that are oppressed, to proclaim the acceptable year of the Lord' (Lk 4:17-19). Then, in response to the question of the disciples of John the Baptist, who asked whether he was he who was to come or whether they still had to wait, he answered: 'Go and tell John what you have seen and heard : the blind receive their sight, the lame walk, lepers are cleansed, and the deaf hear, the dead are raised up, the poor have good news preached to them' (Lk 7:22). Jesus presented this call in the very direct form of the parable of the Good Samaritan (Lk 10:29-37). At the end of this parable he offers the great invitation 'Go, and do you likewise'.

John Paul II dedicated the entire seventh chapter of his apostolic letter *Salvifici Doloris* to this subject. With this parable, in the view of the Pope, Christ wanted to answer the question 'who is my neighbour?' Only the Samaritan showed that he was a neighbour to the unfortunate man who had been robbed and wounded by brigands. The parable of the Good Samaritan points out to us what the relationship of each one of us should be with our neighbour who suffers. We are not allowed to pass by: we must, instead, be at his side. The Good Samaritan is every man who is near to the suffering of another man, independently of who he is. This approach does not mean curiosity but readiness to help. After an analysis of the compassionate part of dedication to other people at times of pain, the Pope goes on to engage in an analysis of help offered in suffering, whatever its character, in an effective way, as self-giving which can even endanger one's own life, as has happened in many cases of infectious diseases when it was not possible to take due precautions against being struck by the infection. In the parable of the Good Samaritan, the Holy Father, in his analysis, goes to the text of Mt 25:31-46 in which Jesus reveals that in the final judgement what has been done to others will be seen as something done to him: 'Come, O blessed of my father, inherit the kingdom prepared for you from the foundation of the world; for I was hungry and you gave me food, I was thirsty and you gave me drink…'

Many Christians, both consecrated and not, have dedicated themselves as health-care workers to people who suffer. Many other people have also done this, working as volunteers, dedicating their own time and their own knowledge to other people. The Church has a list of a large array of people who have dedicated their own lives in a particular way to other people, above all to those in need and to those who suffer.

2. Giving Oneself to Others in a Heroic Way

The paschal mystery of Jesus Christ, his passion, death and resurrection, is testimony to his heroic dedication to the Father and to us so as to redeem us. This paschal mystery was predicted on various occasions, one of which is described by St. Mark the Evangelist: 'he was teaching his disciples, saying to them, "The Son of Man will be delivered into the hands of men, and they will kill him; and when he is killed, after three days he will rise"' (Mk 9:31). It is not easy to understand that it is necessary to give one's life to others but when this is understood this is a great pathway that leads to the meaning of life, a pathway of spiritual growth.

Dedication in daily life is dedication of great value. To manage to get up one day with the strength that the Lord gives us with the joy of beginning the day by seeing it as a new opportunity to dedicate ourselves to other people, giving thanks for our health, and being able to dedicate our person and our time to the Church, to people, to work, to those who suffer with generosity and with joy, is a great testimony, a heroic fact. The days that are truly significant are many in number: days enriched by the experiences that come from contact with the sick and those in need, people that we have helped at the level of their moral and spiritual needs or that we have helped in dealing with their physical needs. This is truly a privilege.

Circumstances have ensured that in some situations many Christians have come to give their own lives unto death. The martyrdom of so many people for the cause of Christ is truly testimony to dedication for the profession of faith and for love of God. I will now address myself to this point. My aim is to present the lives of saints and blesseds who have dedicated themselves to caring for people who had infectious diseases. Their dedication has been heroic. In some cases they were infected by the disease; in others they died because they had been infected.

3. The Testimony of Saints and Blesseds who Dedicated Themselves to Caring for People with Infectious Diseases

It is surprising to see how many people down the history of the Church have dedicated their lives to caring for people with infectious diseases. I will now dwell upon some of these people.

3.1 Saints and blesseds who died of epidemics when serving sick people

1. The martyr saints of Alexandria, 28 February 262.
2. St. Finnian of Clonard, 12 December 549.
3. St. Salvius of Albi, 10 September 584.
4. St. Cedda, 26 October 664.
5. St. Louis of France, 25 August 1270.
6. Blessed Bartolo Buonpedoni, 12 December 1310.
7. Blessed Bernard Tolomei, 20 August 1348.
8. Blessed Odin Barotti, 7 July 1400.
9. St. John of Capistrano, 23 October 1456.
10. Blessed Simon of Lipnica, 18 July 1482.
11. St. Geronimo Emiliani, 8 February 1537.
12. St. Luigi Gonzaga, 21 June 1591.
13. St. Giovanni Grande, 3 June 1600.

14. Blessed Anthony Constante Auriel, 16 June 1794.
15. Blessed Augustine Giuseppe Desgardin, 6 July 1794.
16. Blessed Bartholomew Jarrige de la Morelie de Biars, 13 July 1794.
17. Blessed Claude Richard, 9 August 1794.
18. Blessed Florencio D. de Cardillac, 5 September 1794.
19. Blessed Santiago Gagnot, 10 September 1794.
20. Blessed Peter Sulpicius Cristóbal Faverge, 12 September 1794.
21. Blessed Stefano Bellesini, 2 February 1840.
22. Blessed Marie Emilie Tavernier Gamelin, 23 September 1851.
23. Blessed Modestino of Jesus and Mary (Domenico Mazzarello), 24 July 1854.
24. St Maria Michaela of the Most Holy Sacrament (Micaela Desmasières), 24 August 1865.
25. St. Francesco Maria da Camporosso, 17 September 1866.
26. Blessed Damian de Veuster, 15 April 1889.
27. Blessed Piergiorgio Frassati, 4 July 1925.
28. Blessed Eustace van Lieshout, 30 August 1943.
29. Blessed Joseph Zaplata, 19 February 1945.
30. Blessed Stephen Vincent Frelichowski, 23 February 1945.
31. Blessed Ilarione Januszewski, 25 March 1945.
32. Blessed Luigi Variaria, 1923.

3.2 Blesseds who dedicated their lives to service to lepers even though they were not infected by the disease

1. Blessed Peter Donders, 14 January 1887.
2. Blessed John Beyzym, 2 October 1912.
3. Blessed Marianne (Barbara) Cope, 9 August 1918

4. Biographical comments

Because of our knowledge of history, our ties of affection that link us to our religious congregations, and the devotion or curiosity that we have for certain figures, there are saints and blesseds that are known to everyone or to nearly everyone, but there are also others who are almost totally unknown to the mass of people.

The way in which the *martyr saints of Alexandria*, faithful, priests and deacons acted in the year 262 when Galen was emperor is surprising. They dedicated themselves to care for sick people who had been struck down by the plague and provided them with all the care that was required with great charity, and they themselves came to be infected and to die. The Christian community would later venerate them as martyrs.

St. Louis of France. Louis IX of France died in his camp near to Tunez, having been struck down by the epidemic of plague which was destroying his army. It is said

that when the epidemic begun he did not hesitate to visit and console the sick, and he did so until he caught the terrible disease and died on 25 August 1270. He was canonised in 1297.

St. Geronimo Emiliani, the founder of the Order of Regular Clerics of Somasca, engaged in service during the epidemic of 1528; subsequently he took in and educated children who had been made orphans because their parents had died of the plague. When the plague broke out again he devoted himself to care for the sick with heroic charity until he himself fell victim to infection and died on 8 February 1537. He was canonised on 16 July 1767.

St. Luigi Gonzaga, a religious of the Society of Jesus and a minor priest who received permission to look after people afflicted with the plague in Rome, he caught the disease and died on 21 June 1591. He was canonised on 31 December 1726.

St. Giovanni Grande, a religious of the Hospital Order of St. John of God and founder of the Hospital of the Candelaria in Jerez de la Frontera. While a plague epidemic was underway he devoted himself entirely to the sick until he fell a victim of the disease and died on 3 June 1600. He was canonised on 2 June 1996.

The Blessed Marie Emilie Tavernier Gamelin. After being made a widow she founded in Montreal the Congregation of the Sisters of Providence for the care of the elderly, orphans and the sick, including people suffering from infectious diseases. During an epidemic of cholera she fell victim to the disease and died on 23 September 1851, bequeathing to her spiritual daughters her great example of charity. She was beatified on 7 October 2001.

St. Maria Michaela of the Most Holy Sacrament (Micaela Desmasières), founder of the Sisters of Adoration. When she learnt that an epidemic of cholera was underway in Valencia she thought only of helping her sisters in taking care of the sick, and for this reason she went there, caught the disease, and died on 24 August 1865. She was canonised on 4 March 1934.

St. Francesco Maria da Camporosso, a lay religious of the Order of the Capuchins, after providing an outstanding example of holiness of life dedicated himself to care for the sick after a cholera epidemic had broken out in Genoa. He caught the disease and died on 17 September 1866 after offering up his own life to God. He was canonised on 9 December 1962.

Blessed Damian de Veuster, a Belgian presbyter of the Congregation of the Sacred Hearts. He agreed to dedicate himself to care for lepers on the island of Molokai until he himself fell victim to this disease. After providing a sublime example of charity and devotion, he died on 15 April 1889. He was beatified on 4 June 1995.

Blessed Luigi Variaria, presbyter of the Congregation of Salesians, founder of the Institute of the Sisters of the Sacred Hearts of Jesus and Mary. He was educated by St. John Bosco in Valdocco. This apostle and servant of lepers, to whom he dedicated himself with untiring love, who was devoted to the sacred heart of Jesus, with his Salesian spirit brought happiness and optimism to the lepers. In this congregation both the healthy and the sick can live, and thus it is not excluded that amongst the sick a vocation to consecrate one's life to God can be born. He experienced a period of misunderstandings which forced him to move away from Cucuta in Colombia, where he died in holiness on 1 February 1923. He was beatified on 14 April 2002.

Blessed Piergiorgio Frassati was a lay young man who demonstrated a great spirit of piety and apostolic ardour, in addition to marking himself out for works of charity and his visits to the poor and the sick. It appears that it was specifically during one of these visits that he caught the disease that in a short time led him to die on 4 July 1925 in Turin. He was beatified on 20 May 1990.

Blessed Eustace van Lieshout, a Dutch priest of the Congregation of the Sacred Hearts, which he joined because he was attracted by the example of the Blessed Damian de Veuster and wanted to follow his spirit of total dedication. He was a missionary in Brazil from 1925 onwards, was attributed with the charism of healing, and thousands of people went to him to receive his blessing. After moving to Belo Horizonte, he contracted typhus when caring for a patient with the same disease and died on 30 August 1943. He was beatified on 15 June 2006.

Blessed Stephen Vincent Frelichowski, a Polish lay presbyter, was sent to Torun as a parish priest and chaplain for young boy scouts. He was imprisoned by the Germans in various concentration camps and in the end was placed in Dachau. He offered to care for typhus patients in the hut allocated to them and here he contracted the same disease. He died on 23 February 1945 and was beatified as a martyr in Torun on 9 June 1999.

It is interesting to dwell upon the three *blesseds who did not contract leprosy, despite the fact that they dedicated their lives to looking after lepers.*

Blessed Peter Donders, a Dutchman, belonged to a deeply Catholic family and to begin with chose the secular priesthood, going as a missionary to Suriname in Dutch Guayana to serve the sick in the lepers' hospital of Batavia, later professing in the Congregation of the Most Holy Redeemer. After spending years in caring for lepers with all his energy he died on 14 January 1887. He was beatified on 23 May 1982.

Blessed John Beyzym was Polish and a priest of the Society of Jesus. After practising his ministry in various colleges, he was sent to Madagascar in 1898 where he dedicated himself to looking after lepers, for whom he built a hospital. He engaged in wonderful apostolic and social work amongst these sick people. He died on 2 October 1912 and was beatified on 18 August 2002.

Blessed Marianne (Barbara) Cope. She was born in Germany and her family emigrated to the United States of America when she was two years old. She belonged to the sisters of the third Franciscan order of Syracuse (USA). She succeeded the Blessed Damian de Veuster as head of the lepers' hospital of Molokai where she begun the cultivation of the land by the lepers and their access to education, and introduced the concept of hygiene and health care. She died

on 9 August 1918. She was beatified on 14 May 2005.

5. Infectious Diseases

In many places the situation of our world is certainly better than it was in previous centuries. The means that we have available to us to combat diseases give us a great deal of assurance and security. Hygiene, asepsis, and the instruments that impede direct contact (gloves, masks, etc.) ensure that the possibilities of contagion are minimal. When infectious diseases exist, we have many more instruments by which to combat them, and even though in some cases one can be infected this is because of a lack of care, because of promiscuity, and because of intimate contact between infected people. However accidents can happen which can lead to infection.

6. Conclusion

The witness of our saints gives us the possibility to reflect on the future. On the one hand, we cannot but appreciate the fact that in the Church there have been people who have really given their own lives to other people: these have been members of the laity (both men and women), amongst whom also a king, priests and deacons, men and women religious, who have lived by dedicating themselves generously to people with infectious diseases, whether chronically ill or people who are victims of a pestilence, typhus, and diseases that do not forgive, leading them in a short period of time to their deaths. We may state with satisfaction that the Church has been a pioneer and constant in her love for the weak, the marginalised, the poor and above all else the sick and the infirm. It is they who have been and still are the preferential subject of her love, following the model embodied by Jesus.

The saints that I have remembered tried to be witnesses to Jesus Christ who gave himself to others unto death to express to men his merciful love. These saints dedicated themselves to service to people in need and came to give their own lives, and for this reason they are considered martyrs to service.

Many constitutions of religious congregations or orders contemplate the possibility that there is a need for a heroic dedication, as in the case of our religious order: 'we dedicate ourselves to care for the sick and those in need, committing ourselves to provide them with all necessary services, even the most humble and with danger to life, in imitation of Christ, who loved us unto dying for our salvation' (Constitutions of the Hospital Order of St. John of God, n. 22).

There have been very many who died in this service during the history of the Church whose holiness has not been publicly recognised. They must always be seen as witnesses to dedication of one's life with great love, and constitute for us a call to dedicate ourselves to others with generosity, in the modern form of being apostles of charity. As people who dedicate themselves by vocation to care for the sick, knowing how to respond at every moment to need must be a great challenge.

Compared to those before us, we have available many more instruments but despite this we have to pay great attention so that possible examples of imprudence do not favour contagion, even though it can happen that even though we are careful we can become infected.

Without wanting to underestimate other kinds of infectious diseases, today the great pandemic is HIV/AIDS. Its appearance provoked great surprise, many people considered themselves the victims of an unthinkable reality, and unfortunately in developing countries this disease continues to generate many victims. We have preferred to close our eyes to reality, there have been many lifestyles based on the search for immediate forms of satisfaction without the adoption of life ideals that can restore dignity to people. We have to say, however, that such has not been the case in all cases.

The dedication of our saints to people with infectious diseases has been a great call to dedicate ourselves to the education of people and to prevention, and thanks be to God we can offer a dignified life to these sick people, if not weakening the infection of the virus at least providing the possibility of co-existing with the disease, with the promotion of unity in which sick people, by now at the terminal stages of their illness, can be accompanied suitably with palliative care. We must show understanding towards these sick people, above all when their models of life are not the same as the Magisterium of the Church, always offering them our generous love because as Benedict XVI says, where there is love there is God because 'God's presence is felt at the very time when the only thing we do is to love' (Benedict XVI, *Deus Caritas Est*, 31c).

May the Lord give us the ability to give ourselves with generosity, to accept what happens and to feel that we identify with Christ who died for us, to feel that we identify with the martyrs of the Church who have their own lives to profess their faith and with all martyrs, whom we may defines as the martyrs of love and hospitality!

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TONY ANATRELLA

2.3 Epidemics, Collective Fears and Christian Hope

A large number of infectious diseases have always been present and others, without doubt, will appear or reappear during the course of the next years. Fears and anxieties are expressed about epidemic. The Church has played a notable role in receiving and treating sick people and in social accompanying, and this has led her to reflect on and to act on the fears that invade people's consciousnesses. The gospel approach has had to free itself from the earthly approach which sees a divine punishment in every illness. God does not send misfortune and suffering to men. On the contrary, He calls them to a sense of responsibility and calls them to know how to measure the consequences of their actions for life, the fauna and the flora of the world, and the universe. Later in this paper I will return to this approach of Christian anthropology.

During the middle of the last century, thanks to innumerable advances in the field of pharmacology, people thought that they could progressively eliminate illnesses caused by microbes, in particular through the use of antibiotics. Previously closed up in this hope of a radiant future, we have since had to put our feet back on the ground. In reality, we were very far from being liberated from the influence of pathogenic agents. Today, some species continue to disappear, entire forests run the risk of dying, and man is afflicted by various infectious diseases. Anxiety about an invasion by a devastating pandemic has once again become a reality. Because of globalisation, mankind, but also the flora and fauna of the planet, are faced by an increase in infectious agents that threaten them, raising problems of public health but spiritual and moral problems as well.

I here propose an analysis of the three following subjects: 1. the co-existence of the world of microbes and human beings; 2. epidemics and collective fears; and 3. from fear to Christian hope.

1. Co-existence between the World of Microbes, the Environment and Human Beings

1.1 The human spread of infectious agents

The well-known great epidemics of history – smallpox, the plague, tuberculosis, malaria, syphilis, diphtheria, etc., and more recently AIDS, SARS and avian influenza – have involved illnesses provoked by infectious agents that are, amongst other things, passed from animals to man. There is a link between the nursery of these pathogenic agents and men, who for various reasons contract these diseases. At times these micro-organisms undergo mutations in order to adapt to human biology and they then provoke epidemics.

Let us now address the meaning of the term 'epidemic'. It comes from the Latin '*épidemia*', which in turn comes from the Greek word '*epidemos*', and means 'what circulates among the people'. An epidemic, therefore, is the spread of afflictions that can be transmitted by biological agents. More specifically, an epidemic is the spread within a group of pathogenic agents of micro-organisms that infiltrate an organism in order to colonise it and live at its expense on its biological resources. A microbe does not provoke an epidemic but an epidemic cannot take place without microbes.

Diseases proliferate every time that a microbe is expelled from its natural nursery and migrates to another organism, often following a human action. Deforestations, for example, free biological entities that have to find new hosts. And proximity to birds and a lack of hygiene also favours transmission. It was in this way that in 2002 the SARS virus probably passed from an owl to man. The same happens with the pneumopathia caused by the avian influenza virus which is the most recent pathogenic agent to have been full of consequences for mankind. Every time in history that we have the repetition of the same phenomena linked to an epidemic, man has always been responsible for the spread of the infectious agents involved. This is true as regards all afflictions with the exception, strangely enough, of the spread of the HIV virus which causes AIDS. The transmission of this virus is perfectly avoidable through our behaviour and what we do, something that is not the case with many pathogenic agents.

Let the point be well understood. It is the microbe that causes the illness but an epidemic reveals forms of human behaviour, bad social mechanisms, wars, poverty, malnutrition, famine, lack of hygiene and moral reference points, etc. An epidemic can destabilise the life and the structure of society, decree the end of an animal or vegetable species, and can also change the course of history. Thus it is that in the past we have witnessed, following the demise of a sovereign or of the elite of a nation, the production of political fractures and ideological inclinations, that is to say the destructuring of entire civilisations.

1.2 Contextual epidemics

Epidemics have their own performance but each epoch has had its own dominant pathologies and its own specific epidemic experience. To describe these, the historians of mentality and illness employ the notion of 'epidemic transition'. In this way four periods come to be taken into consideration.

1.2.1 The epidemic transition beginning with the Neolithic period

A first epidemiological transition took place in history ten thousand years ago. It was linked to the abandonment of the nomadic way of life and the embrace of settlement and agricultural production. The move was from an economy based upon hunting, fishing and gathering to an economy based upon production. The Fertile Crescent developed in Mesopotamia and formed a circle that went from the Nile to Syria, where agriculture was born. Wild cereals were cultivated (wheat, barley), pulses (peas, lentils) and animals were reared (oxen, sheep, goats). Vegetables and animals were domesticated and this modified nature and opened up the possibility of human factors bringing about epidemics. During this period, because of the manipulation of vegetables and proximity to animals sharing the dwellings of people without the presence of any form of hygiene, a whole host of infectious diseases developed (staphylococci, tuberculosis, leprosy, syphilis, etc.). The domestication of animals favoured other diseases of animal origin: smallpox, diphtheria, malign influenza, salmonella, the plague, etc.

The destruction of forests to create new spaces for agriculture, freed birds, insects and microbes into the Mediterranean area. In losing their places of origin some species disappeared for ever. Others, however, proliferated and drew close to man. The builders of roads enabled a large numbers of viruses to go beyond a number of barriers and find new hosts. The expansion of territory involved wars which were also the vectors for the spread of pathogenic organisms and epidemics.

1.2.2 The epidemic transition linked to the expansion of states and wars

The birth of large states and their need to occupy greater areas provoked rivalry, conflicts and often an apogee and a decline. Wars and trade were vectors for microbes. Armies experienced devastating epidemics.

Wars were the great vectors of infections of every kind. One of the first weapons, the bow, was the symbol of infection. The black death arrived in Marseilles in France in 1347 because of the Genovese who had fled from a port on the Black Sea. In order to save their own possessions, traders and merchants also brought with them the agent of the plague, in particular in the rats that were in their ships. In the Decameron, Boccaccio describes the 'mortal pestilence' that struck 'his excellent city of Venice'. In some areas of France 80-90% of the population disappeared. The country, bled white by war, was afraid. The mercenaries, who no longer took part in armed conflicts, fell upon the countryside to pillage, rob the peasants and engage in terrible acts. The black plague swept all before it. In 1359, of the seventeen thousand people who died in Avignon, there were nine Cardinals and all the hundred bishops of the imperial court. The microbe continued to change the course of history through the merchants and armies that plied the sea routes.

1.2.3 The epidemic transition linked to colonisation

The colonisation of the Americas and Africa coincided with a long period of viral expansion and the development of so-called colonial medicine. The most emblematic events of all this were not only the genocide of the Aztecs and the Mayas by the invaders but also the smallpox virus which decimated these populations as a whole and thus their civilisation as well. It is calculated that fifty million Indians in South America were killed as a result of this dual phenomenon. Known in China, where it was introduced in 49 AD, it is generally agreed that smallpox, called Antonine plague, arrived in Europe with the Arab invasions following the epidemic in Mecca of 572. However, various specialists have also seen smallpox as being behind the epidemic that struck the Roman empire during the reign of Marcus Aurelius. The scourge subsequently spread throughout the world and over the centuries caused frightening pandemics that were responsible for millions of deaths. It was the most virulent of the diseases that decimated the populations of South America during the conquest of the New World after its arrival in 1518.

Most of the European powers created maritime empires supported by ports in all the continents of the world. The exchange of animals, plants, wood, fruit, beans but also the circulation of men and in particular slaves from Africa acted as vectors for the various pathogenic organisms. The Europeans, more than their slaves, were struck by yellow fever. In the nineteenth century, at the moment of the conquest of Algeria by the French, malaria struck the occupiers.

As we can see, the European military, commercial and cultural expansion modified the human ecology of the continents of the world in a way that ignored the consequences of the action that was engaged in. These transformations were often accompanied by the devastating effects of epidemics.

1.2.4 The epidemic transition of globalisation

The shortening of distances and intensive exchange between populations and of goods, favoured by

the modernisation of air travel, at the present time allow bacteria and viruses to move with man. Great and often gigantic works also play a role in the spread of contaminated individuals. These works involve the modification of forests, water courses, the fauna and flora, and drive off billions of bacterial entities.

Infections connected with human migrations and international immigration globalise viral expansion: bacteria and viruses move location. Although on the one hand globalisation allows promising exchanges and provides mankind with a more vital awareness of its uniqueness, on the other it runs the risk of losing from sight solidarity with the environment of fauna and flora and with ecological balance. Man appears as one of the great predators of the planet when he forgets that he is its steward.

Microbes take advantage of the behaviour of man, and let us not forget this point, in order to implement their globalisation. We have a sufficient knowledge of the nature and the mechanisms of action of prions, an infectious particle that causes spongiform encephalopathia, and the age of prions will undoubtedly benefit from the weakening of organisms in order to spread. In the past, the phenomenon of 'trembling' in cattle and sheep (reference was made to 'mad cow's disease' or 'trembling sheep disease' and the animal removed from the herd or flock was sent to the slaughter house) was known about but people did not know its origins. Today we are able to identify more effectively the pathogenic agents that attack the central cerebral system (Creutzfeldt Jakob's disease seems to be connected with a prion that in man leads to dementia) and the immunity system (AIDS), that is to say the infinitely small that attacks the human organism. New agents have appeared and been identified: retroviruses (1973), such as the Ebola virus (1977), the bacterium of legionnaire's disease (1977), Lyme's disease (1982), the HIV virus (identified in 1983), the hepatitis C virus (1989), etc. AIDS, amongst other infections, is without doubt one of the most emblematic diseases of our age, although other diseases bring about a greater number of deaths. Infectious diseases are responsible for 10% of human deaths, of which 1% are due to AIDS.

In three milliard years of existence, the world of microbes has conquered most of the natural environment of the earth in which it has developed. Some people assert that 'the planet belongs to bacteria' which have the power to change the course of history.

We host ten times more bacteria than the total number of our cells. This is the reason why we are endowed with a system of protection – the immunity system. What happens to aggression by microbes is connected with the approach of this system in reacting and fighting against its settlement within the human organism. Man possesses the capacity for resistance and adaptation in order not to be annihilated or has recourse to other resources, in particular drugs and medicines. On the other hand, we are relatively unprepared, as has always been the case, for the threat of epidemics. We are thus forced to think of human life in terms of not having effects on nature, beginning with economic realities, the circulations of goods and individual exchange. We must in the same way we identify the fear that assails populations that have been made fragile by epidemics.

2. Epidemics and Collective Fears

We are at a point in the history of mankind when microbes – to speak in a global way – after being dislodged from their natural sites, are adapting to their new terrain – man. 'Homophagia' is the new challenge of viruses and prions. In order to spread they place their trust in man and his behaviour because, as was rapidly pointed out above, it is man that takes the initiative in promoting epidemics by destroying their reception sites. The behaviour and actions of man are the cause of the majority of epidemics, that is to say of the spread of pathogenic microorganisms. But instead of evaluating his personal responsibility for the fragility of the ecosystem of life, man has often been seen as being attacked and assaulted by the external world and in particular by pathogenic agents. This is an approach of the spirit that is expressed in fear.

2.1 A complex fear

The development of an epidemic always provokes fear. The fear of becoming a victim of an influence, of a force that one does not know and over which man has no power, and the fear of being eliminated and dying. Fear is born beginning with a situation that appears to be frightening and in relation to which a citizen cannot act. In the case of an epidemic, this is often transformed into a collective psychosis through the perception of a widely known future danger. From the fear that the sun will fall on our heads, to the fear of Martians, we are now subject to the fear of avian influenza. The point should be well understood: this is not a matter of underestimating the risk that this affliction constitutes but of illustrating the fear that takes control of men's minds even before the disease has become an important reality. It is true that when a phobia takes over people's minds it becomes uncontrollable despite the efforts that are made at the level of information and the rationalisation of objective data. Fear as an expression of emotions is always there, dense and paralysing, and people are right when they say that it is always a bad adviser. It is contagious and this is even more the case in the contemporary world where societies are less protected than was the case in the past. Indeed, life expectancy is greater, medical science alleviates and heals numerous maladies, and food is not in short supply, even though there are populations that suffer from famine in a tragic way, and risks exist, but they are circumscribed. Faced with the dangers of natural catastrophes, of pandemics, of battery farming, of industrial food, of climatic changes, of industrial accidents, of an extreme exploitation of natural resources, of nuclear and chemical wars, new threats appear on the horizon of future generations. The scenarios of films, of television series, of video games and of novels are principally organised around the idea of a cataclysm that imperils mankind or

part of the world's population. Today, the fear of an imminent or future danger is worldwide and no longer confined to a specific region. This climate weighs upon individual psychologies, on the collective psychology, and on the psychology of politicians, and in the meantime the market for psychotropic drugs that act as tranquillisers prospers. A chemical answer is provided to a moral, psychological and anthropological problem.

2.2 A contagious fear

Fear becomes mental contagion when it is amplified and nourished by the mass media. The mass media are often an emotional resonance box that predicts catastrophes that have not yet taken place and will certainly never occur. In spreading this information, the mass media produce an obsessive effect that engenders insecurity about an event that tends to become generalised and globalised. In living in this climate of fear, a phenomenon of aggression is created that generates archaic realities of the human psyche.

When a crowd is afraid and associates around imaginary productions, it will only with difficulty listen to reason and reflect. Fear begins with a real fact and can be controlled by examining that reality and reflecting on the emotions that it engenders in order to distance the fact that had to be addressed from the emotion that can falsify the approach to it. When fear is over-interpreted and over-exploited emotionally, the reactions run the risk of becoming uncontrollable. A feeling of annihilation generates a movement of panic that is communicated between people. It establishes a feeling of collective fear that invades people who most of the time are reasonable, controlled and careful about other people. In opposition to this behaviour, they allow themselves to be taken over by ideas with a strong emotional charge and by the imitation of the same behaviour (according to the theories of Gustave Le Bon and Isaac Joseph Tarde). Freud based himself upon this analysis and saw behind this phenomenon a re-actualisation of the 'primitive horde'. The mass psychology which remains gregarious, imaginary and passionate, is that which today most corresponds to the audio-visual media. Television, in particular, reconstructs reality in images to grasp and block at an emotional level the viewer and maintain a climate of the 'primitive horde'. What one sees on television is true for he who allows himself to be impressed, because the weight of images prevails. But these images, which are always a reconstruction of reality, are not always the truth of things. The viewer knows only what he sees, not knowing otherwise or not having the learning available to rectify the mediatic approach. Individuals connect with each other in a rather specific way through the television image and allow themselves to be influenced by what they see. It is sufficient for a report on avian influenza to be spread during television news to observe, the following day, a decrease in the purchase of chickens, although the consumer need not have any fears about his health. In this way we witness a phenomenon of contagion of fear through imitation that is to be found in the fear that is generated of a possible pandemic.

2.3 A primitive fear

In this climate of innate immaturity, the most primitive fears remain in the foreground and keep individuals within infantile fears. We live in a troubled society. Adults transmit their fears to their children who do not always have the instruments by which to free themselves from the fears that paralyse them. Fears are a part of life, beginning with the fears of children who do not have knowledge, experience and mastery of events. Fear here is an engine element to live, grow, and discover and acquire knowledge about reality. But there are fears that paralyse and lead us to protect ourselves. To live one's life under the single method of protection and security is not healthy. It is true that for parents the future is troubling. Food products which have secondary effects on health, pollution, diseases such as AIDS and avian influenza, are all realities that can come to create a paranoid vision of the world that surrounds us. This means that outside the confines of parental protection the world is dangerous. Without doubt this is one of the factors that explain why a large number of young people are late in leaving their parents' home or return to their parents' home when they encounter difficulties, unemployment or divorce.

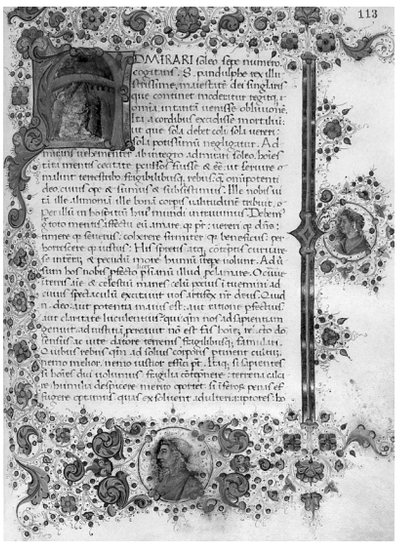
All men have fear. Only the perverse and the paranoid do not have fears or spend time troubling or terrorising other people. Behind individual fear that acts as a basis for the social contagion of fear there is the fear of being abandoned, the fear of being transformed and modified, the fear of getting lost and not being found, the fear of being attacked, the fear of not being protected by people who are stronger than ourselves, such as our parents or adults, and the fear of suffering. The existential fear of dying was always a permanent fear in society in which infant mortality was frequent and life expectancy was lower because of precarious health-care conditions. But populations were more fatalistic than is the case today and had integrated death into the human condition. At the present time, death is socially concealed and for some of our contemporaries it at times appears as an accident in life that could have been avoided. Infectious diseases break this illusory circle and remind us of the moral character of our condition. Life is not a matter of spending time distrusting the world and protecting oneself because of a fear of dying but of knowing how to move from fear of life to hope.

3. From Fear to Christian Hope

In the Book of Genesis (1:26), God gives life and makes man the steward and administrator of the Creation so that it can be conserved and bear fruit. He also established the limits of man's power not because He is jealous of His own power – He appears above all as a humble, discreet and loving God – but so that each human being remains in their freedom of being. God wants to form a covenant of reciprocity and not of competition with man. The world is not a place in which only God can intervene and maintain man beyond all agreements. The world is impregnated

with a bond of alliance between God and man; it is a place where man must exercise his own freedom and responsibility through co-operation with the work of the Creator. But this relationship is far from being simple. The Bible tells us that this bond between man and God is often subject to conflict. The prophets Isaiah, Amos and Jeremiah tell us how much God can be afflicted by the turns of direction and the unfaithfulness of man. God in His loving patience never stops calling upon man to form a covenant with him and make him understand the meaning of his freedom to look for what is true, good and right. But man does not always keep to his place in the creation. He goes beyond it by making himself the sole judge of the rightness of his actions and all things. He comes to 'call evil good, and good evil' (Is 5:20); this is the very essence of every sin. Hence the appeal of the prophets: 'try to do good and not evil, if you want to live…Hate evil and love good' (Am 5:14-15). He does not take divine principles and the objective and universal realities with which he should be in dialogue into account. In withdrawing from these two dimensions, man runs the risk of being subject to the consequences of his actions more than being the object of the anger of God.

In this theological perspective, infectious diseases are not the expression of a 'scourge of God' inflicted on man because of his transgressions, that is to say his sin. They are the expression of the contingency of the universe and the behaviour and action of man in relation to the Creation. As I have demonstrated in this paper, these diseases and their expansion are the result of the practices and the behaviour of man. In a primary religious psychology an epidemic is at times interpreted as a divine punishment whereas in fact it is a trial, which is at times difficult, that has to be overcome. The Gospel invites us to move from the magic of faith and not to complain, looking for people to blame or causes outside ourselves and not calling ourselves to account. Instead of adopting an almost paranoid reflex and putting the blame on others, we should become more responsible in the stewardship of the Creation, and be moved by solidarity so as to be able to defeat the fear of epidemics and promote scientific research and medical treatment with special concern for the poorest amongst us, because it is often specifically these people who are the first victims of the deterioration of the environment, as Pope Benedict XVI observed on the occasion of the first celebration, by the Italian Church, on Thursday 1 September 2006 of the World Day for the Safeguarding of the Environment.



It should be understood that our first responsibility is to use the instruments that are necessary and relevant to protect the Creation, to protect ourselves and to protect other people. To live the spirituality of the Creation and the resurrection mean to avoid all the solutions of death and deliberately locate ourselves on the side of life. We always find the same questions in response to each epidemic, as well as the same forms of behaviour marked by irrationality. Christian faith leads us to address the risks of life and not to let down our guard, not to be fatalists and not to complain or to look for scapegoats. We must remain wedded to reason so as to contain and avoid the move from a viral epidemic to an epidemic of fear and to the images of children who are lost when they are alone and without counter-phobic objects.

The Church has always made her contribution to the fight against epidemics. She is health-giving, social and economic in welcoming the sick and the needy. But she goes further than this in remembering the words of Christ 'how is a man better for it if he gains the whole world but loses his own soul?' (Mk 8:36). Strong in the hope of the Gospel, the Church thus invites a moral and spiritual jump that can only take place if man accepts asking himself about himself, about what his behaviour leads to and its consequences for the environment and future generations. We cannot be satisfied with mere immediate technical protections. Man is a being made of reason, words and morality. He can advance in the quality of his being and conscience only if he accepts, at times, forgoing those practices which, even if they are technically possible, are not necessarily morally acceptable. The only real danger for mankind is that it will lose its soul.

The technical in itself is not progress if it is not morally regulated. When it becomes autonomous it forms a world in itself that obeys its own laws without taking other parameters into account. It even comes to deny reference points or to argue that it is necessary to create new ones with the pretext of opening up new pathways. As it is no longer regulated by the requirements of moral conscience, the technical can turn against man and take part in the unleashing and expansion of epidemics. We should not forget that it is man that provokes epidemics. For this reason, we must be interested in human practices and behaviour.

History teaches us that nature always ends up by balancing herself. But it should be observed that this can take place on a single condition – that her basic structures are not attacked. The history of society has evolved differently according to the epidemics that have struck it. Viruses take part in the selection of individuals, populations and societies, often attacking weak and poor populations. Famine and poverty are the first factors behind deaths in the world. Viruses spread at times because of various disorders, whether they are economic, ecological, relational or social in character, by taking advantage of the destabilisation of the ecosystem in order to enter the various breaches that are offered to their activity.

As Christian hope teaches us, we must develop a morality of responsibility and the ethics of responsibility. This separates the principles from action and transports us to a morality of the lesser evil in which each person is directed to their own personal freedom – which is a good thing – in order to decide what they adjudge they must do, even though they do this in contradiction with moral principles, thereby altering the moral conscience.

Indeed, the moral question that is raised in the face of various epidemics is to know how each one of us can take part in a health-care policy. We should not have any illusions about this: we will never manage to eliminate viruses. The only thing that we can do is to avoid their spread through our practices, to make them inactive, that is to say to treat the pathogenic effects that they generate. The solutions that are offered to us by scientific research and medical science are important but they are not sufficient. Epidemics express themselves in high death rates, often in children and young people, We must be especially attentive to this tragic phenomenon of interrupted human histories because the renewal of generations is no longer assured in the world. From the point of Christian hope within which is located concern for life, which is given to us by God, it is our task to reflect upon human behaviour and adopt a new style of life. (cf. *Compendium of the Social Doctrine of the Church* n. 486 and n. 487) that respects the order of the Creation and renews the bond of solidarity between men and the environment. Otherwise we run the risk of 'emptying nature of her deep meaning and impoverishing her' (*op. cit.*, n. 487).

In the presence of epidemics, worry about death becomes more active and perhaps paralysing. We need to find the right forms of behaviour and a style of life that direct us ever more towards a mentality of 'being' rather than of 'having'. We cannot be satisfied with this mentality of consumption without asking ourselves about the system of the commercial society that produces it. The race to have, the consumption of material goods and human relationships may be interpreted as a way of silencing the worry about death that contemporary society tries to conceal. The lack of hope often causes desolation and existential sadness. This flight forward in a world without limits reveals at a deep level the need for a spiritual life that should be generated and nourished.

Fear is a reality that can assail us; it is in fact bound up with trials and the dangers of life. But Western societies, which are aging, progressively install the need to protect themselves and to turn, in relation to everything and to nothing, to the 'precaution principle', which wants to replace prudence with virtue, a virtue more open to life, reflection and the envisaging of future projects.

Christian hope is a project for life. It opens us up to a horizon and future so as not to be prisoners of the epidemic of fear. Our relationship with Christ enables us to move from fear to faith. During storm that he then calmed Christ asked his disciples: 'Why are you afraid, men of little faith?' (Mt 8:26). We must therefore understand that fear is often an expression of a lack of faith and trust. This does not mean, however, that we should live through the risks and dangers of life in ingenuousness but rather that we should face up to them with trust in the words of life of Christ. St. Paul had experience of this: 'in danger from rivers, danger from robbers, danger from my own people, danger from Gentiles, danger in the city, danger in the wilderness, danger at sea, danger from false brethren (2 Co 11:26). In his weakness and fragility he experienced them in the peace of Christ, in whom he had placed his trust. Indeed, neither fear nor death will have the last word. The last word, as we know, is the resurrection of Christ the Saviour.

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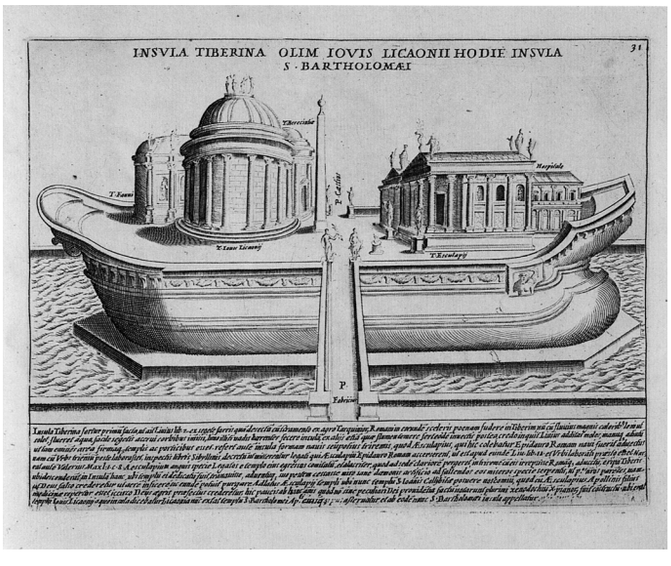


IGNACIO CARRASCO DE PAULA

2.4 Christian Responsibility and Infectious Diseases

1. Christian Responsibility

Responsibility, understood in a general sense and in the context of infectious diseases, could be defined as the autonomous and voluntary direction of one's own personal freedom so as to avoid being the intentional cause of injury to other people. Freedom, in fact, is the exclusive capacity of man to be the master of his own acts and thus involves the correlative duty to '*account*' for these to his own conscience, to his ethical entourage – the community – and to God as the guarantor of human good. Responsibility means both the duty to *justify oneself*, to provide a reason for one's own choices and decisions, but also, and above all else, it means the duty *to accept* the consequences of those choices and actions.

The adjective 'Christian' adds a special model to responsibility – that model indicated by the action and teaching of Christ, which is totally directed towards promoting the good of neighbour, even at the cost of losing one's life. Responsibility, for a Christian, finds its foundation in charity and involves the clear rejection of all forms of closed individualism and above all of selfishness, namely the tendency to privilege one's own interests, one's own self, over the interests and the persons of other people. A selfish person is a person who subordinates the good of other people to his own good and regulates his choices and decisions according to this approach.

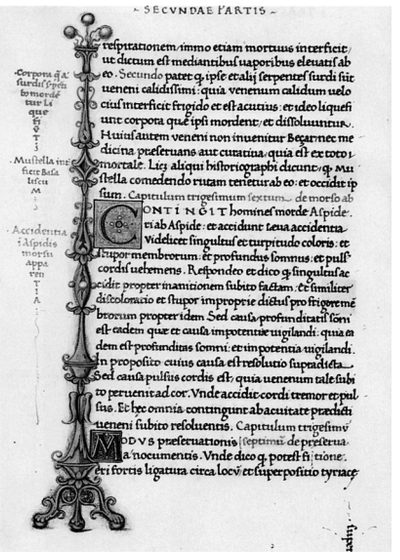
In considering Christian responsibility in the context of the risks involved in infectious diseases, it is necessary to take into account a dual subject and a triple duty. As regards individuals, we should distinguish individual responsibility from collective responsibility. The first refers to the individual person; the second to the social community and in particular to those who are responsible for the public good. As regards duties, first of all there is the duty of prevention, that is to say the duty to avoid being exposed to being infected by an illness. Then, if the clinical indications are correct, the duty to subject oneself to adequate diagnoses, and lastly, if despite everything one has become infected, the duty to engage in suitable caution so as not to transmit the illness to other people.

2. Infectious Diseases

By 'infectious disease' we mean a pathology due to the contagion by the human organism of microorganisms (bacteria, virus, mycetes, parasites etc.) with a consequent development of a set of symptoms characteristic of that specific illness. The pathologies of infectious aetiology are very numerous. Here we will consider only two: first, tuberculosis, which is transmitted through the air, and second, AIDS/HIV, which is transmitted through sexual contact. These two infectious diseases are among some of the most dangerous diseases that to afflict developed countries as well and more than all the others exemplify the ethical questions and issues raised by infectious processes.

a. Tuberculosis

Tubercolosis (TBC), an illness caused by a bacterium, the *Mycobacterium tubercolosis* or Koch's bacillus, was until 1940 the chief cause of death in the populations of the West. Subsequently, with the discovery of antibiotics, it was almost completely destroyed in these countries. Despite this fact, for some twenty years tuberculosis has began to re-emerge because of an increasing mobility of people from regions of the world where the bacillus is still active. Today the situation from an epidemiological point of view is rather worrying because in the Baltic States, in Eastern Europe and in Central Asia levels of the so-termed 'multi-drug resistant' tuberculosis (MDR-TB) are high. In addition, a form of 'extra drug-resistant' TB (XDR-TB) is emerging which cannot be cured.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These are the facts that were presented by the international humanitarian-medical organisation Doctors Without Frontiers at the time of the world conference on lung illnesses which was held recently in Paris (3 October-3 November 2006). At that time this organisation requested from the World Health Organisation (WHO) an immediate change in

strategy given the fact that none of the drugs currently being studied to combat TB can offer a solution in a short period to time, and also stated that to continue to use the forms of treatment that are currently in use, but which are largely ineffective, is a policy that condemns hundreds of patients to death. Every year in fact there are four hundred and fifty thousand cases of 'extra-resistant' TB.[1]

For that matter, TB is a pathology that can be easily transmitted by air. A single cough, a sneeze or merely speaking, on the part of a person with lung or larynx TB can be sufficient to emit a bacillus into air that will then be breathed in by people with whom that person is in contact. In a document of the middle of last October, the World Medical Authority also issued a warning about the growing spread of ultra-resistant forms of TB and observed that prevention is based above all else on X-ray examinations and the analysis of the sputum of individuals at risk.

b. AIDS/HIV

The Acquired Immune Deficiency Syndrome (AIDS) is an illness induced by a retrovirus, the Human Immunodeficiency Virus (HIV), which weakens the immunity defences of an organism. People afflicted with AIDS are not able to combat the emergence of the infections and illnesses – which of varying levels of seriousness – that are caused by other viruses or fungi (opportunistic infections/illnesses). This infection does not have its own specific manifestation but reveals itself exclusively through the effects that it has on the immunity system. A person who is infected is defined as being HIV positive. Although patients can be HIV positive, they can live for years without any symptoms and they can become aware of the contagion only after the appearance of an opportunistic illness. To subject oneself to a test that looks for anti-HIV anti-bodies is therefore the only way of discovering the infection. The advances in scientific research and the use of effective HAART (Highly Active Anti-Retroviral Therapy) have made it possible to prolong the life of HIV positive people for many years.

The virus is present in certain biological liquids: blood, pre-ejaculatory liquid, sperm, vaginal secretions, maternal milk; the forms of transmission, therefore, are varied. Contagion can take place through 1. infected blood (close and direct contact between open and bleeding wounds, the exchange of syringes); 2. sexual relations with infected people; 3. from a mother with HIV to her child during pregnancy, childbirth or through breastfeeding.

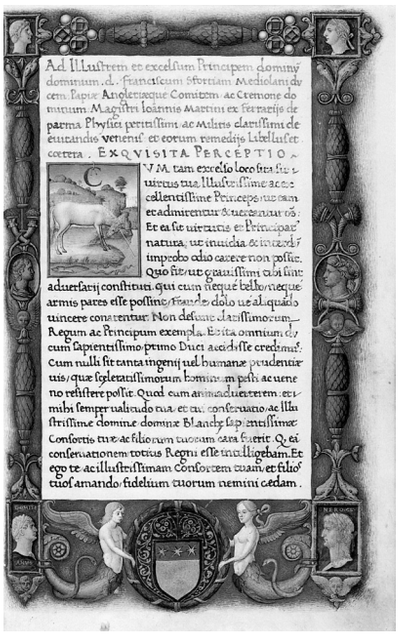
One should make clear that transmission through blood no longer represents a serious problem because since 1995 the screening of blood units with a consequent elimination of blood that is positive, less recourse to 'useless' transfusions, the use of self-transfusion, the heat treatment of blood derivates, and the selection of donors with the exclusion of people engaging in behaviour at risk have in fact eliminated the danger of contagion through this form in the health sphere, whereas the risk still remains in that part of the population that engages in drug taking through vein injection because of the widespread use of swapping syringes.

The vertical and perinatal transmission (from mother to child) of HIV is kept under control. There is a 20% risk that a HIV positive mother will transmit the infection to her child, but when an antiretroval therapy is administered to the mother during pregnancy and to the infant for the first six weeks of his life, the risk level falls to below 4%. Recourse to caesarean births and artificial feeding have allowed a reduction to 1% of the risk of contagion by the infant at the moment of birth or during the first months of life.

To conclude, at the present time the most widespread from of infection by HIV in the world remains transmission by sexual routes.

In Italy, from 1982 to December 2005, 56,076 cases of AIDS were registered. There were 1,577 in 2005. On the total of diagnosed cases, 77.6% have been males, and 3% minors. The development of the levels of infection according to the year of diagnosis demonstrates an increase in the number of cases until 1995, followed by a decrease in 1996, which continued until 2001. In 2002, the number of diagnosed cases appeared to stabilise.[2]

At a world level, according to the latest statistics of the WHO and UNAIDS (the UN agency responsible for the fight against AIDS), forty million people infected by HIV live in the world, most of whom live in Sub-Sahara Africa and in the Caribbean. Five million people became infected by HIV in 2003. Most of the new infections took place in Sub-Sahara Africa.[3]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ego te. ac illustrissimam Consortem tuam. et filio
tuos amando fidelium tuorum memini cedam.

3. Personal Responsibility

The value of the life and the health of every human being endangered by directly transmissible diseases, as is the case with infectious diseases, directly calls into play the personal responsibility of all the individuals that are involved and in particular of those who, being in their lives exposed to the risk of infection, can in their turn become – even unknowingly – agents of contagion.

This responsibility implies for these people first of al, the duty to ascertain their own conditions of health, that is to say to discover whether they have been really infected or not. For both kinds of pathology subject to examination

in this paper, the individual at risk should subject himself voluntarily to screening. It is obvious that for this one needs a sense of responsibility towards oneself and towards other people which will lead one to look consciously for a check-up on one's state of health and to engage in suitable changes in one's own behaviour.

The priority condition for such a sense of responsibility to be acquired, spread anyway at a social level, is that a series of educational strategies come to be implemented. In definitive terms, a good educational strategy directed towards making individuals responsible requires making society responsible beforehand so that those who are uncertain as to whether they have been infected explore their own condition and thus investigate their own capacity to infect others, and in doing so remove all doubts on the matter.

In addition, it is indispensable that tests to establish a possible contagion are accompanied by suitable informed consensus, that the greatest confidentiality possible is assured, and that pre- and post-test counselling is envisaged.

Nobody can reject these tests on the grounds of a purported 'right not to know', specifically because such a rejection is in evident contrast with the primary right to life of other people.

Whatever the case, were an individual who is potentially infected not to consent to an ascertainment of his own conditions of health, it is the responsibility of those who are responsible for the common good to take measures so that medical staff can proceed without the consent of the patient.

In addition, in the case of the ultra-resistant form of TB, given the real danger of spreading a pathology that is necessarily fatal given the present state of knowledge and the opportunities offered by pharmacology, the potential agent of contagion should consent – if this is clinically necessary – both to being placed, as a preventive measure, in a state of quarantine and to be kept in isolation if contagion has been ascertained.

In the case of infectious diseases that are transmitted sexually, the personal responsibility of a patient should lead him to recognise and accept not only the obligation to be treated but also the moral obligation to modify his own behaviour and to inform his spouse/partner.

As regards the modification of behaviour, today increasing emphasis is placed on a triple strategy known as ABC (the ABC approach), an acronym taken from the first letters of the English words abstinence, faithfulness and condoms,[4] a strategy that is not without reasonableness especially as regards the second element, faithfulness, which is a virtue closely connected with responsibility. More complex is the question raised by the recommendation to use a condom, both because it is a deceitful measure and because it is objectively insufficient,[5] and also because it is not easy to detach it from the anti-educational context in which it operates today. Whatever the case, the data presented at an international level, and in particular those relating to Uganda, confirm an ethical truth: prevention can only take place through making individuals responsible,[6] helped by a community that promotes the dignity of the person.

The question of the responsibility to inform one's spouse/partner is not easy either. In addition, for medical staff there is the dilemma of the defence of life and respect for professional secrecy. However, these principles are not at the same level and the duty to avoid an injury to an innocent third party should ordinarily be of priority importance. Without forgetting, however, that at the base of every medical action there is always the relationship between the medical doctor and the patient, which, indeed, is the furrow within which the difficulties of the patient should be solved.[7]

4. Social Responsibility

Three kinds of effort fall within the field of collective responsibility both as regards AIDS and as regards ultra-resistant TB:

1) the effort by the international scientific community at the level of research for new pharmaceutics and vaccines;

2) the effort by various socio-political communities at the level of allocating the funds that are needed for research;

3) the effort by the pharmaceutical companies at the level of engaging in research into new pharmaceuticals and vaccines (even at the cost of reducing their economic profits).

It should be pointed out that in 2000 only 10% of research and development activities in the world were dedicated to pathologies which were responsible for 90% of infections worldwide.[8] To deal with this failing, in 2000 the European union adopted a communiqué[9] which called for an acceleration in the fight against infectious diseases, followed in 2001 by an action programme,[10] and in 2003 by a Regulation[11] that had three specific goals: 1) to maximise the impact of measures, services and basic products that are already available; 2) to make the cost of essential drugs and medicines and diagnosis more affordable; 3) to intensify research and development, in particular as regards vaccines, micro-biocides and innovative therapies.

In addition, social responsibility also involves allowing fair access to health-care treatment in way that avoids disparity between citizens of developed countries and citizens of non-developed countries, both when this treatment is directed towards curing and when it is directed exclusively towards providing care to incurable patients. And this is not only because one may fear that infections will not respect national boundaries and will thus also reach developed countries but also because every human being has a dignity that obliges us to respect him and love him when he is sick and about to die as well.

In addition, faced with ultra-resistant TB society should find a point of equilibrium between the restrictions that should be placed on individuals for the benefit of society as a whole and respect for the freedom of individual patients.

In this sense, the application of screening programmes to individuals who are potentially infected, for example to those who live in

regions where the ultra-resistant bacillus is most widespread, to immigrants, and to those who travel and could have been consciously or unconsciously exposed to contagion, is also to be welcomed.

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Notes

[1] Cf. *Il mercato ha fallito: urgono nuove strategie contro la Tubercolosi. Appello di MSF in occasione della Conferenza mondiale sulle malattie polmonari*; http://www.msf.it/msfinforma/comunicati_stampa/30102006.shtml. The problem is so urgent and serious that the Red Cross and the Crescent Moon have formed an alliance with the largest health organisations against the increase in the risk of pharmacological resistance to tuberculosis in Europe (cf. Caffè Dunant. Notizie nel Mondo della Croce Rossa, n. 289 of 3.11.06. http://www.caffedunant.it/index.php? option=com_content&task=view&id=346).

[2] Cf. Istituto Superiore di Sanità, Bollettini, http://www.simi.iss.it/bollettini.htm

[3] Cf. World Health Organization, *About HIV/AIDS,* http://www.who.int/hiv/abouthiv/en/

[4] Cf. Halperin D., Steiner M., Cassell M. *et al.*, 'The time has come for common ground on preventing sexual transmission of HIV', *Lancet*, 2004, 264, p. 1913.

[5] Cr. Conant M. *et al.*, 'Condoms prevent transmission of AIDS-associate retrovirus', *Jama*, 1986, 255, p. 1706; Minuk G. *et al.*, 'Condoms and prevention of AIDS', *Jama,* 1986, 256, p. 1443; Rietmeijer C.A.M. *et al.*, 'Condoms as physical and chemical barriers against human immunodeficiency virus', *Jama*, 1988, 259, p. 1851.

[6] Cf. Green E., *Rethinking AIDS prevention: Learning from successes in developing countries* (Praeger Publishers, Westport (Connecticut) 2003); Stoneburg R., and Low-Beer D., 'Population-level HIV declines and behavioural risk avoidance in Uganda*, Science*, 2004, 302, p. 714; Shelton J., Halperin D., Nantulya V., Potts M., and Gayle H., 'Partner reduction is crucial for balanced "ABC" approach to HIV prevention', *BMJ*, 2004, 328, p. 891; Hearst N. and Chen S., 'Condom promotion for AIDS prevention in the developing world. Is it working?', *Stud. Fam. Plann*., 2004, 35, p. 39.

[7] When a patient who is HIV positive does not want to supply information on this directly to his spouse/partner, the medical doctor responsible for his case can reveal this secret on the condition that 1) the need for protection is based upon the need to protect a right that is equal or greater than that of confidentiality, as for example in the case in question life or the security of third parties; 2) the recipient of the communication is exclusively the unknowing cohabiting spouse or partner; the medical doctor has first in vain exhausted all attempts to ensure that the patient himself informs his spouse/partner; 4) there is not other way by which to protect the health of the spouse/partner; 5) the medical doctor has adopted paths of communication that are as discreet as possible; 6) the medical doctor agrees to provide assistance at a psychological level as well to the person who has provide information.

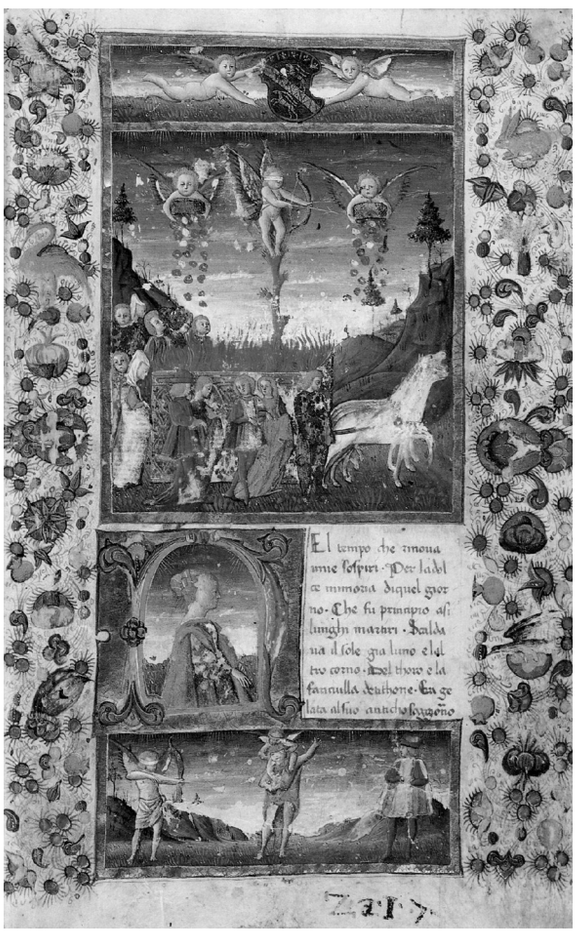
[8] Cf. Sirinskiene A., Juskevicius J., and Naberkovas A., 'Confidentiality and duty to warn the third parties in HIV/AIDS context', *Med. Etika Bioet.* 2005, 12(1), pp. 2-7; Selgelid M.J., 'Ethics and infectious disease', *Bioethics*, 2005 Jun;19(3), pp. 272-289.

[9] Cf. Lee K. and Mills A., 'Strengthening governance for global health research', *BMJ*, 2000, 321, pp. 775-776.

[10] EC - Accelerated action targeted at major communicable diseases within the context of poverty reduction, http://europa.eu/scadplus/leg/en/cha/c11534.htm

[11] EC - Health: programme for accelerated action on HIV/AIDS, malaria and tuberculosis (2001-2006), http://europa.eu/scadplus/leg/en/lvb/r12503.htm

[12] Cf. EC – Regolamento n. 1568/2003, *Lotta contro l'HIV/AIDS, la malaria e la tubercolosi,* http://europa.eu/scadplus/leg/it/lvb/r12513.htm



3.Inter-religious Dialogue and Infectious Diseases

ABRAMO ALBERTO PIATTELLI

3.1 Infectious Diseases: the Jewish Perspective

As a general premise, it is advisable that we pose the following questions: what is the approach of Scripture to illness? Or rather: what must the attitude of a sick person be towards the illness that has struck him or her?

In synthesis, the words of Scripture appear to be rather illuminating, and they declare: 'If you will diligently hearken to the voice of the Lord your God, and do that which is right in his eyes, and give heed to his commandments and keep all his statutes, I will put none of the diseases upon you that I put upon the Egyptians; for I am the Lord, your healer' (Ex 15:26).

It is God who afflicts with illness, generally as a punishment, and it is God who procures healing. The observance of divine law protects people against all forms of physical and social suffering and degeneration. Indeed, it is the best preventive medicine against every form of evil.

In the Bible, reference is often made to diseases that have struck society and to diseases that have afflicted individuals. One can find detailed descriptions of diseases that have skin symptoms, above all in the verses of Leviticus (chapter 13) in which ritual 'impurities' are treated.

From what has been said hitherto in this paper, a close relationship exists between illness and moral behaviour. The play on words with which the Jewish masters interpreted the word *zara'at* – a pathology normally identified with leprosy, the measures in relation to which are to be found in Leviticus (chapters 13 and 14) together with other skin diseases placed in the context of purity and impurity – is especially interesting.

Those who are afflicted with *zara'at* (the diagnosis is carried out by a priest) is considered impure and abandoned by society. Once that person has recovered he or she must subject himself or herself to a specific ritual in order to regain the status of purity and then be readmitted to the community.

From what can be understood from Scripture it is not possible to locate such measures within laws relating to medicine and hygiene. For example, the subsequent exegesis of the Talmud even envisages that the rules about *zara'at* are not applicable to those who go annually on a pilgrimage to Jerusalem, and are thus of necessity in contact with crowds of faithful, but are applicable after the pilgrimage is over. And thus as well the isolation of a spouse afflicted by *zara'at* only takes place at the end of the seven days of festivities of the wedding.

The masters of the Talmud connect leprosy – *zara'at* – with the sin of calumny. 'Resh Lakish states: how should one understand the phrase 'these are the laws on leprosy (*mezora'*)'. These are laws for he who spreads calumny (*moze' shem ra'*)' (T.B. Arachim, 15b). With a play on assonances, the term *mezora'* (leper) is explained with *moze' shem ra'* (he who spreads calumny). On the other hand in Scripture there is no absence of famous precedents that agree with this interpretation. One may remember when Moses was in front of God who had revealed Himself in the burning bush he found that his hand had been struck by leprosy after expressing some suspicions about the faith of Israel (Exodus 4:1 and 6). And the case is also mentioned of Aaron and Miriam who, after speaking badly about Moses, were both struck by leprosy (Numbers 12:1 and ss).

Zara'at is a symptom of a moral and spiritual malaise. If we want to establish a connection between the two facts we see the existence of a kind of counter step: the power of language is such that it can modify an aspect of an individual into good or bad just as leprosy changes the physiognomy and the exterior features of those who have been struck by this grave disease. The text that states 'he shall dwell alone' is interpreted as a warning to those who are afflicted by *zara'at* not to be near to another afflicted person. Through his behaviour that person has tried to bring discord and division, and it is thus right that he or she in turn should be isolated (Rashi i.1).

Despite this, infectious diseases constitute a grave peril for whoever has to come into contact with a person with such a disease. The great contemporary relevance of the words of Scripture sound out: 'take good heed to yourselves' (Deut 4:15). This is because they contain an appeal to keep distant from any danger or risk and to have the greatest care for one's health, both physical and spiritual.

In this logic should be read the numerous directives that come from the Jewish masters about the contagion that can come from infectious diseases. Even though visiting sick people is considered an important religious duty, in the case of infectious diseases a dis-

pensation exists. It is said that during the cholera infection which in 1849 struck certain countries in Europe the great Rabbi Israel Salanter solemnly announced a prohibition on fasting on the day of Kippur and called on people to spend a day instead walking in the fields in fresh air. He himself went into the pulpit and in front of everyone begun to eat. And he did all of this so as not to weaken people's bodies and in order to avoid any advance of the infection.

Faced with any infectious disease, a medical doctor must do everything that is requested of him to treat a sick person and to alleviate his or her suffering. This is a religious duty which cannot be avoided.

An interesting aspect of infectious diseases, and one that is encountered with the grave spread of AIDS, is the problem of the relationship with the privacy of the patient. In other words is it possible to make known to the outside world the existence of the illness of the individual so as to prevent its spread within society? The subject is greatly debated in Rabbinic literature and in Jewish public opinion; this is a matter of establishing whether the dignity of the individual must prevail or whether the health of society has priority.

To conclude I would like to observe what the Bible (2Kings 7:3 and ss) tells us about the four lepers who were kept isolated outside the city. Given the great famine that had struck the city and not having any alternatives, they decided to give themselves up to the camp of the Syrian besiegers. The four lepers realised that the Syrians would have left their camp because they were afraid of an attack by Israel and would have left behind them their baggage trains and a host of fine goods. After thinking a great deal the four lepers decided to tell the King of Israel about their idea. The king, after overcoming his first uncertainties, decided to occupy the camp of the Syrians, to take their provisions, and thus to save the city from hunger.

What teaching can be drawn from this story? Salvation came specifically from those who had been marginalised and distanced from social life because of their malady. Despite this, they were active agents of the salvation of their people and thus became an example of altruism and concern for the health of others.

A sick person with infectious diseases must be seen against every prejudice as an active and positive part of society in relation to which he or she is able to give all his or her contribution for the development and the well-being of society itself.

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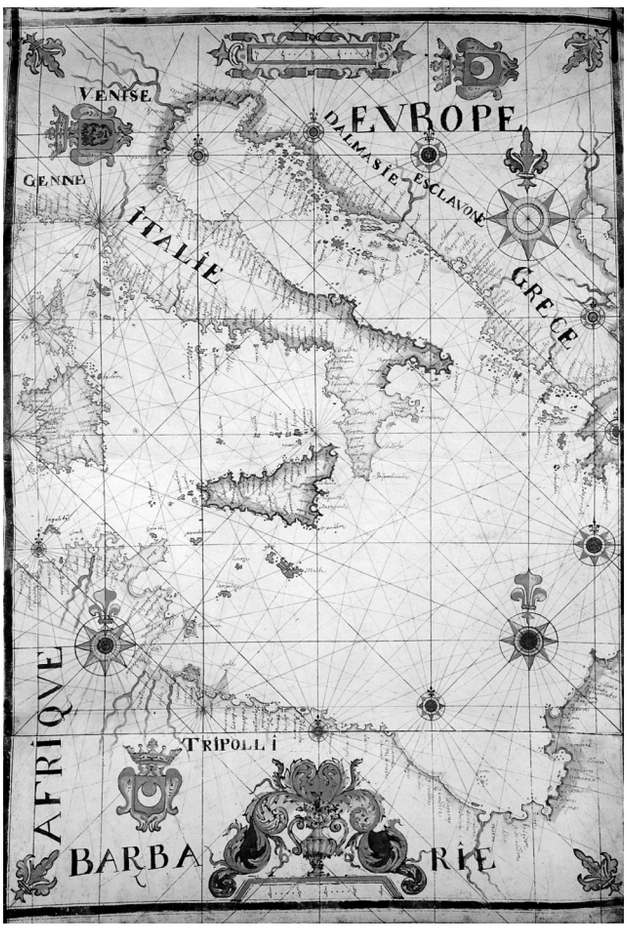

JUSTO LACUNZA BALDA

3.2 The Point of View of Islam

One of the great challenges for inter-religious dialogue between Christians and Muslims in the field of infectious diseases is the search for human spaces and the creation of solidarity-inspired projects where human co-operation, scientific co-operation, and the development of medical treatment become possible. These aspects might appear to be very far form the goals and purposes of inter-religious dialogue. But such dialogue cannot be seen as an intellectual exercise disconnected from human realities. One has to state without hesitation that human life is sacred. Thus to dialogue together, to work together and to create humanity together is to enter into harmony with the Conceiver and the Creator of life. In every form of inter-religious dialogue between Christians and Muslims the faith of the various interlocutors is activated so that God illuminates the paths, the journeys and the modalities of such dialogue. In the case of sick people, faith is linked to works for those who live in suffering, anxiety and pain. Their lives are sacred because God gives life, grants life, and takes it away. In the Christian and Muslim visions human life is a necessary passage towards life in God without a sunset and without an end.

But in relation to human life there is a diversity of visions between Islam and Christianity. The Muslim religion has a theo-centric view of life and society. Thus Islamic bioethics has an apologetic character that tends to conceal economic-social shortages as regards care for the sick person as well as shortages of adequate health-care structures. Possible criticisms of the state can be interpreted as criticism directed at religion. On the one hand, the polygamy allowed by the Koran certainly does not help in the control of infectious diseases. In countries such as Tunisia the laws of the state prohibit polygamy because it is not in harmony with the human rights of women. This is a way of emphasising equality of rights in matters relating to marriage and of defending women as the bearers of rights and not only of conjugal duties. Women in Muslim marriage according to the *shariah* (the religious law of Islam) are subordinated to their husbands, who have paid a dowry to have sexual relations that are legally recognised and allowed. In the case of adultery, it is women who are condemned and at times also publicly executed. A complete picture of marriage law is offered by each of the four canonical juridical schools of Sunnite Islam: the Hanaphite school, which is the most widespread; the Malakite school (which is present above all else in the Maghreb, in Egypt, and in Africa beneath the Sahara; the Shafite school (which is present above all in the Indian sub-continent, in east Africa, in Egypt and in the Yemen); and the Hanbalite school (which is to be found in Saudi Arabia).

Infectious diseases have encouraged people to reflect in a serious way on the rights and duties of marriage partners, the rights of children and the fate of orphans, and the various approaches to controlling and fighting AIDS in particular. However, the road is hard and long at a time when the number of people afflicted by infectious diseases is increasing and the resources for medical care and scientific research are in short supply. To begin with the family sphere appears to be the right approach but here, too, difficulties are not absent. Muslim women recognise the right of men to require a certificate of virginity from their future spouses. Muslim women, instead, are not recognised as having this right. This fact endangers thousands of women who can transmit an infectious disease to their children before birth. The dignity, the defence and the rights of women cannot be left to chance. The belief that women are the source of all wrongs and thus also, naturally, that they are the cause of sterility and of diseases such as AIDS, is very widespread amongst Muslims. It is believed that men cannot transmit the malady.

There are no verses in the Koran that refer explicitly to infectious diseases. But many of the experts on Islamic law argue that it is necessary to demystify the Muslim family and to identify those elements that strengthen it and those elements that destroy it. Thus it is necessary to reform laws and there is an urgent need for the drawing up of up-to-date legislation that defends the rights of women and children in relation to infectious diseases. The family unit must function as a structure that offers protection and support to all of its members. The spread of infectious diseases to children has generated thought about the defence of orphans, who continue to increase in number, especially in African countries. There is a human reality of poverty, acute poverty and abandonment that should call on religious leaders, as well, to address situations of authentic emergency. All Muslim countries have laws about infectious diseases. But the resources that are available, ignorance in this area, and the delays in effecting legal reforms notably slow down local initiatives, impede the monitoring of the whole population, and hinder national projects.

But what proposals should be made and what indications should be given at the level of inter-religious dialogue between Christians and Muslims in relation to infectious diseases?

The first point is to promote dignity, equality and rights for every-

one. Religious diversity cannot in the least be an obstacle to full co-operation between the believers of different religions. Faith cannot in the least block the path to effective co-operation because human dignity bears a divine seal. Religious faith leads the believer to explore the sense and meaning of life in the light of the Creator. Christians and Muslims are convinced of this in relation to infectious diseases. Human life always runs the risk of becoming a field of research and a laboratory for experiments. We should not miss the wood for the trees.

The second point is that we should go beyond law, the legislation in force and civil legislation. This will create the conditions that are necessary for inter-religious dialogue that leads to mercy and love for others. Although religious identities are maintained, inter-religious dialogue becomes a way of giving back hope, encouraging spirits, and offering comfort in pain and suffering. Believers cannot stop at the legal level and not draw upon the spring of life. The lives of people with AIDS, for example, cannot be encapsulated in a legal and juridical formula. Life is nobler and infinitely greater than law. There is no space for indifference and apathy when we defend the right to life in all its complexity.

The third important point is that inter-religious dialogue helps in the renewal of the spirit beyond all forms of exploitation, polemic or dominion. The human person must be at the centre of every attempt, every effort and every proposal to improve it. The root and the foundation of this approach to those who are afflicted by infectious diseases is that God loves life, with its ups and downs, light and darkness, pessimism and hope. For Christians and Muslims, God gives life and God takes it away. This is an unfathomable mystery which the human mind understands with great difficulty but which faith illuminates at every moment and in every circumstance.

The fourth point is to do with the paths of inter-religious dialogue that will lead to greater awareness of the difficulties, the problems and the prejudices that are involved. Walls, barbed wire, barriers, borders and frontiers affect our way of thinking, our way of addressing problems and offering solutions. Infectious diseases bear upon the spirit of sick people and make them discover how fragile life is and how much mystery forms a part of the destiny of man. A great deal is heard about religious pluralism, about cultural diversity, and about linguistic differences. But are we aware of the reality that surrounds us? Are we ready to follow the paths of others in order to understand their thoughts and their ways of thinking? The choice is between being authentic protagonists or being mere spectators in a stadium. Inter-religious dialogue helps us to understand the points of view of other people. And this is already a great step forward when infectious diseases unveil the dawn and the dusk of life.

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R.K. MUTATKAR

3.3 The Point of View of Hinduism

Philosophical basis of hindu medicine

Hindu medicine is known as *Ayurveda*, the science of life. The union of body, senses, mind and soul constitutes life. Vedas revealing the eternal truth are four: *Rigveda, Samveda, Yajurveda* and *Atharvaveda, Ayurveda* being a sub-discipline of *Atharvaveda.* Hinduism as a faith is difficult to define, it has no founder. Mahatma Gandhi defines Hinduism as the religion of Truth. According to Jawaharlal Nehru, its essential spirit seems to be to live and let live. There is the concept of one God who created the universe, and this is known as philosophy of non-duality (*advait*). The highest goal for a Hindu is merging of soul with that of the Almighty. Since this is not possible in the practical world of life, in one birth, there is provision for spiritual progression towards divinity, through a series of rebirths, till the soul is freed, meaning attainment of Moksha (Salvation). The union of the human soul and the holy spirit is also termed Yoga. Swami Vivekanand explains Yoga as union of all existence. Ayurveda and Yoga are practised as therapeutics.

India has accepted Mahatma Gandhi's moral, religious ideology of 'Truth is Religion and God' in its motto: Truth shall Prevail (*Satyamev Jayate*). Another principle preached and practised by Mahatma Gandhi, that of good of all (*Sarvodaya*), was enshrined in his 18 Constructive Programmes which encompassed four health programmes including sanitation and leprosy.

The *Ayurved* system of medicine

Ayurved philosophy is based on the concept about the perception of the physical world through five senses, sight, hearing, smell, taste and touch, which are respectively located in the eye, ear, nose, tongue and skin. The universe like the human body is made up of five elements (*bhutas*): Ether (*akasa*) by sound, air (*vayu*) by touch, fire (*agni*) by light, water (*ap*) by taste and earth (*prithvi*) by smell. The substances which make food, drink or medication also consist of these five elements. The five elements co-operate together to uphold the body which consists of seven metabolic processes in the course of digestion of food (*dhatu*) viz digested essence (*rasa*), blood (*rakta*), flesh (*mamsa*), fat (*medas*), bone (*asthi*), marrow (*majja*) and seminal fluid (*sukra*). The vitality or inner strength which provides a halo around the face is called *ojas,* the result of the proper proportion of the seven 'dhatu' strengthened by moral and spiritual behaviour. Any disequilibrium in five elements and seven *dhatu* creates disease and illness. The individual identity of body and temperament constitution (*prakriti*) is also determined by the *dosa* (humours), *vata* (wind), *pitta* (bile) and *kapha* (phlegm) which are internal waste products from the unabsorbed portion of food after digestion. Every individual may have the combination of *dosa*, one of them predominating over others. Food and medicines are also classified according to *dosa* and are prescribed accordingly for treatment. The interplay of *dosa* and disequilibrium causes illness which is set right by a physician through medication and regulation of diet, exercise and rest etc.

Briefly, Ayurveda as a system of medicine, concerns itself with the five elements (*bhuta*), seven *dhatu* and three *dosa* in body, mind and in food and drugs. Yoga concerns itself with mind and self (soul), with their effect on body. The ultimate cause of most illnesses are relegated to the imprudent behaviour rooted in the mind. Great emphasis is laid on the daily regimen of life varying as per climatic seasons about diet, exercise, rest and regulation of sex. The message is, follow the nature, be symbiotic with nature. Mahatma Gandhi preached and practised naturopathy for prevention and treatment of illness.

In *Ayurveda,* there is no concept of external agent such as virus or bacillus causing illness. The reason why some persons get the disease and not all, exposed to bacilli or viruses, lies in the loss of immunity or internal strength to fight or resist the disease , due to deviation from righteous behaviour *(dharma).* Tuberculosis could be caused due to over indulgence in sex. The cause of leprosy was supposed to be rooted in sin either in this birth or the last birth. In the absence of MDT modern medicine, leprosy was considered incurable or difficult to cure and needed divine intervention for its cure.

Hindu philosophy and practice for common man

Bhagvad Gita, the 'Song of the Lord' which is a treatise of philosophy for common man advocates three paths to approach God. "These are the way of *karma*, performing action while renouncing the results of the action; the way of *jnana*, that of knowledge, and the way of *bhakti*, that of devotion." All people are classified according to habits and temperament; enlightened and peaceful (*satvic*), fiery and impulsive (*rajasic*), and slothful and ignorant (*tamasic*), in spiritual ranking. Foods are also classified accordingly. Gita has addressed more on mental health, preaching deeds (*karma*) according to righteous conduct (*dharma*).

The central concept of morality

ensuring spiritual progression relate to truthfulness and righteous conduct according to one's position in life as an individual or as a member of a social or occupational group. The concepts of Varna and Caste are based on this principle. The individual life is governed by the four stages of life (*Ashrama*), each one having socially approved obligations and a code of conduct. A householder (*Grihasthashram*) is enjoined to indulge in sex for procreation but not the other three ashrama (*Brahmacharyashram*, *Vanprasthashram*, *Sanyasashram*). One has to earn livelihood through righteous means. Deviant behaviour is sinful, immoral and may result in disease and illness.

Viral diseases like smallpox, chicken pox, measles were treated by propitiating God. God for the common man became a deity and an idol in a temple. The *Sanyasi* (monk) who was supposed to have controlled the senses blessed the temple idols, since the disciples showered on them the best of all the articles of human enjoyment; foods, clothes, music and ornaments.

Incurable diseases like leprosy were supposed to be the handiwork of evil spirits or the wrath of God due to immoral deviant behaviour. The stigma of leprosy is now being shifted to HIV/AIDS. Attending a patient and those engaged in healing are considered to be pursuing the work of God among the Hindus. Mahatma Gandhi personally massaged the limbs of a leprosy patient in his hermitage. Attending to the health and well being of old parents is ranked high, equal to devotion to God.

All Hindu prayers, of whatever duration, solicit good health and material prosperity for the family from the God. Many persons performing miracles to cure patients are understood to be possessing spiritual powers to do so. They follow a rigorous regimen of prayers and puritan life.

Hindu philosophy has been translated into practical humanitarian work in the 20th century by persons like Swami Vivekananda who established the Ramkrishna Mission. Mahatma Gandhi combined the freedom struggle in India with constructive programmes giving more importance to means than ends. The Sanyasi (monk) Ramdeo is currently preaching yoga therapy for chronic incurable diseases and showing results according to modern pathology parameters. He is propagating the glory of Yoga and righteous behaviour (*dharma*) according to the universal values enshrined in all religions.

Conclusion

The effects of globalization, and economies based on war machines, like the popularization of junk foods, pollution of the environment, has increased morbidity in human society. It appears that simultaneously there is increasing interest in Ayurvedic and yoga therapy which are becoming secular in nature. Profit driven economies widen the gap between the rich and the poor, and the women take beating by way of HIV infections. Since Hinduism is not a formal religion, but a way of life upholding righteous conduct (*dharma*) and Truth, examples of Swami Vivekananda, Mahatma Gandhi and now Swami Ramdeo could show the path of health and peace.

The message of Hinduism to prevent and treat infectious diseases could be harmony and equilibrium with nature, with oneself, through righteous behaviour, and the urge to seek the universal Holy Spirit.

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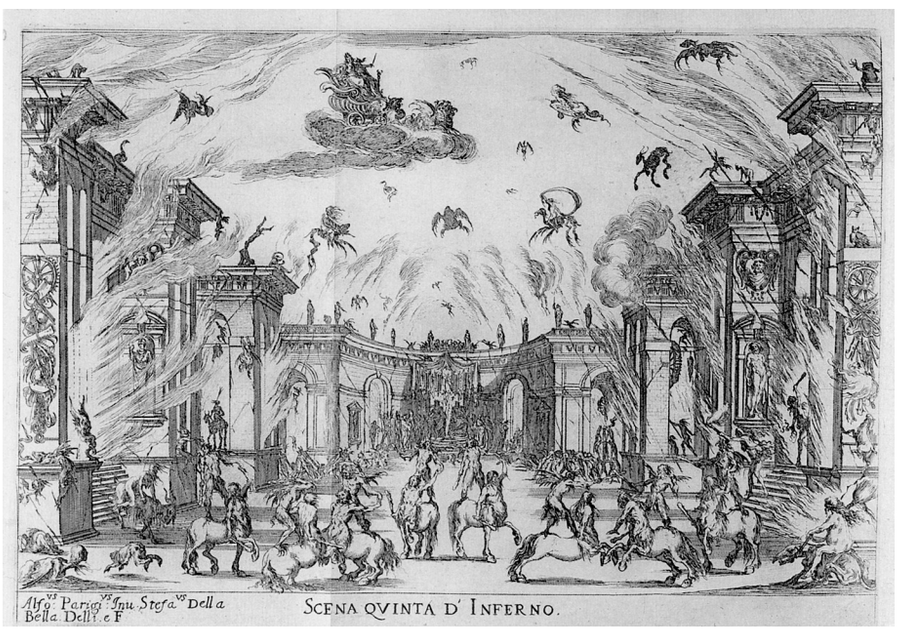


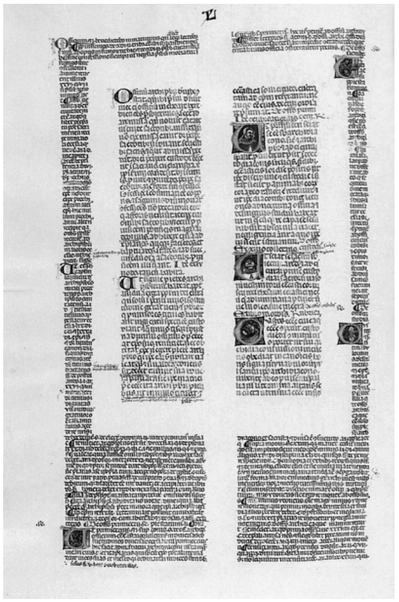
MASAHIRO TANAKA

3.4 Buddhism and the Pastoral Aspects of the Treatment of Infectious Disease

The history of infectious disease is intimately linked to the history of Buddhism because Buddha's mother, Maya, passed away one week after his delivery. The most probable cause of her death would be childbed fever - a bacterial infection that occurs after delivery. From that time until the 19th century the treatment of bacterial diseases made essentially no progress.

In 1847, Ignaz Philipp Semmelweis, an obstetrician from Hungary, discovered that childbed fever could be prevented by washing hands before delivery. Until those days, the production of pus was believed to be a necessary part of the heeling process rather than a problem to be prevented. In 1865, Louis Pasteur, the great bacteriologist from France, suggested that what we now know as bacterial disease was caused by living organisms. In 1867, Joseph Lister, a surgeon from England, connected Pasteur's idea with wound sepsis and began to clean wounds and dress them using a solution of phenol. Disinfecting proved that wounds heal up without the production of pus. In 1874, the hypothesis that bacteria caused infectious disease was proven conclusively by the experiments of Robert Koch from Germany. The antibiotic penicillin was discovered by Alexander Fleming from Scotland in 1928. Penicillin was actually produced as a drug for human use as a result of subsequent research and resulted in life expectancy going abruptly up. And, maternal deaths, like that of Buddha's mother, are now less than one in 10 thousand in advanced nations.

Buddhism and medicine have always been closely linked. Historically Buddhist priests had to study five subjects; linguistics, logic, engineering, Buddhism and medicine. One reason why Buddhism blossomed in Asia was that Buddhist priests, with their medical knowledge, traveled throughout the region saving people with physical diseases through herbal medicine and from spiritual suffering through Buddha's teaching.



The situation regarding infectious diseases and Buddhism today echoes this history. Infectious diseases are treated as scientific matters. And spiritual problems or medical ethics are addressed by Buddhism. In Japan, medicine and Buddhism have historically functioned side by side. The first national hospital in Japan found its home on the grounds of a Buddhist temple. In the 6th century when Japan's first national temple appeared, it included both a hospital and a pharmacy.

However, before scientific treatments for infectious diseases were found, Buddhism was limited in what it could do to help people with things like smallpox. What people feared most in those days was an epidemic. There was not really any effective treatment. So, people tried to escape an epidemic by praying. Hoping to escape a smallpox epidemic, people in Japan prayed to a special God. It took the form of a deity with a bull's head. This bull-headed God was thought to be the guardian of an ancient Buddhist temple called 'Gion' and was considered to be a Medical Buddha's incarnation.

Since 869, more than 4 thousand 'Gion' shrines were built all over Japan, and 'Gion' summer festivals came to be performed everywhere. The festivals continue to be held everywhere in Japan to this day.

It is unknown why a bull head deity is used for the ritual, but it is said that it might be related to cowpox. Immunization was actually practiced in ancient Asia since the first century B.C. using pus or scab from smallpox victims to immunize people against that disease. The technique eventually arrived in Japan. This was also introduced to Europe in 1721 by Mary Wortley Montagu from England. But it was still dangerous, with a mortality rare around 1%. Jenner heard a legend about cowpox and smallpox from a woman who was milking cows. She said that a person who had had cowpox could not contract smallpox. Jenner went on to verify this legend through human experiments and saved the world from smallpox. Pasteur coined the word 'vaccine' from the Latin word 'vaca' which means bull.

When Jenner's vaccine came to Japan, the advertisement for it had a warrior on a bull destroying the

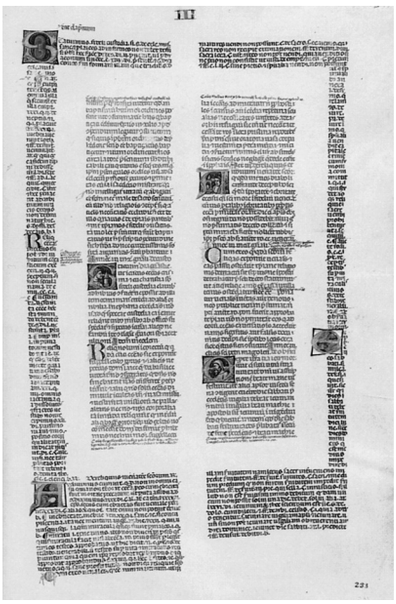
smallpox virus. In the end it seems that the bull-headed God Buddhists prayed to during the 'Gion' festival answered their prayers and brought an end to smallpox epidemics in the form of Jenner's vaccine.

The recognition of self and non-self has a role in both immunity and Buddhism. Immunity is concerned with the discernment of self and non-self and is indispensable in order to recover from infectious diseases. During fetal development, our immune system learns to distinguish between our own bodies and foreign bodies, such as viruses, through the thymus. If the immunoreaction becomes weak, the resistance to pathogenic organisms declines which results in illness. By the time we are in our twenties our immune system has already started to die. In old age our immune system's ability to discriminate self from other fades, which is disastrous for our body. However, what is a disaster for the immune system may be salvation for the spirit since our self consciousness and our immune systems are on different planes.

Gilbert Ryle wrote "The Concept of Mind", and showed the logical mistake in Descartes's 'cogito, ergo sum', known in English as 'I think, therefore I am'. He wrote:

'It is, namely, a category-mistake. A foreigner visiting Oxford or Cambridge for the first time is shown a number of colleges, libraries, playing fields, museums, scientific departments and administrative offices. He then asks 'But where is the University? I have seen where the members of the Colleges live, where the Registrar works, where the scientists experiment and the rest. But I have not yet seen the University.'

Ryle's category-mistake is identical to what Buddha talked about. Buddha said 'Is this body me or mine?' 'Is this perception me or mine?' 'Is this conception me or mine?' Buddha said, what I can control freely according to my desires is mine. But, what I cannot control freely according to my desire is not mine. We do not have control over our bodies as far as birth, aging, disease and dying are concerned. So, in order to control ourselves we must recognize that our bodies are not our own. There is nothing that can be said to be mine or myself because even this body does not belong to me. If one considers oneself thus, one does not discriminate others from oneself. This is the wisdom of equality in Buddhism.



Buddha said that Buddhism itself is like a raft that takes us to the other shore, but upon arrival we should not cling to that raft. With neither attachment to self nor to Buddhism, Buddhists can have compassion for all people and affirm all religions equally.

Unique Buddhist manners and rituals for dying were developed in Japan. While a disease can be controlled by medicine one must never give up nor accept death. But if there is no way to be healed, one must not cling to life. A dying patient should pray to their principal object of worship, confess to that object, imagine the other shore of one's ideal personality of worship and prepare for death by concentrating one's mind on their ideal personality of worship.

As mentioned at the beginning, today we have conquered old known infectious diseases, but new types of infectious diseases to which we have no immunity may cause disaster. Advances in air travel make it possible to transfer viruses all over on the earth in a short time. As Buddhist priests we must help people to be selfless and allow science to function freely as it looks for medical advances that benefit all. A new influenza crisis is imminent. The so-called Spanish flu killed around 2.5% of the world population. Before another worldwide influenza pandemic occurs, we must take steps to prevent it. It was a Japanese researcher who first synthesized a type A influenza virus artificially. However, he did not do it in Japan. There we can not conduct this kind of high-risk research despite the fact that we have at least two fully functional BSL-4 laboratories. The problem is not a lack of technical skill, but a lack of cooperation from the people in Japan. The communities surrounding the BSL-4 labs refuse to let them operate. They fear exposure to a leaked experimental virus or bacteria. Japanese researchers are forced to do this kind of research in foreign countries. Perhaps it strikes some people as unbelievable that Japan finds itself in such a silly situation. Our facilities for this kind of research are sufficient, but our ethics are lacking. And Buddhists must bear some of the blame for this.

Buddhism was undermined by Japan's Meiji period revolutionary government in 1868. To counter Western pressure and to secure political control, the government terminated Buddhist involvement in the social-political system and promoted the belief in a single national religion which was a version of Shintoism with all of Buddhism's merciful influence removed - a policy that ended with the unfortunate incidents of World War II. The selfish tendency of Japanese people gradually prevailed during that time, and we live in its shadow today. Japanese Buddhists must take on the responsibility to counter this tendency. We Buddhists must also have conferences like these to discuss the relationship between religion and things like infectious diseases and learn from the Vatican to be a religion which is actually useful for the happiness of the world.

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3.5 the Point of View of Post-Modernity

Introduction

This paper aims to provide a general description of infectious diseases in relation to post-modernity. The first part will attempt to answer a number of questions. What are the specific characteristics of infectious diseases? What are the most urgent needs of people infected with such diseases? How do these sick people live? In the second part the post-modern approach is applied to the needs of sick people with infectious diseases. How does post-modernity respond to such needs? Is it able to meet them?

People Afflicted with an Infectious Disease

The existence of infectious diseases is possible only if three elementary conditions are met: 1. *the source of the infection* (a sick person, an infected animal, a carrier) which has infected the sick person; 2. *The possibility of contagion* (environmental factors, air, food, etc.); and 3. *The permeability of the population*, which allows the circulation of an agent within an environment. These three elementary and necessary conditions have a different significance in relation to the measures directed against the infection. They explain the internal mechanism of the epidemiological process but different factors exist that bear upon the intensity of individual diseases. These factors are divided into two major groups: 1. natural factors (geographical factors, ecological factors, climatic factors, etc.); 2. social factors (socio-economic factors, cultural factors, professional factors, educational factors, demographic factors, agricultural factors, etc.). The level of health care is also, of course, very important. As a consequence, action, the fight against, infectious diseases, is primarily directed against these three elementary conditions of the epidemiological process. These processes are the following: 1. the elimination of the source of the infection; 2. the interruption of the paths of transmission; 3. the increase in the immunity of inhabitants. Below I will confine myself to the steps that concern sick people and the other aspects will be left to the experts in the field of infectious diseases.

1. *The elimination of the source of infection* is done in different ways: a) through isolation, which means the separation of the infected people from the other inhabitants. This must take place quickly because sick people are especially contagious at the beginning of their illness. Isolation should involve all the sick people infected by an infection in the same locality. This takes place in a ward or clinic for infectious diseases or at home if the patient does not require special clinical treatment and is not a danger for the other members of his family. Isolation lasts as long as the patient is contagious; b) through treatment, which is very important in the anti-epidemiological process and aims at the elimination of the infectiousness of the patient; c) through screening, which involves the active search for infected people and the carriers of the disease in an infectious environment.

2. *The interruption of pathways of transmission* is different and depends on the type of infectious disease that is involved.

3. *Measures taken in the hotbed of the infection*. By hotbed is meant the space in which exposure to the infection takes place (the presence of the development of an infection, the possibility of contagion). A hotbed lasts for as long as the maximum time of incubation from the last contact with an infected person or the last disinfection of the environment.

Measures relating to sick people in the hotbed of infection: a) the definition of the diagnosis must be rapid and precise; b) reporting the infectious disease to the health authorities; c) the isolation of the sick person in a ward or clinic for infectious diseases which has a specific regime. If the sick person remains in isolation at home, visits from people who can be infected must be excluded.

Measures relating to healthy people in the hotbed of infection: a) personal disinfection – the disinfection of clothes, a purification bath, etc.; b) health-care examination – the control of the temperature, the investigation of the initial symptoms, laboratory tests, etc. If necessary, a quarantine should be declared; c) the immunisation or chemoprophylaxis of the members of a group or a population.[1]

We can in summarising fashion emphasise the specific characteristics of this field: a man afflicted by an infectious disease, and especially a man in health-care institutions (hospitals, clinics), is more isolated, more abandoned, more insecure, more suffering and often also exposed to a rapid development of the illness that can lead to his death. In a few words, a man afflicted by an infectious disease is more in need of attention and care than other people. How does post-modernity understand his needs?

Post-modernity

At the time of the international conference on palliative care (held in 2004) and the international conference on genetics (held in 2005), both of which were organised by the Pontifical Council for Health Care Workers, we had an opportunity to describe in brief fashion the complex phenomenon of post-modernity. At the international conference on palliative care, post-modernity was described from a philosophical-socio-cultural and ethical-moral point of view.[2] One year ago, at the

international conference on genetics, we described the cultural and anthropological characteristics of post-modern man. In this paper I will confine myself to certain complementary aspects of this phenomenon which will help us to have a better understanding of the relationship between post-modernity and infectious diseases.

As I have already emphasised, post-modernity sees the world as a thing, as an object, and not as a created reality of God. A world without God or a weakened world offers to man, and particularly to superman, the possibility of implementing his will to power. Everyone is exposed to this will to power, especially the weak and thus also those afflicted by infectious diseases. Post-modern man lives in the absence of God and the truth about his own being. From this springs his crisis of meaning and of ethical-moral direction. [3] Post-modern man is understood as *weak* man taken as a whole. He has lost a religious and sacred meaning of life, which has no meaning for him.

The post-modern vision of human life is a contract-based, utilitarian, pragmatic, nihilist and cynical. The value of human life is relativised and obfuscated. As we know, suffering, the terminal stage of life, dying, and death are a part of normal human life. Post-modernity, however, does not attribute any meaning to suffering, to the terminal stage of life, to dying and to death caused or accompanied by infectious diseases. Post-modernity, faced with these realities, takes refuge in suicide, in assisted suicide and in euthanasia.[4]

Post-modern culture is characterised by a possessive and anarchic individualism which places the absolute individual at its centre: the *superman* of Nietzsche or the *technological superman*. This last is the ethical-moral yardstick for himself and he can do anything he likes. How can one place together the *superman* and the reality of infectious diseases with isolation, abandonment, insecurity, suffering and also often the real risk of a rapid death? A man afflicted by an infectious disease is really weak from all points of view – the physical, the mental, the spiritual, the familial, the social, the economic, etc. Can a *superman* accept real weakness? Can a *superman* suffer from an infectious disease? Is this not perhaps a denial or an antinomy? To put it in a few words: post-modernity does not identify with the figure of the man who suffers from infectious diseases. It does not answer his questions and it is unable to meet his needs.

Conclusion

We have to oppose a post-modern vision of human life with a strong *personalist* or *Christian* culture. This places the person at the centre of things with all his dignity and reaffirms the fundamental value of every human person, including the human person afflicted by an infectious disease.

How can one dialogue with post-modern man, especially with a post-modern man afflicted by an infectious disease, from the point of view of Christian faith? How can we speak to him about God? The example of Paul, who made himself 'weak, that I might win the weak…I have become all things to all men, that I might by all means save some. I do it all for the sake of the gospel, that I may share in its blessings' (*1 Cor* 9:22-23; cf. also *1 Cor* 9:19-21), is certainly inspiring and encouraging for us as well. This is the direction of the suggestion of Giancarlo Bruni for today's Christian who 'becomes post-modern with the post-moderns so as to provide them with joyous news…A becoming company that makes its own, with critical discernment, the law of post-modernity, walking with 'passion' and with 'compassion' with this figure of man, attempting to communicate to him that which burns in our hearts'. As a consequence, in the view of this author, within the context of '*weak thought*, if of God one can and one must speak, it is of *weak* God'.[5] It is, in fact, God who, in Jesus Christ, wanted to become so similar to man, wanting to experience personally all the weakness and trials of man (the hardness of work, poverty, hunger, thirst, cold, incomprehension, conflicts with others, rejection, persecution, betrayal, illnesses, pain, suffering, death), with the exception of sin. The love of *weak* God could reawaken love in *weak* man or *post-modern* man as well. Here the extraordinary importance of the mission of faith and of Christian culture is demonstrated.

Gianfranco Morra, in response to the question 'where is post-modern society going?', with reference to Italian society answered by emphasising three directions. The first was 'the present state of decadence, which could be a long twilight'; the second was 'absorption by other 'strong' civilisations, such as Islamic civilisation'; and the third, which is the most important for our approach, was 'to revive and find new strength which…comes only from heroes and saints'. [6] To this we should add that many health-workers and those who accompany people with infectious diseases, and especially those inspired by faith in Jesus Christ. St. Damian de Veuster, the apostle of the lepers, are an eloquent example of this.

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Notes

[1] Cf. E. KMETY, 'Regole generali della lotta contro le malattie infettive', in *Vademecum Medici* (Osveta, Martin, 2003), pp. 110-112.

[2] Cf. J. ĎAČOK, 'New Age, Post-modernity', in *Dolentium Hominum*, n. 58, Year XX, 2005, n. 1, pp. 97-99.

[3] For a broader and more specific context see: P. VALADIER, *L'anarchie des valeurs. Le relativisme est-il fatal*? (Albin Michel, Paris 1997); D. MIETH, *Che cosa vogliamo potere*? *Etica nell'epoca della biotecnica* (Queriniana, Brescia, 2003); CH. W. COLSON – N. M DE S. CAMERON (eds.), *Human Dignity in the Biotech Century* (InterVarsity Press, Illinois, 2004).

[4] Cf. J. ĎAČOK, *La fase terminale della vita umana. Bioetica postmoderna e reflessione teologico – morale contemporanea*, doctoral dissertation, Pontificia Università Gregoriana, Rome, 2003, pp. 328-329.

[5] Cf. G. BRUNI, 'Dire Dio agli uomini d'oggi. Linee di discussione', in *Parlare di Dio all'uomo postmoderno. Linee di discussione*, edited by P. Poupard (Rome, 1994), pp. 23-35.

[6] Cf. G.F. MORRA, *Il Quarto uomo. Postmodernità o crisi della modernità*? (Rome, 1992, 1996[2]), pp. 148-149.

Third Session

What Should Be Done?

1.The Pastoral Care of Infectious Diseases from the Cultural-Psychological Point of View

MARCELO SÁNCHEZ SORONDO

1.1 Treatment of Infectious Diseases in a Globalised World. Health for the Body is what Grace is to the Soul

'*Gratia se habet ad essentium animae sicut sanitas ad corpus*' (St. Thomas Aquinas, *De Virtutibus in communi*, q, un., 2 ad 21)

Of course the subject that has been proposed to me can be addressed both from the point of view of individuals and from the point of view of the community. I believe that other people have already touched upon, or will touch upon, the subject from the point of view of sick people. My approach here will be the overall point of view, following the fine indications of the splendid inaugural lecture of Cardinal Javier Barragán.

A human community that constantly thinks anew about the purpose of education in a healthy way circulates ideas and energies to be used for the welfare of its members. This is even more the case as regards the fundamental good of human life on earth, health, which is for the body what grace is to the soul. Every generation should re-examine the ways in which it transmits its own wisdom to its descendents because it is through education that man becomes fully what he is – a citizen of the world, aware, free and responsible. To think about education and above all about education in health means to think about future generations and thus is something that is rooted in hope and needs generosity.

Correctly managed globalisation can be a major opportunity for education in health, for the welfare of a population, and for peace, given that it can draw humans near to each other and is able to promote the sharing of common values.

As is the case with all human questions, instruction pre-supposes first of all an idea of what a human being is because those who are educated and those who educate are men and women. Thus instruction must first and foremost answer a fundamental question, namely: what is our real knowledge today about men and women?

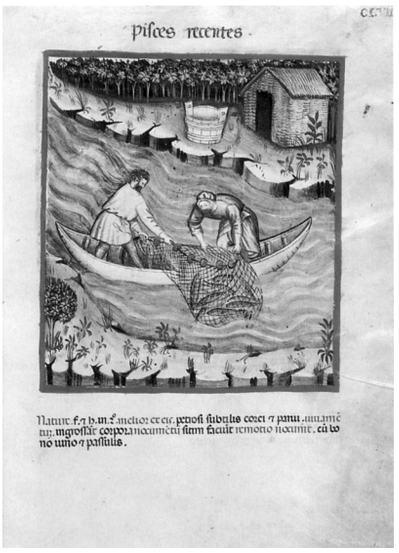
We should try to examine what an educational project, and especially one to do with health, amounts to in a world that is increasingly globalised. Such a project should be based upon our current bio-anthropological knowledge about men and women, in dialogue with the sciences, in the context of the diversity and the interdependence of cultures, and the universality of religious, anthropological and ethical values, which are increasingly intertwined with communication and information technology, as well as with new models of international migration.

As the Pope said today, in our globalised world the problem of justice is central, and this is true for health as well. This means that all men and women, wherever they are and whatever their condition of life, should have the right and the possibility to receive a good instruction and enjoy general access to culture, especially in matters connected with health. This means basic instruction for everyone up to the age of nine, followed by secondary education and higher education, on the basis of capacities and resources. Clearly, the globalised world involves an improve-

ment in education in health and physical wellbeing not only for the inhabitants of the developing world but also for those of the developed world. Today, for all people, there is an extraordinary abundance of knowledge in general, and medical knowledge in particular, that is unprecedented in historical terms. This abundance of medical knowledge should be made available through new and suitable processes of synthesis and communication. All people have the right to an instruction that sees the environment as their home and health as a good of the body, so as to impede the physical and human environment from becoming injurious to health and the wellbeing of the community.

Despite the many statements and numerous declarations of intent that have been formulated by the United Nations and by other agencies, and despite the fact that significant efforts have been made in some nations, levels of instruction in general and in relation to health in particular remain extraordinarily unequal within the world's population, and this despite that fact that the resources that are needed to improve this situation do not seem to be beyond our reach. Over the last decade a special reason for concern has been the diverging and growing inequality, which has been concomitant with globalisation and connected with policies in the field of education, between developed countries or emerging ones and countries that are in a condition of stagnation, that is to say that they have been blocked in the poverty trap and the illnesses that derive from this. This has had growing consequences in the field of infectious diseases and given rise to a new advance in their destructive power.

Given the growing importance of education in general, and medical education in particular, more than ever before in the history of man an analogous source of concern is the great and often growing gap between schools attended by the poor and schools attended by those who are not poor. This is so much the case that educational pathways have emerged that are differentiated and separate. Even more alarming is the fact that in the world as a whole some two hundred children and young people who should receive a basic education are not even enrolled in schools. Thus women in particular do not receive an education that is able to address health problems. Typical examples of this are tuberculosis and salmonella, which were defeated in the recent past and have now returned with AIDS to strike numerous people because individuals now have less immunological defences against the new forms that such viruses take.



Today, in the context of globalisation, global migrations, the great development of knowledge, and the concomitant establishment of the knowledge-intensive economy, and above all in the face of the inescapable obligation to combat poverty and diseases with all possible means everywhere in the world, it is necessary to think anew in a serious way about education, especially in the field of health. Indeed, for the poor and for people with infectious diseases the negative consequences of inadequate educational and health-care policies are amplified by globalisation.

Globalisation has provoked an unprecedented increase in the number of people who migrate between host countries or within very large countries, and to such an extent that today international migrations are an integral part of global development. Migrations can be a factor that is extremely favourable to mutual understanding and the fusion of cultures, and in this education throughout the world plays an important role in the integration of the children of immigrants and thus in the ability to combat diseases. However, whereas some children of immigrant families perform better at school than the children of indigenous families, others appear to be very soon marked by social rejection and the negative experiences of illness, and especially of infectious diseases. In this field the pathways to follow and the improvements to be made lie in a reduction of the fracture with the native cultures and languages and the maintenance of family stability and good health.

Education should aim at the complete development of the person, at the promotion of the meaning of human dignity, and at the strengthening of respect for the rights and fundamental freedoms of human beings and their bodies. It should allow all people to participate in an active way in the greater human family and foster understanding, friendship and co-operation between all populations, ethnic groups and religious communities. Education should also transmit knowledge, higher cognitive abilities and interpersonal sensitivity – all elements that are necessary in helping young people to become aware of the importance of their own bodies and their own wellbeing, and in interacting with other people. Education should develop their ability to observe, to reason, to summarise, to create ethical values, and to develop a sense of justice, respect, tolerance and compassion towards other people. It should stress the responsibility that all of us have towards the protection of the environment on behalf of present and future generations, thereby helping to combat pollution and promote conservation and sustainable growth. In transmitting knowledge and encouraging creativity, instruction should spread the profound lessons of the past and communicate the opportunities and the risks that humanity will face in the future. It should also point out the responsibility that we have towards our own bodies and health and the bodies and health of other people. And here the great chapter of animals opens up. Today

we have retrieved our place within nature but we are not sufficiently capable of seeing that when species disappear because of various diseases for which mankind is clearly responsible, we, too, become endangered.

In particular in the context of globalisation, respect for cultural diversities and the conservations of elements of cultural identity are essential. The new generations must clearly understand their own cultures in relation to other cultures so as to develop self-awareness when they are placed in front of cultural changes, and to promote peaceful understanding and tolerance, identifying and fostering authentic human values in an intercultural perspective. The evident crisis of multiculturalism must lead us to an interculturalism that shares universal human values such as knowledge, freedom, and health, and thus lead us to do everything to combat diseases. Just as no true culture can be against truth and freedom, so, also, it cannot but be opposed to every form of violence against the body and against health, especially if infectious diseases are involved.

At the same time, instruction should establish that shared sense of humanity that is essential to the conservation of the health of the body and the peace of the soul. This can be obtained by drawing upon the universality of learning, knowledge and science, and especially medical science. It is thus also necessary to offer, during the educational process, the new image of the universe and of man that the scientific community is now proposing as regards the cosmos, the earth and life.

The relativist and nihilistic tendencies of some modern movements, which Benedict XVI and his predecessors have criticised with increasing force, have been matched by a correct and progressive return of ethical, philosophical and religious questions, and this has a decisive impact on human health. The 'wonder' that stimulated the origin of science and the path taken by science has not diminished but increased with the new discoveries in the physical sciences and the life sciences. This 'new world', which has been gradually investigated by man, has given rise to even greater amazement at the universe which could open up new and certain horizons of meaning by which to understand the mystery of the Creation. In this way, as a result of the progress of science, religion and philosophy have returned to the fore, as is demonstrated by the increasing attention paid to their acknowledged function in the search for truth. From this springs the need to take into account science, philosophy and religion in establishing a sound anthropological basis as the precondition of education. We remember Jenner, Pasteur, Koch, Ramon, Gaston, Chagas, Fleming, Perutz, who were distinguished members of the Pontifical Academy of Sciences. But this is not enough. Science should research more, and share both research and cures more. It is not admissible that economic interests should oppose the pure search for truth and the concrete welfare of populations.

Education in general begins at birth. Mothers, fathers and families in their primary educational role need help to understand – in the new global context – the importance of this early stage in life, and should be prepared to act accordingly. One of the critical paths to a higher quality of education at the school level is the increased participation of families and local communities in the governance of their educational projects. This particularly applies to the subject of health and education in relation to infectious diseases.

Human development depends upon multiple parameters such as education, health, and cultural visions of the family and of the respective roles of men and women in human society. Yet it can be asserted that education, especially at the primary level, remains dramatically insufficient in some parts of the world, especially in the field of the body and health. The 'classic' basic skills expected of primary education – reading, writing and arithmetic – are no longer sufficient in a globalised world. They need to be supplemented by abilities that achieve such objectives as the improvement, the defence and the maintenance of health, of work abilities, of the cultural and linguistic heritage, the conveying of ethical values, social cohesion, and the environment. In the future, the classic triad may expand into new objectives: 'knowing one's own body, reading, writing, mathematics, reasoning, and summarising'.

As regards teachers, teaching requires a high level of knowledge so that students, who learn through the educational process, can achieve a standard of education that they would not achieve on their own. Their role as agents of education has to be recognised and supported by every possible means: for example, continuous coaching by those who have a more direct access to knowledge (especially trained scholars and scientists), the updating of professional training, suitable salaries, and the availability of information technology. In order to facilitate a complete educational process so as to provide every member of society and communities themselves with that level of knowledge and learning that is a primary factor in bestowing autonomy and encouraging co-operation, it is important to aim at high qualitative standards in the education professions, especially at the level of higher education, with special reference to medicine. This is also required by the fact that because the expertise of each teacher is limited, what a student does not learn from one teacher he or she learns from another, and teachers, too, can learn from each other within a context of synergy that should be formed in every community, and especially in those that deal with medicine. In order to support and promote this dual process, which gave rise to schools, universities and other educational institutions, adequate national, international and private resources must be made available so that throughout the world teachers can perform their duties in an effective way.

Communication and information technology (IT) offers extraordinary opportunities for the renewal of education because of its capacity to connect people, its ability to promote the accessibility of remote areas, its decreasing costs, and the potential volume of the information it can convey. Education spending on each child will thus be able to decrease, even in poor ar-

eas. This could have an extraordinary impact in fighting infectious diseases which are increasing because of a lack of education and prevention as well. However, IT tools do not necessarily achieve education on their own. They need to be accompanied by a conceptual vision that promotes dialogue, the active participation of teachers and of medical doctors, the organisation of knowledge, and an awareness of the importance of values.

The decisive event of existence after birth is health. Illness and death are contrary extremes that appear to strike the body, but in reality they affect the whole person. It is the person as such who is the existing subject, who is born, who lives with health or otherwise, falls ill and dies. It should be recognised that in contemporary culture it is often forgotten that the body is the principal actor of the adventure of existence. At all stages of its life, with varying degrees of concern, it makes its effect on life felt at all levels – the biological level, the level of the senses, and, as is obvious, also at the moral and intellectual levels. Unfortunately, we still do not have an analytical phenomenology of awareness of the body and its wonder, the brain. We do not have knowledge of the levels and forms that our consciousness, our ego or self (to employ the third person), gradually acquires from its body and brain with normal health: of how it acquires consciousness for the first time, of how it acquires it in sleep and illness (collapses, narcotics, mental and infectious diseases), of how it reacquires health, of how (or if) it will lose it in death, and how it will be after death in the future life (believed in by Socrates and promised by Christ to those who believe in him: Jn 3:16; 5:24; 6:40-47; 8:51; 10:25-29; 11:25ss).

It is a fact that the development of persons, the principal concept born of Christianity by which to approach the sick as well, is advanced by stimuli that come from the notably different contents of the various stages and epochs of the 'conformation' of the body. It is not only a question of the so-called times of the brain or of the mylinisation and development of the nervous system. Development is first and foremost something of the person, as awareness and a unifying principle whose various stages constitute the actuation of his or her being and his or her perfection – thus a baby, a child or a young person… could be equally perfect, in his or her order and moment of being, to an adult; at times even more so. But it is also a fact that a child's body has a child's personality with childlike movements, interests and projects: '*cum essem parvulus, loquebar ut parvulus*' (I Cor 13:11). The clumsy body of an adolescent is connected with an exuberant personality that is preparing for life; the body of a mature man has a personality involved in the realities and the commitments of life; the body of an elderly person, who has detached from or is detaching from the heaviest commitments towards the world, has the personality of thoughtful reflection about the past and expectation of the ultimate future. These ages of people are important at a time of illness and its treatment.

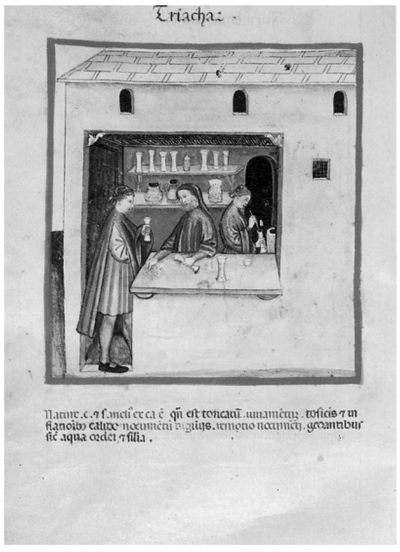
A crisis with the body because of illness at any age is very often a trial and crisis for the person and his or her soul, even though nothing authorises making the person a function of the organism as is the case in a great deal of neurological science today. From many points of view, one never experiences so directly the loneliness of the person and the self as in the tribulations and worries of sickness of the body: 'there are so many needs to which the body subjects the soul that it seems that the latter must obey the rules of the former. When the soul does not have sufficient strength to withdraw from its rule, it experiences, in my view, one of the gravest worries and miseries that this life can provide. Such was the state that I found myself in' (St. Teresa of Jesus, *Le fondazioni*, chap 9, 23; Italian translation, Milan, 1932, vol. 3, p. 302ss).

It is above all in the case of infectious diseases that a human being becomes aware of his or her own body: in the suffering of his limbs, in the difficulty encountered in, or the impossibility of, carrying out certain fundamental functions, in the dependence on, and being conditioned by, of various degrees of complexity, the abilities and discretion of other people (medical doctors, nurses, relatives, friends etc.). When entering a hospital room for important treatment, one can grasp, and some people grasp this with surprising striking lucidity, that awareness of a partial loss of the body and its recovery are almost, that is to say seem almost, like night and day for the person involved.

From the point of view of the catechesis, this is a privileged opportunity for the person to rediscover himself or herself. As is always the case, however, and particularly in such a circumstance, the person is called to open himself or herself up to God in prayer of worshiping love. This prayer achieves a modality of presence in which the object is not already the content of a theoretical portrayal mediated by the knowledge of the subject. In prayer in general – but in particular in this case of extreme awareness of God's presence and being dependent on Him – God is not only a portrayed object but also and above all else loved and wished for by a person who is convinced that He is directly and particularly involved. This knowledge of prayer seems to adhere to the modality of the presence of the will moved by love whose act really finishes in the reality of the (*ad rem*) other, that is to say of God. We know that although in this life we cannot know God directly, we can love Him with all our soul. Our love does not have mediations. And here of fundamental importance is the openness of the sick person not as a sick person or patient but as a brother and friend. In a human relationship, and above all in every deep human relationship, of friendship or of filiation, knowledge about, and recognition of, the other transcends pure noetic intentionality and reaches the person himself or herself (*ad personam*). This relationship of friendship and brotherhood with the sick person can constitute the point of departure for a prayer that assures the presence of God and thus the beginning of the journey of the soul towards its foundation and salvation: 'where two or more are gathered in my name, I am there amongst them' (Mt 18:20). Beginning with this, the sacramental world in all its

wealth is opened up for the salvation of the sick person so that illness of the body can be a providential path to achieve the health of the soul against that fatal illness – evil or sin.

At this point the family is important. The fundamental defect in current approaches, towards health, as well, in the case of the continuing presence of infectious diseases, which are based upon the state, the market or a combination of these approaches, is that they neglect the family, both in treating society as though it were a set of individuals in competition with each other to obtain scarce resources or in seeing the family as a public instrument thanks to which one can remedy the failings of the state or the market. In doing this, these approaches weaken that very solidarity that is, instead, necessary to remedy those failings. The future of society lies with health, and either society will be based on the family or it will no longer be human or of quality. Perhaps it will be something else, another society. This is the great challenge.



The family is decisive as regards the person and corporeal health. In this cradle of life and love, a human being is born and grows up, lives, falls ill and also dies. Political leaders must pay greater attention to families and recognise the key role that families and their surrounding networks of relationships have in addressing the problems of every person, and especially sick people, those who are dependent because of problems of sickness. A nation without political awareness about the family allows policy towards the family to be entrusted to chance and fortune, to the consequences of policies and programmes directed to other areas which, nonetheless, have a strong impact on families and a negative impact on health.

Intergenerational solidarity is not only a question of the relationship between those who are now young and have a job and those who are older and are pensioners. It is also a question of the relationship between those who are in good health and those who are not in good health. Men and women who look after the health of their relatives not only do something for themselves and for their loved ones, they also do something for society as a whole and for the future of everyone. Their contribution to the quality of human life is irreplaceable. In these functions for the benefit of its sick members, the family precedes in terms of importance, radical impact and value, the functions that society and the state should perform. History demonstrates that without families that are solid in communion and stable in commitment, peoples fall ill, break up and grow old.

It is necessary for this service of assistance provided to sick people, whether it is paid for or not, to be recognised as work that is socially very useful. Political leaders must make such work more easily performed for those who are more greatly motivated and qualified to look after sick people, whether these are elderly, young or very young. When social institutions take care of families, especially as regards providing help to the sick, they should strive, wherever this is possible, to help them in performing their functions rather than trying to replace them in the performance of those functions.

Strengthening the structures of mediation of civil society that work for the benefit of health

Greater attention should be paid to the 'structures of mediation of civil society', perhaps by engaging in studies on the various kinds of structures of mediation with the aim of finding the most effective examples, and discovering what strengthens them or what weakens them when it comes to the treatment of infectious diseases.

A study should be made of the impact of diseases on families with children and on the structures of mediation, in the same way as happens with the natural sciences and their studies on impacts on the environment.

Programmes should be set in motion to understand what functions and what does not function in order to base policies on experiments that have been shown to be effective. Experiments used by the structures of mediation of civil society to perform some of their tasks to achieve a defence against diseases, tasks that governments have taken on with the passing of time, could produce not only a more efficient and human provision of certain social services that work in favour of health but also a strengthening of these structures of mediation themselves. Here the subject of the environment or human ecology comes into play, to which the Holy Father referred in his address. In the field of health the physical environment is of fundamental importance. But the social environment is equally important, and the lynchpin of the social environment is healthy and Christian families. One may say the same about religious institutions. It is the task of secular people to establish justice by purifying forms of selfishness with reason but it is the task of the institutions of charity to create a spiritual environment where one can create that relationship of friendship with a sick person that opens up to God. Who does not remember with special gratitude the care of sisters during illness caused by an infectious disease which helped to create that spiritual space that opens up to prayer and to the sacramental life? Why, therefore, should sisters not be in hospitals, as is wanted by some secularists for specious reasons derived from cultural secularity?

H.E. Msgr. MARCELO SANCHEZ SORONDO,
Chancellor of the Pontifical Academy of Social Sciences, the Holy See.

FRANCISCO ROBLES ORTEGA

1.2 Educating in the Faith

My paper, although short, wants to answer two questions: 'is it possible to educate a patient in the faith who, because he or she is afflicted by an infectious disease, has to be isolated?', and 'if this is possible, how should this education be implemented?'.

1. Is it Possible to Educate a Patient in the Faith who is Afflicted by an Infectious Disease?

It should be made very clear that when we speak about education in the Catholic faith we are speaking about *guiding* someone towards a *personal experience* of Christ. This is because 'Christianity is not a mere book of learning or an ideology, and nor is it even a system of values or of principles, however elevated they may be, *Christianity is a person*, a presence, a face: Jesus, who gives meaning and fullness to the life of man.'[1] For this reason, educating in the faith is nothing else but transmitting a personal experience of Christ, and this is always possible.

To employ the words of the Holy Father, 'Being Christian is not the result of an ethical choice or a lofty idea, but the encounter with an event, a person, which gives life a new horizon and a decisive direction.'[2] 'Faith by its specific nature is an encounter with the living God.'[3]

For this reason, educating in the faith is not reduces to knowing Christ or to imitating him. It really is much more. Educating in the faith means *transmitting a personal experience of life in Christ*. To educate in the faith is to promote an encounter in which a human being feels called to give a response of love to He whom he or she perceives as the God of love. In such terms this idea can appear very elementary but this is the basis of the experience of our faith. In definitive terms, to educate in the faith is to teach someone to see Christ as the centre of life – it is to teach someone *to respond to his love*.

To educate in the faith means to teach one's brother not to remain fixed within his illness, his problems or his human smallness but to *launch himself towards the mystery of trust in, and love for, God*. It means directing him to live with a new dimension; to encourage him to build his life in line with the plans of god, and to leave his own plans to a subsequent date. To educate in the faith is to hand over a treasure[4] that we discovered one day and *to share it with love*.

For this reason, the answer to the initial question, 'is it possible to educate a patient in the faith who is afflicted by an infectious disease?', is always in the positive, always when one is dealing with an upright education in the faith that motivates and convinces, more with witness than with words, given that it is worthwhile living in the love of Christ: 'By this we know love, that he laid down his life for us; and we ought to lay down our lives for our brethren'.[5]

In today's world in which the meaning of the word 'love' seems to be so debased as to become a mere 'enjoying another person', a Christian, a disciple of Christ, in looking at that cross discovers that love of self-giving, and furthermore total self-giving. Educating in the faith must lead to the experience of this love, to affirming together with St. Paul: 'the life I now live in the flesh I live by faith in the Son of God, who loved me and gave himself for me',[6] and to proclaim to the world that 'Greater love has no man than this, that a man lays down his life for his friends.'[7] Educating in the faith is always possible because it means demonstrating the love of God for every human being, a love that is expressed in absolute self-giving until death, and death on the cross.

2. How should one Address Education in the Faith with Patients who have Infectious Diseases?

In reality, every process of education in the faith is an individualised process, a personal and profound process, in which the principal protagonists are God and the sick person. The other protagonists, those who surround the sick person, can help, encourage, motivate, inform and guide, but it is the sick person himself or herself who must discover the love of God and respond to it with his or her own life.

Having said this, it should be made clear that in fact there are circumstances that can help this process of 'conversion' and of drawing near to the God of love. I will now examine the four such circumstances that I believe are the most important.

a. The experience of the cross.

The first experience which is certainly the most important in this process of education in the faith of the sick person is *the experience of the cross* in its deepest meaning. In the cross one can discover Christ and encounter his love at a deep level. It is true that many who were present at the crucifixion of Jesus shouted out the following phrase which still sounds out in many hearts: 'if you are the Son of God, come down from the cross'.[8] I believe that all those who have been near to the bed of a sick person can affirm that this phrase also echoes in human beings who suffer and rebel in their pain. It costs a great deal to accept suffering, which ap-

pears to be something that is against human nature. However, with the eyes of faith we discover in the cross of Christ the Son of God who gives himself for us so that we may have eternal life – this is the pathway that we must ensure the sick person follows: the redemptive acceptance of the suffering of Christ. In looking at the world of illness, the fact that God gave up His own Son to death on the cross appears to be almost necessary. This is the way in which God justifies Himself before the history of man which is so full of suffering. He does this by placing the cross at the centre of this history, the very cross of Christ. Christ thus becomes the explanation of the meaning of the suffering of man, a new meaning that defeats sin and death.

For this reason, a particularly effective way of educating in the faith is to introduce the sick person to the mystery of the cross of Christ, knowing that the Lord suffered and experienced pain for him or her out of love for him or her, to free him or her from sin and to give him or her eternal life in the fullness of love.

The pathway of the cross shows a God who, in addition to being Omnipotence, is also Wisdom and Love. He is not the 'Absolute' that is outside the world and thus indifferent to the suffering of man. He is the Emanuel, the *God-with-us*, a God who shares the fate of man and shares in his destiny. God is not only 'Somebody' who is outside the world, happy to be in Himself, the Wisest and Omnipotent. His wisdom and His omnipotence are placed by free choice at the service of the loved creature. If suffering is present in human history, one can thus understand why God's Omnipotence was expressed in the humiliation of the Cross. The scandal of the Cross continues to be the key by which to interpret the great mystery of suffering, which thus belongs to the full to the history of man.[9]

Every pastoral agent who practices his own ministry amongst those people who are afflicted by infectious diseases must be for such people a bearer of deep comfort in the pain that strengthens the Mystical Christ who suffers, in the same way as the angel of Gethsemane[10] comforted Jesus. To comfort in a Christian way beginning with the Christ of the cross means to educate and to strengthen in the faith.

b. Charity or love

Another experience that helps in education and growth in faith is *charity, love*, the most eloquent sign of the disciples of Christ. A sick person who experiences the love of God in the work of those who care for him or her can more easily manage to understand the love of God for his or her soul.

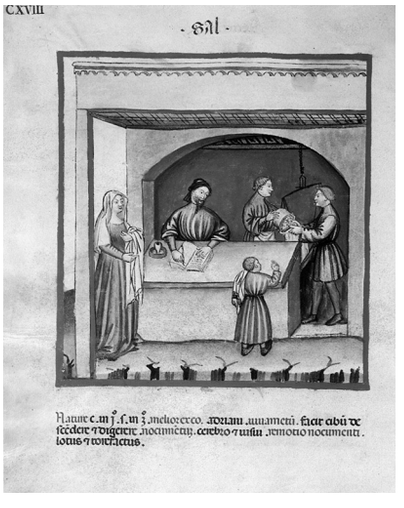
Charity is certainly the apostolic instrument that has obtained the greatest number of conversions to Christianity. Love is the most convincing face of our faith, the best argument, the greatest proof of authenticity, and one of the signs of credibility that most sounds out in Christian revelation. To live love is the distinctive mark of a Christian,[11] the principal commandment of Christ, a new commandment[12] from which derive the whole of the law and the prophets.[13] 'Since God has first loved us, love is no longer a mere "command"; it is the response to the gift of love with which God draws near to us'.[14] To live love means to love as Christ has loved us.

It is charity that ensures that so many Christians draw near to those who are afflicted by infectious diseases, even at the risk of losing their own lives. And it is charity that constantly reminds us that in each of these sick people Jesus Christ is present. Love is self-giving and this self-giving of self-denial enriches us as nothing else and nobody else can do.

Christian charity, which during the course of the twenty-one centuries of Christianity has moved missionaries, has provided enthusiasm to martyrs, has inspired Christian mothers, has led women religious to a heroic self-cancelling in service to neighbour, has guided priests and has broken down the barriers of hatred between countries and families, is based on, and is nourished by, the Eucharist. A Christian, when he or she lives charity, becomes himself or herself the eucharist.

Indeed, this charity, which is certainly the most effective instrument of Christian evangelisation, is nourished and inspired *by and in the* Eucharist. 'The Eucharist draws us into Jesus' act of self-oblation. More than just receiving statically the incarnate *Logos*, we enter into the very dynamic of his self-giving' .[15] For this reason, the educator in the faith must be a man or a woman who is profoundly eucharistic.

The Eucharist, which is increated grace, is the source of every grace and it is grace, the true presence of God in the soul, that brings about conversions and opens human beings to receiving the Gospel.[16] The preparing of man to receive grace is already a work of grace, and this is necessary to provoke and sustain our co-operation with justification through faith, and sanctification through charity.[17] Sanctification through charity is always a work of grace and this charity is not mere feeling, a vital context or positive energy, but rather living as Christ has taught us in the full giving of ourselves. This is the core that inspires and strengthens charity.



c. *The life of prayer*

Initiation into the life of prayer is another very effective way of educating in the faith. *To teach to pray is to teach to believe*. Faith in itself is a gift granted by God. For this reason prayer of petition is needed to receive that gift. To pray is to keep one's gaze fixed on Christ.[18]

'In the Church's liturgy, in her prayer, in the living community of believers, we experience the love of God, we perceive his presence and we thus learn to recognize that

presence in our daily lives. He has loved us first and he continues to do so; we too, then, can respond with love. God does not demand of us a feeling which we ourselves are incapable of producing. He loves us, and he makes us see and experience his love, and since he has "loved us first", love can also blossom as a response within us.'[19]

Prayer teaches us to discover the depth of God of love, to experience Him, to know Him with our hearts, to sense Him. Prayer enables us to discover that human weakness is a part of the plans of God and does not distance us from Him. It makes us understand the greatness of God and how we need Him. Prayer leads us to accept humiliation as something that God allows because it purifies us in love for Him.[20] Prayer makes us discover that only God gives fullness.

In every process of education in the faith prayer, cannot be absent because it constitutes the heart of faith, strengthens and enriches our way of knowing and loving God, and profoundly sustains our hope. Prayer leads us to direct contact with Him. To pray is to call and to answer. To pray is to call on God and to respond to His invitations. To pray is '*deal in love with He whom we know loves us*';[21] it is a real encounter with God who makes Himself present in man through the action of the Holy Spirit.

Prayer is faith in action. Prayer is a sort of gymnasium of faith because faith sustains prayer, sets it in motion, and is practiced in prayer. To pray is to place oneself in the presence of God who, out of love, has freely revealed Himself, has invited us to converse with Him, and offers us the gift of communion with Him. Through prayer, a human being learns and accepts the plans of God about his or her own life and overcomes the temptation to merely take the place of God in his or her own plans. For this reason, prayer is at times the only remedy when a person has lost the desire to go on living.

d. The experience of forgiveness and mercy

Amongst the many gifts that God gives to every human being – the gift of life, the gift of faith, and the others – there is one which touches the depths of the heart of man, namely *the gift of forgiveness and divine mercy*. Forgiveness is certainly the moment when one most discovers the love of God. *Rahamin*, divine mercy, reveals the deepest identity of God to us: *God is love*.[22]

To educate in the faith leads us to enable our brethren to discover the 'lamb that takes away the sins of the world'[23] through the sacrifice of his life; it leads us to present the history of salvation as a communication of the love and mercy of God who wants to draw near to us despite our miseries, or to put it better, specifically through them.

Showing the mystery of the forgiveness and mercy of God is profoundly moving. In my personal experience of caring of souls, forgiveness effectively takes away many prejudices that may exist against the Catholic faith. Experience of mercy and forgiveness renews hope and trust in God and leads to a discovery of the nearness of the heart of Christ.

Experience of forgiveness leads to a discovery of personal dignity. A human being perceives his or her own 'value' before God. He or she is a loved son and not a servant. A penitent encounters the person love of God towards him or her. He or she sees sin as an offence against a loving Father who had told him or her everything that was needed to make him or her happy. He or she does not accept his or her sin and he or she confesses that he or she is a sinner before God, a father in whom he or she confides. To return to the home of the father appears to be impossible for man but this is not impossible for God.[24] It is man who reacquires faith in the Father. For this reason, in every process of education in the faith it is necessary to present the decisive encounter with divine mercy.

Conclusion

Before ending, I do not want to neglect a fundamental observation. This observation is that in the deepest part of education in the faith we always find an unalterable premise: 'God's free initiative demands *man's free response*, for God has created man in his image by conferring on him, along with freedom, the power to know him and love him. The soul only enter freely into the communion of love, God immediately touches and directly moves the heart of man'.[25] Education in the faith cannot depart from human freedom which at the same time is the instrument that a human being uses to respond to God.

An educator in the faith strives to reach this freedom, without violating it but by motivating it and guiding it, knowing that God has placed in man an aspiration to truth and good that only He can satisfy. For this reason, an educator in the faith knows that what he or she offers is a gift, a treasure for man, and especially for those who find themselves in a situation of suffering. He or she knows that he or she is handing over a good to somebody else, the best good, the only good that opens to eternal life. And it is worthwhile making every effort to achieve this.

H. E. Msgr. FRANCISCO ROBLES ORTEGA,
Archbishop of Monterrey, Mexico.

Notes

[1] JOHN PAUL II, Address to young people at the Palace of Ice of Berne, Switzerland, 5 June 2004.
[2] BENEDICT XVI, Encyclical Letter *Deus Caritas est*, n. 1.
[3] BENEDICT XVI, Encyclical Letter *Deus Caritas est*, n. 28.
[4] Mt 13:44.
[5] 1 Jn 3:16.
[6] Gal 2:20.
[7] Jn 15:13.
[8] Cf. Mt. 27:40.
[9] Cf. JOHN PAUL II, *Crossing the Threshold of Hope*, 'God is love. Why, therefore, is there so much evil?'
[10] Cf. Lk 22:43.
[11] Cf. Jn 13:35-36.
[12] Cf. Jn 13:34.
[13] Cf. Mt 7:12; Mt 22:40.
[14] BENEDICT XVI, Encyclical Letter *Deus Caritas est*, n. 1.
[15] BENEDICT XVI, Encyclical Letter *Deus Caritas est*, n. 13.
[16] Cf. *Catechism of the Catholic Church*, n. 2001.
[17] *Catechism of the Catholic Church*, n. 2001.
[18] JOHN PAUL II, 'Letter to Priests' on Easter Thursday 2004, n. 5.
[19] BENEDICT XVI, Encyclical letter *Deus Caritas est*, n. 17.
[20] Cf. Ps 119, 67 and 71.
[21] SANTA TERESA DI GESÙ, *Libro de la Vida*, chap 8.
[22] 1 Jn 4:8; 4:16.
[23] Cf. Jn 1:29.
[24] Cf. Mk 10:27.
[25] *Catechism of the Catholic Church,* n. 2002.

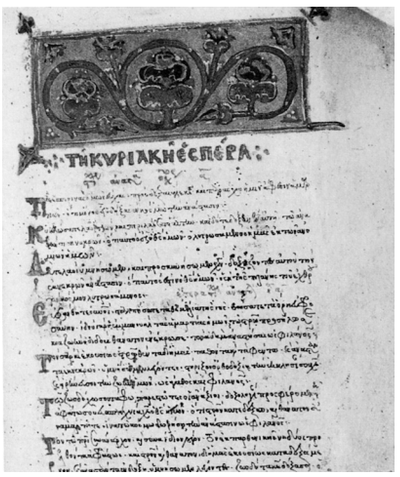
JOHN PATRICK FOLEY

1.3 Pastoral Aspects: the Treatment of Infectious Diseases and the Mass Media

In the name of Our Lord Jesus Christ, the Catholic Church has developed at least four networks of institutions to assist in its mission of bringing the Gospel to all nations and peoples.

The first is its system of dioceses and parishes, aimed at being present to the people whom it serves and making possible divine worship in a dignified manner.

The second is schools, a network of educational institutions from formation in basic catechism to the highest level of university studies.



The third is health care institutions, so that those who represent the Church might be the Good Samaritans of our age, caring for as many sick persons as possible, but especially for those who are alone and abandoned in their illness.

The fourth is communications, a network of publications, radio stations, television stations, public relations offices and Internet sites all aimed at proclaiming the Gospel and being at the service of the other apostolic activities of the Church.

Fifteen years ago, our own Pontifical Council for Social Communications published a pastoral instruction entitled "Aetatis Novae", "At the Dawn of a New Era". That pastoral instruction called for every bishops' conference, diocese and major institution to have a pastoral plan for communications and to make communications part of every pastoral plan. Certainly hospitals and health care initiatives should have such a pastoral plan, not only for their own services but also for and in communications, informing people about what they do and also informing people about what is best for their health.

It would seem that some basic communications not only in Church media but through all media should focus on preventive medicine and then on cures and on therapy.

Catholic health care facilities should make known through the media, Catholic and secular, efforts to give injections and inoculations to avoid the effects of epidemics. Maintaining one's health is a demand of that good stewardship for which Jesus calls in the Gospel.

Obviously, the Catholic media should make known how to avoid infectious diseases and how to care for those who have them.

In making known how to avoid infectious diseases, abstinence from those contacts or activities which would expose one to the disease are, of course, fundamental – and here, of course, I am referring not only to sexually transmitted diseases, but to all diseases which are spread through human contact.

Ironically, people applaud the Church when, on the local level, it advises persons in an area of infectious disease transmitted through the mouth not to receive Holy Communion from a common cup. On the other hand, they criticize the Church when it advises, both for moral and physical health care reasons, not to engage in sexual activity with persons infected with sexually transmitted diseases. The moral position of the Church, of course, is that sexual activity of any kind outside of a marriage between a man and a woman is not morally permissible, prescinding from any diseases which might be transmitted – but isn't it convenient that the moral law helps to protect public health, another indication for the existence of natural law!

It should be noted that many in the Church have distinguished themselves in the service of those with infectious diseases.

My office is located in Palazzo San Carlo, located just a few steps from here, and our patron, St. Charles Borromeo, died – some say – as a result of caring for those stricken with the plague in Milan, his archdiocese.

In the United States of America, where there exists strict separation between Church and State, the Daughters of Charity were invited by the government to conduct the hospital in Louisiana for those suffering from Hansen's disease, or leprosy. Apparently, it was a job nobody else wanted! Two of those who ministered to the victims of leprosy in Hawaii, the famous Father Damien of Molokai and Mother Marianne Cope, have both been declared Blessed by the Church.

I mention these cases, because the media can also make known the heroes in the Church who have cared for those with infectious diseases, thereby encouraging others to follow such heroic example.

Because physical health is a pre-

cious gift of God, I would advise Catholic hospitals and health care facilities to make available to the media information – in keeping with the moral teaching of the Church – on how to lead a healthy life and to avoid infection.

Catholic publications and electronic media outlets can also dedicate space and time to the coverage of health care issues, indicating that caring for our health is a moral responsibility.

In the absence of avoidance of infection, however, Catholic health care faclities can, should and do offer care to those who are afflicted.

Because I was a friend of the late Cardinal John O'Connor of New York, I discovered by chance that he regularly visited those suffering from AIDS, and he also instructed certain Catholic hospitals to accept such patients, even without payment, and he personally went and did such work as emptying bed pans and washing the patients. He did not seek to publicize such activity, but it became known, and his example helped to reinforce the care given to those who were suffering from a disease few wished even to acknowledge.

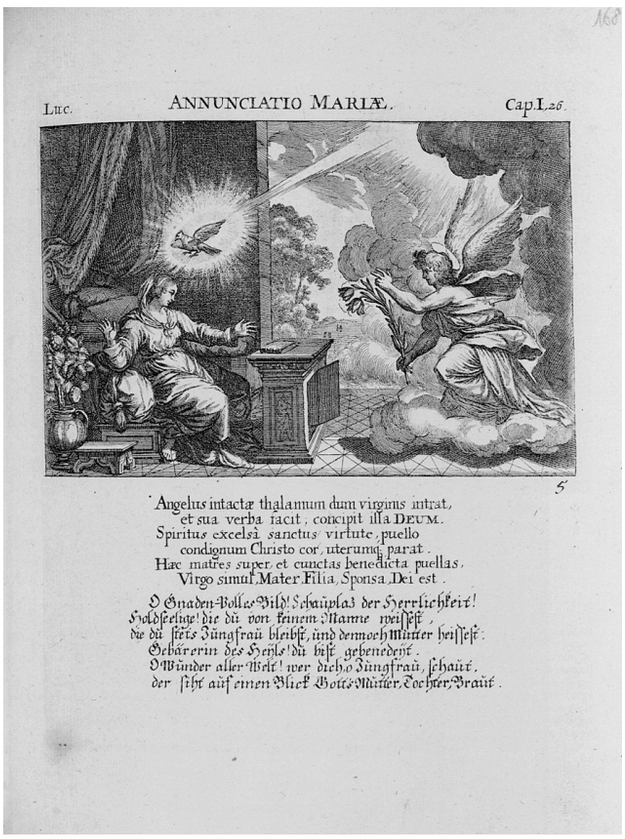
By the way, while pregnancy is hardly an infectious disease, there are some who would treat it that way and advocate the destruction of the child in the womb. Cardinal O'Connor also ordered that Catholic hospitals give free health care to those expectant mothers who would otherwise seek abortions, and he established a separate religious community, Sisters for Life, to care for expectant mothers and later for their offspring. Obviously, this service he sought to publicize – to avoid as many abortions as possible.

For seventeen years, I served as assistant editor and editor of a Catholic newspaper and I also conducted several Catholic radio and television programs, and I want to say how impressed I have been with the generosity and even the heroism of many health care professionals, Catholic and non-Catholic, who have entered situations potentially dangerous and even life threatening to them and who have ministered with care and devotion to those suffering from infectious diseases.

Two stories need to be told – certainly the story of how to avoid contracting infectious diseases, but also the story of the generosity and indeed heroism of those who care for the persons who have contracted such diseases.

Those of you who are health care professionals certainly have saints in your midst. I salute you – and I hope that your stories may be told, but I especially hope that your advice and example may be followed so that many lives may be saved and so that millions may live in health, happiness and, we hope, holiness, because of your work. May God bless you all!

H.E. Msgr. JOHN PATRICK FOLEY
President of the Pontifical Council for Social Communications, the Holy See.



GUSTAVO KOURÍ, JOSÉ L. PELEGRINO, MARÍA G. GUZMÁN

1.4 Society and Infectious Diseases

At the present time, the socio-economic environment in which infectious diseases develop is generating great interest and is the reason for detailed study. The statement of the scientist Louis Pasteur, 'the terrain is everything, the microbe is nothing', expresses present reality, which is characterised by so-called emerging and re-emerging diseases in whose appearance various factors interact, factors that derive from society, from man and from the environment.

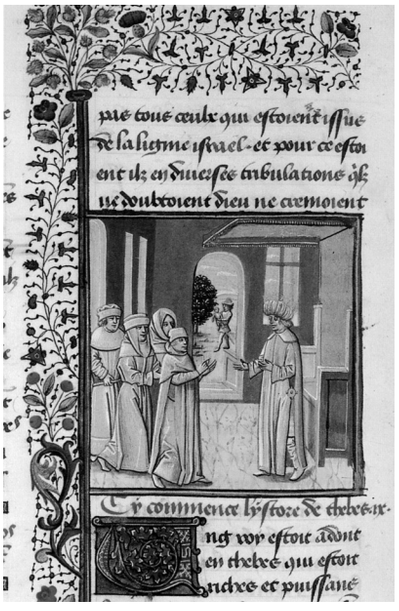
According to the scholars of emerging and re-emerging infections, their appearance is undoubtedly linked more to the action of man than to changes in micro-organisms. In the case of the mutations of microbes as well, signs and data have been found that indicate that the action of man plays an important role in the increase of pathogenic levels or in resistance of the agent (Farmer, 1996, 1999).

An increasing number of diseases are currently afflicting the various geographical areas of our planet. According to the data of the World Health Organisation, millions of people in the world live or move to areas in which these diseases are endemic or can become so, thereby running the risk of becoming infected. Changes in ecosystems involve mutations and the proliferation of pathogenic agents and their vectors, thereby putting vast populations that are exposed to them at risk.

The Current Social Situation

The current situation of society is very complex. Despite the great advances achieved in the field of science and technology, contemporary society is affected by a neo-liberal globalisation, by a profound climatic change that threatens the survival of human beings, and by 'unjust wars'. At the same time, the migration of high numbers of people towards the great cities, both in the south and the north of the planet, is taking place. These people flee from armed conflicts and hunger in search of better conditions of life.

Neo-liberal globalisation over the last decades has increased the differences between the countries of the northern hemisphere and the countries of the southern hemisphere of the globe. In addition, unfairness has increased within countries and this has placed a large part of what is termed the middle class in a state of poverty at the same time as a narrow group of people have become increasingly rich.



Globalisation as a complex and multifaceted process has varying and broad consequences for human society which interact in distinct spheres in which economic processes, technological development, political influences and social, cultural and environmental factors determine the direction it takes (TDR, 2003).

In globalisation of a neo-liberal kind, which is favoured by major concentrations of capital, uncontrolled privatisation is involved which has fostered to a major extent the deterioration and in some cases practically the disappearance of public health systems in less developed countries. If we take into account the fact that public health has a preventive component and a curative component, the disappearance of the preventive component as a result of the 'sick people market', which is the market that produces money, means that the less favoured social classes have less access to health and the advances of technology. It is for this reason that illnesses that can be prevented through vaccines, such as measles, and others, such a malaria, which can be controlled through specific pharmaceuticals, today constitute a scourge for a large part of mankind.

In historical terms, infectious diseases are the diseases which have most contributed to illness and death. Still today, transmissible diseases are responsible for a large percentage of deaths and disability in the world and it is certainly the case that in some regions of the world they continue to be the majority cause of death. A study at a global level on disease estimated that in the year 2000 infectious diseases were responsible for 22% of all deaths and 27% of the years lost because of disability in the world (WHO, 2002). At the end of the last century, in low income countries in Asia and Africa, infectious diseases were responsible for 45% of total deaths. Although these diseases afflict all age groups, they particularly affect young people and especially infants under the age of five – here infectious diseases are responsible for 63% of deaths at a global level. Graph n. 1 illustrates the

deaths caused by five infectious diseases. With the exception of respiratory diseases, the rest are almost the exclusive patrimony of the so-called third world. In the case of respiratory diseases as well, access to vaccines such as that for influenza or good levels of medical care make the difference between those who can survive and those that cannot.

New challenges for mankind, such as the expected 'influenza pandemic', will be paid for the most in terms of human lives by the populations of the southern hemisphere.

It is estimated that in 2025 in Africa alone ninety million people will have AIDS. Already at the present it is known that in only a decade in this continent, because of disease and war, life expectancy has declined by four years.

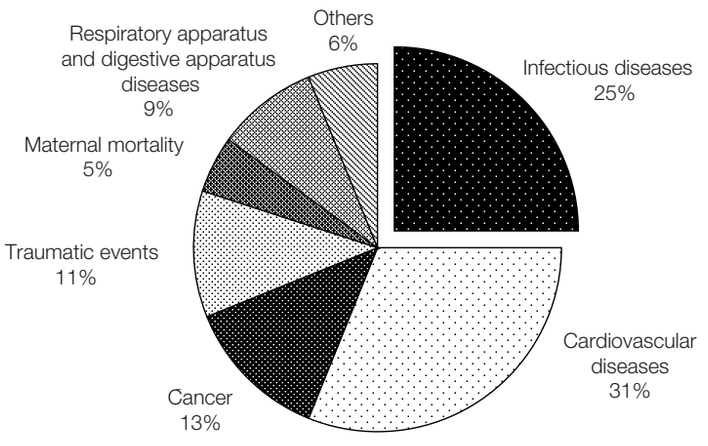
The stigmatisation of poverty and its burden of diseases mark a part of the world population as having a 'divine scourge'. An analysis of the global burden of illness has estimated that 20% of the poorest people in the world have a higher illness burden than the remaining 80% (Gwatkin *et al*. 1999), whereas over the last hundred years certain infectious diseases (transmitted in particular by vectors) have become rare or have become completely absent in the most industrialised countries (Murray y Lopez, 1996). Reference is thus made to 'neglected diseases' in which 90% of the burden of illness receives only 10% of the resources to combat it. Thus it is that as a result of malaria over one million children die every year, in the main in Sub-Sahara Africa.

The situation could grow worse as a result of global warming given that in the case of certain diseases this could provoke greater efficiency on the part of the vectors in performing in less time their extrinsic cycle and in being infective more quickly, or in acquiring a higher reproduction rate or a greater period of activity with the reduction in the winter season.

Social and economic factors, connected with lifestyles, and bad and unfair health-care conditions, are possible risk factors in containing many diseases.

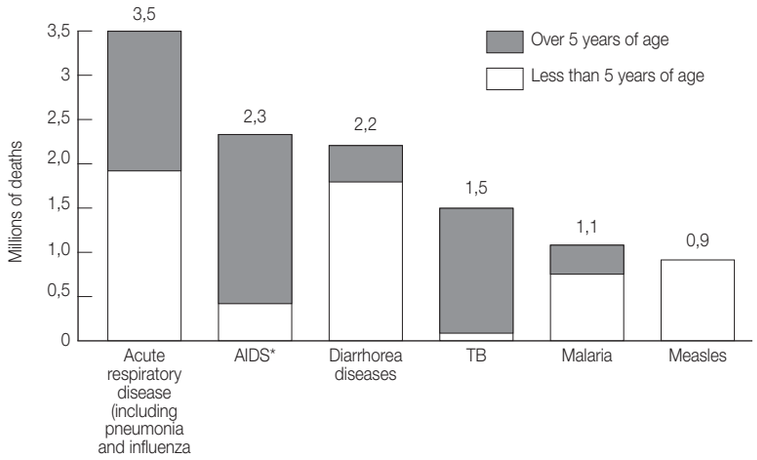
Other factors such as unemployment, poverty, lack of political well and corruption considerably aggravate the situation. In the Report on World Human Development 2001-2002, beginning with the crisis of Latin America, the level of poverty is expressed with reference to a lack on income and funds to meet basic needs, by a feeling of powerlessness and a failure of the institutions of the state to be representative, and by vulnerability in the face of crises because of an inability to address them (Munster, 2003).

Principal causes of death
53,9 million deaths overall in the world in 1998



Note: Deaths by cancer and Cardiovascular diseases, and by diseases of the respiratory and digestive apparatuses could also be caused by infections and increase the percentage of deaths caused by infections diseases, Source: WHO, 1999.

Principal infectious diseases as causes of death
Millions of deaths in the world by all ages, 1998



(*Hiv positive people who died of TB are included in the number of people who died of AIDS. Source: WHO, 1999)

Population Growth and Migrations

It is estimated that by 2100 there will be a growth in the world's population at the expense, in fundamental terms, of under-developed countries or countries without income. According to these predictions, there will be more than ten thousand million inhabitants of whom nine thousand million will be in less developed countries. By 2025 we will have passed from the five megalopolises (with over ten million inhabitants) that existed in 1975 to twenty-four. This urban growth will be due to the disor-

dered migration of large population groups in search of access to sources of work and fleeing from bad life conditions and poverty in the countryside or in less developed countries. The great majority of these people will settle in poor areas (shanty towns etc.) around the great megalopolises, living in crowded conditions with dwellings without hygienic conditions, access to drinking water, electricity, garbage collection and sewage systems and even exposed to the transmission of infectious diseases. It is believed that between 2010 and 2030 over 80% of the world's population will live in cities.

Every year in the world over five hundred million people cross frontiers of whom four hundred and fifty million are tourists and one hundred million are refugees or people looking for work. This movement will also increase the traffic of micro-organisms between countries, regions and continents. It is known that in less than twenty-four hours a person with a virus can go around the world carrying with him or her the strain of the infective agent. This danger is aggravated by the existence of the so-termed multi-resistant strains that are the result of bad policies in the use of antibiotics and pharmaceuticals against infectious diseases.

At the end of the 1990s, six people in every ten in the Americas lived in urban zones and it is for this reason that Latin America is the under-developed region that best exemplifies the global process of the 'urbanisation of poverty'.

In its turn, the Report on the Sustainable Human Development of Central America of the PNUD observed that central America is the region where the principal social indicators have deteriorated with greatest rapidity (PNUD, 1998).

In analysing the profiles of poverty and social injustice in Latin America, the Bank of Inter-American Development (BID) argues that there are four aspects that distinguish the poorest families: the low educational levels of the heads of families, the kind of work engaged in, their urban location and a high number of children. In considering the educational factor as a variable of differentiation, it emerges that in this region the average level of education of the work force has advanced more slowly than in other parts of the world and that at the beginning of the 1990s it did not reach five years of schooling. Although initial access to school is comparable with those of other regions, the children of families who belong to a low social class leave school early whereas those of the highest social classes accede in growing numbers to universities. It follows from this that the distribution of human capital is very unequal with repercussions as well on problems connected with the fact that public education is of lower quality than private education (BID, 1988). After over a decade of economic reforms directed towards the market, the low results in the improvement of the major part of the work force of Latin America and the Caribbean, and the enormous disparity in economic and social opportunities between citizens, continue to have an influence on the potential for development of the region. Without education and culture it is impossible to perceive risks and with hunger it is impossible to give priority to control activities when the primary objective of the population is subsistence.

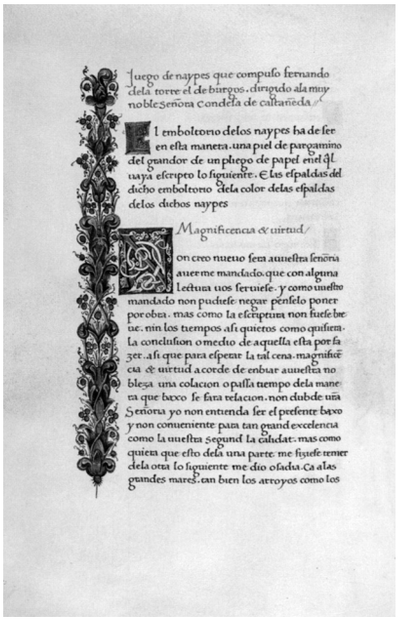
Unfairness

We should see the inequities of the contemporary world as inequalities in income which in turn cause inequalities in access to decent jobs, and as a result to receiving services, including the most elementary ones. On the other hand there are inequities that provoke inequalities in the field of education and which involve as a consequence differences between those who have access to education and those who do not.

This process becomes cyclical and in countries with low incomes and a low educational and cultural level, or where the resources are privatised, there is little production allocated to social fields, illness, death and disability, and this in the end produces further poverty.

Another phenomenon that afflicts many countries, and in particular those with a lower level of development, is the phenomenon of corruption. Although there are no statistical data on the subject, this is a factor that aggravates the existing health-care situation (Ferranti, 2003).

Decisions by governments in the allocation of funds and the creation of structures with trained staff is an indicator of a political will to control and address infectious diseases. The violation of this principle is an important cause of the grave situations to be found in many countries where there is a reaction only if epidemics take place and if there is a risk of deaths. It is not rare for a political will to be present in some countries but for the allocation of funds to be deviated by officials so that these funds do not arrive at their destination.


Juego de naypes que compuso fernando
dela torre el de burgos, dirigido ala muy
noble señora condesa de cifuentes

El emboltorio delos naypes ha de ser
en esta manera. una piel de pergamino
del grandor de un pliego de papel en el q̃l
vaya escripto lo siguiente. & las espaldas del
dicho emboltorio dela color delas espaldas
delos dichos naypes

Magnificencia & virtud

Con creo nuestra señora auemos mandado que con alguna
lectura vos fatigue. y como vuestro
mandado non pudiese negar penselo poner
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ra que baco se fara relacion. non dubde vña
Señora yo non entienda ser el presente bayo
y non conueniente para tan grand excelencia
como la vuestra segund la calidat. mas como
quiera que esto dela una parte. me fuese temer
dela otra lo siguiente me dio osadia. ca alas
grandes mares. tan buen los arroyos como los

At a global level, the situation is not matched by the level of expenditure in the health-care field and by what could be done to control many of the most important health-care problems, including some of the Millennium Development Goals. Some annual statistics may be given which in themselves demonstrate expenditure in the world today: cosmetics in the United States of America: eight thousand million dollars; perfumes in Europe and the United States of America: twelve thousand million dollars; food for domestic pets in Europe and the United States of America: seventeen thousand million dollars. On military expenditure alone at the present time over

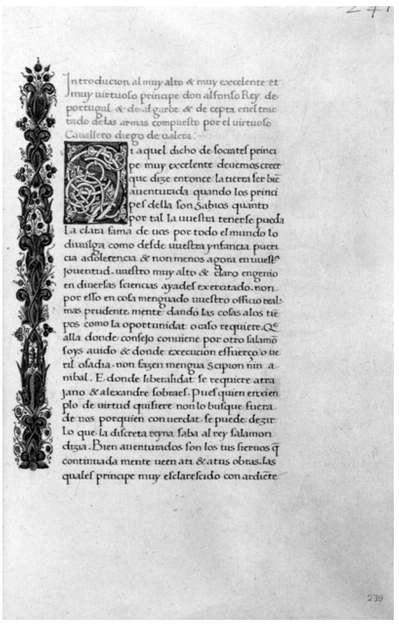
one thousand million dollars are spent. This is an example of social injustice. It is morally unacceptable that more money is spent on creating arms and instruments to kill people than on investments in systems of public health and on programmes of prevention. Is it really right that such expenditure takes place and that investments are not made in other areas that would enable us to solve situations that are so burdensome?

There are many factors that do not depend on the health-care sector but on other state and private sectors and which have the responsibility to address epidemics in the health-care field. It must happen that ministers of health engage in technical direction and control actions intended to prevent epidemics. To do this they must have a sufficient hierarchy to apply health-care legislation. In order to have an effective control of epidemics it is necessary to create government bodies made up of representatives of all the sectors involved in the taking of decisions about the interruption of the transmission of an epidemic. The community must play an important part in this control and the community must involve everyone, from the head of state to ordinary citizens, as well as non-governmental organisations, the Church and the rest of civil society. The greatest difficulty to be encountered in involving the community, at least in less developed countries, lies in an absence of a perception of risks, in a low level of education, in poverty, and, together with this, in other priorities of subsistence.

Conclusions

There can be no doubt that at the present time we have tangible instruments, such as effective vaccines and drugs and medicines, that enable us to protect people against, and treat, many infectious diseases. What has be done to avoid many of these diseases is well known. Man through his behaviour can have a determining effect.

In his homily given in Havana during his visit to Cuba on 25 January 1998, His Holiness John Paul II understood the contemporary socio-economic context with clarity and observed: 'On the other hand in various places a form of capitalist neo-liberalism is developed that subordinates the human person and conditions the development of peoples in relation to the blind forces of the market, with its centres of power placing unbearable burdens on less favoured peoples. It thus often happens that unsustainable economic programmes are imposed on nations as a condition for receiving new aid. In this way we witness in the concert of nations an exaggerated enrichment of the few at the price of the growing impoverishment of many, and thus the rich become richer and the poor become poorer'.


Introduction al muy alto & muy excelente et muy virtuoso prinçipe don alfonso Rey de portugal & del algarbe & de cepta enel tratado de las armas compuesto por el virtuoso Cauallero diego de valera.

Et aquel dicho de socrates prinçipe muy excelente deuemos creer que dise entonce la tierra ser bien auenturada quando los prinçipes della son sabios quanto por tal la nuestra tenerse pueda La clara fama de vos por todo el mundo se diuulga como desde vuestra ynfançia puericia adolescencia & non menos agora en vuestra jouentud vuestro muy alto & claro engenio en diuersas sçiençias ayades exercitado. non por esso en cosa menguado vuestro officio real mas prudentemente dando las cosas alos tiempos como la oportunidat desto requiere. Que alla donde consejo conuiene por otro salamon soys auido & donde execucion esfuerço o tal osadia non fasen mengua Scipion nin anibal. E donde liberalidat se requiere atrajano & alexandre sobrael. Pues quien enxienplo de virtud quisiere non lo busque fuera de vos porquien con verdat se puede degir lo que la discreta reyna faba al rey salamon diga. Bien auenturados son los tus fieruos q continuada mente vsen art & actus obras las quales prinçipe muy esclareçido con ardiente

What was observed with clarity by the Holy Father draws attention to a problem that all the citizens of this world have to solve. According to the World Bank, in 2015 over six hundred million people will have fallen prey to poverty, most of them in Sub-Sahara Africa and South Asia. In a context of poor health and a lack of education that will deprive them of productive work, the ending of environmental resources and corruption, conflict and ungovernable societies will make the challenges of the millennium an uncertain objective.

Harlem Brundtland, General Director of the World Health Organisation, in the annual report of 2002, observed: 'this is an epoch that is dangerous for the welfare of mankind. In a large number of regions some of the most frightening enemies of health are joining forces with the allies of poverty to impose a dual burden of diseases, disability and premature deaths on millions of people. The time has come to close ranks in order to face up to this growing threat'.

We must globalise solidarity and work so that it will be possible to have a better world.

Prof. GUSTAVO KOURÍ,
Director General of the 'Pedro Kouri' Institute of Tropical Medicine, Vice President of the Academy of Sciences of Cuba, Vice President of the Cuban Red Cross,
Prof. JOSÉ L. PELEGRINO,
Prof. MARÍA G. GUZMÁN,
Cuba.

Bibliography

1. Banco Interamericano de Desarrollo (BID). 1998. América Latina frente a la Desigualdad. Progreso Económico y Social en América Latina. Informe 1998-1999. Washington DC.

2. World Bank, 2006, 'Millennium Development Goals, Eradicate Extreme Poverty and Hunger' (*http://ddp-ext.worldbank.org/ext/GMIS/).*

3. De Ferranti, D; Perry, G; Ferreira, F; Walton, M; Coady, D; Cunningham, W et al. 2003. 'Desigualdad en América Latina y el Caribe: ¿Ruptura con la Historia?. Seminario Desigualdad, Globalización y Resurgencia de las enfermedades Infecciosas en América Latina', Angras do Reis, 16-19 Oct., pp. 20-21.

4. Farmer, P., *Infections and Inequalities. The Modern Plagues* (University of California Press, 1999).

5. Farmer, P., 'Social Inequalities and Emerging Infectious Diseases', *Emerging Infectious Diseases*, 1996, 2, 259-69

6. Gwatking, D.R. *et al.*, 'The Burden of Disease among the Global Poor', *Lancet*, 1999, 354, 586-9.

7. Munster, B. & Pérez, J.A., 2003, 'Desigualdad y pobreza en América Latina: Crítica al enfoque de los organismos internacionales', *Nueva Época (II)*, Centro de Investigaciones de la Economía Mundial, n.3, Havana.

8. Murray, CJ; Lopez, AD., 'Global Mortality, Disability, and the Contribution of Risk Factors: Global Burden Disease', *Stud. Lancet*, 1997(a). 349, 1436-1442.

9. PNUD. 1998. Informe sobre el Desarrollo Humano *http://hdr.undp.org/reports/global/1998 / en/*

10. John Paul II, homily in Havana, Cuba 25 January 1998.

11. UNICEF/UNPD/World Bank/WHO, 'Special Programme for Research & Training in Tropical Diseases (TDR). Globalization and Infectious Diseases: a Review of the Linkages', TDR/STR/SEB/04.2. Special Topics 2003.

12. WHO, 'World Health Report 2002', Geneva, World Health Organization, 2002.

2. The Pastoral Aspects of the Treatment of Infectious Diseases. The Bio-Medical Point of View

ALASTAIR BENBOW

2.1 The Biomedical Point of View: Research, Pharmaceuticals, Prevention

Science, Health and the Individual

Cardinal Barragán, Excellencies, first of all I would like to thank you for this opportunity to present and discuss with you the approach taken by a pharmaceutical company that is committed to finding a sustainable equilibrium for better healthcare and committed to utilise its science in the fight against infectious diseases.

Some weeks ago, just before the Fourth National Ecclesiastical Convention, our Italian company hosted in Verona a symposium on "Science, Health and Human Beings" organized jointly by the National Office of the Italian Catholic Church for Health and Pastoral Care and the Smith Kline Foundation. At the symposium, Italian bishops, thought leaders and the Italian Ministry of Health discussed the alignment of science and healthcare to the needs of both individuals and society as a whole.

In continuity with that discussion, I would like today to share with you some information on our efforts to align our science to the health needs of all people and societies, with respect to infectious diseases.

Infectious Diseases and a Pharmaceutical Company

As we have heard at this conference, diseases of the developing world are a global healthcare crisis. Just consider these facts:

Over 3 billion people live in areas affected by malaria and 1 million die each year from this disease, mostly children. There were 8.8 million new cases of tuberculosis, 15.4 million prevalent cases and there were 1.7 million deaths in 2003. HIV/AIDS caused 13,500 new infections every day in 2005 and 3.1 million deaths. Amongst the top 10 pharmaceutical gaps identified by the WHO, 6 of them are for the treatment for infectious diseases.

So why does a pharmaceutical company want to be part of the solution? We have a proud heritage of developing medicines and vaccines for infectious diseases. It's the right thing to do for patients, and it's the right thing to do for our business.

We are responding by facilitating access to medicines and vaccines for the least developed countries, by supporting community healthcare initiatives, by developing innovative solutions and partnerships and investing in

Research and Development (R&D) of drugs and vaccines for infectious diseases in both the developed and developing world. Facing the challenge is our commitment to bringing medicines and vaccines to those in need and to improve healthcare in the developing world.

Access to Medicines

Access to medicines is critical and we are leading the industry by our "not for profit" approach to the supply of anti-retrovirals, antimalarials and vaccines for those most in need.

In 2005, we shipped a total of 126 million preferentially priced anti-retroviral tablets for HIV/AIDS treatment to the developing world. 90% of the 1.2 billion vaccine doses we shipped in 2005 went to developing countries and we granted 8 voluntary licences for manufacture and supply of generic versions of our leading anti retrovirals for treating HIV/AIDS in Africa.

Community investment is particularly important in the HIV/AIDS area where education and training of community workers is essential to both prevent new infections and care for those already infected with the virus. In 1992 GSK initiated a programme called Positive Action to support

communities affected by HIV/AIDS. During 2005 Positive Action worked with 29 partners to support programmes in 30 countries. This includes the establishment of a new education project that will reach 500,000 women and 2.5 million family members in rural India over the next three years. It has trained 8,000 community and healthcare workers in East Africa and provided 8,500 healthcare professionals with access to HIV and AIDS healthcare training toolkits in 173 countries and supported the participation of 40,000 community delegates at regional and international AIDS conferences.

A major part of our community investment is involved with Lymphatic Filariasis….A disease of devastating proportions, affecting 80 endemic countries, with 1 billion people at risk and 120 million people affected.

GSK is committed to the global programme to eliminate Lymphatic Filariasis.

We have already donated over 500 million treatments of albendazole to 40 countries and expect to donate about six billion tablets over the 20 year programme making it the industry's largest donation programme. We also provide about £1 million in grants each year to partner organizations working on this programme – an important catalyst for coalition building.

Research and development for neglected diseases

Research and development for neglected diseases is essential if we are to make real progress. Factors that impede Research and Development for diseases of the developing world include the lack of viable market, complicated scientific hurdles, costly clinical trial (post-trial) and regulatory requirements and poor infrastructure.

Our response is to establish a dedicated research centre in Tres Cantos Spain focusing on Malaria and TB research. Antiviral and antibiotic research are conducted in two different sites in USA, while vaccines research is conducted in Belgium. We have a not-for-profit approach to R&D for neglected diseases working with multiple partners, including public research institutes, academia, major pharma companies, and small specialised biopharmaceutical companies from developed and developing countries.

Public - private partnerships

There are a growing number of product development public-private partnerships. These partnerships offer a new way forward in developing effective and affordable medicines for diseases of the developing world by working collaboratively with external partners to combine expertise, knowledge and funding. This model encourages research and development and accelerates access in the developing world to the products developed.

Partnership is the key to overcoming the barriers. Our role in partnerships follows a long heritage and extensive experience in the development of anti-infective medicines and vaccines.

We have a global development team with expertise in drug discovery, pre-clinical and clinical development, regulatory and licensing, manufacturing and formulation, health education and a global network of our offices.

Malaria

One example of a pioneering and successful partnership between the public and private sectors is the way an anti-malarial Lapdap (chlorproguanil/dapsone) was developed. It draws upon the skills and resources of the industry, universities and health organisations and has developed an effective and affordable treatment for *Plasmodium falciparum* malaria in Sub-Saharan Africa. UK regulatory approval was received in 2003 and Lapdap is now registered in numerous countries.

Two more recent public-private partnerships relate to the joint management of 'mini-portfolios'- directing resources to the most promising programmes in a pipeline. Firstly the Medicines for Malaria Venture (MMV) is a non-profit organisation created to discover, develop and deliver new affordable antimalarial drugs through effective public-private partnership. Secondly the Global Alliance for TB Drug Development (TB Alliance) is a non-profit public-private partnership accelerating the discovery and development of affordable, new tuberculosis treatments that will substantially improve tuberculosis control.

In the area of prevention, we are investing significant resource into the development of vaccines to prevent infectious diseases. One third of our vaccine pipeline is devoted to diseases of the developing world. We are the only vaccine developer with vaccines in development for the WHO's "big three" infectious diseases (HIV, TB and malaria)

Vaccines are also in development for the biggest threats to children – rotavirus, meningitis and pneumococcal disease.

In Malaria, new developments include a number of products. In 2004 the WHO's Roll Back Malaria programme published recommendations that Plasmodium falciparum malaria should be treated with artemisinin-based combination therapy. A public-private partnership including GSK, MMV, WHO/TDR, the London School of Hygiene and Tropical Medicine, Liverpool

University and Liverpool School of Tropical Medicine is developing chlorproguanil/dapsone/artensuate and this is currently in Phase III development.

A partnership with the Malaria Vaccine Initiative (MVI) is developing an RTS, S Vaccine, providing protection against severe disease in toddlers for at least 18 months. This is currently in Phase II development and was awarded a grant of more than $100 million by the Bill & Melinda Gates Foundation in 2005. Several other novel classes of anti malarials are in development including new analogues of quinine with excellent activity against chloroquine-resistant strains of *Plasmodium falciparum* malaria, Pyridones a novel class which blocks electron transport in plasmodial parasites and Falcipains a novel class which blocks parasite from degrading hemoglobin in infected red blood cells.

Tuberculosis

The Tuberculosis Alliance's goal is to develop an entirely new therapeutic regimen that will shorten and simplify current tuberculosis treatment. A partnership was set up in 2005 and in this, our company and the Tuberculosis Alliance will collaborate on discovery projects designed to yield new compounds that attack mycobacterium tuberculosis through different mechanisms. The partnership commits to the affordable pricing of any resulting medicine.

A near-term vision is for shortening and simplifying tuberculosis therapy from 6 months to 2–3 months and then simplifying from a daily to a weekly treatment.

A public-private partnership with Aeras Global TB Vaccine Foundation has been set up to attempt to create a new tuberculosis vaccine. The current vaccine, BCG, was first developed in 1921 and fails to protect most people beyond childhood. One candidate TB vaccine has been shown to be safe and highly immunogenic in early stage clinical trials.

Leishmaniasis

Visceral Leishmaniasis is a protozoal infection spread by sandfly bites. It is endemic in 47 countries with an estimated annual incidence of 500,000 cases and is usually fatal if untreated.

Resistance to first-line agents has emerged and therapy failures are increasingly common, particularly in India.

Sitamaquine is an oral agent we are developing for the treatment of visceral leishmaniasis. Early studies have shown an overall 85% cure rate.

HIV/AIDS

HIV/AIDS remains a threat to society that today poses a risk to more than ever before. While prevention efforts alone reduce HIV incidence, and treatment improves outcomes, a successful global response must rely on both treatment and prevention.

We have a series of discovery efforts looking for new treatments with improved profiles from a series of known and new mechanisms. These include entry inhibitors, integrase inhibitors, non-nucleoside reverse transcriptase inhibitors, protease inhibitors and DNA Immunotherapeutics.

Preventing mother to child transmission is an important part of our strategy.

We also have an active HIV vaccine development program and are pursuing various approaches as part of our long-term effort to develop an effective AIDS vaccine.

In addition we are seeking to use pharmacogenomics to improve the safety of current treatments. All treatments available currently can cause side effects. Today up to 5% of patients receiving abacavir containing regimens can experience the potentially severe side effect of hypersensitivity reactions. Whilst today this side effect is well managed we would like to remove the risk altogether. We believe that many of these patients may experience this reaction because they have a particular genetic phenotype. We are therefore conducting the largest ever prospective study of this type to assess whether it would be possible to reduce or eliminate the risk of this side effect with a simple genetic test. Results will be known next July.

It is likely however that future efforts to improve the safety and efficacy and effectiveness of medicines may follow this route where appropriate.

Pandemic Flu

Infectious diseases include influenza which is much in the news of late. Here, our efforts are also aimed at both treatment and prevention.

Laboratory evidence suggests that antivirals from the neuraminidase inhibitor class may be helpful in the treatment of pandemic influenza. We have substantially increased production of our antiviral and significantly increased our flu seasonal vaccine production capacity in order to help governments to respond to a possible pandemic risk. In 2006 we initiated a program to test 2 pandemic vaccines, testing safety and the ability to boost immune response to H5N1, with a high immune response achieved at a low dose of antigen, essential if we are to provide the millions of doses society may need in excess of current manufacturing capacity.

Resistant Bacteria

We should not however forget the somewhat 'out of fashion' infectious diseases like resistant bacteria, antibacterials from new classes with novel modes of action are urgently needed to combat increasing antibacterial resistance and clinical failure. Research for new molecules with novel modes of action is ongoing at our laboratories, where we have identified a new class of antibiotics (pleuromutilins) for the treatment of respiratory tract infections that selectively inhibits multiple steps in bacterial protein synthesis and provides coverage against all typical and atypical respiratory tract pathogens including MRSA.

Vaccines

Preventing infectious diseases through vaccination has led to huge advances in healthcare over the last 100 years and will remain vital to the health of the world. As well as the vaccines I have already mentioned new vaccines to prevent acute otitis media, meningitis, pneumonia and diarrhorea are in development and will add to the benefits society has gained from vaccination. New vaccines in development that prevent infection with the human papilloma virus have the potential to prevent cervical cancer, the second most common cancer among women worldwide and much more common in developing countries where more than 80% of all cases occur, with a mortality of more than 50%. We are committed to make this new vaccine available to all women worldwide.

We believe that pharmaceuticals including vaccines are a key component of the world's efforts to prevent and treat these diseases. We also believe that partnership with a wide group of public and private stakeholders are fundamental to meeting these challenges.

Searching for a New Equilibrium

Science and technology are necessary to find new solutions to health problems and private enterprise is the most effective in discovering and developing technologies.

However, technologies by themselves are just tools, which are neither good nor bad. It is in the social context that we can find the best use for our technologies. This is the reason why we want to be close to society and to the people and why we are so proud to be here today, listening to the expectations and needs of a representative part of society.

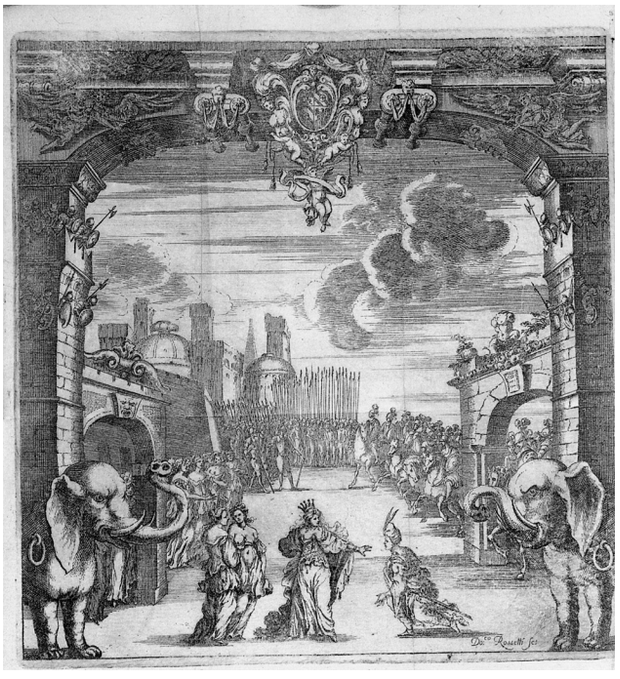
Health and healthcare are not only of interest for individuals, but also represent a vital component of society and it is essential that the interest of the individual and of society must find a proper equilibrium.

Science needs to be more aligned to the needs of all people, both from developed countries and from the developing world and this might represent the premise for a different social balance. We think that such a sustained equilibrium for the future is the most important challenge we face. We want to participate in the search for such a future, using our business and our science, with people throughout the world the ultimate beneficiaries.

Within the pharmaceutical industry we need to show courage, humility, passion, generosity, transparency and integrity to partner with society and deliver the new medicines patients need.

At GlaxoSmithKline our mission is to enable patients throughout the world to do more, feel better and live longer. In partnership with you all we can achieve this.

Dr. ALASTAIR BENBOW, M.D.
Vice President of GSK Europe.



FIORENZO PRIULI

2.2 The Pastoral Care of Infectious Diseases from the Bio-medical Point of View: Care and Accompanying

Introduction

Man is made for life, for health, for joy and for happiness. To fight against the misfortunes of life that hinder his happiness, that harm his health, and that threaten his life, is inherent in his nature.

Illness is a painful moment in the life of every human being. It would be an illusion to think that one can pass one's whole life without being afflicted by some illness. When an illness strikes us, the important thing is to find a remedy.

And what happens if there is no remedy? In that case illness is not only physical pain that afflicts our organism: it also becomes suffering because the whole of one's existence enters into a state of crisis – fear of death; the tribulation of being a burden for one's family rather than being able to help it and to support it as before; having to depend on other people; abandoning one's closest friends…Marginalisation and desolation easily give rise to depression, which is the antechamber to death.

If we then take into account illnesses that have been contracted because of transgressive sexual behaviour, such as syphilis some time ago and now AIDS, the sick person feels that he or she is judged and condemned not only by God but also by the whole world. In relation to these people many individuals, even people of good character, even Christian and religious people, are often without pity. Like that priest of the temple of Jerusalem, discussed by Jesus, who on seeing a dying person on the side of the road that led to Jericho felt no pity, completely concerned as he was with conserving his priestly purity which was threatened by the blood of that unhappy man. He thus passed by on the other side of the road. A little time ago a European Minister of Health let it slip that one should not care for people with AIDS because they had looked for the disease and thus had to make do as best they could. For such people there are illnesses that deserve contempt, condemnation, marginalisation, abandonment and the cruel mark of 'stigma'.

In this context what does pastoral care in health suggest? How should a Catholic medical doctor, a missionary, a religious who has consecrated his or life to God in order to dedicate it full time to his or her neighbour, in particular to sick people and these kinds of sick people, behave?

The term 'pastoral' already evokes a shepherd and his sheep who, differently from a mercenary, has a large heart and thus cares about his sheep, carries lambs in his arms and accompanies the slow walk of the mother sheep.

We have before us the example and teaching of Jesus Christ, who came to establish the Kingdom of God, who characterised the goodness and mercy of the Father towards men, with particular concern for the oppressed, the poor, the sick and those in need. The mystery of salvation was then achieved in culminating fashion with the victory of Jesus Christ over evil and death. He opens up before us the hope of the victory of good over evil, healing over illness, and life over death.

The whole of the Church, the people of God with its leaders, has received from Jesus Christ the mandate to preach the Gospel and to heal the sick. The Church is committed to continue in the history of mankind the work of salvation begun by Christ which is extended to all men and not only to some privileged race; it concerns the whole of man and not only his soul, and it refers to present time and not only to the eschatological time of God.

If we create a 'Catholic' hospital, we do not do this only for Catholics – we do it for everyone. The exponents of other religions do not do this, they act only for their followers. We do not ask the poor who come to our clinics and our hospitals to be treated for nothing to convert to Christianity. We treat them because they need to be treated and we leave them free to make their own observations and their own choices. The Good Samaritan treated the man's wound without preaching to him. No sick person has ever been refused by our African hospitals because they did not have enough money to pay. First of all the sick person who is in a state of urgency is treated, then discussions are engaged in about the fee…without losing trust in Providence, as was the behaviour of St. John of God and as he taught his disciples.

A man should be treated in the unity of his person (the holistic dimension), even though one cannot depart from his components of body and soul, not as elements that are in opposition to each other but as different aspects of a single individual. A sick person, and especially a person who is gravely ill, brings with him or her a set of problems that are not solely to do with the material and economic as-

pects of life – they also bear upon the affective, moral and spiritual aspects of his or her existence. And these problems relate to the present, to the immediate and earthly future and to what there will be after physical death.

The Approach to the Sick Person

But in these cases how can the medical doctor (and/or those working with him) be a bearer of hope? There is a sentence of St. Paul that we should always bear in mind: truth should be said with charity. Love for a sick person, the search for his or her welfare must prevail over all other considerations. One can tell the truth by degrees. Or, in the gravity of a situation, one can emphasis the possibilities of prolonging life and co-existence with illness in the hope that in the meanwhile that the much hoped for remedy will arrive. Scientific research often gives us unexpected remedies. Hope gives a sick person the right approach, that of co-operating to the full with the medical doctor in the use of palliative, but not useless, drugs and medicines. People with AIDS can obtain from the words of the medical doctor and the taking of the drugs and medicines that are presently available a wish to live, to work, to be useful to themselves and to their families; they live a life that is dignified and quite serene.

A medical doctor must bear in mind that our body has a system of defence that in normal conditions can defend itself against most infectious, cancer, neurological and other kinds of diseases. In practice, this never takes place to the full and thus one has to have recourse to drugs and medicines. However, these should never take the place of the natural defences of the organism but solely help it to do its duty. It also can happen that these defences inexplicably become lowered. Logical explanations are then sought. I believe that this system of defence declines when the internal balance, I mean the spiritual balance, is suffering for some reason, and thus it is that illness manages to advance and manifest itself in an individual.

From this premise comes the fundamental conclusion: illnesses do not exist; there only exist sick people to be treated and cared for. And in taking responsibility for a sick person the medical doctor must take into account, on a large scale and in a balanced way, the two physical and spiritual aspects of the person that he has in front of him, and this will a guarantee of success for the treatment even though it will not always lead to a cure. This is because the task of those responsible for treatment is not only to heal but also often that of alleviating suffering by assuring to the extent that this is possible the best conditions of life for the patient.

As a religious doctor of the friars of St. John of God, I have had the privilege of serving the sick of Africa for more than thirty-seven years. I would like here to present in summarising fashion how this evangelising curative work has been experienced in the Hospital of St. Jean de Dieu in Tanguiéta (Benin) and in the Hospital of Afagnan (Togo) for more than ten years. This model has been confirmed as valid by the World Health Organisation (WHO) which has proposed that we and our hospitals become a model that should be disseminated in Sub-Saharan Africa. Illness remains a painful event for every human being but when it is experienced in the light of the gospel it can and must be transformed into a moment of grace and growth, both for those who experience it and for those who encounter it on their path, and thus especially for those who because of their vocation or profession have chosen to place themselves at the service of those people who suffer.

AIDS

Without entering into details that are for that matter well-known and are not fundamental for the purposes of my paper, I believe that one must realise that one is dealing with a terrible, contagious and globally spread viral illness that is probably the most terrible of all our pandemics.

Africa is the continent from which this virus probably began its spread and Africa is the continent that pays the heaviest price, with more than thirty million people afflicted by it, for the most part living in very bad social/health-care conditions.

It is in this context made up of poverty, that in fact is often nearer to acute poverty, of traditions and customs that have helped these populations to survive but also of new forms of poverty made up of the loss of ancestral values which have not been effectively replaced by civilisation or evangelisation, that we live and try to bring care and help (healing) to people who are living with AIDS.

In this context we have progressively gone from providing simple assistance to those who had signs of the illness (AIDS) at the end of the 1980s to the introduction of immuno-stimulant adjutant therapies in 1994 to the promising therapy that began in 2000 when anti-retrovirals were widely used in Western countries but were still prohibitively expensive and often too dangerous for Africa and developing countries because of the lack of accompanying practices that are indispensable in avoiding that such molecules become a source of further problems (toxicity) and resistance due to an absence of observation (compliance) and the interruption of supplies. Thus it was that only in 2004 did we agree to accept anti-retrovirals for our patients in line with internationally accepted criteria but at the same time not without apprehension and difficulty on our part.

At the present time, the Hospital of St. Jean de Dieu in Tanguiéta follows more than five hundred people who live with HIV (PUHIV) thanks to a multidisciplinary 'team in charge' made up of men and women religious, medical doctors, nurses, animators and others who try to treat and accompany those afflicted by this illness which at the present time is still too stigmatising and unfortunately also too little known about (many people believe that it does not exist and that it has been invented by the whites to stop Africans from procreating…).

Although at the beginning the only thing that was done was to be

present at the dying process of a person and the impact obtained by our actions was not very great, the situation then radically changed given that we have since been in the condition to offer forms of treatment which, although they do not guarantee a cure, allow us to be able to improve the body's defences and the patient's conditions of life, perhaps to the point when the miraculous cure will arrive which, unfortunately, we are still waiting for.

From that moment (Easter 1994) to speak about AIDS, to propose the test, to announce that a person is HIV-positive, and to inform a person about the presence of the illness, has become a less stressing task for a medical doctor, and a trauma that is better borne by patients who since then no longer feel condemned to a certain and ignominious death.

The arrival of ARV administered in a good context allowed a major leap of quality and added considerable efficacy to the existing forms of treatment, thereby generating even greater trust in what we proposed.

It is clear that the proposing and the application of forms of treatment at every level are only one of the final links in our work in relation to HIV.

The accompanying that is made up of welcome, psychological exploration, the assessment of the socio-familial and professional context, and lastly the telling of the truth (HIV-positive condition/illness) are a work that is at times often long and difficult but one which leads to the certainty that from that moment the sick person and the person responsible for his or her treatment are doubly linked 'for life'.

It is for that matter clear and constantly confirmed that faith, and especially faith in the merciful Christ, is of great help in this context both in encouraging people to fight to go on living and in accompanying people towards a death that is really a passage that becomes more serene because it is illuminated by the light of resurrection.

Treatment-Accompanying-Prevention

These are three elements which, if well managed, become a set of great efficacy because if the sick person feels welcomed, helped and accompanied, he or she will agree to be treated even though the treatment is hard and endless, and, in addition, and this is something that is very important, he or she will reorganise his or her life so as to avoid everything that can accelerate an injurious development in his or her illness.

A healthier life, better hygiene, more moral behaviour and thus behaviour that is not dangerous for oneself or for other people, and overall a commitment to live at the price of any sacrifice, will be transformed into a very effective way of avoiding the spread of this disease which in Africa is caused 80% of the time by sexual relations.

In this approach we have almost constantly witnessed surprising transformations which in a short space of time have led to a normalisation, indeed to rediscovered trust and a desire to go on living.

Forms of Hepatitis

The heading of forms of hepatitis is acquiring increasing importance at a world level because of their striking spread, which at times is not very evident, and by the dramatic and often fatal consequences of cirrhosis and cancer.

Due to paths of contamination almost identical to those of AIDS (sexual relations, transfusions, etc.), forms of hepatitis, and especially hepatitis B and hepatitis C, are increasingly provoking concern and worries in many individuals who often discover by chance that they have been infected but more often because of the appearance of complications connected with this illness (asthenia, ascitis, cirrhosis, liver tumours…).

In Africa, and especially in the part of Africa that I know, there is another form of hepatitis, namely hepatitis E, which when it strikes a pregnant woman is nearly always fatal for the foetus and the mother in the space of a few days. Hepatitis E, like hepatitis A, is linked to the contamination of food and water in a situation of grave hygienic shortcomings.

Although from the point of view of 'stigma', forms of hepatitis are much less marked, this does not mean that they are a source of less worry for those who are afflicted by them and their families. It is increasingly the case that in order to share experiences, to obtain support as regards the difficulties connected with the illness and the complications provoked by treatment, associations for hepatitis sufferers come into existence, and certainly with beneficial effects for their members. Although this is a positive development, it is also a clear signal that forms of hepatitis, and especially hepatitis C, are an immense danger that can break out from one moment to another, becoming a catastrophe for the person who is afflicted and his or her family.

Treatment

At the end of the 1970s when reference was still only made to hepatitis A, hepatitis B, and hepatitis non-A and non-B, which was then baptised hepatitis C, I was offered one of the first versions of interferon to treat 'my hepatitis B', something that I had fled from by basing myself on the availability of natural African remedies. Over the following years and until now signifi-

cant advances have been made in the treatment of forms of hepatitis through the association of more sophisticated versions of interferon with molecules invented for the treatment of infection by HIV.

These forms of treatment are promising and at times cure an infection but almost always access to this treatment is a source of worry because it is not tolerated well by everyone. Indeed, the side effects are often defined as being 'devastating'.

To this is added worry about, and fear of, an imminent catastrophe for those who are forced to abandon the treatment which at times even makes the illness worse…

It is in this context that alternative forms of treatment and support take on an importance that is decisive both in improving the conditions of health of patients and in sustaining their morale and their desire to go on fighting to live. Paradoxically, in the Hospital of St. Jean de Dieu in Tanguiéta in Benin and in the Hospital of Afagnan in Togo we have treated patients with hepatitis with natural substances for more than twenty years and with very good results.

Thanks to the mass media and especially to some perceptive journalists, African alternative forms of treatment for forms of hepatitis are also spreading in Italy, bringing with them hope of health and life to very many people who have not received any benefit from official drugs and medicines.

Conclusion

A conscientious medical doctor who lives his profession as a mission of charity will be able to instil great trust in his patients both in medical doctors and the advance of science and technology and in the religion which has instilled this spirit of love and self-giving in medical doctors and health-care workers.

In Afagnan and in Tanguiéta within the hospitals there is a church where the friars and sisters go to pray in the early morning and in the evening. Many people with a religion based on fetishes join with devotion in their stimulating and edifying prayer. The requests to become Christians then arrive…The witness of charity offered by these hospitals demonstrates the goodness and mercy of the God of Christians towards the poor. Such witness makes people reflect and then decide.

Rev. FIORENZO PRIULI OH,
Chairman of the Health-Care Commission
of the San Riccardo Pampuri
General Delegation,
Benin, Togo.

SILVANO TOMASI

3. The Pastoral Care of Infectious Diseases from the Political-Social Point Of View

My assigned task has a rather complex title in the official program. Fortunately, the time allotted calls for a simplified approach and I will focus my observations on the political-social dimension of health as it affects infectious diseases. Let me start by expressing my appreciation to His Eminence Cardinal Javier Lozano Barragán, President of the Pontifical Council on for Health Care Workers, for his kind invitation to address this august assembly and for including the socio-political aspects of infectious diseases in this program on the pastoral response of the Church to such grave and threatening health-related emergencies.

At the present time, "health" is still too often subjected to an all-to-narrow view that concentrates on somatic, clinical, and purely scientific factors which ignores other essential components of an integrated and holistic state of health, as defined in the Alma Ata Declaration of 1978:

'Health is a state of complete physical, mental and social well-being and is a fundamental human right. Attaining the highest possible level of health is a worldwide social goal that requires the action of many sectors.'[1]

As the community of believers in the Gospel, in the Good News of Jesus, and as members with various levels of responsibility in the Church, it is incumbent on us, first of all, to be concerned about the impact of infectious diseases on the most fundamental and sacred right that is promoted, defended, and protected by the Catholic Church – that is, the right to human life itself. The exercise of the right to life is most tenuous among persons who are vulnerable to infectious diseases and to the broader-based, family-related, social and economic impact of such illnesses.

As we convene in the city of Rome, the historians among us will recall that during the early 1300s, there emerged, in this city and elsewhere on this continent, a series of infectious epidemics, including bubonic plague, cholera, and other diseases, which claimed the lives of nearly half of those living in Europe as it was known at that time.

Despite the formidable progress made in science and medicine during the past millennium, infectious diseases continue to be among the leading causes of death worldwide.[2] Moreover, much of the disease burden and mortality caused by such diseases could adequately be addressed, and even could be avoided, should the global human family commit itself to affordable and action-oriented programmes of vaccination, medication, and preventive education.

One might say with some degree of confidence that, especially in developing countries and among persons living in poverty in higher-income countries, socio-political factors are just as responsible for the spread and impact of these infectious diseases as are the disease agents themselves. During the early years of the current millennium, for example, some 75 percent of all deaths due to infectious diseases occurred in Southeast Asia and sub-Saharan Africa. In fact, Southern Africa, which is "home" to 10 percent of the global population, accounted for more than 40 percent of deaths due to infectious diseases.[3] A third of the world's TB deaths occur in Africa where about 600,000 people die annually of the disease. Now that 3 billion people live in cities, half of humankind, 1 billion, one in every six human beings is an urban slum dweller living without adequate shelter ad basic services. As poverty grows increasingly urban, observes the U.N. Secretary General, it creates an entry point for disease and ill health.[4] In these urban killing fields epidemics take their heaviest toll, and this applies to all the biggest killers of our time – malaria, tuberculosis and HIV and AIDS.

When speaking of infectious diseases, we must recognise the particular vulnerability of women and children in this regard. Since they already lack proper nutrition, children in developing countries may have weaker immune systems and thus be less able to resist or overcome such diseases. Moreover, they may lack access to measles vaccinations or simple interventions to treat diarrheal diseased. Children constitute the group most likely to die from malaria. Among adults, pregnant women are among the most at-risk to contract malaria. Women now constitute more than fifty percent of new HIV infections. Thus we might do well to recall that in his message to the 1995 United Nations Fourth World Conference on the Concerns of Women, held in Beijing, the late Pope John Paul II committed the 300,000 social, educational and caring institutions of the Catholic Church to give priority to women and young girls, especially the poorest.[5] Finally, at a conference such as this, we might evaluate how well we have implemented the commitment made on our behalf by our late Holy Father.

Abject poverty can be identified as both a "cause and effect" of ill

health due to infectious diseases. Dr. Louis Pasteur, who can rightly be called the founder of modern disease control efforts, once said in this regard: "the virus is nothing, the terrain is everything".[6] Diseases such as HIV and AIDS, tuberculosis, and malaria often affect those who are primary providers for their families and thus cause the further impoverishment of their own dependents as well as of the local communities in which they have lived and worked. Illnesses such as pneumonia and diarrheal disease cut short the lives of children before their fifth birthday and so deprive us all of the contributions they could have made to the overall common good and betterment of society. Adults suffering from the blindness caused by trachoma often withdraw their children from school in order to care for the other family members; this causes additional illiteracy in already-struggling populations.[7] In areas with a high prevalence of HIV and other infectious disease, household wealth declines as jobs are lost through sickness or death; farm production is reduced; loans cannot be repaid; families headed by the elderly or children produce less; and the volume of sales declines because customers can afford only essential purchases. In order to survive, many households may have to dispose of capital assets, including animals, machinery or equipment, and this phenomenon further reduces future potential for productivity.[8]

Les us look very briefly at some statistics which demonstrate the special vulnerability of migrant peoples to infection by HIV, HIV sero-prevalence studies done in Africa have revealed higher rates of infection in border towns, fishing communities, trading centres, and refugee camps than in many capital cities. For example the HIV rate in Kenya's capital, Nairobi, is 16%, while in border towns with major migrant populations it is as high as 46%.[9] In the United States, the Commission to Prevent Infant Mortality estimated that 5% of migrant tarm-workers are infected with HIV – this rate is ten times higher than the national average of 0.6%.[10] One third of the Filipinos who are positive for HIV or AIDS are people working abroad or have worked abroad.[11]

Surely the portrait of human suffering, as I have just depicted it, is very far from the vision of human and social development that was offered to us by our Holy Father Pope Benedict XVI in his first encyclical, entitled *Deus Caritas Est:*

'the aim of a just social order is to guarantee to each person, according to the principle of subsidiarity, his share of the community's goods.[12]

Let us not lose hope, however, since we can cite many indicators of progress in addressing infectious diseases throughout the world. Here are just a few such positive developments:

– Simple interventions, such as insecticide-treated nets and carly and effective treatment have contained malaria in a number of countries.

– Efforts to control tuberculosis in such countries as China, India, Nepal and Peru have spared approximately one million people from untimely deaths.

– In 1977, only 5 percent of the world's children were vaccinated; today that statistic has risen to 75 percent, and thus we have succeeded in avoiding 3 million child deaths.

– In response to the goal of giving access to life-saving anti-retroviral medications for 3 million people living with AIDS in developing countries by year 2005, some 1.3 million gained such access by the target date; this initiative has now been transformed into Universal Access to HIV prevention education, care, support, and treatment by the year 2010.

– Bi-lateral and multi-lateral funding processes have greatly increased the amount of financial and technical support made available to developing countries as they address the impact of HIV, tuberculosis, and malaria.

Many of our own Catholic health care, social service, development and pastoral structures have served as key stakeholders in the above-mentioned accomplishments.

Much more concerted political will and determined public effort is needed, however, if we dare to envision a world that is free from the painful suffering and tragic loss of life due to preventable infectious diseases. In the year 2000, when the world leaders elaborated the Millennium Development Goals (MDG), they recognized that good health is an essential component both of both poverty reduction and of integral human development. Thus they articulated three specific health-related goals:

– Reduce child mortality

– Improve maternal health

– Combat HIV/AIDS, malaria and other diseases.[13]

The Holy See has followed rather attentively the actions taken by the United Nations, by respective national governments, and by the entire human family, in order to accomplish the goals outlines above. Thus, at the 60th General Assembly of the United Nations, which focused on such a progress review, then-Secretary of State Angelo Cardinal Sodano, stated:

"The Holy See is a mission which is first of all spiritual, but it is precisely for this reason that it has the duty to be present in the life of the nations and to be committed to promoting justice and solidarity among nations and individuals. With this conviction the Holy See renews full support to the goals of this Summit and will do everything in its power to help it bear the hoped for fruits and that an era of peace and social justice may soon

be installed. A phrase of the late Pope John Paul II during his apostolic visit to Chile in 1987 is very timely: *Los pobres no pueden esperar* (The poor cannot wait)".[14]

In his first meeting with diplomats accredited to the Holy See, the current Secretary of State Cardinal Tarcisio Bertone expressed a similar vision when he encouraged the ambassadors to "commit themselves to a new drive of solidarity among all peoples, in particular to reconsider the issue of debt among the poorest countries, so that there will never again be people, especially children, who die of hunger or endemic illnesses".[15]

What is required for these aims, articulated by our own Church leaders as well as by heads of state throughout the world, to become an everyday reality, especially for the most needy people? Allow me to point out four steps that can set in motion a process of change that will improve the quality of life of all people, including the poorer among them.

First of all, we must strengthen health systems. Estimates have been made, for example, that universal access to broad-based health services could result in 60-70% decreases in child mortality and 70-80% decreased in maternal mortality.[16] Some structural adjustment programmes for countries with large international debt burden have placed obstacles on such strategic efforts by placing caps on spending or on staffing levels for health care personnel in the concerned countries. Moreover, some health financing systems have not taken into account the inability of poor people to access life-saving health care service. In 2001, it was estimated that some U.S. $30-40[17] per capita per annum would be needed in order to effect a minimally effective health care infrastructure in many developing countries. Presently, least developed countries spend only U.S. $8-10 per capita on health-related services.

Secondly, much more global attention must be given to the critical shortage of health care service providers, especially in developing countries. Once again, we find serious imbalances with regard to both staffing and spending patterns. The World Health Organization Region of the Americas, for example, reports 10% of the global burden of disease but relies on 37% of the world's health workers and spends 50% of the world's health financing. Contrast that with the statistics reported from the WHO Africa Region: 24% of the world's disease burden; 3% of the world's health workers; and 1% of world health expenditure.[18] These inequities are exacerbated by the so-called "brain drain" of health personnel from poor to rich countries because of poor salaries and working conditions in their home countries. Another determining factor in this personnel crisis is the spread of HIV among health care workers themselves; studies in several African countries have estimated that AIDS-related illnesses have caused between 19% and 53% of all deaths among health sector employees.[19]

These urgent situations caused the late Director General of the World Health Organisation, Dr. Lee Jong-wook, to declare:

We have to work together to ensure access to a motivated, skilled, and supported health workers by every person in every village everywhere.[20]

Thirdly, support for health infrastructure must be integrated into a much larger package of human development support and global solidarity between high-income and low-income countries. The United Nations Millennium Project estimates that approximately U.S. $195 billion will be needed by 2015. Those estimates may seem unattainable, but let us remind ourselves that during 2004 military spending worldwide amounted to more than one trillion U.S. dollars.[21] Let us note as well that cost estimates for the Millennium Project are well within the target that higher-income countries should dedicate as development aid, that is, 0.7% of Gross National Product (GNP), as was adopted by the United Nations General Assembly in 1970 and renewed at the 2002 U.N. International Conference of Financing Development held in Monterrey, Mexico.[22] It was at the latter conference, in fact, that Cardinal Martino, head of the Holy See delegation, raised the urgent plea:

'the Family of Nations cannot allow one more day to pass wherein a real attempt to meet goals and make measurable progress toward the eradication of poverty is not pursued with all of the energy and resolve that [it] can muster.'[23]

Fourthly, we must address the problems of access to affordable medicines and diagnostic tools. While profit may be a necessary and acceptable motivation for private industry work in this field, it cannot be the sole factor determining or blocking access for all in need of such technology. The Holy See welcomed the amendment to the TRIPS Agreement on Public Health which was approved at the 4th Ministerial Conference of the World Trade Organization, held in Hong Kong in December 2005. This amendment had the potential to assure poor countries access to the means for the production and importation of essential drugs needed to face the main pandemics suffered by their populations. It balanced the two important objectives of intellectual property rules: creating incentives for innovation and spreading the benefits of the innovations as widely as possible. However, to date, most developing countries have not utilized the flexibilities made available through the TRIPS agreements. Care should be taken, therefore, that this amendment is not weakened by regional and bilateral agreements containing "TRIPS plus" variants, which are more onerous for poor developing countries. When reflecting on this complex issue, we would do well to recall the words of the late John Paul II in addressing the Jubilee 2000 Debt Campaign when he asserted the existence of "a 'social mortgage' on all private property, a concept which today must also be applied to 'intellectual property' and to 'knowledge'. The law of profit alone cannot be applied to that which is essential for the fight against hunger, disease, and poverty".[24]

During this 21st International Conference sponsored by the Pontifical Council for Health Care

Workers, the good Lord has provided us with a privileged moment to join our scientific knowledge, our practical experience, our social commitment, our political advocacy, and our pastoral solicitude, in order to intensify our actions to benefit those most vulnerable to and affected by infectious diseases. May our determination not weaken but be further strengthened as we return to our respective ministries and professions at home. Let us continue to be inspired by the words of our Holy Father Pope Benedict XVI, in the great tradition of the social teaching of the Church, issued in preparation for the observance of World TB Day on 24 March 2006, when he called for "renewed commitment at the global level, that the necessary resources may be made available to cure our sick brothers and sisters, who often also live in situations of great poverty. I encourage the initiatives of assistance and solidarity towards them, hoping that they may always be guaranteed dignified conditions of life".[25]

H.E. Mgr. SILVANO M. TOMASI, C.S.
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Note

[1] International Conference on Primary Health Care, Declaration of Alma-Ata, 12 September 1978, *http://www.euro.who.int/AboutWHO/Policy/20010827_1*

[2] *World Health Report*, World Health Organisation, 2004.

[3] "Infectious Diseases", *http://www.globalhealth.org/view_to.php3?id=228*

[4] KOFI ANNAN, Public Health Challenger Also Affect Development and Security", UN Chronicle, XLIII,2 (June-August), 2006, p. 4.

[5] POPE JOHN PAUL II, Message to the Coordinator of the World Conference o Women, Beijing, 26 May 1995, *http://www.ewtn.com/library/PAPALDOC/JP2BELL.HTM*

[6] Quoted in *AIDS and the Ecology of Poverty*, Eileen Stillwaggon, New York: Oxford University Press, 2006.

[7] "Infectious Diseases", *http://www.globalhealth.org/view_top.php3?id=228*

[8] MICHAEL J. KELLY, S.J., *HIV and AIDS: A Justice Perspective*, Lusaka, Zambia: Jesuit centre for Theological reflection, April 2006, p. 25.

[9] As presented by David Wilson, Psychology Department, University of Zimbabwe, in "HIV/AIDS and Migration – Specific Needs and Appropriate Interventions in the Field of Policies, Prevention and Care", Report of Satellite Meeting at the 13th International AIDS Conference, 12 July 2000, University of Durban, South Africa; Nel van Beelen, Rapporteur.

[10] *AIDS and Migrants: Solutions and Recommendations*, UNIDOS Network of Capacity Building Assistance, June 2004.

[11] 2006 State of the World Population Report, published by the United Nations Population Fund.

[12] POPE BENEDICT XVI, *Deus caritas est*, 25 January 2006, as published by Catholic News Service.

[13] *www.un.org/millenniumgoals/*

[14] "The poor cannot wait", Cardinal Sodano tells 60th session of the General Assembly of the United Nations Organisation in New York, Fides Service, *http://www.evangelizatio.org/portale/adgentes/sodano_170905.html*

[15] "New Secretary of States Proposes to Favor the poor", Address of Cardinal Bertone to Diplomatic Corps accredited to the Holy See, *www.zenith.org,* 29 september 2006.

[16] Bellagio Study Group on Child Survival, as reported by R. Dodd and A. Cassels, "Health, Development and the Millennium Development Goals", *Centennial Review*, 20 January 2006.

[17] As estimated by World Health Organisation in 2001 and as reported by Dodds and Cassels, *op. cit.*

[18] *2006 World Health Report,* Overview, *www.who.int/whr/*

[19] *2004 Report on the Global AIDS Epidemic,* UNAIDS, July 2004, and "Do we need special ARV programmes for health workers and teachers?", which appeared in *The Correspondent*, XVIth International AIDS Conference Edition, 14 July 2004, Issue 3.

[20] Dr. Lee Jong-wook, at High Level Forum, Paris, November 2005, as quoted in *2006 World Health Report.*

[21] *SIPRI Yearbook 2005: Armaments, Disarmament and International Security*, Stockholm International Peace Research Institute (SIPRI), Press Release, 7 June 2004, p. 13.

[22] U.S. $ 135 billion is currently equivalent to 0.44% of the combined GNP of the countries in question, as reported by Dodd and Cassels, *op. cit.*

[23] Archbishop Renato R. Martino, "Development is first and foremost a question of people", Holy See's delegation at the U.N. International Conference on Financing Development, Monterrey, Mexico (March 24, 2002, www.zenit.org)

[24] JOHN PAUL II, Message to the Jubilee 2000 Debt Campaign (23 September 1999) as appeared in *L'Osservatore Romano,* 25 September 1999, 5.

[25] JOHN PAUL II, General Audience, 22 March 2006.

4. The Pastoral Care of Infectious Diseases from the Point of View of the Person

EVELYNE FRANC

4.1 The Patient, the Family and Health-care Personnel

In a public garden in Paris there is a small monument erected to the memory of St. Vincent de Paul which has the following inscription: 'your pain causes me pain'. St. Vincent wrote these words full of compassion and comfort in a letter to St. Louise de Marillac, who was at that time in a painful situation. We adopt them today because they give us an idea of the way in which we should walk together next to those who suffer, being present at their side with our hearts open.

You asked a Daughter of Charity to give this paper and thus you will not be surprised if I cite St. Vincent in this introduction. I was asked to comment on pastoral care for infections diseases from the point of view of the person: the patient, the family and the health-care personnel. I will base myself, on the one hand, on the fundamental principles that inspire our pastoral care for people who are afflicted with infectious diseases, and, on the other, on our contemporary experience in very different geo0al contexts because I asked my sisters who are directly involved in this pastoral care to share with me their joys and their worries. I will willingly leave to one side the aspect of specifically Christian accompanying and preparation for the sacraments because they will be addressed by subsequent papers at this conference.

In recent days numerous very interesting reflections have been offered on the situations of people whose lives are imperilled by infectious diseases, and in particular by AIDS, which, because of their side effects, not only destroy the individual but also the whole of his family, his spouse or partner, his children and on a broader scale the whole of society. Jesus, when he came amongst us, not only healed the sick, he also came to identify with us in our weakness, to walk with us along the path of suffering and death in order to lead us, through them, to a new life. He taught us that compassion goes beyond reciprocal assistance. The American bishops, in their Declaration of 1989 on AIDS, said that 'compassion is more than empathy. It implies an experience of intimacy by which one takes part in the lives of others'.

Let us now rapidly survey the bases of our pastoral service with its various forms of approach.

1. The Bases of Pastoral Service to the Person

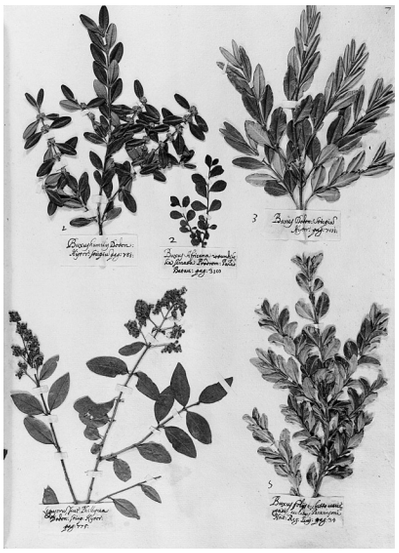
a) *It is the Lord who sends us* to embody the Good News in the form of health for our brothers and sisters who suffer. Jesus offers health to us all but in particular he offers it to the sick and the marginalised. Jesus declared that he was sent for them and presented himself as a liberator and a healer (Mk 2:17; Lk 13:11-13; Mt 8:17). Jesus never separated his action for salvation from the proclamation of the Kingdom; indeed, the 'proclamation of the Kingdom and the healing of the sick' were two aspects of his evangelising action which is one and the same: 'Go and tell John…that the blind have regained their sight, lepers have been healed…the good news is preached to the poor' (Mt 11:4-6). 'I have come so that they may have health and have it in abundance' (Jn 10:10).

b) *Our Vincentian charism*. The second fundamental point for us, we who have chosen to serve our sisters and brothers who suffer, is that of being, in humility, the bearers of the merciful Love of God who heals us and saves us. I would like once again to quote St. Vincent, as well as our Constitutions, which, indeed, have been recently up-dated. St. Vincent, in the regulations of the Charity of Women of Châtillon les Dombes of 1617, laid down in the following way the order by which the sick must be served: 'one should remember to begin with those who have someone near to them and to finish with those who are alone so as to be able to spend more time with these last'.[1] In the same way, our Constitutions refer to 'humanising technology so as to make it a channel for the tenderness of Christ' (C. 24a) and they invite us not to separate 'service to the body from service to the spirit; the work of humanisation from the work of evan-

gelisation' (C. 14). Lastly, they remind us that 'the fundamental and indispensable form of attention of every evangelisation is the first step: attention to people, attention to their lives…and attention to the Spirit of God who acts in the world'(C. 24c).[2]

c) *The necessary conditions for an accompanying of quality.* Pastoral care for the sick is a part of the overall service of care that involves the religious aspect as a source of overall enrichment of the person, in addition to the biological, psychological and social aspects. If we want to achieve authentic and complete assistance it is thus necessary to have sufficient resources both as regards competent personnel and as regards material means. Most of the diseases we are referring to have long-term consequences that have effects on the style of life, work and family relationships of their sufferers. Some of these diseases involve the whole of a person's life in an expensive process that involves the administration of drugs and medicines, tests, and medical monitoring. A fair number of these diseases place survival and capacity for work at risk. In the world the resources that are available to help these patients are very diverse and thus a great deal of creativity is required in this field. Helping patients at this level is as important as the antibiotics and the antivirals that we provide them with.

I would like to make clear by way of example that in four countries we work with the Community of Sant'Egidio to serve people with AIDS, and the care and treatment that we provide, the training of personnel and the lives of patients are seen in a perspective of respect for the person who is served in his entirety. All this also involves a great deal of searching for funds, for financial resources, something that is, indeed, a very concrete aspect of pastoral care. I believe that this is connected with one of the aims of the 'Good Samaritan' Foundation, which was created in response to an initiative of the much lamented Pope John Paul II. In the same way we refer to the right of sick people to be cared for and treated during this stage of their lives. This right obliges us to have sufficient resources to ensure that there is no discrimination. Naturally, to offer some examples, the context in which our sisters of the St. Agnes Hospital of Baltimore serve the patients who are entrusted to their care is not the same as that to be found in Dschang in Cameroon. However we strive, to the extent that this is possible, to share our human and material resources and to provide the same drugs and medicines to all the patients.



d) *The communication of Christian hope*. Every one of our actions is inspired and generated by faith in the risen Christ. In this work of evangelisation, faith in the mystery of the death and resurrection of Christ is at work. This is a task that falls on the whole of the Christian community. The presence of the Church next to sick people and her support for their families are possible when there is commitment and co-operation on the part of the whole of the team: *chaplain-priests, health-care personnel who are believers, and co-workers at the level of pastoral care in health and the family*.

Another task is to regenerate hope in the hearts of men (families, the hospital context) and to co-operate in the creation of a social area in which illness and death are experienced in human dignity. In addition, it is our responsibility to enable people to see the real meaning of suffering, pain and death, upholding the value of the person and defending the right of each individual to prepare for and experience their own death in a personal and responsible way: helping people to discover the real meaning of illness and death; accompanying those who suffer and those who are at a terminal stage of their illnesses; and humanising the act of dying.

Death is an experience that belongs to the person and not to medicine. Each person has the right not only to medical care that alleviates his pain and makes him live his life in the best way possible but also to be helped to know his situation, and to prepare for and live out his own death. It is necessary to assist him and to meet his psychological, affective, religious and familial needs.

2. Different Forms of Approach

a. Accompanying the sick person

Brice de Malherbe[3] has stressed in a recent work that there is a therapeutic alliance between the sick person and his doctor or provider of care. This alliance is formed between the medical doctor and the patient within an asymmetric relationship in which the patient, who is in a situation of weakness and who suffers from a pathology that limits or threatens the structural or dynamic unity of his organism – and thus makes difficult or impedes the achievement of its intrinsic finalities – turns with trust to the person who treats him and in conscience tries to remedy this situation beginning with the skills and expertise that he has acquired. I would like to quote the famous declaration of Louis Portes who was President of the Order of Doctors of France, according to which 'every medical act is not, cannot be, and must not be anything else but trust that freely reaches conscience'. The therapeutic alliance is the path of ethics of communion in which the patient, however limited in the exercise of his own faculties he may be, is kept within an interpersonal relationship.

In 1991, Pope Benedict XVI, the then Cardinal Ratzinger, observed 'whoever is connected with human life enters the field of divine ownership, and because of this the profession of a medical doctor is no ordinary profession but a sacred profession in the strong sense'.[4]

Contemporary treatment and technology can leave the patient, and can leave his family, at the margins of the process of care. It is necessary, however, to keep the patient at the centre of that process and to provide him with all the support that he needs. In the same way it is a good thing to help the person to implement his own capacity to take decisions through the provision of suitable information and communications, as well as encouragement, in a way that respects his beliefs and his values. One is dealing here, above all else, with finding means by which to keep his hope alive.

Some research shows that patients wish for and request from their doctors compassion as well as competence. Compassion pre-supposes empathy, kindness, sensitivity, respect, and recognition of the person, with his feelings and his need to hope. Cécile Saunders, of happy memory, the founder of the Hospices Movement, a number of years ago introduced the idea of total pain. She described pain in all its dimensions – the physical, the affective, the social and the spiritual – and said that the alleviation of pain is only possible where each of these aspects is taken into consideration. A person afflicted by illness, in addition to physical and social needs, has major needs of an affective and spiritual kind. It is important to see the patient in an overall way, apart from the illness, to take into account the whole person, someone who needs to be drawn near to in a personal way, with the recognition of his right to be informed, to take part in decisions, and when he is no longer able to do this to have him represented by his loved ones, the members of his family, or friends.

b. The family

It is also of primary importance to take into account the worries of the family which has fears about, and hopes for, the future, and to provide honest and sincere answers to the questions that the family asks, its fears, its sorrows, and even its anger, maintaining strong the flame of hope. In the case of an illness that imperils life, such as AIDS, an affective feeling of guilt and worry about people who are near by who might also be infected and afflicted by the illness can exist, and worries could be expressed about the future of the family. A person subject to medical care and treatment can also feel excluded from reality. This, too, is an opportunity to involve the family. At the level of the professional team there should be someone who takes responsibility for these worries and helps both the patient and the family to address decisions. The family is the immediate network of the patient and with some exceptions the one that is most affected. It often happens that our highly technological and professional responses in a world filled with medical care and treatment do not include the family. This happens less in very poor countries where the family is close to the patient. In all cases the family must be treated with respect because its members are the first representatives of the patient and must be listened to with attention because they have a great deal to give. Often, in fact, they are the first people, if not the only people, to care for the patient before he is entrusted to our care. We do not therefore reject this role in striving for a more professional approach. The members of the family are not a 'further complication'; indeed, they constitute great spiritual and affective comfort for the sick person. They habitually understand the religious beliefs and the values of the sick person and can help in the decisions of the team in relation to the patient. The family, too can have worries and fears. The spouse or the children can feel robbed of their future and need affective and pastoral support. A very sick person can express anger, depression or fear. This, too, can be a great challenge for the family relatives of the patient who need to understand the situation and be helped to be reminded of how the person was before his illness.

As was demonstrated by the research of Cécile Saunders, the actual communication and the time dedicated to a person are important and essential elements in becoming responsible for that situation at an individual and overall level. Relationships are not always good in families, even before illness strikes, and the kind of illness involved can mean that the family distances itself from the patient or blames him. These are human reactions that require appropriate help and accompanying. It is often said that when a person is sick the whole of his family is as well and this is even more the case with this particular group of patients.

The families want to help but at times they fear infection and ask themselves questions such as: Have I caught the illness? What precautions must I take? What should we do with his clothes? Is it wise to go and pay him a visit? To help the family by starting conversations about this subject is a delicate task but it is a very important one at the level of charity. Families often blame themselves for worrying about themselves when one of their members is gravely ill. At times it is very important to tell them about the need for an urgent medical examination, continuous monitoring and the precautions that are needed. The provision to families of good information about the nature of the illness and being certain that it has been well understood is one of the greatest responsibilities of the personnel treating the patient.

It often happens that in addition to having to face up to the illness of one of their members, families have to manage finding out about the homosexuality, the drug addiction or the sexual promiscuity of their sick member. Despite all our efforts, these diagnoses are often mad public. Families have to face up to this new reality in addition to the grave illness of the patient. They want at times that some members of the family itself (the grandparents) and not informed about the illness. The presence of the health-care personnel is of inestimable importance with regard to accompanying these families. It is thus of fundamental importance to sensitise the health-are personnel about the need for this pastoral care.

c. The health-care personnel

I have just referred to the importance of the staff responsible for care and treatment but we can now examine their role in greater detail. Beginning with what has already been said, you may be able to gain a good idea of what is expected of such personnel. To put oneself on one's knees in front of the pa-

tient…the love and respect that one feels for the patient enable one to find the right tone to enter into a relationship with him. In an open letter to the director of a nursing home, a future resident wrote as follows: 'try to always put yourself in the shoes of the patient. It is in this way that you will maintain your self-esteem, that you will be able to go on doing this wonderful work for many years to come'.[5]

In general, patients emphasise how much they appreciate the help of health-care workers, both as regards the treatment and the quality of the human relationships that they offer. The good quality of a relationship grows greater with the level of seriousness of the illness or when the suffering grows more intense. At that moment, the patients asks for all kinds of services, which he needs, from the personnel that is responsible for him.

Gestures of listening, understanding and affection are liberating for the patient. For this reason, the pastoral service must co-operate and be attentive to the training of professionals in relation to subjects connected with the humanisation of care and treatment and relationships of help with the patient and his family. The wounds that require frequent and painful treatment constitute a major difficulty for patients who have infectious diseases. The strong smells caused by these wounds often cause a disturbance of the patient's relationships with other people. In a society that values cleanliness, this constant smell often oppresses the patient, not to speak of difficulties that he encounters in finding an appetite in such a context. If the personnel responsible for treating the patient know how to attenuate this situation, this is something that is very positive for the patient.

Pastoral care in health thus has a role to play in training the health-care personnel. The pastoral service must co-operate and be able to invite the hospital workers who are believers who so wish to carry out their work in an apostolic way, and to share the spirituality, the values and the style of the pastoral service of that health-care centre.

The tradition, the style of spirituality and the values of hospital culture which have been developed by the various Congregations are already an evangelising message for the professionals of the centre or the action programmes for the patients. To make the ideological and ethical principles of the pastoral services known about by all of the personnel who work with patients, and to invite the personnel to experience such principles in greater measure, are necessary objectives. This is also a matter of helping the personnel to manage their own problems so that they look after the patients and their families more effectively. At times it is difficult for some of them to accept that many means are used to treat infections that arise from problems to do with the lifestyle of a patient.

Some members of the health-care personnel may be little disposed to provide certain forms of treatment and thus it is very important to examine with them why this is. There are those, probably those expecting a baby, who are worried about the foetus being infected or subjected to some other danger. Others may be undergoing chemotherapy or have a family relative who is being treated for cancer and do not want to be exposed to infectious agents. And there are those, perhaps, who are about to address the same problem within their own families. It is always very important to understand the concerns and worries of the personnel responsible for the patient and not blame them for hesitating about being involved in treating these patients.

However, in the great majority of cases the personnel responsible for the patient is a visible sign of God's love for the patients and their families. They bear witness to the values of the Gospel with the most vulnerable and often the most forgotten about. We must give them out support and our encouragement against and despite everything.

Their witnesses passes by way of:

– *Openness and proximity* for a dialogue that meets the human and religious concerns of patients, beginning with the experience that they are living out.

– *Accompanying in the most difficult moments*: the communication of 'bad news', acceptance of the diagnosis, adaptation to the hospital, the gravity or worsening of the illness, death and the working out of mourning.

– *Help in addressing the situation during the stage that precedes death*. The pastoral worker and the hospital team must help the family to prepare for the separation in hope, accepting the reactions of its members, allowing them to express themselves, accompanying them with great respect and offering them the resources of faith.

– *Concern for the morale of the members of the family* after the death of the beloved person; surrounding them from a human and spiritual point of view in a suitable and adequate way at that moment.

– *Information supplied on the possibilities of help*, the family associations, therapeutic groups, etc.

I would like to end this paper by borrowing from the philosopher Paul Ricœur the phrase 'a pact of care founded on trust' which well defines the relationships of pastoral care that have just been listed, A period of suffering and illness is a very personal experience of our limits, of the limits of medical knowledge, and of our total dependence on God. For us, the Daughters of Charity, this is an encounter with the Lord who has called us to follow him, to an experience of his presence in the sick people that we meet, to an opportunity to become detached from ourselves by drawing near to him, who is recognised and served in other people.

'Love of God and love of neighbour are inseparable, they are a single commandment. Both, however, live from love that comes from God who loved us first'.[6]

Rev. SISTER EVELYNE FRANC
Superior General of the Sisters of Charity of St. Vincent de Paul, Paris,

Note

[1] SAN VINCENZO DE PAOLI, *COSTE*, vol. XI-II, p. 428.

[2] Constitutions and statutes of the company of the Sisters of Charity of St. Vincent de Paul.

[3] BRICE DE MALHERBE, 'Le respect de la vie humaine dans une éthique de communion', Thèse de l'Ecole Cathédrale, Parole et Silence, 2006.

[4] 'La bioetica nella prospettiva cristiana', *Dolentium Hominum*, 18 (1991), 15.

[5] *Vies Consacrées*, Octobre, novembre, décembre 2004.

[6] *Deus Caritas est*, Encyclical Letter of Pope Benedict XVI, n. 18.

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EMILIO CARLOS BERLIÉ BELAUNZARÁN

4.2 The Pastoral Action of Dioceses and Parishes in Relation to Infectious Diseases

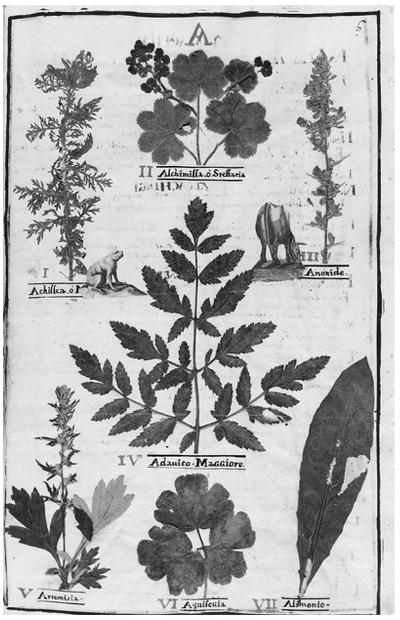
Introduction

In recent days a large number of experts have provided us with sufficient elements and also the necessary elements by which to engage in the deep reflection that our host, His Eminence Cardinal Javier Lozano Barragán, presented to us in the prelude to this twenty-first international conference: a reading of infectious diseases in the light of the word of God, the only source that can assure us a truly overall and correct reading of the phenomenon that we are addressing.

It will not be possible to respond to the challenging question that has been entrusted to me, namely 'what must dioceses and parishes do as regards pastoral care for people with infectious diseases?', without the contextualisation that has already facilitated a rigorous and profound analysis of this reality, that is to say infectious diseases, both in relation to their history and with respect to their current state, with an accurate consideration of their multiple and various causes.

Given that we cannot depart from the contributions of the experimental sciences, to address this subject with the aim of ensuring an effective approach from various levels would be insufficient without having recourse to the *revealed word of God* to illuminate our thought and our dialogue with other creeds because 'illness and pain are phenomena that are explored by always posing questions that transcend the field of medicine and influence the essence of the human condition in this world'.[1]

It is with the intention of answering the questions that are raised by contemporary man that the Church, 'in the light of Christ, the image of the invisible God the first-born of all the Creation… speaks to everyone to illuminate the mystery of man and to co-operate in finding again solutions that respond to the principal problems of our epoch'.[2]



With all these precedents, since yesterday we have been in the condition to clarify along lines that the Church is already advancing *how pastoral care in health must be developed in relation to infectious diseases* within the various contexts that exist, choosing those approaches that emphasise, because of their preponderance and their fundamental character, the commitment and the work that *each person, from his or her state of life, must choose*.

It is from this concrete point of view, beginning with the personal, that I will direct my contribution to this international conference, wishing in this to specifically propose what dioceses and parishes must do at the level of pastoral care in health in relation to infectious diseases.

In order to address this subject it seems to me advisable to follow the *objective methodology or method of discernment* that is employed by the social doctrine of the Church and adopted by Popes for workers in social pastoral care, which involves the application to the subject in hand of the triad of the verbs '*seeing-judging-acting*', from the practical perspective of the gospel and the living Tradition of the Church. In this way one will have a better understanding of the meaning and the importance of the pastoral proposals that I will make as regards pastoral care in health in dioceses and parishes in relation to infectious diseases.

My paper, therefore, will have three points or sections: in the section on 'seeing' I will begin with a definition of dioceses and parishes so as to then observe what the mission or role of the Church is; in the section on 'judging' I will briefly point out the specific functions that each diocesan worker has in pastoral care in health, from the bishop to the lay faithful, and I will then examine how the team of the diocesan committee for pastoral care in health is co-ordinated, beginning with a basic structure suggested by this apostolate; and in the section on 'acting' I will propose concrete actions that will be of help and guidance to dioceses and parishes in carrying out their evangelising and redemptive mission in the sphere of health and health care, specifically in relation to infectious diseases.

1. Dioceses and Parishes and Pastoral Care in Health

As the Code of Church Law points out to us, 'the diocese is a portion of the people of God whose pastoral care in commended to the Bishop with the co-operation of the presbyter, so that united to its pastor and congregated for him in the Holy Spirit through the Gospel and the Eucharist it constitutes *a particular Church* in which the one, holy, Catholic and apostolic Church is truly present and acts.'[3]

According to this definition, a diocese becomes the prototype or model of a particular Church, in which and from which the Catholic Church exists;[4] a portion of the faithful gathered together in a regional group of parishes and other pastoral ministries, presided over by the Bishop.

*The mission of a diocese, as a particular Church, is nothing else but the mission of the universal Church – the salvation of souls (salus animarum)***.** In line with this mission, pastoral care is understood, as well as the special relationship that the Bishop has with his faithful.

We may understand the pastoral action of the Church as a set of activities that it engages in through all its members to the benefit of evangelisation, that is to say so that every man and every people encounters God, knows and experiences His love, and responds to Him, thereby entering into communion with God and other men.

Because of the pastoral action of a particular Church, the faithful gather around their pastor so that he may guide them towards the true end of the universal Church. In this way, through the relationship of communion between the people and its pastors, the saving mission entrusted by Christ is performed (Mt. 28:19-20).

The universal Church is organised into particular Churches in a specific way. The diocesan bishops enjoy full power in their respective spheres. This means that the bishops do not exercise their positions as delegates of the Pope – their power is full and they exercise a service of authority through their own power.

A parish, one of the most well-known bodies of the ecclesiastical organisation, is located in a diocese in order to be an organisational layer below the diocese and to be the natural sphere in which the life of Christians develops. The definition of a parish is provided to us by the Code of Church Law: 'a specific community of the faithful established in a stable way within the particular Church, the pastoral care of which, under the authority of the diocesan Bishop, is entrusted to a parish priest, as its own pastor'.[5]

The *Catechism of the Catholic Church* adds to this definition that a parish is 'the place where all the faithful can be gathered together for the Sunday celebration of the Eucharist. The parish initiates the Christian people into the ordinary expression of the liturgical life: it gathers them together in this celebration; it teaches Christ's saving doctrine; it practices the charity of the Lord in good works and brotherly love: 'You cannot pray at home as at church, where there is a great multitude, where exclamations are cried out to God as from one great heart, and where there is something more: the union of minds, the accord of souls, the bond of charity, the prayers of the priests (St. John Chrysostom, *De Incomprehensibili,.* 3,6)'.[6] In this way, the parish is *the cell of the diocese*, the place for the ordinary care of the Christian faithful.[7]

With respect to *pastoral care in health*, the *diocese* has the specific function of *guiding and co-ordinating* all the action engaged in by Christians on behalf of sick people, and the parish acts as a delegation or *sub-co-ordination of the diocese* because it is a structure that applies the diocesan pastoral criteria in an effective way to the reality of health and health care.

2. The Role of the Members of the Diocese and the Parish in Pastoral Care in Health

In the apostolate of health, each member of the diocese and the parish has a fundamental and irreplaceable role in doing good to sick people and their families.

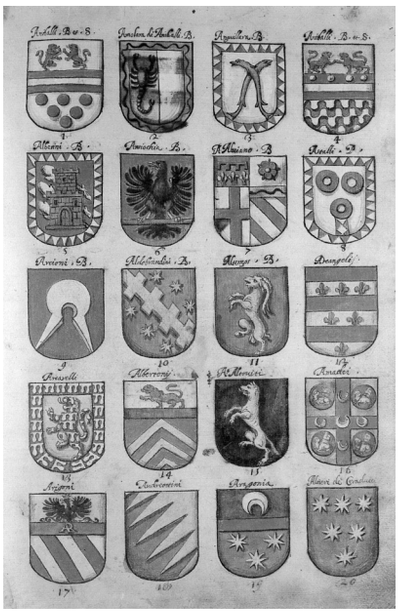
a) First of all, the bishop because of his special consecration 'is transformed in a full way into teacher, priest and guide of the Christian community',[8] as the first figure of the local area to which he has been assigned. The Code of Church Law states as regards the practical functions of bishops that 'Bishops, who by divine institution are the successors of the Apostles, in virtue of the Holy Spirit who is given to them, are established as Pastors of the Church because they too may be teachers of doctrine, priests of holy worship and ministers for government'.[9] And specifically in relation to his pastoral function, it observes that 'the diocesan Bishop in the diocese that has been entrusted to him has all the ordinary specific and immediate power that is required for the carrying out of his pastoral function'.[10]

As a part of his functions at the level of government, the bishop must attend with especial solicitude to the presbyters, his diocesan collaborators in the pastoral care of souls, and listen to them as co-operators and advisers, in addition to ensuring that they duly carry out the specific obligations of their positions.[11] Equally, he should encourage the lay faithful to carry out their duty to engage in the apostolate according to their conditions and their capacities, exhorting them to participate in the various initiatives of apostolate and to provide their help according to the needs of time and place.[12]

Lastly, the bishop, as the head of the diocese, should ensure that within his jurisdiction are developed all those activities directed towards care for the problems that trouble his community, 'not only moral and liturgical ones but also one of a personal and social character',[13] such as those to do with health and in a special way those caused by those diseases that have a major human and social impact – infectious diseases. It is for this reason that in order to carry out his role as a pastor he must promote the various forms of apostolate and ensure that in the diocese or in specific areas all the activities of apostolate are co-ordinated under his direction in a way that respects

the specific character of each one.[14] In this sense, the bishop must *promote, direct and co-ordinate* pastoral care in health and stimulate in the whole of the People of God care and readiness to help in relation to the complex world of pain.

For the bishop to be successful, each one of the our brothers in the episcopate *should create a diocesan commission for pastoral care in health* directed by a priest specially delegated for this purpose who plans, organises and co-ordinates the work of such pastoral care through the specific structure of each parish and the groups and institutions that work in the field of health and health care.



b) In the diocese, after the bishop, *the parish priest is of capital importance in the organisation of the particular Church*. A parish priest has juridical functions of major importance, not to speak of the transcendence of his pastoral functions for the lives of the diocesan communities.

In line with the Code of Church Law, 'the parish priest is the specific pastor of the parish that is entrusted to him and engages in the pastoral care of the community that has been assigned to him under the authority of the diocesan bishop to whose ministry of Christ he has been called to participate in so that in this same community he carries out his functions of teaching, sanctifying and guiding with the co-operation, as well, of other presbyters or deacons and with the help of the lay faithful , according to what is prescribed by law'.[15]

The specific responsibilities of a parish priest are those connected with Christian life in the community that the diocesan bishop has entrusted to him: to work to ensure that the Word of God is proclaimed in its integrity to those who live in the parish, to work to ensure that the Most Holy Eucharist is the centre of parish life, to try to know the faithful that have been entrusted to him, to promote the specific functions of the lay faithful, and to co-operate with the diocesan bishop.[16] By analogy these responsibilities also fall on the priests who help or co-operate with parish priests, who are in direct and constant contact with the faithful and their world.

At a concrete level, as regards pastoral care in heath, the parish priests, co-ordinated by the bishop, have *to apply the diocesan plan of pastoral care in health by creating their own parish committee for this form of pastoral care, which in turn draws up and applies a parish programme of care for sick people and their families*. The parish priests, in a personal way, must serve the sick by accompanying them and by paying them visits, helping them with spiritual and sacramental help, and they should call on the lay faithful to become voluntarily involved in care for the sick and those in need.

c) Within the structure *of the parish* there are also fundamental agents of pastoral care in health: chaplains, religious, medical doctors, male and female nurses, pharmacists, the technical and administrative staff of dispensaries, clinics and Catholic hospitals, social workers and voluntary workers. All of these people, to ensure that their witness of love is increasingly credible, must act in full communion with each other and with their pastor.[17]

According to their specific vocation, those who share in being agents of pastoral care in health can be either religious or lay people. The *religious*, as 'Christ's faithful, moved by the Holy Spirit, propose to follow Christ more closely, to give themselves to God who is loved above all and, pursuing the perfection of charity in the service of the Kingdom, to signify and proclaim in the Church the glory of the world to come'.[18] 'All religious…take their place among *the collaborators of the diocesan bishop in his pastoral duty*…the missionary 'planting' and expansion of the Church require the presence of the religious life in all its forms'.[19]

'By reason of their special vocation it belongs to the *laity* to seek the kingdom of God by engaging in temporal affairs and directing them according to God's will'.[20] 'The *initiative* of lay Christians is *necessary especially* in matters that involve discovering or inventing the means for permeating social, political and economic realities'.[21] 'Like all the faithful, lay Christians are entrusted by God with the apostolate by virtue of their Baptism and Confirmation, they have the right and duty, *individually or grouped together in associations*, to work so that the divine message of salvation may be known and accepted by all men throughout the earth…Their activity in ecclesial communities is so necessary that, for the most part, the apostolate of the pastors cannot be fully effective without it'.[22]

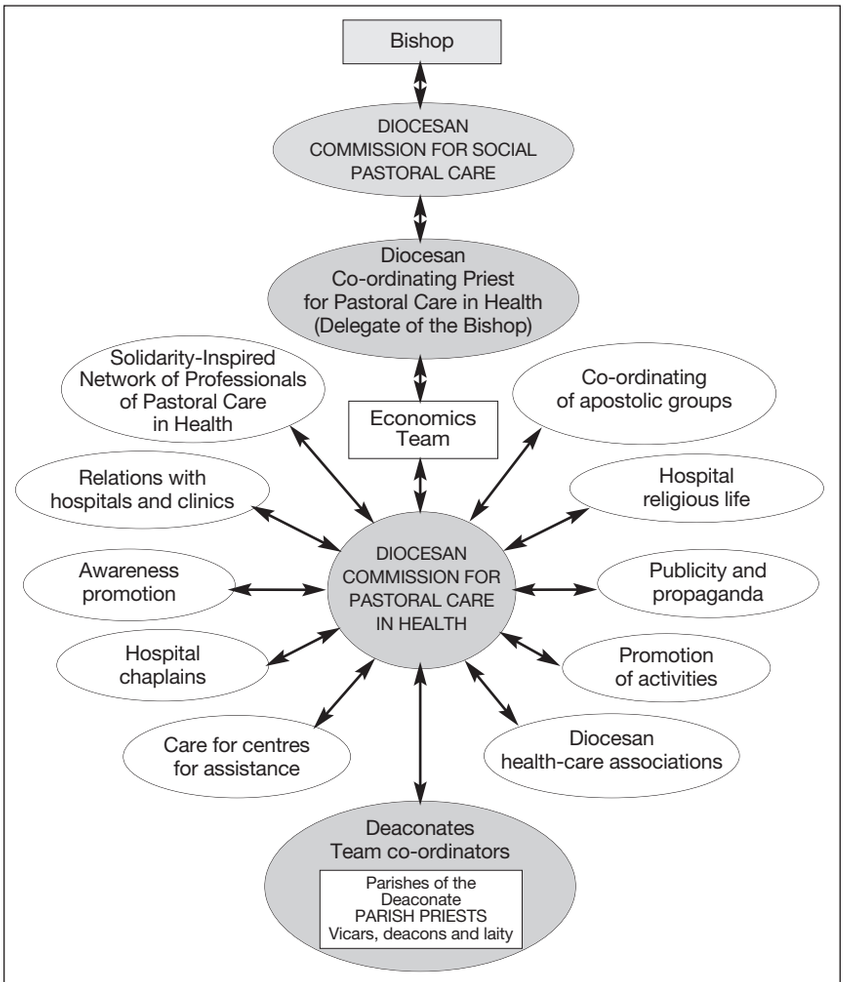
As an instrument for the communion and cohesion of all pastoral representatives in the field of health around the bishop and the parish priests, the diocesan programme of pastoral care in health, presented and supervised by the diocesan commission appointed for this purpose by the bishop, to which belong priests, deacons, religious and members of the laity, must organise and co-ordinate every pastoral action through a structure and organisation that respects the specific identity of each collaborating agent or institution and which effectively integrates all efforts in an ecclesial action that is truly pastoral and to do with health care.

As a concrete proposal of the structure that must be possessed by the *diocesan commission for pastoral care in health* that includes the majority of the pastoral

agents who work in this field, the following structure is presented (see graph below).

As can be seen from this structure, the bishop is the person who chairs the diocesan commission for pastoral care in health. The diocesan commission for social pastoral care is the secondary guiding body on which depends the *diocesan commission for pastoral care in health*. In front of this commission is located a priest who is specially appointed by the bishop to co-ordinate the rest of the team. The elements of basic co-ordination are: an economics team, a solidarity-inspired network of professionals for pastoral care in health, a team of hospital and prison chaplains, a team for the provision of care to centres for assistance, a team for the co-ordination of apostolic groups, a team for hospital religious life, a team for publicity and propaganda, a team for the promotion of events, a team of diocesan health-care associations, and lastly the teams made up of people responsible for the co-ordination of the various teams, parish priests and representatives of each parish: vicars, deacons and lay people.

As a proposal of the structure that must be possessed by the *parish committee for pastoral care in health*, I here present the following overview (see graph below). This committee, differently from the diocesan commission for pastoral care in health, is directly concerned with care for sick people and their families through a team of people who visit sick people in hospitals, in clinics or in their homes, a team of ministers of the Eucharist, a team of prayer for sick people, a team for care for the relatives of sick people, a team for medical care for sick people in their homes or in clinics, and a team for the apostolate of sick people (prayer and witness of sick people).



Based on the structure of the course of on-going training for agents in pastoral care in health of the diocese of Rafaela Santa Fe (Argentina)

In this pastoral structure, to become aware of the role and the responsibilities that each person has in relation to the apostolate of health it is necessary first of all *to rediscover the nature and the basis of one's own vocation*, evoking the intercession of the Most Holy Virgin Nary, mother and educator of all men, the human person who has best met the vocation given by God through her humility as servant and disciple of the Word,[23] and certainly taking as a model the unique and eternal Priest, the good shephegrd who has compassion for the multitudes and gives man the bread of truth, love and life.[24]

Only after this rediscovery of vocation will we be aware that 'illness and pain are not experiences that influence only the corporeal condition of man, they affect man in his integrity and unity of body and soul'[25] and that 'the redemption of Christ and his saving grace reach the whole of man in his human condition and thus also in illness, suffering and death'.[26] Only then *will we discover our great responsibility to ensure* that precisely at 'the truest and most authentic moment of man's encounter with himself',[27] such as suffering one of the many infectious diseases that today reduce and threaten the life of man, a sick person is helped by the members of the team for pastoral care in health who, with a 'fully human and specifically Christian vision of illness',[28] as apostles of mercy vivify the parable of the Good Samaritan .

We should not lose from sight that 'illness is more than a clinical fact; it is always the condition of a man, of a sick person',[29] who 'experiences his powerlessness, his limitation and his finitude',[30] but who is conscious at the same time that 'the corporeal life reflects by its nature the precariousness of the human condition although it participates in the transcendent value of the person'.[31] In this sense, pastoral care in health means for both the sick person and the health-care

agent help in the discovery of their own transcendence and the communion of men with the saving mission of Christ and the Church.

3. Concrete Actions of Diocesan and Parish Pastoral Care in Relation to Infectious Diseases

The Gospel of St. Luke relates that Jesus asked a sick man: 'what do you want me to do for you?' (Lk 18:40-41). To this question that Christ posed to the sick man, *pastoral care in health, as indeed it is already doing, has to answer in a practical way*, and in particular pastoral care directed towards helping patients with infectious diseases, which are so widespread in the world.

The experience of weakness, precariousness, powerlessness and at times of being abandoned, which a sick person and his family relatives undergo, is from a gospel point of view a unique opportunity for a sick person and his or her family to experience an encounter with the living God. Motivated by this, the Church carries out and must continue to engage in pastoral action which with great sensitivity favours the encounter of the patient and his or her family relatives with God in the concrete situation of his or her illness, inviting them to perceive in suffering the love of God and making them feel the solidarity-inspired love of their brethren, which is a direct expression of divine love.

This motivation guides the concrete actions that the diocesan agent of pastoral care in health engages in on behalf of sick people and their family relatives. In specific terms, each of these actions has to be considered within the diocesan programme for pastoral care in health in order to assure as much as possible the unity of principles from which it springs and the efficacy of its application in the reality of health and health care.

One should not forget, as was observed when this paper discussed the identity, the mission and the functions of the *diocese* and the *parish*, and of their direct representatives, the *bishop* and the *parish priest*, that these structures and their authorities *alone possess a directive character*, which corresponds to the nature of their vocation, which is hierarchical in the Church, as a result of which one should not require of them the utmost concreteness in pastoral care in health but rather that their contribution be that of providing the principles, the directions, the directives and the criteria for action that will inspire the whole of the pastoral care in health in the diocese in order to achieve the evangelisation and the redemption of people who are sick with infectious diseases and their family relatives.

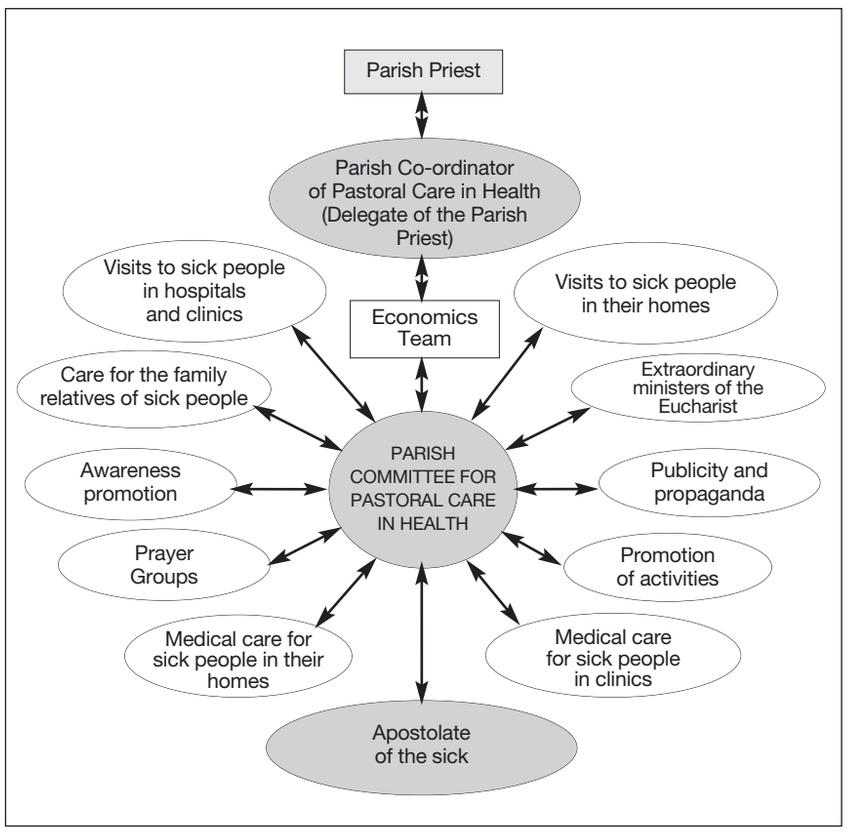
In this field both the diocese and the parish must continue to foster, through the diocesan commission for social pastoral care and the parish committees for pastoral care in health, a *very concrete action programme in relation to infectious diseases* which includes for both spheres of action, namely the diocese and the parish, each of the six specific aspects that I will now describe.

a. Direction

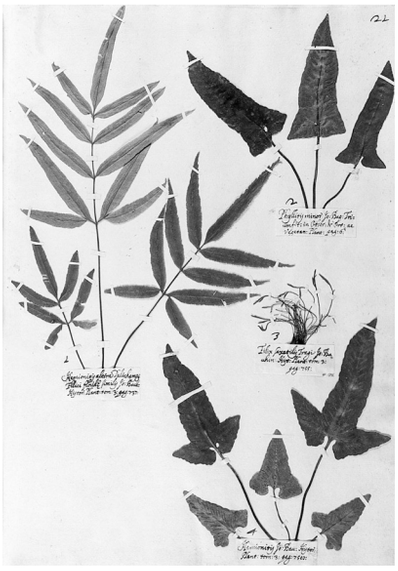
As the vast and rich experience of the Church in her care for the sick has demonstrated, it is first of all necessary, in order to achieve a correct functioning of diocesan pastoral care in health, for the bishop and the team created by the diocesan commission for social pastoral care *to direct and point out the general criteria* for pastoral care in health, which necessarily include the pastoral criteria for the continuing provision of every kind of help to sick people and their family relatives.

As an example of such general criteria, I will now reproduce what I pointed out to the diocesan commission for pastoral care in health of the diocese of Yucatán (Mexico), which I represent.

The pastoral action of a particular Church in support of health must be: adopted by all the baptised in their diversity (subject); evangelising, that is to say directed towards encounter and communion with God and with the brethren (kind of action); implemented as a process of accompa-



nying to strengthen the faith of sick people and their family relatives in these difficult circumstances (teaching); a communitarian action and expressed as thus by the pastoral worker in such a way that the sick person and his or her family relatives experience the solidarity-inspired love of the Christian community (structure); and also see all human beings as its recipient, and especially those who live in the territory of the diocese (recipients).



b. Organisation

Secondly, it is necessary for the bishop and the directing team of the diocesan commission for pastoral care in health to *organise various teams and sections that correspond to the structure created by the commission*, in line with the local health-care reality and the presence in the diocese of team co-ordinators, parishes, religious associations, apostolic groups and groups of volunteers, and then appoint their immediate heads. For organisational purposes, and in a way that respects the structures and the responsibilities that already exist within the commissions for pastoral care in health of every particular Church, I think that it would be helpful to propose a basic structure with various sections and teams:

The Bishop.

The diocesan commission for pastoral care in health: its chairman to propose the annual calendar of the activities connected with pastoral care in health.

The economic team.

The diocesan commission for pastoral care in health, supplemented by representatives of the associations referred to below.

The team co-ordinators, parish priests, vicars, deacons and laity. It is advisable that every fourth months the diocesan co-ordinator for pastoral care in health meets the team co-ordinators, and that every month he meets the team co-ordinators and the parish priests, as well the people responsible in the parishes for pastoral care in health.

A solidarity-inspired network of professionals of pastoral care in health: through a programme of involvement and co-operation this must establish solid and fruitful relationships with groups, institutions, bodies and associations that work in the field of infectious diseases.[32]

The team for the co-ordination of apostolic groups.

The team for relations with hospitals and clinics.

The team for hospital religious life.

The team for the promotion of awareness.

The team for publicity and propaganda.

The team for the planning of events.

The team for hospital and prison chaplains.

The team for care for centres for assistance.

The parish committee for pastoral care in health.

The directive team supplemented by area heads.

The team for overall home care for sick people.

The team for the administration of the sacraments at home; ministers of the Eucharist.

The team for the care of the family relatives of sick people.

c. Prevention

Thirdly, the bishop and the directive team of the diocesan commission for pastoral care in health should *promote* at a diocesan and parish level a series of *measures of prevention*, and amongst these those connected with infectious diseases such as HIV, tuberculosis, leprosy, malaria, rabies etc.

According to the two levels at which pastoral care in health operates, the concrete actions to be implemented which have been shown to be effective as regards the prevention of infectious diseases are as follows:

At a diocesan level:

Permanent contact with the civil health-care authorities, and especially with departments for infectious diseases and epidemics, with the aim of: soliciting bimonthly news on the development of infectious diseases of the greatest incidence, as well as illness and death rates in the diocese; studying government initiatives and programmes that are planned or being implemented.

The development of diocesan strategies for co-operation with the civil authority as regards the prevention of infectious diseases and care for their victims.

The drawing up of social sensitisation campaigns (the promotion of awareness) which include the publishing of a periodic diocesan bulletin whose objective is to foster basic knowledge about the infectious diseases most present in the diocese, their treatment and the instruments of prevention, care for infected people, ethical and moral training, etc.

The organisation of the work connected with prevention of the diocesan commission for pastoral care in health with other diocesan commissions – the commission for pastoral care, the commission for the family, the commission for pastoral care for young people, the commission for social pastoral care, the commission for pastoral care in education, the commission for pastoral care in communications, the commission for pastoral care in tourism and human mobility, etc.

Co-operation with the commissions for pastoral care in health of the nearby dioceses.

The organisation of the work connected with prevention developed in hospitals, clinics, centres for assistance and apostolic groups.

At a parish level and the level

of pastoral centres, above all in rural areas:

The development of parish strategies involving co-operation with the civil authority in the prevention of infectious diseases and care for its victims.

The promotion and implementation of diocesan prevention campaigns.

The drawing up, dissemination and development of prevention campaigns in line with the specific needs of the parish or district.

The organisation of work involving prevention that the parish committee for pastoral care in health can develop with the support of the other parish committees.

d. Care

Fourthly, the bishop and the directive team of the diocesan commission for pastoral care in health should continue to promote at a diocesan level and above all at a parish level concrete actions involving pastoral care directed specifically at people with infectious diseases and their family relatives.

I would like to emphasise that in the development of their work the *apostles of mercy* must take into account that in the case of a person who suffers from an infectious disease such as HIV, tuberculosis, malaria, rabies, dengue fever or hepatitis, his or her state of physical fragility is far too often made worse by the social discrimination of which he or she is the victim because of the ignorance of that characterises contemporary society. That is to say, his or her condition as a sick person who is potentially contagious make him or her very vulnerable to social stigmatisation, especially when one is dealing with a person who in the grip of or addicted to drugs, which involves a clear need to engage in extreme charity in approaching him or her and taking into account his or her psychological condition at every moment. This does not mean that the sick person is exempt from all responsibilities. On the contrary, the member of pastoral care in health must try to ensure that the sick person not only becomes aware of his or her illness but also shoulders personal and social responsibility for it in order to follow the treatment that has been prescribed and to engage in the measures of prevention established by centres that watch over diseases.

In order to help these kinds of patients in a suitable way I would like to propose some of the initiatives that are engaged in by many particular Churches:

At a diocesan level:

Liturgical celebrations for sick people, their family relatives and health-care agents, as a part of specific annual events and feasts; the World Day of the Sick, the World Day of Health; St John of God, the patron saint of the sick, hospitals and health-care workers; the International Day of the Fight against HIV, etc.

The promotion of the creation of hospitals, clinics and centres of medical care administered by religious institutes, institutes of consecrated life or societies of apostolic life, especially directed towards care for patients with infectious diseases.

The fostering of the creation of diocesan associations of health-care professionals (medical doctors, nurses, dentists, nutrition experts, psychologists, etc.) that can promote the growth of a solidarity-inspired network of professionals and assure the representation of the dioceses in the forums of specialised health care.

The promotion of the creation of civil associations that in their turn promote voluntary work specifically directed towards care for patients with infectious diseases.

The creation and management of a diocesan bank for drugs and medicines and a home care team.

Care for health workers who work in public and private institutions: an invitation to them to form a part of the solidarity-inspired network of professionals, the dissemination of the teachings of the Church in the field of health care (infectious diseases) with the objective of obtaining a greater penetration of such teachings in the practice of their profession, the soliciting of support for specific diocesan campaigns etc.

At a parish level and the level of pastoral centres, above all in rural areas:

The organisation and watching over of the initiatives agreed upon by each of the members of parish pastoral care in health: presbyters, deacons, extraordinary ministers of communion, religious, apostolic groups, voluntary workers and members of the solidarity-inspired network of professionals.

Overall care for sick people:

In their homes: the administration of the sacraments by the parish priest, presbyter, deacon and extraordinary ministers of communion; periodic visits by parish workers in the field of pastoral care in health; and assuring the provision of help to voluntary workers to meet the needs for care that sick people may require (hygiene, alimentation, company etc.).

In hospitals, clinics, centres for assistance and prison centres:

In co-ordination with the chaplains responsible for these institutions in the form of support: the administration of the sacraments; periodic visits; help to volunteers in meeting the needs for care that sick people may require (hygiene, alimentation, company etc.).

Help for the family relatives of sick people: spiritual support, emotional guidance, advice, ongoing formation and ties with apostolic groups and groups of volunteers.

The creation of a medical dispensary managed by the members of the solidarity-inspired network of professionals and volunteers.

The organisation of campaigns for the collection of drugs and medicines and a team for home health care.

The creation of a fund of donations for the costs of hospitalisation and pharmaceuticals.

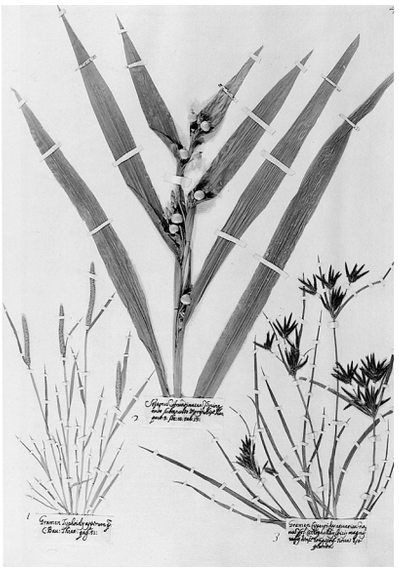
The promotion of work in parish pastoral care in health in order to obtain the adherence of new members.

e. Training

Fifthly, in line with the usual practice of the Church, the bishop and the directive team of the diocesan commission for pastoral care in health should promote at a

diocesan level and above all at a parish level a *demanding and overall programme of training directed towards the various workers* active in the field of pastoral care in health, presbyters, deacons, religious and the laity, because it would be unforgivable if they remained extraneous to the concrete problems of their community in the field of health specifically because of infectious diseases, to the innovations at the level of treatment and care that emerge in various field, to the initiatives and the programmes provided by civil authorities[33] or the teachings of the Church in these areas.[34] In specific terms, 'pastoral care in health must be reflected in an adequate way in the programme for the training of priests and men and women religious because in care for sick people, more than anywhere else, love is made credible and a witness to hope in the resurrection is offered'.[35]

Some of the most effective concrete initiatives directed towards training workers in pastoral care in health and specifically in relation to infectious diseases have been:



At a diocesan level:

Ensuring the inclusion in the programmes for the training of seminarians, religious, members of consecrated life and deacons of specific philosophical-theological material on the multiple aspects of pastoral care in health: bioethics; fundamental and special morality, professional ethics, the social teaching of the Church, pastoral theology, sacramental theology, spiritual theology etc. The theoretical-practical training of the diocesan agents of pastoral care in health which involves the theological, philosophical, scientific, ethical, pedagogic and pastoral aspects of health, with a specific concern for infectious diseases and the teachings of the Church and overall care for patients with infectious diseases and their families.[36]

The development of an annual programme of training for the members of parish pastoral care in health to be provided to each parishioner which should include: basic scientific information and theological, ethical, moral and pedagogic information.

A programme of on-going training for the members of the solidarity-inspired network of health professionals and health workers in hospitals, clinics, centres for assistance and prison centres.

The promotion of awareness in university centres, hospital centres and research centres, the periodic organisation of conferences, seminars and days of reflection on the subject of infectious diseases and their treatment and prevention.

At a parish level and the level of parish centres, above all in rural areas:

The introduction of an annual training programme for the diocese specifically for those taking part at a parish level in pastoral care in health.

The drawing up and organisation of courses and seminars for the specific training of apostolic groups and groups of volunteers on concrete subjects connected with those infectious diseases that are most present in the parish.

The issuing of special publications to inform the parish community at the time of prevention campaigns in relation to infectious diseases.

f. Assessment

Sixthly, the need has been observed for the bishop and the directive team of the diocesan commission for pastoral care in health to engage in an annual assessment at *a diocesan level* and a monthly assessment at *a parish level* through detailed planning drawn up by each head of a section or team belonging to the commission. Such planning is analysed by all the diocesan and parish workers at an annual extraordinary session of assessment in which initiatives and proposals for improvement for the next year will be accepted in line with the pastoral criteria listed in the diocesan programme for pastoral care in health.

Conclusion

Thanks to the analysis of the identity, mission and structure of the diocese and the parish, and taking as a reference the arduous and praiseworthy work that the Church has engaged in down the centuries, I have been able to propose to workers in pastoral care in health a series of concrete actions as regards care for people with infectious diseases and their family relatives. Through the effective implementation of these pastoral guidelines, the Church will create in each diocese through its parishes a *solidarity-inspired social network* that is well organised and directed towards a development whose suitable and silent work in hospitals, health centres, rest homes, orphanages, prisons and people's homes, will allow personal and overall care for sick people, that is to say care that is corporeal, spiritual and family-based.

St. Luke summarises the mission of the Church in the apostles in the following way: 'And he called the twelve together and gave them power and authority over all demons and to cure diseases, *and he sent them out to preach the kingdom of God and to heal*' (Lk 9:1-2). This, today as well, is the mandate of Jesus for his disciples that we as Christians should continue to take on in our dioceses and parishes by achieving the salvation of man through pastoral care in health, in particular in relation to infectious diseases.

Mary, *health of the infirm*, she whom we invoke as a model of service (Lk 1:38) because she captures in an admirable way the human and spiritual identity of the agent of pastoral care in health, invites all of us to renew our readiness to help sick people and those in need and to be attentive to new conditions of health. Today more than ever before believers are needed who like Mary are endowed with a fine sensitivity, receive the Word and the plan of God for the salvation of mankind, and help above all sick people to follow the pathway that goes from health to salvation.

H.E. Msgr. EMILIO CARLOS BERLIÉ BELAUNZARÁN,
Archbishop of Yucatán, Mexico.

Notes

[1] Apostolic Letter of John Paul II in the form of a Motu proprio, *Dolentium Hominum,* on the creation of the Pontifical Council for Pastoral Assistance to Health Care Workers, n. 2.

[2] Pastoral Constitution *Gaudium et spes,* n. 10.

[3] Decree *Christus Dominus* n. 11 of the Second Vatican Council and the Code of Church Law c. 369.

[4] Code of Canon Law c. 368.

[5] *Ibid.*, c. 515 §1.

[6] *Catechism of the Catholic Church*, n. 2179.

[7] Instruction of the Congregation for the Clergy, 'The Presbyter, Pastor and Guide of the Parish Community', 4 August 2002.

[8] Address of John Paul II to the bishops appointed in the previous year who were taking part in an up-dating course, 17 September 2004.

[9] Code of Church Law, c. 375 § 1.

[10] *Ibid.*, c. 381 § 1.

[11] *Ibid.*, c. 384.

[12] *Ibid.*, c. 394 §2.

[13] Apostolic Exhortation on the mission of the Christian family in the contemporary world, *Familiaris Consortio,* n. 73

[14] *Ibid.*, c. 394 § 1.

[15] *Ibid.*, c. 519.

[16] *Ibid.*, c. 528 § 1 and 2; 529 § 1 and 2.

[17] Message of Pope John Paul for the World Day of the Sick 2003, n. 3.

[18] *Catechism of the Catholic Church*, n. 916.

[19] *Ibid.*, n. 927.

[20] *Ibid.*, n. 898.

[21] *Ibid.*, n. 899.

[22] *Ibid.*, n. 900.

[23] Conclusion of the Post-Synod Exhortation *Pastores dabo vobis.*

[24] *Ibidem.*

[25] Motu proprio *Dolentium Hominum,* n. 2.

[26] *Ibidem.*

[27] RUFFINI, F., M.I., 'La Pastorale sanitaria e il sacerdozio di Giovanni Paolo II', *Dolentium Hominum – Chiesa e Salute nel Mondo* of the Pontifical Council for Pastoral Assistance to Health Care Workers, n. 20 -1992 (n. 2), pp. 73 ss.

[28] *Lettera degli agenti sanitari*, n. 56.

[29] *Ibid.*, n. 53

[30] *Catechism of the Catholic Church*, n. 1500.

[31] *Lettera degli Agenti sanitari* n. 53.

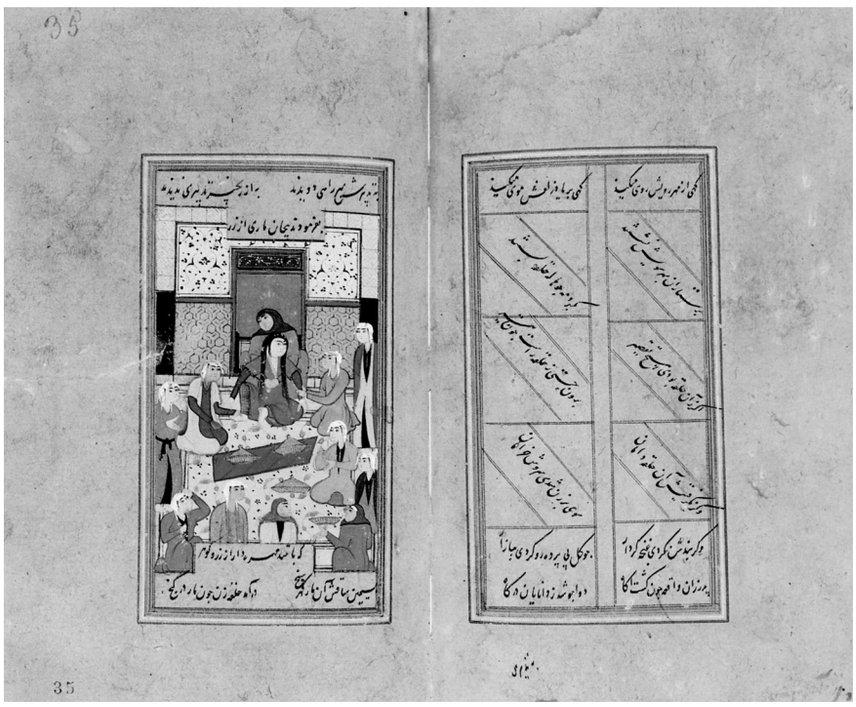
[32] 'Individual action is not sufficient, intelligent, planned, constant and generous group work is required': Apostolic Letter Motu proprio *Dolentium Hominum,* n. 4.

[33] 'To follow carefully in the legislative and scientific field the innovations as regards health so that they are suitably borne in mind in the pastoral work of the Church': *Pastor Bonus,* Art. 153,4.

[34] 'It is the responsibility of the Council to defend the doctrine of the Church in relation to the spiritual and moral aspects of illness and the meaning of human pain': Apostolic Constitution on the Roman Curia *Pastor Bonus,* Art. 153,1.

[35] Message of Pope John Paul II for the World Day of Health 2003, n .3.

[36] In relation to the family of a sick person a health worker is called to provide in conjunction to care also an action of illumination, of advice, of direction and of support': Lettera degli agenti sanitari, n. 55.



ANTHONY FRANK MONKS

4.3 The Pastoral Aspects of the Treatment of Infectious Diseases: Religious Orders

1. Historical Perspective

The Holy Father when speaking to the youth of the World in Cologne last year said that "*it is only from God, only from the saints that true revolution and decisive change in the world comes about*". The founders and foundresses of religious institutes were innovators, revolutionaries, prophets, and nowhere is this more evident than in healthcare: Camillus De Lellis, John of God, Vincent de Paul, Catherine McAuley, Mary Aikenhead… Theirs was always an holistic approach even at times when this did not win them friends among the authorities. History clearly demonstrates that the religious orders have a tradition of involvement in the struggle against infectious diseases of which they can be justifiably proud. Allow me to use my own congregation as an example in the full knowledge that much the same could be said of numerous other institutes.

St. Camillus made his vision quite clear in the first Rule of the "Company of the Servants of the Sick" regarding the assistance to be given to the sick in the case of epidemics: "should an epidemic arise all those who wish to follow our way of life, both priests and brothers, must promise to serve the plague stricken" (Rule 13). This obligation was later sanctioned by Pontifical authority in the Bull of Foundation of Gregory XIV (1591), and was expressed in a fourth solemn vow to be professed by all Servants of the Sick (Camillians): *"Promitto… perpetuo inservire pauperibus infirmis, quos etiam pestis incesserit"* (I promise … to perpetually serve the poor sick even when plague stricken"). Others congregations have a similar fourth vow.

The plagues

In the course of the centuries the religious would have numerous opportunities to live out this vow giving their very lives for the sick in the exercise of heroic charity. The first test came in Naples, shortly after the foundation of the company. Five religious were sent to Pozzuoli to care for Spanish soldiers on their ships where an epidemic had broken out. They carried the soldiers from the ships to a nearby refuge. Unfortunately, their efforts were mostly in vain, as the plague was too far advanced when they arrived and most of the soldiers died. On their return to the community three of the five religious quickly followed the soldiers into the next world.

In 1590/1 Rome was struck by a terrible epidemic of typhoid which in the first six months was to claim thousands of victims. It also brought about a great famine resulting in the country folk fleeing to the city and taking refuge around the Coliseum, at the Terme and in the marshes outside Porta del Popolo. Camillus was to look after their every need from distributing soup, bread, clothing and even procuring goats to nourish the children. The religious sought out the sick and plague-stricken in the caverns, caves, and stables where they had taken refuge. Eight Camillians were to take over the hospice at Ponte Sisto, the main source of the epidemic. They transferred the sick to the grain stores at the Bocca della Verità, and five of the eight gave their lives in this place alone. When the plague finally subsided in 1592, many more had died, and all the rest were ill, including Camillus himself. It was as a result of the heroic work which they carried out during this epidemic that the then pontiff decided to raise the company to the status of a religious Order. Incidentally, it was in this plague that the young Jesuit St. Aloysius Gonzaga died.

Over the coming years they were to repeat these heroics: in 1597 in Trastevere, Nola in 1600, Palermo in 1624, Tuscany in 1630, in Milan (rendered famous by Manzoni), in Mantua, and in Bologna where thirty thousand people died. So often the local authorities would call on the religious who would practically run the cities for the duration of the plagues. It is still fascinating to read today just how well organised they were: records show that each evening they would assess the situation and issue "an official bulletin" with the exact number of the suspected cases, actual cases and deaths for that day, and would decide where they needed to concentrate their efforts and what remedies were required. Naturally, many never lived to tell the tale: by 1656 seventy-five out of 350 religious had died while caring for the plague stricken.

From the mid-seventeenth century on these infectious disease outbreaks were more sporadic: 1677 in Murcia, and in 1743 in Messina, where numerous Orders distinguished themselves and where nineteen Camillians gave their lives for the sick.

Over the next two centuries there were different outbreaks of infectious diseases in which over 250 young Camillian religious gave their lives.

On the fields of Battle

It is perhaps interesting that from as early as 1595, at the request of the then Holy Father, eight Camillians accompanied soldiers onto the battlefields to care for the wounded and ill. This ministry was to continue over the centuries. It was as a result of the horror of what he saw at the battle of Solferino in 1859 that Henri Dunant got the idea of founding the International Red Cross in 1864. Our religious were on this battlefield and our records show that 40 thousand soldiers were left injured or wounded. It is recorded that there was only one doctor to every five hundred causalities. Dunant certainly will have seen the Camillian Red Cross in many places, including Solferino, as they sought to ease the suffering with their humble resources. Did he get the idea of the using the Red Cross as his identifying symbol from seeing them?

During the last world war the hospitals and homes of religious played a central role in caring for the victims of the war.

2. Religious Today

Aids

In more recent times religious have been to the forefront in the struggle to rid Europe of TB and today they are heavily involved in the fight against leprosy, malaria, TB, buruli, ebola and HIV/AIDS, especially in developing countries

It would be an awful indictment of religious congregations if this new millennium did not find us involved at various levels in the fight against the frightening HIV/AIDS pandemic afflicting humankind. And it is not just the congregations with a healthcare background who are involved.

Statistics released earlier this week by UNAIDS show that the numbers of HIV/AIDS cases continue to increase and has well surpassed the 40 million mark. AIDS is one, if not *the* challenge facing this new millennium. AIDS is no longer a purely medical issue, if it ever was one, but rather a humanitarian problem, and if the prognosis of reputable agencies proves correct, especially in the case of Asia, this issue is going to be with us for many, many years to come. Despite the fact that it presents a rather frightening spectre AIDS is no longer a high profile news issue here in the West.

In the Southern and Eastern hemispheres of our planet Earth I have seen children who are considered fortunate if they have a grandparent still alive: one sister colleague came across a grand-mother in Southern Uganda looking after thirty-two of her grandchildren as their parents, her children, were all dead. Religious daily encounter young mothers and fathers wasting away in front of the eyes of their young, who at ten/twelve years of age are their only carers. I have met wives who having never ventured from their rural villages wonder with deep perplexity as how this could be happening to them. I have walked hundred seventy bedded wards in Dar Es Salaam with a confrere where each new person encountered was more skeleton like than the last as they lay there fatalistically awaiting the grim reaper. “Four point seven (4.7) million in South Africa have been infected with HIV; 1,500 more acquire the virus each day, there will be a million orphans within three years, and one in five of them will be HIV positive”. (A. Ivereigh). These statistics are most disturbing but the trouble with statistics is that they are but numbers and percentages, and you cant hug a statistic and the millions of orphans need a hug – need people to reach out to them.

Stigma

One pastoral challenge resulting from HIV/Aids regards the stigma attached to this syndrome (“I never thought you would come back”). While much progress has been made in overcoming the stigma there is still much to be accomplished in changing the attitudes of all of society. This stigmatisation is in itself, I believe, a form of contagious illness. The Good Samaritan of St. Luke’s gospel did not ask the man who had been waylaid by thieves what he was doing travelling the dark and lonely roads of the desert on his own, he rather took cognisance of his plight and reached out in a most practical way to help and heal him. *It is as sinful to discriminate against those with AIDS as it is to keep quiet about the causes of the illness.*

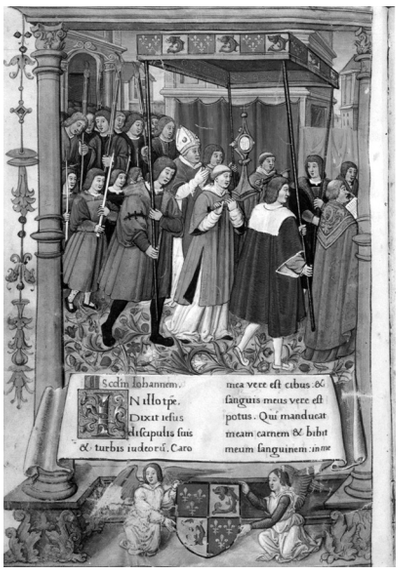
Pastorally when we speak of AIDS we are not talking about a syndrome, we are talking of people. And we are not talking about *people out there,* but rather about our brothers and sisters in Christ. We all need to ask ourselves honestly: what is my attitude to my brother or sister who has HIV /AIDS.

When I think of fear and stigma some very honest bishops and diocesan priests whom I have met spring to mind. Especially in Africa I found bishops and priests begging for help as to how they might approach and give pastoral assistance to their people suffering from

AIDS. “Help me understand and overcome my fears?” “Help me realise that it is not a useless activity to spend time with the terminally ill and dying”. “There are so many in my parish dying of AIDS what am I to do”? “How do I cope with the compassion fatigue involved?” This is an area where religious can be of real assistance, and our pastoral centres throughout the world should bear in mind the requests of these very sincere ministers in the vineyard when planning seminars, and conferences. These men are crying out for practical help, and look to us in hope.

Justice

Then I think of the Northern and Western hemispheres where in the early eighties there was such deep confusion, great fear, lack of knowledge, and numerous deaths. But this has all changed dramatically through well planned education programmes, research, improved medical procedures and the relatively easy access to anti-retroviral treatments thus delaying the onset of full blown AIDS for years, decades and hopefully longer. When I bear in mind that North and South, East and West are all part of this great planet I become annoyed, perplexed and very frustrated at this great divide and unjust distribution in the availability of services between the developed and developing countries. The brotherhood of man is much easier to accept and admire if you are fortunate enough to have been born in the Northern or Western hemispheres.



The huge discrepancy in the availability of drugs for the treatment of AIDS and of medical supplies in general between the North and South of our planet cries to God for rectification. So often the peoples of these countries find their hands are tied, and that they do not have any voice unless they possess some natural resource on which the West sets its greedy eye. One must welcome the involvement of high profile figures like Bill Clinton, Bono, and Bill Gates. Although we may not agree with them on all issues we do share a very genuine for our suffering brothers and sisters.

Our voice as religious must be heard in the corridors of power, and our influence should be unashamedly used in the search to change the status quo. The huge injustices of the world must be exposed for what they are. Bishop Kevin Dowling from South African writing last year in *The Tablet* tells us that a woman is raped every 26 seconds in his country. This raises the question as to whether the life of a poor person is equal to the life of a wealthy one? God is crying today through these poor people who because of the sinful structures under which they have to live find choice is not available to them. This is a very real pastoral issue.

Education

There is a great need for programmes aimed at the school going population which can open discussion on the whole area of healthy sexual and social living. Many congregations of sisters have excellent and very successful programmes in this area. Based on the premise that prevention is much easier than cure, the communication of the Church's teaching on social mores in a language that is understandable and well thought through is essential in the fight against AIDS. This is a huge area in which we should be mobilising and involving the Christian laity. But the education must go beyond the sexual to bring to the surface "the taboos, gender inequalities, and appalling levels of violence and sexual abuse directed at women and children in many African countries; the myths and practices around sexuality; stigma, silence, discrimination and fatalism" (Kevin Dowling). Arranged marriages, social approval of several sexual partners for men, widow disinheritance, polygamy, while being factors in placing people at high risk of AIDS are also very sensitive cultural issues demanding great sensitivity and insight. It will require local men and women of great courage and immense pastoral skill to tread their way through these issues and come up with solutions that will be acceptable to the people and within the law of God. The Church, through the male and female religious congregations, has excellent programmes in this regard which are quite effective.

The congregations with excellent and justifiable reputations in the field of caring for, and education of, the youth of the world have so much to contribute, especially in the sector of prevention through the education. All of you are needed. Your charism is needed. There are excellent Catholic prevention responses that are worthy of being repeated but cannot through lack of numbers. I plead with you in the name of those millions who will acquire AIDS over the coming years, of those who are acquiring AIDS as this is being read, of those who will acquire AIDS over the coming months and years, (and we are talking about millions of people), to commit yourselves to prevention programmes, and to get involved at other levels if you feel so inclined.

Ethics

The topic of ethics and AIDS is a mine field for the uninformed, but one through which we religious working at the coalface in healthcare have to negotiate our way. Unfortunately, all the issues which cause debate and concern in this area are not simply black and white, but there are many grey areas which require knowledge and great pastoral awareness: involvement in the distribution of needle exchange programmes; the abuse of power by the multinational pharmaceutical companies; the ongoing debate in the public arena on the use of condoms when one of the spouses in infected... These are real issues for committed caring religious and laity and the solutions are not easily come by.

The multimillion dollar campaign to encourage the use of condoms has not altered behavioural patterns. Religious, in line with the teaching of the Church, have some very successful programmes in the area of prevention: "*in teaching, encouraging, and empowering communities to take responsibility*" for their lives.

The struggle will and must go

on to find solutions which will leave all Catholics in tune with the teachings of the Church, while at the same time sleeping soundly in the knowledge that they are not placing impossible burdens on peoples backs. Chapter twenty-five of St. Mathew's gospel reminds us that *mercy* is the standard by which we will be judged. I pray that the Christian *concept of mercy* will always be the "kindly light" which guides our uncertain steps.

One present challenge for us religious: *how to overcome the fragmentation which presently exists among ourselves so as to speak with one voice and establish a new culture of cooperation and communion.* In one African country Christians provide 40% of healthcare delivery, 80% by Catholics, but they have no voice, and are left to fight their battles on an individual basis with poor results. This is nobodies fault but our own.

We suspect that the Catholic Church is the most involved and biggest single player in the battle against this global pandemic largely through the work of the religious sisters, brothers and priests. But our involvement has many limitations due to: weak coordination (we don't know what the other one is doing), inadequate visibility (fragmented and therefore weak or negative TV coverage), under-valuation (due to the misunderstanding and misrepresentation of Church's work, many lay people think we are only engaged in a battle against the use of condoms: "they look at us through the eyes of a condom"*),* insufficient advocacy (we have no experience in lobbying and effective use of our influence), and limited funding access*:* (due to negative perception of our work and lack of unity we do not have access to funds which are available).

The religious involved in healthcare are presently involved in a mapping exercise whose objective is to provide us with the information necessary so as to improve the impact of the activities of religious congregations in response to the global pandemic of HIV and AIDS. It is hoped that the mapping exercise we have undertaken will detail exactly what religious congregations are doing in the field of HIV/AIDS. Apart from providing us with essential information it will provide us with a stronger voice in accessing the very serious money which is available for those who work in this field and which is still not accessible to FBOs (faith based groups). We will not lose our identity nor our ethical stance in the process, as we have always been made quite clear to the funding agencies regarding our stance on certain issues.

Our project's overriding objective is to provide a still more effective response to the HIV/AIDS plague, and my one wish is that all of us working so courageously and compassionately in this field may be open to still greater collaboration and sharing of ideas and resources, and that we may learn to speak with one voice for those who have little or no voice. To do this we need the collaboration of all religious congregations, we need to work and speak with a united voice.

3. What is specific to the Pastoral Approach of Religious?

It has always been personalised – person centred. We find it important to distinguish between "disease" and "illness": "disease" is the structural disorder in an organ or tissue that gives rise to ill heath; "illness" on the other hand is the individuals experience of ill health, his experience of dealing with that structural disorder.

Cicely Saunders, one of the great pioneers of hospice care in the later part of the twentieth century, speaks of "*Total pain - Total Care*", and goes on to describe pain as an experience with different overlapping and interweaving aspects, namely physical, psychological, social and spiritual.

When you are well you have a sense of connectedness, of belonging, of alignment, of harmony and meaningfulness. On the other hand what you experience when there is disconnectedness, a sense of not being wanted, disharmony, non alignment and disintegration, might be described as spiritual pain. Nothing makes much sense any more. The values on which you have based your life seem to be somehow worthless, to be disintegrating before the frightening lived experience of the present moment. Spiritual pain arises when the main tenets on which I have based my life, and my actual experience of life as I am experiencing it right now no longer gel and are, in fact, in a state of conflict).

The stigma that goes with the "having" of AIDS is a very real and is the cause of profound suffering.

The effort we make to understand, to help people rediscover meaning, to be truly present, which is none other than true care, can restore the will to live. Love in the form of care can, and does, restore meaning. This is essentially the pastoral approach.

What does this mean in practice?

1) Much illness is reached, touched and healed by the way in which care is carried out. "*We heal through contagious humanity*" (M. Teresa) Through our compassionate attention to the whole person, we are recognising their worth as unique individuals. Cicely Saunders tells us that "*the way care is given can reach the most hidden place".* Skills must be administered with compassion, bearing in mind that cure without care is dehumanising.

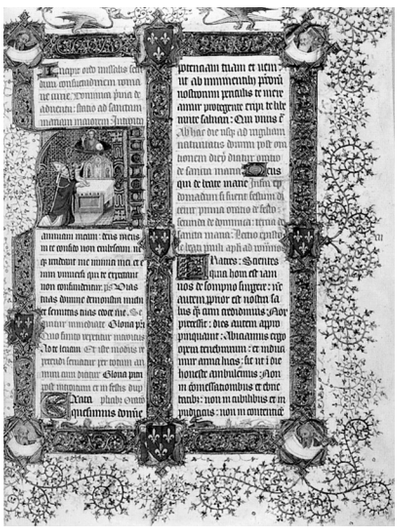
Our tools are twofold: our acquired skills and our hearts. The primacy of love is at the heart of Jesus message. For those in pain love takes on a new urgency. The patient so often feels ugly, degraded. useless because of the toll of illness. It is humbling to see what simple acts of courtesy can do, and equally distressing to realise how often they are omitted. To be stigmatised is equivalent to being stabbed in the back by friends. In the words of St. Camillus, we need "more heart in our hands".

2) Pain is unpleasant and the healthcare professionals admirably seek to remove it, but this does not necessarily work for all pain. There are pains for which I cannot give an aspirin. Spiritual pain it is not a problem to be solved but "a question to be lived". You walk the

walk with the person even though you do not have answers, but rather you help them to find them. Our challenge is to help them discover what it is that connects for them. What it is that gives meaning to this moment of their life. Give them space to discover their inner resources. Meaning can be restored by helping them face the situation: "*the best way out is always through*" (Frost). There will be confusion, a sense of powerless, but this is largely counteracted by the sacrament of presence. Today people are prepared to give things but not always their time, to give themselves. The individual must find the "why" himself. Keep the focus on the here and now, the living out of this moment as fully as possible. Most people will come round to accepting their situation if they have caring understanding people around them.

3) In dealing with infectious and life threatening diseases you will often feel powerless and helpless. And yet so much healing takes place at moments like this when despite not having the answers we don't run away, we don't use the sacraments as a refuge. I would suggest that we "*heal through contagious humanity*" (M. Teresa). The older I get the more convinced I become that we are called in life to support one another along the dusty road and allow ourselves to be supported in turn. When we are capable of being human with one another real healing takes place. We must never forget, as Henri Nouwen reminded us, "*that Jesus' ministry reached its climax on Calvary: the crucified and glorified healer, healed and saved through His death and resurrection. When He was at His most powerless He was in fact at His most powerful. His taking part in suffering humanity enabled Him to triumph over its ills. Christ was the wounded healer".*

4) *The role of prayer*. I believe we should see prayer as the point of arrival and not as the point of departure. We don't begin with prayer as we know nothing about the patient, but rather we seek to eventually arrive at a situation where we can pray freely with the patient. Our prayer should show an awareness of the situation as we have encountered it. This applies also to the administration of the sacraments: we should personalise the administration of them as much as possible. Praying on the situation we have encountered makes the prayer more meaningful, and also gives us an opportunity to show that we have been truly listening, truly present to them. Naturally, this will involve trusting your pastoral instinct.



We should pray with them and not at them. This will involve being totally at home with the ritual and the possibilities which it offers. We don't recite it but rather pray it. I have been privileged to see the power of God at work through His sacraments, which is humbling, inspiring and also an opportunity for my own personal spiritual growth. The greatest sermons I have heard on faith have been given without any preaching by the sick I have been privileged to accompany.

If in doubt as to whether to pray or not, then you simply ask and have your uncertainty clarified.

There is nothing to prevent one praying privately for the situation encountered. As a matter of fact I believe that as a practicing Christian this is an obligation.

What qualifications do I need for this work?

I firmly believe that the most important preparation is not the fact that I am a doctor, a nurse or any other healthcare professional, but rather the fact that I am committed to my own inner journey. If I am, then I will be aware of my own vulnerability, of my own not knowing, and will be less judgemental in my relations with others. As Dr. Michael Kearney says so beautifully, *"it is the belief that in this area it is not so much about the skills I have but the self who I am"*.

The charisms of religious congregations are as necessary today as they ever were in the fight against infectious diseases.

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Member of the Pontifical Council for Health Care Workers, The Holy See.

Sources

CICATELLI, *Vita del P. Camillo*, Napoli 1627,
P.A. CROTTI, *La peste del 1656*, in *Domesticum*, 1944,
P.A. CROTTI, *La peste di Murcia*, in *Domesticum*, 1944,
P.A. CROTTI, *I Ministri degli Infermi nelle pandemie coleriche del secolo XIX in Italia*, Roma, 1945.
P.G. CURTI, *La peste di Messina*, in *Domesticum,* 1908;
DELLA GIACOMA P. FIORENTINO, *Precursori della Croce Rossa*, Torino, 1916,
P. FATI PLACIDO, *Relazione*, in *Domesticum*, 1944
KALINA KATHY, Midwife for Souls
LEWIS C.S. The Problem of Pain
MONKS FRANK, Evangelizzazione e Sfide Pastorali, in Camillianum N. 10, 2004
NOUWEN HENRI, Out of Solitude
RADDRIZZANI P. I., L'ospedale Croce Rossa Italiana S.Camillo, *Domesticum*, 1920, pag. 33 sg.
REBUSCHINI P. ENRICO, Corrispondenza da Cremona, in *Domesticum*, 1916, pag. 9 seg.
REGI P. D., *Memorie Historiche*, libro III, cap. IX, pag. 89.
RUBINI P. FLORINDO, *Per la storia di guerra*, Relazione, in *Domesticum*, 1920, pag. 43.
P.M. VANTI, *La "Peste di S.Camillo"*, in *Domesticum*, 1939, pagg. 71-82; Id., *Alcuni dati storici intorno l'epidemia del 1590-91 in Roma,* Roma, 1943.
P.M. VANTI, *Storia dell'Ordine,* vol. II, Roma, 1945, pag. 225 seg.; P.A. CROTTI, *La peste di Palermo nel 1624-25,* in *Domesticum,…* pag 193-210.
P.M. VANTI, *I Ministri degli Infermi nella peste del 1630 in Italia*, Roma, 1944.
P.M. VANTI, *I Camilliani e la peste del 1630*, Milano, 1930, p.25 sgg.
P.M. VANTI, *I Ministri degli Infermi nella peste del 1630*, pag. 122
P.M. VANTI, "*S. Camillo*", pag. 254.

FRANCIS SULLIVAN

4.4 The Associations and the Pastoral Aspects of the Treatment of Infectious Diseases

When reflecting on the pastoral approach to treating people with infectious diseases a major barrier is '*distance*'. Not just the distance of geography. Rather the human experience of being *removed*, of being *apart* from and *separate* to another.

When people encounter disease, there is an instinct to *stay away* from the threat of infection. This is particularly the case with infectious diseases. Even sensible disease control behaviour seeks to distance the risk of infection.

But the challenge is to keep the infected person *in contact* with the community - especially with a pastorally focussed community.

In practical terms, given that infectious diseases ravage the developing world, it is imperative that the well and the wealthy *engage* with the challenges of treatment, eradication and prevention of infectious diseases. Only those with resources and personal capacities can actually address the situation.

It is a classic social ethical problem. It requires a redistribution of knowledge, of resources and the necessary enterprises to build social capital.

This is particularly the case with HIV/AIDS – the politics of poverty also involves the politics of *disengagement.*

In the developed world the phenomenon of HIV/AIDS has challenged social mores and values. It has highlighted how quickly communities discriminate against people, even demonise them.

In the West it has revealed our still unsettled approach to human sexuality. It has often left the Church in a situation where it seeks to provide care, but is often characterised as being naïve about measures of prevention.

Yet, it has to be said, that throughout this period of the epidemic Western societies have allocated resources, have educated communities and have established social infrastructure to deal with the disease and not succumb to a base tendency to ostracise the victims.

In large part this has been due to the *immediacy* of the HIV/AIDS challenge.

People with AIDS lived and worked in all situations. Their welfare became connected to the future well being of the community.

This has been the result of a communitarian approach – in other words, the solution was progressed when the broader community took responsibility for the situation and resisted shifting blame onto people living with and contracting AIDS.

The challenge is different again when considering how to motivate Catholic health providers in a prosperous country like Australia to assist in the fight against AIDS in a poor country close to its border.

Papua New Guinea is the closest country to Australia's northern border. As a developing country it relies largely on mineral deposits, although most of its citizen's live in impoverished conditions.

A breakdown of its economic realities:

Population

5,887,000.

Poverty

40% population live on less than US$1 per day.

Employment

85% population live a subsistence lifestyle in rural areas. 72% of export earnings of mineral deposits - oil, copper and gold.

GDP

Total $14.363 billion.

(2005 estimate)

Per capita $2,418.

Religion

96% of citizen's members of a Christian church.

27.0% Roman Catholic Church.

19.5% Evangelical Lutheran Church of PNG.

11.5% United Church.

10.0% Seventh-day Adventist Church.

27.52% Other Christian groups.

It is noteworthy that 96% of PNG's citizens are members of a Christian Church. The churches have the social reach to assist with development. They lack the resources.

– 19 Dioceses in PNG.

– Provides 35% of all health care in the country.

– 40% all education.

– Church combined provides 50% of all health care in PNG.

Of particular concern is the rates of sexually transmitted infections (STIs)

– Syphilis:

4% in highland population.

32% in sex workers.

7.1% of antenatal screening.

– Chlamydia:

up to 26% , 31% in sex workers.

– Gonorrhoea:

15% in highland's populations.

– Trichomoniasis:

28.75% in sex workers.

While data is limited these figures indicate that STI prevalence rates in PNG are extremely high

The HIV/AIDS epidemic is growing at an alarming rate.

– PNG is the fourth country in Asia-Pacific region to fit the criteria for a generalised epidemic.

– Rate of HIV in 15-49 year olds.

– Population increased from 0.94% - 2.5%.

– Translates to 24,528 to 68,966.

The epidemic is placing enormous strain on an already stretched health system.

– "70% of the hospital beds in

the country could be occupied by AIDS patients in 2010".

– For every 5% increase in HIV the national spend on health will need to increase by 40%.

– At a 10% HIV prevalence rate tuberculosis will rise 50 fold to 30% of the population.

PNG's social situation makes the prevention and treatment of STI's very complex.

– Poor recognition of the symptoms of STI's.

– Low status of women.

– Lack of community confidence in the health system.

– Reluctance to seek treatment.

– High rates of 'transactional sex' ie.trading sex for money, goods or favour.

– Concurrent and multiple sexual partners.

– Rapid reinfection rates.

– Mobile population – difficulties with treatment, tracing.

– Poor compliance with medication.

Harnessing the goodwill, resources and expertise from Australia is challenging. A number of issues can become barriers to a proper engagement of assistance.

– Identification of need is too removed, too distant and too disengaged.

– In-experience with complexities of local cultural problems.

– Security for volunteers.

– Uncertainty over 'what is needed' and 'what will work'.

– Acceptance of local governance performance in health service planning.

These issues can be exacerbated if good intentions override common sense. Often prosperous agencies seek to send equipment or personnel into situations far too early or too naively. There needs to be better communication between what is needed and what will work. This means that organisations must co-ordinate assistance, not just call for aid.

In addition, health professionals in prosperous developed countries must resist an ethnocentric attitude to the state of conditions in local health services of developing countries. What is able to be achieved is of more value than what could be if circumstances were unrealistically different.

As a planning tool to assist with practical support for developing countries, the following principles can be utilised:

– Recognise cultural diversity requires education and reflection.

– Match professional competencies to need - tailor good intentions; monitor performance of volunteers.

– Build on culturally successful strategies/methods.

– Provide useful, not just plentiful resources - medical equipment and drugs.

– A collaborative approach with the government wherever possible.

– Co-ordinate, don't inundate with assistance.

– Local capacity is the determinant.

– Develop sustainable assistance programs, not charitable 'one-off' projects.

– Adopt a systematic, not reactive disposition.

– Respond to a plan, not ad hoc requests.

– Wherever possible use existing Church agencies, networks, expertise.

These principles respect the local circumstances and build on the strengths and social capital available. They seek to enhance beneficial Church programs, collaborate with government initiatives and ensure that resources, both professional and material, are aligned appropriately to maximum benefit.

A crucial aspect of these principles is to build sustainable and durable programs. People in need require certainty, not just hope.

Caritas Australia (CA) approached Catholic Health Australia (CHA) to form a collaborative partnership in order that the Church's outreach to people at risk of or infected with HIV/AIDS in PNG could be enhanced. This was in part in response to the PNG government's call for assistance.

Call for dramatic reduction of STIs by 2008.

Strategies suggested:

– Training of district level health workers in syndromic management of STIs.

– Construction of STI clinics.

– Increased capacity of health workers through ongoing training.

– and efficient supply of treatment medications.

CA & CHA are shaping their response along these lines:

– *Collaborative Effort:*

Local Church agencies in PNG.

Caritas Australia.

Catholic Health Australia.

– Identification of the capacities in PNG to expand existing Church programs.

– Identification and selection of suitable Australian personnel from the Catholic health system.

– Construction of service programs to address urgent needs consistent with the PNG-Australia Sexual Health Improvement Program.

Building an integrated sexual health program is difficult. It requires educational and cultural changes. It also requires sensible initiatives that enables the Church's presence to have the maximum impact.

Already the collaboration has revealed some important lessons for planning. These include:

– Collaboration between organisations requires patience.

– Education of collaborators is vital.

– Government assistance may have complications but it does facilitate action.

– The credibility of Church health services is very high and provides a solid basis on which to build alliances.

– Continuity of responsible staff, at all levels of the program is vital

– Have confidence that a well considered and researched plan will work!!

In the end a sound pastoral approach requires a shared understanding of the dignity of people and their right to health care. The passion of a shared mission will also prevail against most obstacles.

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Executive Director of Catholic Health Association, Australia.

MARIA PIA GARAVAGLIA

4.5 Pastoral Care and Infectious Diseases: Volunteers

From a legislative point of view, law n. 833/78 on the creation of the national health service referred to the subject of the responsibilities of local bodies in the health-care field when it upheld the principle of the functional integration of basic health-care and social measures to be promoted by the local health authorities.

The component of assistance of socio-health-care measures was not decided at a central level and has followed differentiated pathways at a local level which have been governed by sectorial national laws, by regional legislation, and by health-care plans.

The reform of assistance, in fact, did not proceed in line with the reform of health care and only since the end of the year 2000 have we had an overall law (n. 328) on the system of social measures and services which also governs social-health-care provisions.

In addition to the difficulties encountered in the management of services, the division of funding between local health authorities and local councils, together with the scarcity of resources allocated to the social-assistance sector, has helped to make the integration of social and health-care services at a local level difficult.

The organisation and responsibilities in terms of administration at a local level of health care are governed in particular by three items of legislation: decree n. 229 of 1999, which placed local councils in the decision-making and planning process, in particular as regards the approval of health-care plans and the monitoring of their implementation through the creation of local health-care conferences as well; law n. 328 of 8 November 2000, 'the general law for the creation of an integrated systems of social provisions and services', which emphasised the centrality of the local area in the creation through area plans of a network of social services and their co-ordination and their integration with health-care provisions; and the act for the direction and co-ordination of health-care integration DPCM of 14 February 2001, which redefined the typologies of services by areas of action and regulated the criteria for the sub-division of costs between the national health service and the local councils.

Services are divided into three major categories: 1. health-care services of social relevance, which are the responsibility of the local health authorities, directed towards the 'promotion of health, and the prevention, identification, removal and containment of degenerative or invalidating outcomes of congenital or acquired pathologies'; 2. social services of a health-care relevance, which are the responsibility of local councils, with the 'objective of supporting people when they are in a state of need, with problems of disability of marginalisation which condition their state of health'; and 3. socio-health-care services with a high health-care role, which are the responsibility of local health authorities and local councils, 'in particular connected with covering the aspects of socio-health-care need inherent in psycho-physical functions and the .imitation of the activities of individuals in extended stages and stages involving long-term care'.

Lastly, in the field of health care, reference should also be made to the responsibilities conferred on mayors in the 'consolidation act on the system of local agencies' (legislative decree n. 267 of 18 August 2000).

Voluntary Work against Infectious Diseases in Rome

The most important initiative in Rome as regards voluntary work and infectious diseases is the HIV Co-ordinating Committee which was created in 2003 in the fifth department of the section for social policies of the Rome town council. This exists to promote and foster co-operation between non-state social bodies and public institutions so as to respond to the complex socio/health-care questions and problems connected to infection by HIV.

The bodies that belong to this are engaged in a redefinition of measures to help and support peoples with HIV/AIDS, beginning with new forms of fragility and emerging needs through activities involving study, research and information. The results of these activities are made available to the relevant services or services active in the social and health-care field.

The essential points of this co-ordination are: the meeting of the needs of individuals; the strengthening of support services; social integration; primary and sec-

ondary prevention; and the right to health.

The HIV Co-ordinating Committee is made of various elements dealing with the question of HIV and correlated pathologies both from the point of view of prevention and from that of care. I have selected those activities that involve not only the professionals of the sector but also voluntary workers.

Arché

This is the first association of volunteers in Italy to have helped HIV-positive people in the field of paediatrics. Arché supports children and families who are living out the drama of AIDS by offering assistance to minors afflicted with HIV with the objective of improving their quality of life. In 2000 the P. Boschi Project for the accompanying of children with mental disturbance was begun and this opened the activities of this association to a new emergency. The activities the volunteers are called to engage in involve home and hospital help, the organisation of parties and meals to provide information, presence during summer holidays, and prevention in schools and on the streets. The volunteers of Arché help HIV-positive children or patients when they are admitted to hospital or during visits to day hospitals, and on all other occasions when families need help. Amongst the objectives of Arché, that of giving children a life that is as normal as possible and the same as that of their contemporaries are of primary importance. And to this end the volunteers: accompany them when they are moved from their homes to hospital and vice versa; take care of them during therapy in day hospitals; provide them with help day and night in the gravest cases and during their admission to hospital; maintain contact with medical doctors and keep them informed about the development of the illness and the forms of treatment that should be given at home; help them to play and help them in their studies; take them on holiday; organise parties and meetings for the children at various moments during the year (Easter, Christmas, Carnival); and organise groups of counselling for parents and the relatives of the children with the aim of helping them overcome the difficulties connected with their condition and fostering the sharing of worries and experiences.

CEIS – The Italian Centre for Solidarity

The Home Help Service was created inside the Italian Centre for Solidarity in May 1999 following a project that had been presented and financed by the AIDS Office of the Health-Care Area of the Fifth Department of the Rome town council. The people who use this service are individuals with advanced AIDS or who have grave immunity deficiency. The team is made up of social workers, home help workers, people engaged in accompanying, a secretary, a psychotherapeutic psychologist, and a supervisor. The methodology that is employed involves the becoming aware by the user of his or her own potentialities, always in a way that respects the limits imposed by the clinical situation. It also involves making at least one member of the family responsible and the use in a synergic way of all the resources that are available in the local area.

NPS Italia Onlus Sez. Lazio – Network for HIV-positive People

The objectives of the NPS are:

– To join with all chronically ill people in the common interest of the 'right to health' by stimulating, in the light of the progressive decentralisation of health-care services, the creation and the strengthening of regional and local networks with other associations that can then become the subject of a specific interaction with institutions.

– To guarantee information on therapies and their side effects by acting as mediators between people with HIV and the pharmaceutical companies in order to have a constant up-dating on new experimentations, also stressing the possible ethical-social problems that have emerged with these new therapies.

– To disseminate information about the law, about pensions and about medical care and treatment.

– To fight against forms of discrimination and for access to, and the maintenance of, work and treatment.

– To support people with HIV by providing them with those forms of support that are needed to improve their quality of life.

– To stimulate their active participation in their own psycho-physical and moral wellbeing, thereby eliminating forms of victimism and self-discrimination, through the creation of self-help groups in various cities with this goal as well.

– To promote prevention.

The priorities of the NPS today are:

– The 'AIDS and Prison Project': so far sufficient attention has not been paid to this subject given that the data that are available refer to a percentage of people with HIV that is equal to 6-7% of the whole prison population, bearing in mind, however, that there is a submerged number of cases that cannot be quantified because not all people who enter prison agree to be subjected to a test for HIV.

– The 'School Project': this is a programme of information and prevention with students that has the goal of making them express themselves in an active way about the question of HIV/AIDS and

sexually transmissible diseases, trying together to illuminate 'at risk' forms of behaviour through telling them about the personal experiences of the workers of the association and sensitising young people to respect diversity so that they see those who are struck by this malady as people and not as subjects to be avoided and distanced.

– 'Health-care Federalism': in the light of the progressive decentralisation of health-care services and inevitable inequalities, to stimulate the creation and the strengthening of regional and local networks with other associations that can become a specific instrument of interaction with institutions but which in the common interest of the 'right to health' could be extended to associations that are concerned with other pathologies.

Parsec Coop. Sociale ar.l.

Parsec Consortium is a consortium of non-profit making social co-operatives and ONLUS associations which was created in February 2003. Hitherto five structures have joined it that belong to the experience that the Parsec Association has accumulated during the last twenty years of its activity above all in the northern and eastern districts of Rome and Lazio in the field of the planning and the implementation of social initiatives.

In particular, the Parsec group works in the field of young people, women and migrants who are disadvantaged or are in difficulty, the integration of foreign citizens, but above all we help people with problems connected with drug addiction through campaigns of prevention, projects of work training and the management of reception services.

The R.O.M.A. (Research Office in Medicine and Assistance) Co-operative

The R.O.M.A. Co-operative began its activities in the field of the quality of home services for people with AIDS. In particular, during the course of the year 2000 it carried out studies into the quality of home assistance for people with AIDS in the city of Rome and the city of Milan in conjunction with certain social private bodies with agreements to provide home services (the Consortium of Social Co-operatives Sol.co Roma, the St. Peter and St. Paul Patrons Saints of Rome Co-operative).

Since 2001 this has administered the service of social help for people with AIDS and connected syndromes with the Fifth Department of the Rome town council. The area for which it is responsible is the Rome D local health authority, including the XII, XIII and XV districts.

The R.O.M.A Co-operative promoted the planning and subsequent creation of a day centre for the reintegration of people into the world of work who are provided with home assistance. In particular, a laboratory for the restoration of ancient furniture is now underway.

In addition there is the reality of voluntary work that is active in relation to the question of infections by hepatitis C (EPAC – the Association for Education, Prevention and Research into Hepatitis C) which has engaged in initiatives involving providing information to women who are expecting or intend to have a child but do not have institutional connections with the town council.

Another initiative of importance in the field of voluntary work is the RES, the Register of Solidarity of the Rome town council (in relation to which I prefer to use the expression 'Rome is Solidarity-Inspired'). In this register are to be found various medical doctors who make their professional skills and expertise available in different ways.

In Rome there are a very large number of associations of voluntary work, non-governmental organisations, and co-operatives of social solidarity that work in special agreement with the Rome town council.

Through the reality of accreditation, the administration of the Rome town council carries out the incumbent action of controlling the quality and the efficacy of services. These services, in the local area, have the task in relation to infectious diseases of looking after people when they are not in hospital, to which they are sent during the acute stage of their illness.

In the courage and moral force of Caritas of Rome, AIDS has found a response at the level of residence of great significance in Villa Glori. This building was given to the Rome town council by Don Di Liegro.

Dream is a programme involving an overall approach to the treatment of AIDS in Africa. It was begun in January 2002 by the Community of Sant'Egidio.

The programme is the child of a dream. The dream of a different approach to AIDS within the African health-care universe. It was created with the aim of going back to joining prevention to therapy in the belief that it is necessary to save as well as to preserve, thereby obtaining for as many people as possible greater time to live.

Other initiatives have been engaged in by the Rome town council to help immigrants and gypsy camps. The S.Gallicano, with its voluntary workers and medical doctors, engages in valuable and irreplaceable activity in the field of medicine and migration.

The town council of Rome does not believe that these initiatives have a substitutive role. It believes that they have a supplementary role in a context of services that are supported with the precise wish and belief that people, and above all the most fragile, need special care.

Every year the town council offers a meal in the prestigious 'Sala della Protomoteca' of Palazzo Senatorio to the people who are guests of Villa Glori – the same treatment and the same meal that is offered to heads of state and ambassadors.

We should not be afraid; indeed, we should act.

A city based on solidarity is a city that is safer for everyone. To cultivate this approach means to organise a better future for everyone.

Hon. MARIA PIA GARAVAGLIA
Deputy Mayor of Rome, Italy.

JUAN JAVIER FLORES ARCAS

4.6 Pastoral Care and Infectious Diseases: Liturgical Life

Jesus Christ: Physician of Bodies and Souls

Jesus Christ is the wonderful presence of God amidst men; his action is liberating for man who opens up to God in all His dimensions, to His word, to His gift, who requires in His turn a response of faith.

The action of Jesus who touched the mouth and the eyes of a deaf and dumb man using the phrase *Effetá* (Mk 7:31-37) did not pass unobserved by the early community and very soon it came to form a part of the rites of the catechumen who was preparing to receive the sacrament of baptism. It is certainly the case that the actions of Jesus have a sacramental character for us because they expressed what in this case was meant by opening eyes and loosening tongues. In this way we can understand better what the gospels want to transmit to us: 'with Jesus came the era of the Messianic salvation announced by Isaiah'.

Physical illnesses and illnesses of the spirit can only be overcome with the force of the words of Jesus. It is certainly the case that the power of Jesus raises man, every man, from his state of prostration to walk him along the pathway of service, which is then the pathway of every disciple. The healings invite people to see in Jesus the man who has the power to save man from his deepest miseries by taking upon himself all our infirmities.

The Magisterium of the Church has always taken on this compassion of Christ. The Constitution of the Liturgy of the Second Vatican Council observed 'when the fullness of times came (God) sent His Son… to preach the Good News to the poor, to heal broken hearts, 'physician of the flesh and of the spirit'.[1] Christ is the true physician of bodies and of the spirit who heals the sick and continues, here and now, to heal those whom he encounters on his path. The *Catechism of the Catholic Church* expresses this in a fine way when it declares that 'The Lord Jesus Christ, physician of our souls and bodies, who forgave the sins of the paralytic an restored him to bodily health (cf. Mk 2:1-12), has willed that his Church continue, in the power of the Holy Spirit, his work of haling am salvation, even among her own members. This is the purpose of the two sacraments of healing: he sacrament of Penance and the sacrament of Anointing of the Sick'.[2]

The Church, in continuing this therapeutic function of Jesus Christ, created from the outset a set of elements, rites, symbols, words and eucology with which to draw near to the man who needs to be healed. And with feelings identical to those of her founder, she draws near today also to the man who is in need and offers him the oil of comfort and balm of Christian hope.

The Liturgy: the Sacramental Realisation of the Mystery of Christ for Total Man

The Constitution of the Second Vatican Council *Sacrosanctum Concilium* (SC) presents the successive moments of the history of salvation as progressive stages which, beginning with the first announcement, end in the time of the Church. *The first moment*, therefore, is that of the announcement or of prophecy, and for this reason the Constitution refers to Heb 1:1: '*multifariam multis modis olim Deus loquens patribus in prophetis*'. After this first prophetic moment there is the *second moment*, that is to say the fullness of times: '*ubi venit plenitudo temporis misit Filium suum*' (Gal 4:4). The incarnation of Jesus realises the expectation announced by the prophets. We move from the time of prophecy to the time of the salvific reality of Jesus Christ, God made flesh. As Salvatore Marsili observes: 'salvation enters time to be realised in time through the presence of God in the humanity of Christ'.[3] With Christ one comes to salvation, '*ipsius namque humanitas, in unitate personae Verbi, fuit instrumentum nostrae salutis*'.

Coherently with this reality of Christ as fullness, the liturgical Constitution employs an ancient prayer of the *Sacramentarium* of Verona in which Christ is referred to as 'fullness of worship', observing how, from the incarnation there comes to us all the sacramental force of Christ which culminated in his Passion. The perspective from which we begin is nothing other than the Incarnation of Christ, as Cipriano Vagaggini well explains: 'the underlying idea is that in the incarnation of the Son of God was achieved the supreme model and the human-divine source of the salvation of the world because in the person of Christ took place the perfect union of God with a human nature and the perfect response of this human nature of God, in the fullness of divine worship that pays tribute to them'.[4] The humanity of Christ overcame the form of servant and of slave, death and the consequences of sin. It was the dispenser of the communication of life to

men. But it was, however, the resurrection that bought all this to completion.

This is the assumption from which the *third moment* proceeds: the time of the Church when Jesus Christ sends the Spirit who is promised until the end of time when he will return in the eschatological dimension.

These three moments: the *prophetic moment* (which prepares for and announces the coming of Christ), *fullness in Christ* (when all his work of salvation is carried out), and the *time of the Church* (the salvific continuation of everything that Christ did), find in liturgical celebration and life the realisation of all the salvific force of which Christ was the bearer and which he himself transmitted. From this one deduces that in liturgical celebration are evident two very precise realities: our reconciliation and the fullness of worship. The ancient expectations, prepared during the course of the centuries, were fulfilled in Christ within the horizon of the New Testament. They make up the work of our redemption, achieved through the paschal mystery of the passion, death and resurrection-ascension of Christ. This, in essence, is the paschal mystery as understood by St. Paul, the Fathers of the Church and the liturgy. The time of Christ gave way to the time of the Church.

The Constitution also, therefore, takes up the thought of the Fathers of the Church, already present in Jn 19:30-34, when it states that from the rib of Christ that was opened up on the cross sprang the admirable sacrament of the Church, by which it meant that at the very moment that Christ achieved the work of salvation, the *opus nostrae redemptionis*, the Church was born and thus the salvation achieved in the humanity of Christ was transformed into reality for all men thanks to the action of the sacraments (water-blood-spirit). It is also necessary, to achieve a better perspective on the ecclesiology of the Second Vatican Council, to see what is said in *Lumen Gentium* 2-5, in *Dei Verbum* 2-4 and in *Apostolica Actuositate* 2-5. Christ accomplishes the salvation and the reconciliation of men in the Church and through the Church.

Christ, therefore, inaugurated the Kingdom of Heaven on earth, he revealed its mystery to us and he redeemed us through his obedience (*Lumen Gentium*, n. 3). Through the admirable sacrament of the Church, therefore, he accomplished the salvation and the reconciliation of men with the Father.

Illness: an Opportunity for Encounter with Christ through the Sacraments of the Church

The sacraments are healing encounters with Jesus Christ within the Christian community.[5] Through them the Church offers her faithful the presence, the gift and the spiritual accompaniment of Jesus Christ. She does so employing the words, the gestures and the material elements that Christ himself used, giving them the same symbolic meaning as the Lord did. In this way the sacraments, endowed with the force of the Holy Spirit, offer the faithful the energy of rehabilitation and the spiritual company of Jesus Christ.

Of the three sacraments, there are three that are directly related to times of illness and, where the case presents itself, to the time of death. Thus the *Cathechism of the Catholic Church* calls sacraments of healing the sacrament of penance and the sacrament of anointing of the sick, locating them amongst the sacraments of Christian initiation. It calls them sacraments of healing because in them the new life that we Christians receive from God is restored. During times of illness the Eucharist, too, forms an integral part of this sacramental group. But first and foremost the Church responded to the problem of illness in a celebratory liturgical context by creating a set of elements and rites that we today see summed up in the 'Ritual of the Anointing and Pastoral Care of the Sick', which was promulgated on 7 December 1972.[6] This was the official and solemn response that was given to the question of people who were sick for whatever reason. It was conceived as a further liturgical book, thereby entering to the full the reform of liturgy after the Constitution of the Second Vatican Council on the subject of liturgy.

One may notice the difference, not only in the title but also in the contents, that exists between this and previous rituals. Indeed, reference is not made to 'extreme unction'. The sacrament of the anointing of the sick was inserted into what was defined as 'pastoral care for the sick'. The *Praenotanda* (nn. 1-41), like the other rituals, demonstrate the sacramental identity of the Church in the reference that is made to concrete sacrament, presenting illness and its mystery in the mystery of salvation. We read in n. 1 that 'the question of pain and illness has always been one of the most worrying for the human conscience. Christians, too, know its extent and perceive its complexity, but, illuminated and supported by faith, they can penetrate more deeply into the mystery of pain and bear it with greater manly fortitude. Indeed, they know from the words of Christ the meaning and the value of suffering for their own salvation and the salvation of the world, and just as in illness Christ himself is near to them and loves them, so he in his natural life many times went to visit sick people and healed them'. N. 2 tells us that 'Christ himself…suffered in his Passion pains and torments of every kind and took upon himself the pains of all

men…indeed, it is again he, Christ, who suffers in us, his members, given that we are afflicted and oppressed by pains and trials: trials and pains of short duration and of a low level if compared with the eternal quantity of glory that they procure us'.

It is certainly the case that human infirmity acquires meaning in the light of the mystery of salvation. 'The sick have a special mission to accomplish in the Church and a special witness to bear: that of reminding those who are in health that there are essential and lasting goods to bear in mind, and that only the mystery of the death and resurrection of Christ can redeem and safe our mortal life' (*Praenotanda* n. 3).

'A gravely ill person, indeed, needs in his or her state of worry and tribulation a special grace of God so as not to become downcast, with the danger that temptation makes his or her faith vacillate. Specifically for this reason, Christ wanted to give his sick faithful the most valuable force and support of the sacrament of anointing' (*Praenotanda,* n. 5). The sacrament of anointing 'confers on a sick person the grace of the Holy Spirit; the whole of man receives help from it for his salvation, he feels supported by trust in God and obtains new strength against the temptation of evil and worry about death; he can thus not only validly bear his malady but he can also fight it, and also achieve health, when he derives from it an advantage for his spiritual salvation; this sacrament also gives, if necessary, forgiveness of sins and carries to conclusion the penitential pathway of the Christian (*Praenotanda*, n. 6).

The sacrament of penance or of conversion is also a sacrament of healing given that the new life received in the Christian initiation does not eliminate human weakness. The fruit of this sacrament are peace and tranquillity of conscience, accompanied by a profound spiritual comfort and even, we could say, by a true spiritual resurrection.[7] Together with the sacrament of anointing, therefore, it shares the fact of being a sacrament of healing because Christ came to heal the whole man, soul and body, and because this action of the Lord through the force of his Spirit wants to lead the whole sick man to a healing of his soul and also of his body, if this is the will of God.

The sacrament of the Eucharist, as well, in particular, is included in this healing process of the sick and sickness thanks to the communion of the sick and Viaticum which, from the early centuries, the Church has promoted to assure the presence of the Lord during moments of crisis. In this sense the *Praenotanda* of the 'Ritual of the Anointing and Pastoral Care of the Sick' state that the Eucharist, without being a specific sacrament of illness, has a close relationship with illness. First of all because the sick person, who already lives in faith the incorporation of his illness with the Passion of Christ, may desire to celebrate it in a sacramental way. Secondly, because the Eucharist will be of use to the sick person, who is tempted to close himself selfishly in himself, in discovering the meaning of the total communion with God and with men that Christ gives to life. This celebration must be a sign in which it is recognised that the Eucharist is a strong moment in the life[8] of a sick person and of those who accompany him.

Thus penance, anointing and the Eucharist are the three healing sacraments of a sick man, of every kind of illness, and of every type of kind of sick person. Of these three, the sacrament of the anointing of the sick has always had a healing effect on the body of a sick person. The Ritual lays emphasis on the fact that the sick person has followed the itinerary of illness and has recovered his or her heath and has returned to his or her normal activity after experiencing a special encounter with Christ. Post-sacramental pastoral care will enable him or her to discover the urgency of living in a more gospel-based way his relationship with God and his or her brethren and he or she will approach this relationship in a closer way with the Christian community to which, as gratitude for the comfort that he or she received during the illness, he or she will try to give a clearer testimony to his or her faith.[9]

Total Man: the Subject of Total Care by the Church

However, the Church also thinks of those who are around the sick person. The family relatives, the health-care personnel, those who are near to the sick person of all kinds, have to treat him or her and look after him or her. They, too, are the recipients of pastoral care in health. This is the total man, that is to say the sick person and his or her context. The team responsible for pastoral care in health, which in various situations attends to the sick person, must also be cared for.

It is necessary to care for the sick person and all those who surround him or her. The family and friends require differentiated and total care from the Church.

The sick person is in a situation of interior conflict that can be a suitable humus for a return to God. Pastoral care in health should not hold back on energies or forces in the face of this situation of conflict. During his life Jesus Christ attended to sick people and their relatives, whose spirituality was different from Jewish spirituality: the Canaan woman and her daughter, the centurion and his servant, the Samaritan leper, and the possessed men of Gerasa.

There is a whole panorama of situations in the world of health and illness in which the need for spiritual care at times of interior conflict, of worry and even of rebellion, expresses itself.

The Return to God at Times of Conflict

Moments of conflict can be an opportunity to return to God from whom a Christian has distanced herself or himself because of his or her weakness or convenience. Illness disarms us, it places us at a limit, it makes us naked, and it places us before the problem of malady. One comes to a process that begins long before the crisis situation, it develops in that situation, and in the case of recovered health it is extended after the illness.

The Church, through the liturgical-sacramental life, offers immense possibilities of solidarity, of

hope and of nearness to the sick person, to his or her family, and to the health-care personnel, beginning with a shared faith that is lived out and experienced.

Liturgical life accompanies the interior pathway of the illness and the sick person. And not only the sacraments but also liturgical prayer will be an admirable way of enabling the sick person to live his or her own history in faith.

Given that the liturgy of the hours has a 'prayer of supplication and intercession', the Church expresses in it the offerings and the wishes of all the faithful and continues the prayers and the supplications that sprang from Christ during his mortal life. For this reason, this supplication has a special efficacy. [10]

At moments of conflict and in situations of conflict the saying of the psalms helps the Christian to enter into harmony with Christ. The psalms remind the person at prayer of the '*mirabilia Dei*'. Thus psalm 138:14 reads: 'I praise thee because for thou art fearful and wonderful, wonderful are thy works!' The psalms first of all sounded out on the lips of the chosen people of Israel. They spring from historical and human situations concerning that people or its individuals; in reality, the Spirit and the Word of God who participated in the sacred history of the ancient covenant suggested to the generations that preceded or prepared for the appearance of our Saviour on the earth those prayers of praise for God and those supplications, animated by a constant yearning for liberation and salvation, that we find in the psalms'.[11]

The prayer of Israel, the prayer of Jesus, the prayer of the Church, the psalms continue to be, today and yesterday, the principal element of this communitarian prayer of the Church by bringing together feelings and situations of conflict of previous centuries.

Conclusion

Illnesses have always been an opportunity for man to encounter himself and, beginning with this, they can and should be an opportunity for man to encounter his Creator and the 'physician of bodies and souls'.

The Church, through her liturgical life, does not distinguish between one illness and another; all of them, indeed, are an opportunity for encounter with Christ, all of them are a means by which to enter the mystery of evil and thus of sin and its defeat in Jesus Christ.

Infectious diseases are also a propitious occasion, a *kairos*, that enables a sick person to personally encounter the paschal Christ who 'in his mortal life passed by doing good to and healing all those who were prisoners of evil. Still today as a Good Samaritan he pours the oil of comfort and the wine of hope on wounds. For this gift of his grace, the night of pain, too, opens up to the paschal light of his crucified and risen Son'.[12]

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Note

[1] Costitution *Sacrosanctum Concilium* on the Sacred Liturgy, n. 5.

[2] *Catechism of the Catholic Church,* n. 1421.

[3] S. MARSILI, 'La teologia della liturgia nel Vaticano II', in *Anàmnesis* I, *La liturgia nella storia della salvezza,* ed. by B. NEUNHEUSER *et al.* (Marietti, Casale Monferrato, 1984), p. 90.

[4] C. VAGAGGINI, 'Commento alla Costituzione di liturgia', in F. ANTONELLI and R. FALSINI (eds.), *OPERA DELLA REGALITÀ* (Rome, 1965[3]), p. 191.

[5] J. CONDE HERRANZ, *Introducción a la Pastoral della Salud* (San Pablo, Madrid ,2004), pp. 220ss.

[6] Official Latin edition: *Ordo unctionis infirmorum eorumque pastoralis curae*, (Typis Polyglottis Vaticanis, Vatican City, 1972).

[7] Cf. *Catechism of the Catholic Church* nn. 1423, 1426, 1468, etc.

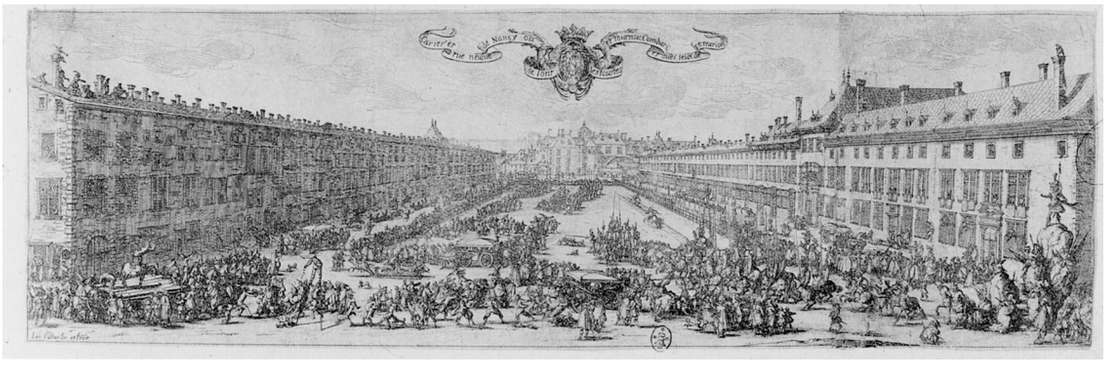
[8] *Ritual della Unción y della Pastoral de enfermos*, n. 63 which corresponds to *Orientaciones doctrinales y pastorales del Episcopado Español sobre la unción de enfermos*, cf. *Enchiridion. Documentación litúrgica posconciliar*, ed. by A. PARDO (Regina, Barcelona 1992), p. 63.

[9] *Ibidem*, n. 69, *Enchiridion*, p. 828.

[10] *Ordenación General della Liturgia dellas Horas*, n. 17.

[11] S. RINAUDO, *I salmi. Preghiera di Cristo e della Chiesa* (Turin-Leumann 5, 1987), p. 35

[12] Roman Missal of Paul VI, common preface viii.



ARMANDO AUFIERO

4.7 A Pastoral Guide for Contagious Diseases and Praying: a Personal Approach

Introduction

An old proverb says: "Necessity teaches one to pray." Is this really the case? Some learn to pray in difficult situations while others swear. In certain cultural contexts, suffering seems to come from a curse and it leads to self-destruction. The individual hopes that God "will change the course of things" to meet his own needs. On the other hand, for the Christian, one must live a life of suffering in silence without outwardly showing his pain focusing on the positive aspects of life by accepting suffering as an examination by God for his personal sanctification.

Praying while suffering presents some particular problems which will be discussed here at the conclusion of the presentations for the XXI International Conference. The suffering of a person with a contagious disease is not only physical, but also psychological. He feels shame, anguish, hate, isolation, spiritual loss, guilt and has a poor self-image. The individual becomes overwhelmed by his illness which progressively "infects" and influences his entire being and personal identity.

Thus, suffering becomes a vital part of every person's prayer. The request to *"rejoice always and pray constantly."* (see 1 Thess 5, 17) is a mission for the person affected by a contagious disease who neither runs away nor rebels against God's will.

Illness and Prayer

The word "prayer" comes from "precariousness." A person who has a contagious disease feels the precarious aspect of his life which is not in his hands. He may react in different ways: become introversive, meditative, contemplative or swear. On the other hand, prayer to the Christian is a way of approaching life in each and every situation, even in illness. When sick, the greatness of prayer is apparent. God's face is always present when the person feels shame, guilt and alienation because people fear he will transmit his contagious disease.

If prayer is the eloquent part of faith, contagious disease is a test of man's faith in the image of God. This is a faith which is growing and maturing reuniting life's broken chains with that of God's.

From Grumbling to Praising

Having a contagious disease can make one feel abandoned and isolated from God as well as from society.[1] Prayer is a means of overcoming this feeling of isolation. By invoking God, one no longer feels alone. Contagious diseases can embitter, isolate and most of all make one radically lose faith in himself and in others. He has a negative feeling about life— unable to live, to seek God. In this context, prayer becomes an expression of trust and the will to live which comes from within There are two types of prayers which this individual can say that are also present in the Bible: *prayers of suffering and lamenting* and *prayers of praising.* These can be divided into *prayers asking for grace or favors* or *thanksgiving prayers.*

Man's grumbling leads to a loss of the real meaning of life—the inability to love, the loss of dignity. God seems so far away. Isolation, abandonment and fear for the future remain. Man's cry: "God of life where are you?" becomes the prayer of suffering as was Christ's on the cross:

"My God, my God why hast thou forsaken me?" (Mt 27, 46)

When a person grumbles, he is seeking God in his life while suffering. Having the will to live and receiving hope from God are essential. The *prayer of suffering* is living consciously one's own suffering and fragility beside his loved ones and offering it faithfully to God. This is a purifying experience transforming the person's suffering into prayer.

What does the prayer of suffering deal with? It focuses on everything which has been taken away.

There is dignity to man's protesting his illness. He delves deeply into his feelings and discovers the pain in his heart. It is not only a loud protest: it is protest rooted in hope, in the desire for recovery. It is the desire to change his world and his whole being. It is a protest which confides in God going deeply to the roots of his existence.

What are the results of this prayer of suffering? I think the words of the Psalmist eloquently answer this: "I am weary with my moaning; every night I flood my bed with tears; I drench my couch with my weeping. My eye wastes away because of grief, it grows weak because of all my foes." (Psalms 6, 7-8) It seems to be describing a destroyed person, but unexpectedly the tone changes:

"The Lord has heard the sound of my weeping. The Lord has heard my supplication; the Lord accepts my prayer. All my enemies shall be ashamed and sorely troubled;" (Psalms 6, 9-10)

Thus all of the prayers of suffering have meaning: the Lord *listens, places the person in His hands and converses with him.* An example of this is the Leper healed by Jesus. (Mark 1, 40-45) The Lord risks being infected and touches someone who is isolated from the society by his illness. He touches the skin which is the vehicle used to discover the world. The fact that Jesus touches this indicates that the person symbolically can come into contact with

himself and the world again. The man's anger, shame and isolation are not without hope. Through the prayer of suffering, man sees that God is near him and this changes his vision of life. Enemies are no longer enemies. All of life's trials and tribulations are seen in a different perspective. Nothing can take away man's dignity because he has new eyes to enthusiastically overcome difficulties. This is the culmination of the prayer of suffering because the individual has changed interiorly, seeing his illness in a new perspective giving meaning to his life He understands that all is not destroyed.

The man who loses himself in this prayer of the suffering finds a new self, reborn to praise God, finding his true nature which is to love and to give.

A Meaningful Experience

Thanks to God, we often feel His presence in our lives; but there are times when He appears far away. "My God, I call you and you do not respond, I cry for you day and night, and I don't hear your voice." Prayer rooted in a profound suffering can be converted into the contemplation of the mystery of God.

A man who has faith puts himself in God's hands and this is why the suffering man feels betrayed at first. The Prophet Jeremiah says: "Why is my pain unceasing, my wound incurable, refusing to be healed? Wilt thou be to me like a deceitful brook, like waters that fall? (Jeremiah 15, 18).

Also Job curses the day he was born because God put him into a trap which he cannot escape.

(Job 3, 3) Job's experience is a religious one which almost lets him lose his faith.

In fact, the Sacred Scriptures show people who risked everything in their relationship with God. It is clear that those who refuse to risk all cannot live the dramatic experience which the Son of God lived.

This is not the experience of one who walks down the easy path risking nothing; it is the experience of one who loves completely. The person who prays looks within himself and sees the bitter moments of his day. "For all the day long I have been stricken, and chastened every morning." (Psalms 73, 14) He reflects: "This will be another day without the sun." He comes to the same conclusion as Job did: "But when I thought how to understand this, it seems to be a wearisome task, until I went into the sanctuary of God; then I perceived their end." (Psalms 73, 16-17).

What takes place inside this man? He receives the gift of grace. He does not judge things as if he were the only person judging things, but he puts himself close to God and enters into His Sanctuary seeing things through God's eyes leaving behind his limited vision. This is a culminating moment in which bitterness disappears and acceptance occurs.

Change comes gradually in two distinct moments: first when the person understands his role from an historical point of view. He unites himself with God looking at life from God's way of judging it. He realizes that there few things really solid in his life. People who are proud and want to obtain things using violence and revenge do not last long. Man must see things through God's perspective: "Truly thou dost set them in slippery places; thou dost make them fall to ruin. How they are destroyed in a moment, swept away utterly by terrors! They are like a dream when one awakes, on awaking you despise their phantoms." (Psalms 73, 18-20). This is the wisdom man acquires uniting himself with God giving him a sense of tranquility; but there is even more. Prayer goes even further. Uniting himself with Christ, the Christian realizes that he has a precious treasure which is superior to everything: God is with him. God is his friend. Man alone cannot comprehend this because it has been revealed: "I am with you forever." This is what the father of the elder prodigal son says in the parable: "... Son, you are always with me, and all that is mine is yours." (Luke 15, 31).

This man has seen God as a friend. "Nevertheless I am continually with thee; thou dost hold my right hand. Thou dost guide me with thy counsel, and afterward thou wilt receive me to glory." (Psalms 73, 23-24). In these three different excerpts, man's friendship with God has resolved every problem. The solution of man's inner suffering comes from God's profound love present in his life. His Holiness, Pope John Paul II spoke about this in *Redemptor Hominis:* "There is wonder in the man who discovers God's profound love; and when he has understood this, his total vision of the world changes. He sees everything in a positive way."

"You have taken me by the hand, you have guided me, you have put me close to you." My present and my future are in your hands. This statement of love follows: "Whom have I in heaven but thee? And there is nothing upon the earth that I desire but thee." (Psalms 73, 25). These words express a complete love and they can be compared to Peter's words answering Jesus: "'Do you also wish to go away?' (Jesus asks and Peter responds:) "To whom shall we go? You have the words of eternal life." (John 6, 67).

"My flesh and my heart may fail, but God is the strength of my heart and my portion forever." (Psalms 73, 26)

All is Revealed in Christ

Prayer brings a person to contemplate a good and forgiving God who strengthens his faith giving meaning to life.

At the beginning of an illness, everything seems senseless and unjust with God not present. But when one enters into the mystery of God's forgiveness, things change. They take on a different meaning—they light up the person's life. Nothing is without meaning; everything is put into perspective as man becomes a

part of God's heart, Christ's heart. Life can be lived with commitment because nothing can be missing if one is united with Christ's heart. The Eucharist is the center of one's life. The suffering individual becomes a part of Christ's suffering body through the Eucharist and by praying receives the transfiguration of Christ resurrected. This is the paradox of the Cross which is the center of Christian prayer and that illuminates the mystery of suffering and illness.

We are in Christ and in Christ the mystery of God is revealed. The mystery of God, death—all parts of life, our successes and failures, everything which has meaning – all is completed in Christ because we are always with Him.

Praying fervently leads one to share in Christ's healing powers on a physical level, but there is certainly interior healing as well. By putting one's life in the Lord's hands accepting the light of His divine will and His plan for salvation, one achieves this.[2] In addition, the individual can see the drastic changes in his life because of an illness which becomes an opportunity for praying even more. In his impotence, the sick person is, in himself, prayer in his same impotence, poverty and extreme dependence. He becomes a role model for the healthy reminding them that we are all dependent and fragile.

Pastoral Guidelines

From a spiritual point of view, an illness can increase faith, deepen a person's relationship with God, aid to pray more.

– Resisting Illness

The prayer of the sick is a struggle at times; one must not give into suffering and illness. One has to avoid isolation and resignation by fighting using silence, patience, perseverance in invoking the Lord and creating a dialogue focusing on living not vegetating.

– Submit to God's will

Fighting evil in one's life can be achieved by faithfully submitting to God's will which gives meaning to one's life in both health and illness. Through a complete and total trust in God, the sick person renews his personal dialogue with the Lord by accepting his life and following God's will.

– Calling One's Illness and Suffering a Cross

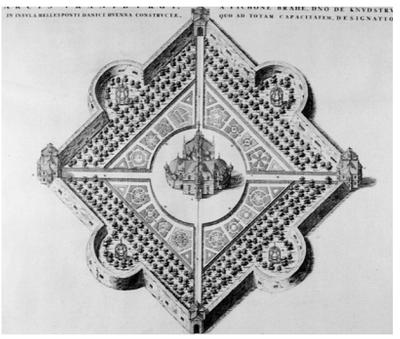
While praying, the sick person gives the word "cross" to his illness participating with Christ's suffering so as to "complete what is lacking in Christ's afflictions." (Col 1, 24), but also giving hope which the Resurrected gave: "provided we suffer with him in order that we may also be glorified with him." (Romans 8, 17).

– Organizing One's Life in Illness

An illness changes a person's life dramatically. It is a time to thank God for all of one's past gifts and to accept what will come in the future. In other words, it is a "thank you" and "Let Your will be done." One must use his time for prayer to see God's forgiving presence in his life.

– Learn Lessons from Weakness

The impotence of an illness puts one in the care of others. Using this as a basis for prayer teaches obedience, an imitation of "Christ who learned obedience from his suffering." (Heb 5, 8) It is also a way to be close to those who suffer following Christ's example of aiding because He had suffered. (Heb 2, 18).



Conclusion

In conclusion, I would like to share the prayer of a Sister in the Apostolate of the Suffering (CVS), Maria Antonietta Resta, written while gravely ill and who died in 1999:

"My life of suffering finds peace and completeness when I leave my egoism behind

and give myself with love to God for the good of every human being,

for the sanctity of the Church, for the conversion of the world,

and my pain is exchanged for beatitudes and joy!

On the knee of our mother, Mary, my life of suffering

teaches the greatest lesson of love and makes one give of oneself

for the redemption of humanity.

Take me on your knee, O Mother!

There I will learn love

to make my life of suffering a gift to offer to the Lord

for reconciliation and peace in the world."

Rev. ARMANDO AUFIERO
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Footnotes

[1] The Leper in the Bible is an interesting example. He is abandoned by his family and isolated by the society because of his contagious disease. It was prohibited to become close to Lepers. This man does not recognize himself in his tortured body. His family has no direct contact with him personally or sexually. It has been forbidden to work, to participate in the community's activities. He is considered a sinner and guilty. He is not only victim of his illness, but also made to pay for his evil deeds real or imaginary by being isolated by the society. See as examples: Lev 13, 45-46; Num 12, 1-10; 2 Sam 3, 29; Deut 28, 25-27; Mk 1, 40-45; Mt 8, 1-4; Lk 5, 12-18.

[2] See Jas 5, 13-16. In addition, Jesus' miracles, especially those recounted in Mark's Gospel, are not to be seen as physical healing, but to be considered from a theological and eschatological point of view. (The power of God is seen in Jesus' miracles and the people's recoveries show the Kingdom of God.) According to Christian teachings: (Jesus is the Messiah.) Ecclesiastical-spiritual (Christians are the people who are cured.).

Bibliography

AUFIERO, A, DI GIANDOMENICO, F., *I sofferenti: profezia pastorale nella comunità cristiana,* Rome: Centro Volontari della Sofferenza, 2002.

BERNARD, Ch. A., *Sofferenza, malattia, morte e vita cristiana,* Cinisello Balsamo: Edizioni Paoline, 1990.

BIANCHI, E.,. *AIDS: vivere e morire in comunione,* Bose: Qiqajon, 1997.

BIANCHI, E., "Preghiera," *Dizionario di teologia pastorale sanitaria,* Editore: Cina, G., Locci.

CHIODI, M., *"L'enigma della sofferenza e la testimonianza della cura. Teologia e filosofia dinanzi alla sfida del dolore,* Milan: Glossa, 2003.

GENTILI, A., "Pregare e guarire. La pratica spirituale come terapia," *Guarigione dell'uomo, oggi negli esercizi spirituali,* Rome: Edizione FIES, p.p. 95-146, 1987.

MANICARDI, L., *Nelle tenebre una luce. Itinerari di vita nella sofferenza,* Rome: Centro Volontari della Sofferenza, 2004.

PESCH, O. H., *La preghiera,* Brescia: Edizione Queriniana, 1982.

ROCCHIETTA, C., L. SANDRIN, Turin: Edizioni Camilliane, p.p. 927-937, 1997.

TUROLDO, D. M., *Cosa pensare e come pregare di fronte al male,* Trento: Edizioni della Rosa Bianca, 1989.