

Debate on disease Prevention, prolong Life and promote Health (from Theory to Practice)

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Abstract: The Covid-19 pandemic has put all health systems worldwide to the test and is accelerating the shift from the information and knowledge society to the digital society. It is a great challenge to understand the theoretical foundations, conception and legal frameworks of social protection that have provided the constitution of the health system, social protection, and the right to health.

This article aims to present a reflection and debate on how to prevent, prolong people's lives and their social well-being, as well as promote health. Part of the origins and the evolution of the world's health-disease system, taking into account the milestones of social protection and the right to health, characterizing the theoretical frameworks and concepts that underpinned the health reforms that gave origin to the different Health Systems, as well as, to discuss its principles and guidelines, based on the design of the extension of the right to health, with the purpose of providing reading, learning, debate and reflection on concepts and reality, as well as the necessary human, social, economic, financial, technological transformations policies, and what is the impact of these changes.

Keywords: Health, disease, health system, infections, epidemic.

Introduction

While some governments have been (re)discovering the virtues of the public sector of health and social welfare since the private sector does not stop extending its tentacles. In many countries, reconfigurations have been implemented, altering health systems worldwide and contributing to increasing or decreasing the incidence of some diseases from America to Asia, from Africa to Europe. Any country escapes the trend of reform of health systems.

Considering the needs not yet met and the importance of the pandemics that are spreading around the world, the maintenance of the existing structures will be impossible. While the United States, a champion country of the private health sector, or China, which has been experimenting with the American approach with the vigor of new converts, tries to limit the mercantile logic to implement universal coverage, rich countries define as the primary goal the reduction of the role of the state and mutualized expenditure. With this, the story gives an amazing dribble in the main systems: the moment when the American model, which is the most finished example of this logic, proves its inefficiency, the market remains the compass.

Ranked second in the world for health expenditures (15.3% of gross domestic product in 2007), the United States falls back to 30th place in the requirement of life expectancy "in good health" (69 years). Given these results, it can be understood why President Barack Obama decided to face the problem with determination, setting the goal of expanding protection for as many people as possible, even if the problems are not limited to social coverage.

The idea of social protection first appeared in the 19th century, with the generalization of the industrial revolution and the emergence of large working-class concentrations. By creating mutual relief societies, expanding them with social security systems, the first was founded by German Chancellor Otto von Bismarck in 1883, political and economic leaders aimed to ensure the maintenance of a healthy workforce, capable of resisting the shock of conditions of hard work. They were forced to act more, according to social struggles, to improve living conditions.

After World War II, several systems were set up to ensure social cohesion. In a way, they were devices that prevented the intensification of class struggle. In France, the Provisional Consultative Assembly explained on July 5, 1945, that "social security responds to the concern to rid workers of the uncertainties of the immediate future, which favour in them a feeling of inferiority, which is the basis of the distinction of classes, between the rich insurance of themselves and their future and, workers on whom the threat of misery is constantly

weighing." On the planetary scale, the "right to health for all" was recognized and led to the creation of the World Health Organization (WHO) in 1948. Today, 63 years later, despite the renewed commitments made by the 194 countries of the United Nations (UN) in Alma-Ata in 1978, there is still much left for the United Nations and objective to become a reality.

The finding is that there are incommensurable inequalities, especially among nations. While medicine has made undeniable progress, 31 countries, including South Africa, Botswana, Gabon, Russia and Ukraine, recorded a reduction in life expectancy "in good health" (i.e. without serious illness) between 1990 and 2006. The African continent remains at the tail of the platoon: 29 years of life expectancy in Sierra Leone, 33 years in Angola and 37 years in the Democratic Republic of Congo (DRC). At the other end of the rankings, Japan continues to fire ahead: 75 years of life. It is worth recognizing that the areas where one dies so early are also stages of wars and other internal conflicts with numerous victims. But these populations, due to lack of medical care in sufficient quantity and quality, suffer above all from infectious diseases (malaria, tuberculosis, diarrhea, AIDS and Covid-19), which thrive on poverty and lack of basic sanitation.

There is no fatalism or mystery. This type of scourge is concentrated in the countries of the South (in addition to Africa, in certain countries of Asia, Timor-Leste, Laos, Bangladesh and Myanmar). It is debilitated with economic development, a phenomenon that experts call "epidemiological transition". In rich or emerging countries, chronic diseases predominate cardiovascular, respiratory, diabetes and cancer. Obviously, the latter also reach developing countries, where they spread due to the emergence of middle classes, such as Ghana, Gabon, South Africa, and Pakistan. Similarly, infections that had disappeared in developed countries, such as tuberculosis, returned.

The fundamental diagnosis, according to which the country's wealth and the level of health expenditure are crucial for the prolongation of life, is not only relevant. The 30 countries of the Organization for Economic Cooperation and Development (OECD), which has the highest longevity rate, concentrate 90% of global health expenditures, while they have only 20% of the population. Sub-Saharan Africa, with 12% of the world's population, employs less than 1% of spending in this sector.

In Sierra Leone, health resources are 3.5% of gross domestic product (GDP) and 2.1% in Congo, while they exceed 8% in Japan and 11% in France. If the example of the United States proves that resources are not always well used, they must, however, reach a level sufficient to escape this "fatality of death", which is by no means a natural consequence, but rather, in large part, results from the distribution of wealth.

While money is fundamental in this war on disease, it is also necessary to rely on qualified health professionals and efficient "weapons" (medicines, technology and education). Access to treatments also depends on the health organization and the way of financing. There are three distinct major systems: the first from colonization, another formed by former communist countries and a third in force in developed states, generally adopted with some variants by emerging countries. As a legacy of the colonial era, the 79 countries of Africa, the Caribbean and the Pacific (ACP) developed a pyramidal architecture.

In them predominates the primary level, with local dispensaries and sometimes mobile teams, the secondary level with general hospitals, and, finally, a tertiary level, consisting of specialized units (clinics) and university hospital centers. Until the mid-1980s, state funds and those of international organizations ensured a precarious balance. But, as the WHO comments in its 2008 report, "the structural adjustment policies negotiated by the International Monetary Fund and the World Bank have severely shaken the public health system; the discrepancies between the private and public offer of medical treatments have widened." "The unbridled commodification of health systems makes them very inefficient and very expensive, accentuates inequalities and leads to treatments of mediocre quality, and not infrequently even dangerous."

Another important system is that of the former communist countries of the Soviet bloc. They were based on the big hospitals and the sanatoriums. Neighborhood medical care practically did not exist. Already inefficient at the end of the old regime, this model exploded with the fall of public subsidies linked to the conversion of these countries to liberal dogmas and economic collapse. Life difficulties and the loss of collective references led to risky behaviors (such as violence and fierce alcoholism), at a time when funds allocated to health regressed (suppression of free medicines, privatization of hospital sectors, obsolete equipment...). The result: life expectancy "in good health", which was 69 years in Russia in 1990, fell to 66 years in 2006; 70 to 67 years in Ukraine; and from 65 to 64 years in Kazakhstan.

The case remains in rich countries, where mass access to treatments is through neighborhood doctors, specialists, general hospitals, as well as more advanced and sophisticated establishments. At the heart of this set, systems in which gratuity is guaranteed, and the offer of state-funded treatments can be distinguished (Sweden, 1 "Rapport sur la santé 2009", World Health Organisation, Geneva. The data published with the article relate to life expectancy "in good health", which is shorter than the overall life expectancy. 2 Read "Obama ou l'impasse des petits pas", La valise UK); sickness insurance systems (Germany, France and Japan) in which the offer may be public or private and the costs of treatment are mutual; and finally, mostly private systems (Central European

countries or the United States). The latter, in fact, can be called "non-system": about one sixth of the population has no protection.

I. SCIENTIFIC METHOD

Introduction

This is an exploratory study that seeks to clarify and organize the concepts about areas, subareas and disciplines presented in the literature of Health Sciences, Information Science and other Sciences. It is not a proposal of new terms and concepts, but an organization that allows to identify a common denominator between the different concepts already indicated in the literature, in a way that allows its grouping by identity, application / use and pertinence / aggregation of value in the context, in which the terms are inserted. Data collection is characterized by bibliographic research, on the terms and concepts related to areas, subareas and disciplines of people's health and social well-being.

It is a descriptive and analytical approach seeking to know and analyze existing cultural and/or scientific contributions on this subject, from the literature review. The research was structured based on the systemic approach to understanding the problems of postmodernity, seeking in practical, operational or application terms the solution of "real life" problems of organizations and people.

Theme and Search Problem

The development of science has been based on the objectives of understanding nature and the phenomena linked to the real world in the last four centuries. For this, scientific knowledge was subdivided into thousands of disciplines that, very successfully, made the sciences advance. This advance eventually generated classical science, which uses often ineffective methods to deal with some of the most complex contemporary problems. Thus, new sciences emerged in the post-war period and developed differently from classical science, presenting, as one of its identifying traits, interdisciplinary practice, necessary for the development of its research.

Currently, the terms disease, life and health are part of the scientific vocabulary and have their concepts more or less defined (although still distant from consolidation), by the need of the current scientific field, immersed in increasingly complex and diversified projects, and of a "[...] increasingly intense mobilization of knowledge converging in view of action" (Japiassu, 1977, p.44).

Health and illness are something more than biological phenomena; that around care, control mechanisms and cures are relevant dimensions of the history of health and disease [...] and that the health-disease process concerns not only the health iness or unhealthiness of countries, but is revealing, constituent and forming crucial aspects of modernity and social, political, intellectual and cultural history. (Hochman; Xavier; Pires-Alves, 2004, p. 45)

However, the many concepts related to interdisciplinarity were only discussed in the area, more deeply, after the World Health Organization defined in 1946 the concept of health as "a state of *complete physical, mental and social well-being, and does not consist only in the absence of disease or illness* ." which is based on fundamental human right in order to increase control over health and its determinants, and the health of all peoples is essential to achieve peace and security.

In addition to the political-administrative context, public health is also the branch of science that seeks to prevent and treat diseases through the analysis of health indicators and their application in the fields of biology, epidemiology, and other related fields (areas).

The emergence of the Covid-19 pandemic posed challenges to existing Governments and Health Systems regarding the organization, response capacities, but also challenges and motivations that allow anticipating future behaviors related to ignorance and idiosyncrasies underlying the myopia of their visions.

Questions for debate

1. What is the best Model of the Health System?
2. Who finances health-disease?
3. What is the best organization to ensure health and access to the population care network?
4. How to relate the political and economic conjunctures to the Model of the Health System?

Goals

Health Sciences are new sciences and in the structuring phase. The report of the 8th Health Conference guided the participants dedicated to the elaboration of the Magna Carta of 1988 and the militants of the health movement. The following axes were defined in the report:

- Health institution as a right of citizenship and duty of the State.
- Understanding the social determination of the health-disease process.
- Reorganization of the health-disease system.

At that moment it became clear, among the participants of this process, that for the health sector a mere administrative and financial reform was not enough. A change was needed throughout the existing legal-institutional system.

This article seeks to contribute to the debate of the conceptual understanding of the importance of the meanings and concepts of health-disease, within the scope of the Health Science and Social Sciences, among others, from a

theoretical framework. The objective is to analyze the scientific research developed by the Sciences, which participate in more than one area of knowledge. The theoretical discussion of the different concepts and empirical research on the subareas or disciplines constitute the basis for the tracing of their structure, presented at the end, bringing together the disciplines according to their nature.

The research focused on health-disease, focusing especially on its nature and characteristics, from the analysis of its praxis in investigations involving participation with more than one discipline. Therefore, we studied the main forms of interaction between the disciplines currently present in scientific practices, as well as we sought to contextualize the area of Health Science in the field of contemporary science, through the analysis of its epistemological characteristics.

Methodological Approach

As for its nature, the research is qualitative since it does not claim to quantify events or privilege the statistical study. Its focus is on obtaining descriptive data, that is, the incidence of topics of interest in fields such as Health Sciences, Information Science, Business Sciences and other Sciences. About the extremities, the research is exploratory in nature and descriptive in nature, to the extent that the technique used is categorized, consensually, as a study of direct documentation, which provides for the consultation of sources related to the study in different *media*, printed or electronic.

The complexity and turbulence of the digital society have led to the globalization of information on the problem of infections, contagions and consequences, as essential processes for the development and innovation of science and technology. Information is the source of the energy that drives the Digital Society's engines, but in order to use it we need to convert it into a usable form: knowledge (Myrtle, 2001).

The research method is likely to cause two or more sciences to interact with each other. This interaction can go from simple communication of ideas to the mutual integration of concepts, epistemology, terminology, methodology, procedures, data and research organization. Data collection is characteristic of bibliographic research, on terms and concepts.

It is necessary to understand, through a theoretical review of the concepts, through the historical reference documents; of a psychosocial analysis of the concepts of Health-disease, Information, Knowledge, Communication, The preindustrialization, applied to the Health Sciences and the Social Sciences; the normative framework in which they fit; the Internet, as a platform for the exercise of human action and the problems associated with it; digital data, citizen surveillance; social engineering of Power; online social networks and spaces of trust and conflict.

II. THEORETICAL-METHODOLOGICAL FRAMEWORK OF RESEARCH

Evolution of the concept of health

In the last 100 years the concept of health has suffered several perspectives, from the concept of absence of disease, to the biological, behavioral, social, environmental, political, and economic perspectives.

The World Health Organization defined in 1946 the concept of health as "a state of complete physical, mental and social well-being, and does not consist only in the absence of disease or illness." It is based on the fundamental human right to increase control over health and its determinants, and the health of all peoples is essential to achieve peace and security.

The origin of the term health has the etymological root *Salus*, which in Latin, the term meant the main attribute of the integers, intact, intact, and in the *Greek Salus* comes from the term *holos*, in the sense of totality, root of the terms holism, holistic. That is, this term refers to the whole.

Once the term health is defined, it is important to understand its historical evolution, since it has suffered religious, social, and economic influences. And to understand the approach to health today it is necessary to know its history, since it is the account of contemporaneity, and has its roots in very ancient eras.

Health and illness are something more than biological phenomena; that around care, control mechanisms and cures are relevant dimensions of the history of health and disease [...] and that the health-disease process concerns not only the healthiness or unhealthiness of countries, but is revealing, constituent and forming crucial aspects of modernity and social history, political, intellectual, and cultural. (Hochman; Xavier; Pires-Alves, 2004, p. 45)

From the perspective of health as a religious conception, it can be said that the concern with health collectively came with the first epidemics that affected a greater number of people, causing health to think about their cause. In the Bible, there are records of diseases, such as leprosy (currently leprosy), which affected the lives of many people even in the time before Christ, bringing the concern to isolate the lepers to avoid contagion of the rest of the population, because it was understood that the disease was contagious.

In the Middle Ages, the Church exerted great influence on politics and health. In the biblical teaching, the disease was treated as a divine punishment and the sick were isolated. The conduct of isolating patients ended up delaying scientific advances in the health area, as they only proved the lack of treatment of the population (Sevalho, 1993, p.5).

In the 1300s, an Arab doctor reported that the black plague could be contracted by contact with the sick or through garments, crockery or earrings (Sournia&Ruffie, 1986).

After this era of church dominance, then arise the phase of rationalism and great scientific advancement, is the so-called Enlightenment. In this period, together with science, the knowledge of the area of health huge advance, because "the human being who accompanied the birth of modern science was conqueror and owner of nature, no longer its participant and harmonious observer. This perspective paved the way for interventional therapeutic practices", (Sevalho, 1993)

From this more rational view of the disease, it was possible to think about how to avoid the epidemics of the time. With the liberalization of scientific research, great discoveries were made, such as how to prevent some diseases and contain the contagion of others. One of them was vaccines that represented a historical milestone for the prevention of tuberculosis, tetanus, meningitis, diseases that in remote times were able to decimate populations. The discovery of the first microscope has arisen.

With the arrival of the Enlightenment, the emergence of drug factories, generating specialized jobs, urban centers, social inequality and the lack of structure and organization of these centers, with serious social problems, the disastrous living and working conditions generated by the formation and growth of urban centers and the increasing need to expand this industry, at the expense of the exploitation of the labour force and poverty (Sevalho, 1993, p. 6).

Thus, the influence of the social context on the health of the population emerged because the disordered growth of cities and workers' centers did not always have the most perfect housing conditions, basic sanitation, adequate water treatment. And with these serious social problems began the concern with the influence of living conditions on the health of the individual. Realizing then those social issues influenced the health conditions of the population. The term social medicine was first heard, as Sevalho (1993, p. 6) states:

The penetration of medical knowledge in the field of the social environment, applied to the mercantilist panorama of Germany and France of the eighteenth century and to the incipient capitalism of industrial England of the nineteenth century, gave birth to social medicine in the intertwining of three movements pointed out by (Foucault, 1979). German medical policy, a state medicine that instituted compulsory measures to control diseases, French urban medicine, the sanitadora of cities, while the spatial structures that sought a new social identity, and, finally, a medicine of the labor force in industrial England, where the development of a proletariat had been faster. From these movements came social medicine, driven by the revolutionaries of 1848 and their perspectives of economic and political reforms, as an intervention company on living conditions, on the environment socially organized by the capitalist way of life confirmed by the Industrial Revolution.

Only in 1848, the expression social medicine gained registration. It emerged in France and, although concomitant with the general movement that took over Europe, in a process of struggles for political and social change. (Nunes, 1998, p.108).

In this period, new discoveries emerged, such as the existence of germs, caused new ways of understanding the disease, such as Louis Pasteur's "theory of unicity". It was from these new discoveries and from the new non-social concepts of disease that health became biomedical centered on the disease and not on the individual, as analyzed (Nunes, 1998, p. 109).

It was from the second half of the 19th century, marked by the investigations of Pasteur and Koch, that the Age of Germ was inaugurated, and that transformed the paradigm of medicine from "a people-oriented medicine, to a medicine oriented to the disease."

According to (Salomon-Bayet, 1986, p.12), the biomedical revolution raised by Pasteur's works can be called "*la pastorization de la médecine*" which distinguishes it from "*la pasteurization de la médecine*", in the sense that it means, a theoretical revolution and the medicalization of society, emerging legislation on public health, and institutionalized the teaching of medicine and the action of the political and social plan. Undoubtedly, the discoveries of microorganisms were of the greatest importance for public health, especially when, in addition to the individual-agent relationship, an epidemiological model is established, as an interaction between these two elements and the environment, and concern with the social context and living conditions of the populations arose. Public Health is the science and art of preventing diseases and disabilities, prolonging life and developing physical and mental health, through organized community efforts to sanitation the environment, control of infections in the community, education of individuals in the principles of personal hygiene and the organization of medical and paramedical services for early diagnosis and early treatment of diseases and the improvement of the machine that will ensure that each individual, within the community, has an adequate standard of living for maintaining health, (Winslow, 1920 Apud Rouquayrol; Almeida Filho, 2003 p.29).

From the concept of health proposed by the World Health Organization in 1946, conferences such as Alma-Ata and the Ottawa Conference were organized in the 1970s, to think about the strategies to improve health promotion worldwide and to reach the concept of physical, mental, and social well-being.

In the Declaration of Alma-Ata (1978), some principles were consigned:

I. The achievement of the highest degree of health requires the intervention of many other social and economic sectors, in addition to the health sector.

The promotion and protection of the health of the population is indispensable for sustained economic and social development and contribute to improving the quality of life and achieving world peace.

II. The population has the right and duty to participate individually and collectively in the planning and application of health actions.

Primary health care is, at the same time, a reflection and a consequence of the economic conditions and sociocultural and political characteristics of the country and its communities.

From the Alma-Ata Declaration, the understanding of the complexity and the guarantee of the fundamental right of the human being emerged: the promotion of health, as a fundamental axis to achieve the utopia of "Health for all until the year 2000" (Menicucci, 2007, p. 158).

III. It comprises at least the following areas: education on the main health problems and on prevention and fighting methods; the promotion of food and appropriate nutrition; an adequate supply of drinking water and basic sanitation; maternal and childcare, including family planning; immunisation against major infectious diseases; prevention and fight against local endemic diseases; appropriate treatment of common diseases and traumas; and the availability of essential medicines.

IV. It includes the participation, in the health sector, of all sectors and fields of activity related to national and community development, in particular agriculture, food, industry, education, housing, public works, communications and others, demanding the coordinated efforts of all these sectors.

V. It requires and promotes, to a maximum degree, self-responsibility and participation of the community and the individual in the planning, organization, functioning and control of primary health care. In fact, the text of the Declaration of Alma-Ata, by broadening the view of health care.

Once the above quotations are made, it is possible to confirm the indissociability of social, economic, and cultural factors to achieve a quality and fair public health. Thus, involving all sectors of society, including civil society.

But concern about health promotion did not stop there, as in 2005, the Bangkok Charter – the result of the Sixth Global Conference on Health Promotion in Bangkok, Thailand – came to an end to identify actions, commitments and promises needed to address the determinants of health in the globalized world through health promotion. In the aforementioned Charter it was recognized on health promotion.

The United Nations recognizes that obtaining the highest level of health is one of the fundamental rights of any human being, regardless of race, color, sex or socio-economic condition. Health Promotion is based on this fundamental human right and offers a positive and inclusive concept of health as a determinant of quality of life, including mental and spiritual well-being.

Health Promotion is the process that allows people to increase control over their health and their determinants, mobilizing (individually and collectively) to improve their health. It is a central function of Public Health and contributes to the work of addressing communicable diseases, in addition to other health threats. (Letter from Bangkok, 2005).

Even after the definition of the concept of health by the World Health Organization, the curative idea of health is still very strong, since it is still understood that health promotion is the treatment of a disease, (Berridge, 2000).

The prosperity of public health between the two world wars, the blossoming of the public health empire based on the hospital, was a mistake for public health, moving away from the path of health necessary for the population.

Second (Virginia Berridge, 2000, p. 11), it is sometimes not given the necessary value for public health, forgetting the holistic view of health promotion, as a warning

The tension between the relationship with medical services and the role of the community remained exemplified in the 1960s by community medicine and the epidemiology of chronic diseases and has not yet been resolved.

The duality of the role of public health has been a permanent theme, on the one hand between prevention and promotion (or development), and on the other, between the planning and management of health services.

Second, (Nunes, 1998, p. 110), public health faces a distance between practice and theory, because "the dilemma between instrumentality and apoliticity, academic knowledge and militant knowledge, remains present, as important points for the current debate of collective health"

In this brief historical exemption, it is concluded that the history of public health in the world is directly linked to the political and economic situations that outlined the trajectory of health, its needs for reformulations and the establishment of bold goals, to guarantee this, as a fundamental right, of the human being.

According to, (Bernardo, 2012, p. 5), misperceived that the challenge of building an efficient public health, is a challenge in almost all the world, as well as, overcoming other violations humanites.

Globalization that brings continents closer together and favors a discussion on health conditions, which allows us to think about strategies for working health policies for all; it is the same globalization based on neoliberal principles, which does not allow the public to be efficient and which has as its fundamental guideline the minimum state, diffculted the implementation of a quality Public Health, with equity and universality.

Of course, all the achievements of thought transformation around health are events that marked and allowed history to take place in this way, however, it is concluded that much is still being made, because every day there is a need for public policy making to improve the deficiencies that exist in the current precarious medical care.

Life Cycle

According to (Bee, 1997, p.86, Papalia, Olds and Feldman, 2013, p. 103), human development begins during the moment of the conception or fertilization of an egg with a sperm: "The first step in the development of a single human being and the moment of conception; when a single sperm of man penetrates the wall of the woman's egg"; "Fertilization, union of an egg and a sperm, results in the formation of a single-celled zygote, which is duplicated by cell division." Commenting on how this initial process of formation of a new life takes place, (Bee, 1997, p. 86) teaches us:

A couple who has sexual intercourse during the critical few days, when the egg is in the fallopian tube, allows one of the millions of ejaculated spermas part of each male orgasm to move along the entire distance from the vagina, cervix, uterus, and fallopian tube and penetrate the wall of the 3rdvulo. A child is conceived.

As for the process of human development, (Papalia, Olds and Feldman, 2013), highlight that the growth and motor development occur from the top down and from the center to the periphery of the body, being understood as principles: cephalocaudal and proximal-distal.

"The cephalocaudal principle says that the development proceeds from the head to the lower part of the trunk. The head of the embryo's brain and eyes develop earlier and are disproportionately large until the cement crescent of the other parts. At two months of management, the head of the embryo is half the length of the body. At birth, the head is only a quarter of the length of the body, but it is still disproportionately large. According to the principle of the first distal axis, the development continues from the next parts of the center to the outermost parts. The head and trunk of the embryo develop before the limbs, and the arms and legs before the fingers and toes" (Papalia; Olds; Feldman, 2013, 85).

From the conception and fixation of the fertilized egg in the mother's uterus, a new life arises, going through several phases, and the initial is characterized by the prenatal period, which corresponds, when there are no major problems, to approximately nine months of gestation.

Age group	Physical Developments	Cognitive Developments	Developments Psychosocial
Prenatal period/(birth conception)	The design occurs. Genetic endowment interacts with environmental influences from the beginning. Basic body structures and organs are formed. brain growth begins. Physical growth is the fastest of the entire life cycle. The fetus hears and responds to sensory stimuli. Vulnerability to environmental influences is great.	Learning and remembering skills are present during the fetal stage	The fetus responds to the mother's voice and develops a preference for her
Early Childhood (birth at 3 years)	All senses work at birth to varying degrees. The brain increases in complexity and is highly sensitive to environmental influence. The growth and physical development of motor skills are fast.	The skills of learning and remembering are present, even in the first few weeks. The use of symbols and the ability to solve problems develop at the end of the second year of life.	An attachment to parents and others develops. Self-awareness develops. There is a change from dependency to autonomy. It increases interest in other children.
Second childhood (3 to 6 years)	Growth is constant; the body becomes slender and the proportions more like those of an adult. The appetite decreases, and sleep problems are common. Preference for the use of one hand appears; fine and general motor skills and strength increase	The thought is a little self-centered but understanding of other people's point of view increases. Cognitive immaturity leads to some illogical ideas about the world. Memory and language are perfected. Intelligence becomes more predictable.	Self-concept and understanding of emotions become more complex; self-esteem is global. They increase independence. self-control and self-care. Gender identity develops. Playing becomes more imaginative. more complex and more social. Altruism, aggression, and fears are common. The family is still the focus of social life, but other children become more important.

			Attending preschool is common.
Third childhood (6 to 11 years)	Growth slows. Strength and athletic skills increase. Respiratory diseases are common, but health is usually better than at any other period of the life cycle.	Egocentrism diminishes. Children begin to think logically, but in a concrete way. Memory and language skills increase. Cognitive developments allow women to benefit from schooleducation. Some children have special educational needs and talents.	The self-concept becomes more complex, influencing self-esteem. Co-regulation reflects the gradual transfer of control from parents to the children. Friends take on central importance.
Adolescence (11 to 20 years)	Physical growth and other changes are rapid and profound. Reproductive maturity occurs. Behavioral issues, such as eating disorders and drug abuse, bring important health risks	The ability to think abstractly and use scientific reasoning develops. Immature thinking persists in some attitudes and some behaviors. Education focuses on preparing for college or professional life	Identity search, including sexual identity, becomes central. Relationships with parents are generally good. Groups of friends help develop and test self-concept, but they can also exert an antisocial influence.
Young Adult (20 to 40 years)	The physical condition reaches its maximum, then decreases slightly. Lifestyle choices influence health	Cognitive abilities and moral judgments are more complex. Educational and professional choices are made	Personality traits and styles become relatively stable, but changes in personality can be influenced by life steps and events. Decisions are made about intimate relationships and personal lifestyles. Most people get married and have children
Middle age (40 to 65)	There may be some deterioration of the physical capacities, health, vigor and dexterity. For women, menopause comes.	Most mental abilities are at their peak; practical skill and problem-solving capabilities are accentuated. Creative performance can decrease but improve in quality. For some, career success and financial success are at their maximum, for others, total exhaustion or professional change	The sense of identity continues to develop; a stressful middle-aged transition can occur. The dual responsibility of caring for children and elderly parents can cause stress. The children's exit leaves the nest empty
Third age (65 years onwards)	Most people are healthy and active, although health and physical abilities decrease slightly. Slower reaction time affects some aspects of operation.	Most people are mentally alert. Although intelligence and memory may deteriorate in some areas, most people find ways to compensate.	Retirement can offer new options for using time. People must face personal loss and imminent death. Relationships with family and close friends can offer important support. The search for meaning in life assumes central importance.

Source: Adapted from (Papalia, Diane. et al, 2006), *Human development. 8 ed. Porto Alegre: Artmed.*

Public Health

According to (Kickbusch, 1989), "Public Health is the science and art of promoting health (...), based on the understanding that health is a process that involves social, mental, spiritual and physical well-being. Public Health intervenes based on the knowledge that health is a fundamental resource of the individual, community and society as a whole and that it must be sustained by a strong investment in the living conditions that create, maintain and protect health."

Public Health, due to its intrinsic nature, becomes a starting point and meeting different disciplines, sectors, institutions, cultures, and values. Health has not always been thought of as something public. Only with the consolidation of modern national states did populations come to be considered as something to be preserved. The growth of cities and the increase in populations living in the same spaces caused concerns to arise, such as epidemics, birth rates, mortality, and the organization of cities so that people could live better. Health as a public good begins in the 17th century in Europe. The movement of institutionalization of health, as a concern of the State gains even more strength in the 19th century, with the institutionalization of Hygiene in France, which is seen as part of medicine and public administration, which needs to keep the population healthy.

Public Health in the most traditional design is the application of knowledge (medical or not), with the objective of organizing health systems and services, acting on conditioning factors and determinants of the health-disease process controlling the incidence of diseases in populations through surveillance actions and government interventions. On the other hand, the effective application of such principles depends on non-medical elements mainly on economic and social factors,

It can be said that political and economic health focuses its action from the perspective of the State with the interests it represents in the different forms of social and political organization of populations, according to the physician and politician (Rudolf Virchow, 1821-1902). Politics is "a medicine on a larger scale." However, some authors propose that "public health" should not be confused with the broader concept of public health.

One of the most cited definitions of Public Health was presented by the American (Charles-Edward Amory Winslow, 1877–1957) founder of the Department of Public Health of Yale University in 1920:

It is the art and science of preventing disease, prolonging life, promoting health and physical and mental efficiency through the organized effort of the community. Covering the sanitation of the environment, the control of infections, the education of individuals in the principles of personal hygiene, the organization of medical and nursing services for the early diagnosis and prompt treatment of diseases and the development of a social structure that ensures that each individual in society has an adequate standard of living for the maintenance of health."

The persistence of the use of this definition is reinforced by the wide diffusion of the definition of health of the World Health Organization - an international organization that proposed the holding of the World Health Conferences with the integration of all countries in the persistent search for complete physical, psychological and social well-being and not punishment in the absence of diseases.

According to Brazilian Jairnilsom Paim (2005)

" Latin American Collective Health was composed from the criticism of Preventive Medicine, Community Medicine, Family Medicine, developed from 19th century Social Medicine and institutionalized public health in health services and academia. It involves a set of technical, ideological, political and economic practices developed in the academic sphere, in health organizations and in research institutions linked to different currents of thought resulting from health reform projects."

Still according to him, throughout the history of cosmopolitan medicine, the social field of health has been crossed by a set of ideological movements, such as the Medical Police; Hygiene; Public Health; Social Medicine; Preventive Medicine; Community Health; Collective Health; Family Medicine among others. Such movements constitute, as theoretical-paradigmatic, political, and ideological struggles with repercussions, as a field of knowledge and practices.

Social medicine

"Three stages for the consolidation of social medicine are identified, including as a discipline of the medical training course: the Medical Police, specially developed in Germany at the beginning of the 18th century in order to provide the State with the health indices of the German population, the Medicine of Cities or Urban Medicine, which aims to control the factors harmful to the health of the urban population that were associated with large epidemics, evidenced France, and, finally, the Medicine of the Workforce, consolidated in English sanitariums which aimed to keep its working force fully fit."

It should be noted, however, that concerns about the isolation of the sick and care for the poor are confused with the principles of charity and assistance preached by Christians and Muslims, as an example: discussions on the remuneration of medical services, associated with the realization of cures for Cosme and Damian, the "anargyros" saints, that is, "those who are not bought for money" (in what is now Syria, around the year 300); the medical assistance provided to Roman slaves and soldiers or the birth of the Holy Houses of Mercy and religious hospitals.

Public Health

The objectives of research and collective health practices are the following:

1. the health status of the population or health conditions of specific population groups and general trends from an epidemiological, demographic, socio-economic and cultural point of view.
2. The health services, as institutions of different levels of complexity (from the health post to the specialized hospital), covering the study of the health work process, the formulation and implementation of health policies, as well as the evaluation of plans, programs and technologies used in health care.
3. Knowledge about health, including historical, sociological, anthropological, and epistemological investigations about the production of knowledge in this field and about the relationships between "scientific" knowledge and popular health conceptions and practices, influenced by traditions, beliefs, and culture in general.

Some authors emphasize the organization and social participation and implementation of health policies, as a way of intervening and solving the health problems of a community.

World Health Organization

The World Health Organization (WHO) is an international body linked to the United Nations System. The goal is to promote access to quality health by all the people of the world.

Who was founded on April 7, 1948, because it had been discussed at the meetings of the emergence of the UN in 1945, on the need for an organism since there was a lack of global access to health? Today, every day April 7 is celebrated world health day. The date serves to strengthen educational campaigns in the world, be aware of the main problems of today and to encourage promotion actions and health care. The date is celebrated next to the anniversary of WHO, a specialized Agency of the United Nations, created with the aim of taking care of issues related to global health.

WHO is primarily in the role of advising countries on health issues and in adopting measures based on their studies? Thus, who prepares studies and statistics on the health situation in the world, and the results are often published in documents and reports on the WHO website itself.

In addition to acting in emergency situations, the UN also acts in the prevention of diseases. For this, the Expanded Immunization Program was created that distributes vaccines and medicines, etc. In 1980, smallpox was the first disease eradicated as a result of human effort, thanks to who and the partnership with the organization's member countries.

Another objective of the World Health Organization is to disseminate information about the diseases, and it is responsible for the following classifications: International Statistical Classification of Diseases (ICD), International Classification of Functionality, Disability and Health (ICF) and International Classification of Health Interventions (ICHI). These allow the standardization of diseases and facilitate statistical analysis and combat strategies.

In 1946, the WHO Constitution was published. It contains, in addition to other definitions, the principles of the WHO:

- Health is a state of complete physical, mental and social well-being, and does not consist only in the absence of disease or illness.
- Enjoying the best state of health that is possible to achieve is one of the fundamental rights of every human being, regardless of race, religion, political creed, economic or social condition.
- The health of all peoples is essential to achieve peace and security and depends on the closer cooperation of individuals and states.
- The results achieved by each State in the promotion and protection of health are of value to all.
- Unequal development in different countries with regard to health promotion and the fight against diseases, especially contagious diseases, is a common danger.
- The healthy development of the child is of basic importance; the ability to live harmoniously in a variable environment is essential to such development.
- The extension to all peoples of the benefits of medical, psychological and related knowledge is essential to achieve the highest degree of health.
- Enlightened public opinion and active cooperation on the part of the public are of paramount importance for improving the health of peoples.
- Governments have responsibility for the health of their peoples, which can only be assumed by the establishment of appropriate health and social measures.

Who's 13 biggest challenges for the next decade were established in January 2020:

1. **Clean health services:** 1 in 4 health centers in the world has no drinking water.
2. **Climate debate:** the climate crisis is considered a health crisis. More than 80 cities in 50 countries have committed to complying with air quality rules in 2019.
3. **Places of conflict and crises:** conflict-affected countries have the largest outbreaks of disease.
4. **Fairer health care:** people living in richer countries have a higher life expectancy (18 years longer) than those in poor countries.
5. **Access to medicines:** one third of the world's population does not have access to medicines, vaccines, or other health products.
6. **Infectious diseases: who states** that there is a need for immunization services and combating the effects of antibiotic resistance.
7. **Epidemics:** more resources are spent on disease outbreaks than on preventing them. Less and more, governments should invest in services that keep populations safe.
8. **Dangerous Products:** who wants to limit the consumption of trans fat until 2023 due to diseases caused by unhealthy diets.
9. **Health officials:** according to who, 18 million more health workers will be needed in low-income countries.

10. **Safe** adolescents: car accidents, HIV, suicide, respiratory diseases and violence are the main causes of death of more than 1 million adolescents per year.
11. **Trust:** fake news, such as the anti-vaccine movement, for example, contributed to the increase in the number of diseases that could have been prevented.
12. **New technologies:** genetic manipulation and other technologies have come to solve various problems but need to be managed and regulates their use.
13. Medications: The rampant use of antibiotics has increased the resistance of bacteria.

Whenever there is an emergency situation in relation to health in some part of the world, such as an epidemic or a war, we always see the intervention of the World Health Organization (WHO).

III. HEALTH SYSTEMS AROUND THE WORLD

Health System Models

Introduction

The year 2020 will be remembered as the year in which the health systems of the various European and world countries were put to the test by the coronavirus crisis.

Bismarck and Beveridge are the health systems that prevail in Europe and are based on universality, solidarity, and equity, according to Magda Rosenmöller. The Member States of the European Union are divided between these two models. While in the System of German origin, the administration is a mere manager, in the English origin the State groups and offers all services. The differences between the two lie mainly in the way the different services are financed and operated.

Some experts point out that there are no more pure systems, but European health is ensured by two models: the Bismarck model (Social Security System) and the Beveridge (National Health Service NHS) model. The financing mode, waitinglist and co-payment are some of the most obvious differences between the Bismarck and Beveridge sanitary models. Thanks to these historical systems, Europeans enjoy different degrees of health care, albeit with different expenses.

Portugal and Finland, for example, are more similar countries than they seem, since they share Beveridge's health model. In the same situation, but in different terms, there are France and Greece, which use the Bismarck health model as the basis for their health care.

The existing health systems in Europe are based on "universality, solidarity and equity". Each health system has three fundamental objectives: "improve patient health, optimize their experience and perform procedures with the best possible resources".

Model Bismarck

It is a model that was created in Germany in 1883 and is a health system that is based on the fact that citizens enjoy health care through private organizations and, for this, both employers and workers pay fees that go directly to the companies managing medical services.

These payments are transferred to "funds", which are non-governmental entities regulated by law and that administer the resources. With the resources, health professionals and equipment are hired.

The State is a mere manager, and, in fact, it is the private companies that operate the system, that is, it is up to the State to collect the financing through taxes and social contributions, and then channel it to the private sector, and ensure the harmonization of the system. It is a system in which health centers are generally **private** and where there are co-payments for some of the health benefits such as ambulance transport, medicines, or hospital care.

The Bismarck model is what continues to be used in Germany, but has also been incorporated and is used by 17 countries, such as Belgium, Switzerland, France, the Netherlands, Austria, Greece, Luxembourg and the Netherlands.

Model Beveridge

This model originates in the **United Kingdom** and emerges in the 1940s. This system is based on universal access to health care and all medical services are managed directly by the State (governo). It is financed by the State Budget (100%), and the State assumes all control and management of the system. It is a model in which the citizen does not directly pay for assistance. In general, Beveridge's model finances health through taxes paid by all citizens.

Health centers are public and are a system in which the State is responsible for management. In addition, the price of medicines is regulated through the Reference Price Index. In this system eleven European states use this model, Denmark, Italy, Portugal, Ireland, and Spain.

Universalist Model

This model is characterized by public funding through taxes and universal access to services that are provided by public providers; professional and non-professional workers, depend on the State; there may be other sources of funding besides taxes, such as direct payments by beneficiaries and other supplies. However, most of the funding and management is on behalf of the

Social Security Model:

The concept of social insurance implies insurance in which participation is compulsory. This is what happens with the system developed in Germany. The funding is by contribution and contributions of entrepreneurs and workers. By definition, they only cover taxpayers and their household, although lately there is a tendency to universalise coverage. All social works in Argentina are examples of this model.

Private Insurance Model

This model has a typically fragmented, decentralized organization with little public regulation, the trend is being changed. The situation that most closely approximates this model is that of the United States, where there are more than 1,500 private insurances. Compared to the other models, this limits the state's action to a scant regulation.

Assistance Model

Conversely to the Universalist model, health is not a right of the people, but an obligation of citizens. The State will only aid people unable to assume individual responsibility for taking care of health. The actions are directed at the most vulnerable and needy people. However, actions are limited qualitatively and quantitatively, since on the contrary, they can contribute to encouraging people not to take responsibility for their own health.

Mixed Model

It is a model where the previous models coexist, in which health is funded by the State Budget and private services, being complementary systems. Those who have private insurance do not stop paying for public health. They are complementary, that is, when one system does not have technologies or skills buys the other and vice versa, to provide health care to citizens.

They are competing health systems that bill the services provided to each other when one has technologies and skills that the other does not have. The private system lives on insurance revenues and the public system lives on taxes paid by citizens. The private system is called the National Health System and the public system is called the National Health Service.

Health Systems in Europe**Healthcare in Europe**

Each country in the EU has its own health system. However, EU members generally share the British model. Health systems in Europe include all citizens and are mostly funded by taxes paid by the employer and the public. Health care is free, except for some specialist's services.

There are three models within the EU: single-payer, socialised and privatised-regulated. In the single-payer system, the government pays for insurance or universal coverage, but real care is provided by private offices and hospitals. Citizens can opt for additional private insurance to cover services that are not covered by public health care.

In the socialized system it is the government that guarantees insurance and manages hospitals. The state is the only provider of health insurance. The NHS is a version of this model, which is also used in France, Italy, Norway, and Sweden. Patients can opt for supplementary private insurance to access services not provided within the public health service.

The Health System of France is considered one of the best health systems in the world. It has a private health system, as well as public health insurance, with a wide coverage in the choice of services, but in which employees pay half the insurance provided by companies. Privatised but regulated health systems within the EU are exemplified by Germany. Here, all citizens earning under a certain income should purchase health insurance for their unemployed family members and dependents at no additional cost. Above this income employees can buy private insurance.

In Switzerland and the Netherlands, private health insurance is compulsory. The government subsidizes tax premiums, making it possible for low-wage citizens to have access to health insurance. All insurers are legally obliged to accept all citizens. This costs patients much less than in the US. Thus, European medical care provides preliminary and some secondary medical care, some places allowing private companies to sponsor safer for their employees.

Privatized programs allow for specialized care, reduce waiting times and extend patient choices. The EU calculates the average for health care expenditure which is approximately 8% of GDP, but in Cyprus and Latvia it is 3.5%, with other Eastern European nations at 5%. Public expenditure in this sector is approximately 15% of the State Budget.

National health systems tend to better control costs. The introduction of internal markets can increase the economy and efficiency of healthcare. However, funding pressures are high because patients always expect more advanced treatments with the latest technology available, as approximately 70% of funding comes from the public sector in most countries.

Aging is associated with different disease patterns, typically conditions that are preventable and care intensive. As age increases, social assistance tends to absorb more costs. The OECD estimates that one fifth of health

spending does not contribute to improving people's health. Health inequalities, injustice in finances and access to medical care continue to plague the health system of many EU countries.

In response to the COVID-19 pandemic many European countries establish operating mechanisms to address the emerging pandemic. The EU was not prepared. Technologies, medicines and ventilators were inadequate in many countries. This has prevented some countries from defining the most appropriate policies to address and combat the pandemic. Crisis management plans were inadequate to reality, forced health care staff to improvise and innovate, as well as overload them, to compensate them. The need to share the resources, and the capacity of hospitals, could also be significant. Thus, logistics, readiness, coordination, and continued routine health care are the areas that need future improvement.

In Germany.

Having a health plan in Germany is mandatory for all citizens who have a ration up to a certain amount stipulated by the government. There are different public insurers in the country, able to manage themselves and dispute the market portions. Each of the public health plans offers the insured a specific level of coverage, but that turns out to be similar, since everyone is obliged to respect the catalog of "mandatory coverage" determined by the government. The costs of the plans are divided equally between the employer and employee. In general, the citizen can freely choose the doctors and hospitals he seeks. Those who have a ration of the government's threshold may opt for a private health plan. The same goes for independent balers and civil servants. In this case, the range of coverage and the monthly costs with the plan can vary greatly. Germany ranks third in the world's health spending rankings.

In France

The French health system has been considered by the World Health Organization (WHO) as the best in the world. The State plays a central role in controlling relations between the various financial institutions, physicians, and patients. Since 1996, Parliament has decided on the amount of money to be allocated to public health insurers, to which more than 60% of the French are linked. The rest of the population has special health plans, with different cost tables and coverage. In France, there is total freedom of choice for the citizens. If you get sick, you can decide whether to look for a general practitioner or if you go to a specialist. Some expenses by the insured's, such as the additional payment for medications, are very high: in many cases, the patient's pay up to 70% of these costs. On the other hand, contributions to the public health plan are paid practically by the employer. Employees are required to allocate only 0.75% of their salaries to insurers. In terms of synthesis, we have:

- Public insurance system.
- Social security - shared funding, with equal contribution.
- Health care occurs in private office services and in public and private hospitals.
- In private the patient pays and then is reimbursed.
- In the public there is a global budget, patients pay some fees for a set of procedures.
- Since 2004 there is the figure of a doctor who is responsible for the referrals of each patient.
- The urgencies, ophthalmologist, gynecological, psychiatry and pediatrics do not require the reference of this professional.
- Waiting time is small.
- However, the emergency care are small structures.
- Population is satisfied.
- Pluralism and the emphasis on liberal practice bring problems for the integration and coordination of actions.

In Holland...

In the Netherlands, patients are required – except in emergency cases – to seek a "family doctor", who can be chosen freely. This general practitioner decides whether there is a need for treatment with a specialist or whether the patient should be sent to a hospital. The choice of specialist or clinic can then be borne by the patient. Only six percent of the patient contingent is sent to a specialist. "Family doctors" are generally very well qualified, and the state is obliged to attend improvement courses. The costs of health plans in the country make up 10.25% of salaries, which means almost 30% less than the German insured is obliged to pay.

In Switzerland...

The number of doctors per citizen is the highest in the world (totaling 14,000 professionals). The quality of services is pointed out as one of the best in the world. Since 1996, every citizen living in Switzerland is required to have a health plan, which can be freely chosen among the more than 100 insurers in the country. They comply with relatively liberal legislation compared to other European countries and are overtaxed by a federal department. Citizens are offered various types of health plans, among them some models that include a bonus

system. The premiums depend, the incomes of citizens /patient. Every Swiss citizen is obliged to pay part of the costs of his visits to the doctor.

In Sweden...

Sweden has an extensive public system of social benefits and insurance: sickness, physical disability, old age, and accidents at work. The entire population is covered by insurance, evenly, whatever the job, whether or not it is employed. There are also collective insurance, negotiated by employee associations. There are also private health services. The traditional private insurance market is comparatively small, of limited extension. Less than 10% of doctors work full-time in private offices.

In Spain...

In Spain's National Health System, the structure and public services are part of a coordinated system. Funding is mixed, through resources from the State, autonomous communities, local corporations and the Social Security System. The main characteristic is the universalization of care: all citizens and foreigners legally resident in Spain have the right to health protection and care, with full coverage of the population, regardless of their economic situation and the contribution to social security. The pharmaceutical system is covered only, when the prescription is made by the doctors of the System, being free for pensioners and their beneficiaries, disabled, work-impaired, hospitalized hospital admissions of the System and andropositive. The other ones support 40% of the cost of medicines, with the exception of chronic patients, who support a maximum of 50 euros (discount effected directly in pharmacies)

Health Systems in Latin America.

In Argentina...

The health market of Argentina has 3 coexisting systems: the Public, the Social Services (called Social Works or OS) and the Private. The Public Sector includes approximately 30% of the population, mostly social groups of low profit. The Social Services Sector is formed by institutions that cover health contingencies and provide social assistance infrastructure to dependent workers (mainly from Union Social Works) and retirees of the national social security system, through the so-called Comprehensive Medical Assistance Program (PAMI). This sector constitutes social insurance for the protection of salaried workers and their immediate family members, is mandatory and is financed through the contribution of employers (6%) as employees (3%). The Private Sector, under the global name of prepaid medicine companies, operates with a total of 196 companies, among which 58% are based on federal capital: 19% in the rest of greater Buenos Aires and 23% in the interior.

In Brazil

The Unified Health System (SUS), with its limitations, is among the largest health systems in the world. It provides the population with a complete program regarding primary health care. With its evolution, it also began to offer more complex procedures, which involve even organ transplantation. The SUS is a right of all Brazilians, and so the network is quite wide and complex.

Brazil is the only country in the world that has a public system that serves more than 100 million inhabitants. All your treatments and procedures are 100% free. In addition to care, the SUS also provides medications and medications for free for diseases such as diabetes, high blood pressure, HIV, asthma. In this way, it ensures that patients continue with treatment at home, and continue to preserve their health. All health services follow the same organizational principles.

- Responsibility: Federal, State and Municipal.
- It is a system with a set of units, services and actions, which interact for a common purpose.
- Insufficient financial resources, with progressive investments at various levels of government (Federal, State and Municipal).

In Chile

The Chilean health service is a mixed system in terms of population care, health insurance and financial administration. Until 1980, it was fundamentally public, from the health reform in 1981, social and solidarity public insurance was combined, corresponding to the Fondo Nacional de Salud (FONASA), with private insurance, individual and competitive, represented by the Institutes of Salud Previsional (ISAPRE). Both are subject to inspection by the Ministry of Health. By law, workers are required to contribute 7% of the income stemming from the system they have chosen, be it FONASA or ISAPRE. FONASA receives government investments to cover the care of the indigent and carry out some public health programs. ISAPREs manage the mandatory contributions of employees; their members can contribute additional value to improve the coverage of their Plan. FONASA covers 68.3% of the population and ISAPREs 17.6%.

In terms of synthesis:

- National System of Health Services, Private Insurance and General System of Explicit Guarantees.
- Universalization with segmentation.
- Contributions (public and private), taxes and direct payments.
- Salary installment- APS in municipal services and public-private mix.

- Challenges: inequality, recovery of installed capacity and legitimacy, of the public sector, integration and equity.

In Colombia

In terms of synthesis, the Health System can be characterized as follows:

- General social security system in health.
- No universalization.
- Funded by contributions, taxes, and direct payments.
- Provision of services - health promoting companies, public-private mix.
- Coverture with increased costs.

In Mexico...

One of the main characteristics of the Mexican health system is the fragmentation of the service, as well as its access. Three groups lead the provision of services in this country: Social security: it is in charge of aiding just over 50% of the population and is constituted by IMSS (Instituto Mexicano del Seguro Social), which is responsible for private sector workers, covers 44% of Mexicans and ISSSTE (Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado), covering civil servants representing 10.6% of policyholders. Popular Insurance: covers in its largest was poor people from rural and urban areas, as well as workers from the informal economy. The Private Sector: ideally, it should cover only 10% of the population, but social security groups (21%) and Popular Insurance (28%) cover this modality, through the provision of services.

Most countries in America, 25 out of 35, showed increases in expenditure on health goods in relation to GDP between 1990 and 2000, indicating a trend of growth in health expenditures. Countries that have experienced a fall in health spending, such as Argentina and Peru, seem to have incurred these serious economic problems these economies have experienced over the decade. The way of financing this increase in spending in the countries of America took place in a different way, approximately 50% of the countries financed the increase in health spending with public sector funds and the other half of countries financed with increases in private spending

Health Systems: Canada and the United States

In the USA

The U.S. does not have a universal and health care-free program, unlike most other developed countries. Instead of the free market, most Americans are served by a mix of Federal Programs and partly by the state, with the majority of hospitals and clinics being private properties.

Most Americans who have job insurance are based on private insurance. The Group Plans are funded by companies and cover about 150 million Americans. Private insurance includes health maintenance organizations. Patients go to a private doctor and this if necessary, sends patients to specialists.

The military health system is provided by the State to military personnel in service and veterans of the war, whose funding is public and secures half of the expenditure of health care, but through private insurance contracted for this purpose. Health is an industry where competitors can inflate prices without improving services.

In 2010, the Obamacare Program improved the insurance of the most disadvantaged. It created the health insurance market, which covers about 17 million Americans. However, these plans are often small, unique and restrict the choice of insurance company.

In terms of synthesis, it can be said that the U.S. Health System allows insurance companies and service providers to increase expensive prices and services, but poorly compensates for essential health care, such as primary care and comfortable advice. Private insurance is designed for medical services away from rural and disabled communities. However, they lead to medical innovation and many of the hospitals are the best in the world. For citizens who can afford provide them with high quality services.

Type of insurance

- Medicare - is a hospital insurance and a highly subsidized supplementary insurance for the poor elderly. About 70% of Elderly Americans have Medigap (White, 1997). Others, by poverty, are entitled to Medicaid. Thus, there is a certain space to extend the coverage space in the case of the elderly.
- Medicaid- is a federal and state fund that includes about 35 million poor beneficiaries (young or old). There is a superposition between Medicare and Medicaid, given that a portion of the population is covered by the federal government's insurance to the state through access to Medicaid.
- Medicaid – is an insurance that is not available to all people defined as poor (annual income \$11,890 for a family of three), covering half of the poor by that definition. Eligibility for access includes requirements defined at the federal and state level.

The largest share (75%) of the population is covered by private insurance. At the beginning of the 19th century, XX emerged the group medicines, Blue cross, Blue Shield. and 17% of the population have no form of coverage. In addition to government services and private insurance, there are numerous non-governmental institutions for

specific groups: cancer, heart disease, drugs, mental health, children, etc. (Conill, 2008). The current President will be responsible for a major reform of the health system in the country.

In the United States, the health system reveals a not very well-embedded mosaic of systems, situations and standards of financing and access to services, in which stand out:

- **Government programs at the national level.**
- **Federal and state programs.**
- **Private systems with various modalities.**

In 1995 it was estimated that there were 37 million adults in the United States not covered by any type of insurance. This meant that a greater number of uncovered Americans, if included children from the same families (Pear, 1996), i.e., 17% of non-elderly people. There is a high percentage of the uninsured population in the United States, higher than in any post-war advanced country. The U.S. insurance system has equally unique instability characteristics, given its dependence on the employment relationship and the employer's initiative, which implies, for citizens, the possibility of living with periods of grace and not coverage in the event of a change of employment.

In Canada

Canada's health system is predominantly funded by the public sector, with private execution of actions related to health policy and predominantly state (provincial) government management. Although there are ten provinces and two territorial health programs, national standards for hospitals and health services are established by federal law, the Canada Health Act, which ensures a minimum level of regulatory, resource and service uniformity throughout the country. The Province of Quebec is the most developed. The federal government funds the provinces through tax transfers conditional on the state governments' adhering to the standards it has established through Canada Health and Social Transfers. The principles: universality, public management and the integrality of valid rights throughout the national territory are specific.

Through the provincial networks of public hospitals and autonomous health facilities, all Canadians have access to hospitals and doctors that are necessary, without burden to the citizens. Residents in one province retain their right to cover when they have residence in another province or move between provinces, although there may be some restrictions on coverage abroad. There are no deductions, co-payments, or cash limits on coverage of insured services. Physicians do not belong to the staff of the civil service and are remunerated on the fee-for-service basis directly by the government.

Total health expenditures in Canada in 1997 accounted for 9.1% of GDP, down from 10.2% in 1992. The government accounts, according to the most recent data, for about 70% of this total, while insurance and out-of-pocket spending contributes the remaining 30%. Of the general total, 46.4% finance hospitals, 14.4% represent payments to physicians and 13.7% to purchases of medicines. The residual is intended for dental and ophthalmologic treatments, research and planning. The private health insurance segment in Canada can be divided into five categories: life insurance, home and accident insurance, religious or philanthropic societies, non-profit societies and employers.

In terms of synthesis, we have:

- Universal insurance system, highly decentralized.
- Created in the first half of the 20th century by Thomas Clement "Tommy" Douglas (pastor involved in the working-class struggles of the Saskatchewan region).
- Tax budget and shared funding between the federal and the provinces.
- Each province has autonomy to choose priorities and manage services.
- The principles: universality, public management, integrality and rights valid throughout the national territory.
- National insurance with public funding and services by private providers.
- Professionals attend private clinics or hospitals and receive services through provincial agencies.
- Private insurance covers cases not covered by the system: cosmetic surgeries, special hospitality, dental treatments, home cares.
- Each one of the ten provinces has a health system and Quebec is the most developed.

Health systems in Asia

Asian health systems are mixed, public, and private, controlled by the state. Singapore uses a public insurance system for large hospital bills, and some treatments for outpatients, but does not include primary care, or specialist care.

Grants are to help low-wage populations. Working populations pay more to allow older people to have access at lower costs. A national savings account is mandatory for hospital care and some treatments for outpatients.

Health systems in Australia

Australia has a mandatory public health insurance program free universal model, called Medicare. All citizens have access to private medical care and public hospitals. About 50% of Australian citizens use private insurance

to pay for hospital care or private dental care. The Government encourages high-income families to pay a tax in return for private insurance. The total expenditure on health care is approximately 10% of GDP, and 67% are from the public sector.

IV HEALTH FINANCING SYSTEMS

There are four main sources of health-disease funding:

- Taxes and social discounts.
- Contribution to social insurance schemes.
- Voluntary subscriptions to private insurance schemes.
- Direct payments from patients.

These four forms of health-disease financing can be grouped into two systems:

- Compulsory systems - taxes and social health insurance.
- Voluntary systems - direct insurance and direct payments.

Some health systems depend on a mix of these four sources of funding. Thus, can be grouped into three groups, the models of health-disease financing:

1. Health-disease systems based on the Bismarck model, which depends predominantly on insurance.
2. Health-disease systems based on the Beveridge model that depend on taxes and social contributions.
3. Mixed health care-disease systems based on taxes and that include elements of social insurance.

Social Insurance-based financing

Social insurance-based financing differs from country to country. These differences result from the specificities and social, economic, institutional and ideological structures of each country. All contributions collected through social security are mandatory and are normally intended to fund health care and sickness. This compulsory insurance is part of social security, which includes social protection, such as pensions, including those for invalidity, for accidents at work and benefits given to the unemployed, and there are differences between each country.

In all countries compulsory social insurance is an independent "body" with its own management, budget and legal status, which ensures its independence from governments and the State Budget. These funds are managed by private organizations, in charge of the provision of a Public Service, but under government supervision in legislative terms.

There are huge varieties of social health insurance in different countries. For example, in France and Luxembourg, the funds are organized according to occupational groups on the basis of geographical criteria, occupation, business sector of activity.

In Germany and the Netherlands being a member of such a fund is mandatory for people with incomes below a certain amount. Persons with a higher income may choose between being insured by the compulsory system or by a private insurer with regard to health care coverage. Regarding acute health-disease care, people can choose between a private insurer or remain uninsured (self-insurance).

No Social Security Financing System has universal coverage, since the right to be covered depends on certain criteria related to insurance contributions.

However, many countries guarantee coverage for the entire population, either through compulsory insurance or through a combination of compulsory insurance and private insurance. Three types of coverage can be distinguished:

1. Coverage to the entire population of the country, through compulsory insurance. Example: Austria, France, and Luxembourg.
2. Coverage to the entire population of the country, through compulsory insurance, but where some people receive only partial coverage. Example: Netherlands and Belgium.

In Belgium, 15% of the self-employed population is covered only for the main risks (inpatient care and special services). The remaining population has full coverage for the main risks and minor risks, such as external consultations, dental care and pharmacy. In the Netherlands, compulsory insurance coverage is guaranteed to around 60% of the population. The rest of the population only receives coverage for chronic diseases.

3. The coverage of the population through compulsory insurance, only part of the population is covered, for example in Germany.

Within these limits, countries have a legally defined benefit package to ensure uniformity between all sickness funds, within a given insurance scheme, which may vary from country to country, based on occupational categories, with different benefits and cost-sharing requirements, defined through legislation.

Contributions paid to the funds are related to income and at a certain rate and are shared between employers and employees. In these countries contributions are made on a 50:50 basis, such as Austria, Germany, Luxembourg, and the Netherlands, while in Belgium and France employers pay a higher percentage than their employees. The rates are negotiated at various levels, but the central government of the country takes ultimate responsibility.

In some countries people can choose the insurance fund, for example in Belgium. In other countries with greater limitations, such as Germany, where free choice is allowed mainly to white-collar *workers*, who represent about half of the population.

Financing based on Taxes and Social Contributions.

The first social protection systems health-sickness appeared in the late nineteenth / early twentieth century and took the form of social insurance schemes. These have evolved into a huge number of health-disease funds covering a small fraction of the total population, usually urban workers and their families.

This model has evolved over the years and has progressively increased the coverage of the population in all acceding countries. These countries differ from countries whose financing systems are based on social security:

1. To extend increasing coverage to the population, with the State taking on increasing responsibility for financing through taxes and social rebates.
2. The coverage of the population became universal, including residents in the country, so that the contribution to the insurance fund was no longer the determining factor for being entitled to health care and health care.
3. Health-sickness funds tended to lose their identity and independence from the State.
4. The provision of health-disease services (hospitals, health care institutions, doctors, nurses, and other staff). The state has increasingly assumed its responsibility.

The shift from social insurance funding to tax-dependent financing and social contributions has been completed in the countries adhering to this model after World War II, although some countries continue to have social insurance in health care financing.

The main characteristics of the financing systems of the countries adhering to this model have concluded the transition to financing predominantly based on tax revenues and social contributions, are as follows:

1. Funds tend not to be predetermined, unlike funds collected through social insurance.
2. In the UK in 1989, 79% of the costs of the National Health Service were financed by tax revenues and social contributions, while 16% were borne by social insurance funds.
3. In Finland, since 1972, around 80% of the costs have been financed by tax revenues and general contributions.

All citizens of countries using this model, the funding of health care-disease based on taxes and contributions are covered by the mandatory system and coverage, in terms of the services *offered, is total*. However, there are some countries where only the poorest population can receive all the benefits of health care-sickness without any additional burden; the rest of the population is subject to several direct payments.

Countries with health care systems based on taxes and social contributions and offering total and universal coverage tend to avoid the difficulties that emerge from respect for solidarity, since there is no risk of selection, due to the universality of coverage.

Funds based on taxes and contributions are often used to fund Social Security programs, such as pensions and disability benefits, being partly used for health care -sickness.

In Sweden, Social Security contributes to the cost of medicines and medical services for external consultations and in 1984 also contributed to a small part (8%) for hospital services. In Finland, social security contributions are mainly used for private medicine, medicines, and ancillary services.

In the countries adhering to this model based on taxes and contributions, the tendency is to remove from the Central Governments the financial responsibilities and the corresponding responsibilities of providing Health Services. Finland is the country that has made the most progress in disrespected since 1972 basic health care services and resource management (human, financial and material - infrastructure) have been ensured by local authorities. They have the authority to increase taxes and legal responsibility for the provision of health services.

Denmark and Sweden have achieved a high level of decentralisation in which local authorities are responsible for the financing and delivery of health care, as well as responsibility for primary care health centres and some prevention programmes.

In Sweden, local authorities finance hospital services, payment to the media, nurses and auxiliary staff, through local taxes on the income of persons. In the UK the trend towards decentralisation has taken a slightly different form since the separation between providers of health services with greater financial autonomy from local units.

Central Governments continue to play a key role in legislating on the financing of public health care, medical scientific research and university hospitals, but also, with a source of subsidies, both for the Social Security System (e.g. Sweden) and for local government units (e.g. Denmark, Finland and Norway),

Financing through Private Health Insurance

Private insurance has two objectives, on the one hand to provide additional, voluntary health care coverage for people covered by the National Health Service and for compulsory insurance. Private health insurance also offers voluntary coverage to people in countries with compulsory insurance systems, especially people with high incomes who do not have other coverage.

Voluntary private health insurance for medical expenses is underwritten for a number of reasons, as these people depend on the one hand the method of financing health care predominantly in the country and on the other hand on the specific combinations of compulsory funding systems.

Tax-based health care systems offer full coverage for services, free of charge at the time of consumption, so there is little room for private insurance and is considered a luxury property in European countries. Waiting lines in care and rationing associated with certain tax-based systems encourage the search for the benefits of private health insurance that allow shorter waiting times, physician choice, treatment choice, and hospital choice.

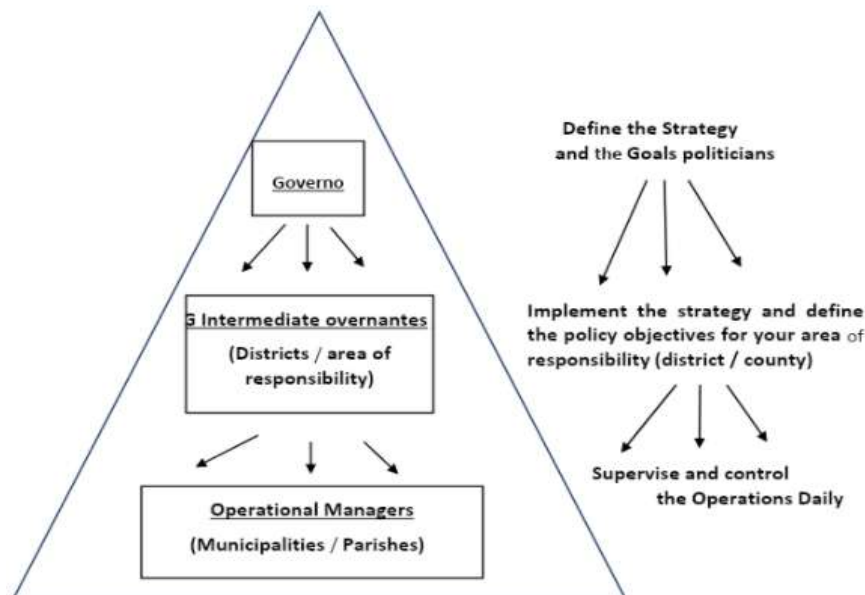
Health care systems financed through compulsory insurance are characterised by the diversity of established combinations. In some countries private insurance is used to reimburse the patient for the percentage of medical and hospital costs not funded by the legal system, as well as to offer a more comfortable stay (insurance topping-up), being supplementary insurance.

Coverage of health care by compulsory insurance is not universal, due to the possibility of choice on the part of those who have an income above a certain value. In some countries the richest are offered the choice between compulsory insurance and private insurance.

V HEALTH-DISEASE MANAGEMENT

What is the first responsibility of the Government of a Country? A country can be defined by three levels of governance / organization. Top Governors, Intermediate or Coordinating Governors and Operational Governors.

Figure - 1 - Pyramid of Levels and Responsibilities of Rulers



Source: author's elaboration

The main responsibility of the top rulers is the definition of the overall strategy and policy objectives for the country to ensure the best results (economic, social, human, infrastructure, and information) with the national resources used or available. They represent the country in the defence of national interests in international events (e.g. National defense, national tourism, justice, economic development, etc.).

The responsibility of intermediate governments is to define the political objectives for their area of responsibility, allocate and manage regional / district / county resources, (e.g. health, tourism, economic and social development, justice, etc.), which they have to achieve the objectives to which they have set out. The responsibility of operational rulers (local rulers and or geographical location, e.g., Region, parish, etc.) is to ensure the normal functioning of state organizations on a day-to-day business locally.

Top rulers are based on synthesis information (e.g. related to the Covid-19 pandemic, the number of deaths, infected, the number of tests carried out, the number of recovered at national level, etc.), while intermediate or coordinator governments rely on the same information at the level of their area of responsibility (region, district/county), while intermediate or coordinator governments rely on the same information at the level of their area of responsibility (region, district/county), in order to make decisions to improve the allocation and performance of the resources they coordinate. The operational rulers are the same information, but at the local level (e.g. parish), that is, quantified and accurate internal information to solve the problems of the local day-to-day.

Regional /District Governments should promote concrete measures of regional/district development, in terms, economic, housing, health and well-being of citizens, etc. to be attractive to live there and not wait for the

revenues of the General Budget of the State. To achieve more revenue, they must increase economic, agricultural, number of businesses, employment, hospitals, health centres, homes, etc.

Regional/District Governments shall be responsible for the economic, human, infrastructure, and social well-being of the inhabitants/residents of the region/district/district/district, such as schools, district hospitals/nursing schools, health centers, roads, agriculture, etc.

The source of the information on which the operational rulers rely is 100% generated internally. The source of the information that intermediate or coordination governments rely on is internal, but also external, since they have contacts with the outside world (e.g. populations, customers, suppliers, etc.) and that in percentage terms we may be talking about 75% internal and 25% (e.g. price comparison between suppliers). The source of information for top rulers is 75% outside (e.g., trends, turbulence, evolution of world politics, political-legal restrictions, etc.) and 25% internal (e.g., evaluation of the organization's (State) performance. Everything else that governments do or may want to do is based on economic performance and the results obtained for the following years. Even the most sublime governance tasks, such as the assessment of social responsibilities and sociocultural opportunities, do not escape these assumptions.

Currently there is no time for common places, that is, the rulers care about their own performance, for the mission they were elected, distinguish in what is essential of the accessory, distinguish in what is relevant from what is waste of time, of what is potentially effective, of what is merely frustrating. The mission of the rulers is to work hard, be demanding and take risks, especially the top rulers. There are many technologies available, especially information and communication technologies that save a lot of time and work, but do not spare thought.

The Information of institutional level - allows the top governments to observe and evaluate the variables related to the evolution of the environment (global and immediate) and the internal situation, whose purpose is to manage and evaluate the internal performance of the government, the definition and implementation of the strategy.

Intermediate level Information – allows intermediate-level or coordination governments to allocate and manage the resources of their area of responsibility, i.e. to monitor the evolution of the performance of their area (e.g. the evolution of epidemics/diseases, etc.) and the correction of possible deviations from the objectives to be achieved.

Operational level information – allows operational managers (regional and local), to supervise and control day-to-day activities and tasks, to monitor the geographical space under their responsibility.

Features that quality information has:

- ✓ In the time dimension:
 - Readiness - be available when it is needed.
 - Acceptance - be up to date when provided.
 - Frequency - be available as many times as necessary and not be lost after use.
 - Period - reveal its evolution - historical vision.
- ✓ In the content dimension:
 - Accuracy - does not contain errors.
 - Relevance - to have a purpose.
 - Integrity - all components be present.
 - Conciseness - contain only what is necessary.
 - Amplitude - refers to the reach of the content.
 - Performance - evaluation of the impact of information on the desired results.
- ✓ In the form dimension:
 - Clarity - ease of understanding.
 - Detail - degree of detail required.
 - Order - be organized in the necessary sequence.
 - Presentation - have the appropriate format.
- ✓ Other features that quality information has:
 - Accessible - accessible to authorized users.
 - Secure - Only authorized users can access.
 - Economic - the value of the information compensates for the cost of producing it.
 - Flexible - be used for more than one purpose or by more than one type of citizens / users.
 - Reliable - the reliability of the information depends on the method, how it is acquired and its origin.

Leadership in Health

In Health, leadership is linked to the interest of the quality of life of populations, based on the ability of health leaders to achieve economic, financial, social, and political results. However, leadership is a broader matter than this conception can judge. The theme of leadership in health-disease has been little studied by different areas and fields of knowledge. Of these areas, the most fruitful has been Management, which, under the tutelage of specific fields of knowledge and practice (particularly organizational psychology and the area of human resources) has delineated research programs on leadership in health-disease that carry very particular premises and interests.

In generalist studies, academic-scientific guidance aims to improve the practice of the management of organizations. Leadership is strongly linked to productive efficiency, having as a fundamental presupposition the ability of health-disease rulers to achieve social results, quality of life of populations, a measure almost always translated by this literature into the purely economic focus, finance and social well-being.

However, the leadership in Health-disease is a much broader matter than can judge the generalist-based literature. As a social phenomenon, leadership in Health-disease presents relationships and social circles that go beyond the dimensions of countries. That is why we see in this theme the mention of world leaders, politicians, military, religious, community, activists and intellectuals, aiming at the scrutiny of good practices and other references for the development of models and principles of good leadership in Public Health. Thus, the focus of investigation of the phenomenon of leadership in Health publishes expands, but requires the researcher greater care, regarding misappropriation or reductionist of the perspectives coined in different social and academic fields.

Health-disease policy

Politicians are people who spend a large part of their working time making decisions of various nature and size. The requirements for the time available for decision-making always seem to be greater than the total time available at their disposal. Decisions of great importance are mixed with trivial decisions. This diversity of decisions tends to increase with the level of responsibility and is particularly pronounced in the case of higher hierarchical politicians. The mission of a politician involves a very broad set of activities, including analysis, decisions (including strategic ones), communication, leadership, motivation, evaluation and control. From all these activities, we isolate the decision-making process for health-disease policy, as it is the fundamental "stone" of a health government, of a country. Decisions and actions are the final product of the work of the rulers.

Political decisions for health-disease formulated explicitly or implicitly by politicians precede all action, regardless of the process, by which they are taken, either through personal decision, formal hierarchy, broad participation of party politicians (cadres) or by omission. The process of political decision-making for health-disease is complex, so it poses some problems for policymakers, in terms of the approach methodology, to choose the preferred alternative to public health, from among the various alternatives.

Public health policy is synonymous with the exercise of power in a way that is not purely economic. The formulation of public health policy can be a process of planning and analysis, cognition and learning, but also a process of negotiation and concessions between politicians and political groups (of the party or others).

Bolman and Deal (1997) formulated the following propositions concerning the world of government policy for public health:

- The society consists of several citizens and interest groups (political parties and others), sometimes antagonistic.
- There are lasting differences between interest groups (political parties and other interest groups) and citizens in values, beliefs, information, and perceptions of reality.
- Most policy decisions for health involve the allocation of scarce resources (human, economic, financial and material).
- Scarce resources and lasting differences give the conflict a central role in health's political dynamics and make power the most important resource.
- The goals and political decisions for Health emerge from the "political wars", negotiations and maneuvers in search of positions, between the different stakeholders (political parties and interest groups).

The rulers formalize procedures to elaborate the policy for Health and aware of the growing weight of variables with social impact, try to plan their development. All these procedures are called into question by the emergence of new problems and are, in theory, as in practice, subject to evolution.

The **management of health** policy ensures in time, the best coherence between the demands of society, the different stakeholders (internal and external) and the overall and personal objectives of the politicians, which means, it is about government management, and the management of the human, economic, financial, material and information resources and the creation of potential. Health policy management is interested in the following dimensions:

- **Technical-economic-politics** for health-disease and financing systems in which countries should bet.
- **Organizational** - governmental architecture that enables the effective execution of the technical-economic dimension.
- **Policy** - social structure, as a means of achieving government performance in the area of health-disease.

The model shows that health policy is transformed over time and that technical-economic analysis is complemented by the integration of complementary dimensions: the consideration of government as a social organization and the recognition of it as a political system. It considers as key variables the interdependence between the variables (information), the globalization of politics and infections, technological turbulence and stagnation, that is, it includes only the variables of the global and immediate (close) environment, and some variables that have an impact on some countries or groups of countries.

While the different models of health-disease policy are based on the analysis of global or immediate policy, when it does not exist or takes forms far removed from democracy, it is necessary to address new forms of policy definition for health-disease and that can be classified as relational, according to the authors and whose illustration is now known for political or cooperation alliances.

The problems are complex, so it is very difficult for a government to solve the problems of politics for health-disease, alone. Consequently, responsibilities for management tasks are dispersed through the organizational structure of the State. Some governments create very specialized structures to support policy decision-making for health-disease, such as departments and *staff bodies* to develop the analyses. In practice, these support structures develop the political analyses for Public Health and bring the political alternatives on a "plate" to the Prime Minister or President of the Government and bring the political decision to Public Health. These support structures are in accordance with the Carnegie school (Ansoff, et al 1965), when it considers that the rulers' mission is to make decisions, but that they are not responsible for their policy making, but rather those responsible for planning. Comparatively, the School of Positioning (Porter et al, 1980) follows a methodology of similar approach, in which analysts formulate alternatives and politicians approve chosen alternative.

Political Decision in Health-disease

Political decision-making for health-disease is based on the information available on a specific problem, in order to provide the political decision-makers with a reasonable number of alternatives, one of which, the chosen one, as the best or the most favorable. It is common for the political decision-makers to be bombarded by a high amount of information. It is essential that the political decision-makers can identify the relevant information and discard those that are irrelevant. The political decision-making process involves the cycle of decision, execution, and control. In this sense, the process of decision-making occurs in the individual or collective scope and presupposes five stages:

- Initial recognition of the problem or opportunity.
- Search for political alternatives when there are several possibilities and possible solutions.
- Analysis of the political alternatives, phase that determines an evaluation criterion, within the context determined by the first step.
- Choice of the best political alternative, being necessary to sort the alternatives, selecting the most acceptable or grouping the best ones, for further evaluation.
- Implementation of the chosen health-disease policy alternative.

Political decision-making for health, because it involves multiple interests, causing tensions between participants. And it is also required that the political decision-makers develop the ability to deal with complex and turbulent political issues and often confront personal interests, with group interests, and the country and world. Therefore, it is worth emphasizing the importance of seeking, the common points, collaboration, and cooperation of the team, at all stages of the political decision-making process.

The information is differentiated according to the political decision-making process and can be grouped into strategic, operational and coordination. Operational information is "intended to allow certain operations to continue in progress within the operational cycle", i.e. daily. At this level, the political decision-making process is repetitive since it is focused on the real problems of the day-to-day.

The political coordination for health-disease (middle managers) aims to feed the decision-making processes involved in the allocation, planning, control and evaluation of human, economic, financial, and material resources, made available to them. At this level, it works with summary and accurate information, which requires analysis of the performance achieved.

The quality of information is an important factor in effective policy decision making and should be reliable and accurate. The value of a government's information is directly tied to the way it helps governments make the political decision. Timely and appropriate information is directly related to the political capital of the leader, as they are factors that contribute to an effective decision.

Davenport (1998, p. 16) states that: "(...) No one can deny that useless political decisions based on irrelevant information cost millions of euros/dollars in purchases and services that do not work, in unproductive investments." The flow of available information is another factor for the effectiveness of the decision. A large

volume of information can consume time and cause difficulty for the political leader to distinguish, what are the information relevant to the process of political decision-making for Health-disease.

Health-disease management model

General Considerations

Any Health Care System in a free and democratic country requires respect for some fundamental principles and values: one of them is certainly freedom of choice, coupled with universal access to everything that is fundamental and that can prevent disease, prolong the economic, financial and social life and well-being of citizens, taking into account existing resources.

These principles and values cannot fail to be the basis of all health-disease systems, although it is known that no model is perfect or infallible and will always have to be adapted to the conditions and concrete circumstances of each country, at national, regional and even local level. It will not be valid to treat equally what is different. And consider, even, the epidemiological characteristics of each situation.

One of the great achievements of our civilization, was the recognition of human rights, which are not exclusive to healthy homes, and become even more important to the sick homes, limited in their defense capacity. It is essential to pay, when you are healthy and not when, if you are sick and fragile.

Solidarity lies the essence of true medicine, technical and human. And when we talk about solidarity and humanization, what is the best form of humanization than to facilitate and allow the privileged relationship Sick-Doctor?

Extend Life

Since Ponce de Leon in the 16th century, human beings have been searching for eternal youth. However, only in the last 30 years, there is evidence that aging is a disease and that it can be treated. The intracellular processes responsible for the progressive senescence of cells were identified. More than that, the methods of how to slow it down were discovered. To better understand the evolution of this knowledge and its consequences, it is necessary to remember some historical facts related to the treatment of cancer and other epidemics, such as leprosy, tuberculosis, AIDS, etc.

Until 1960, the cancer was considered incurable, it was up to the doctor to identify it as soon as possible to try its surgical removal. If it was not possible, it was only to soften the inexorable evolution of the disease. However, in the early 1970s, it was discovered that cancer results from genetic mutations that can be blocked. Thus, the concept and conduct in the face of this disease have been radically modified.

With the new focus in some cases, more than 90% of cure has been achieved. Such a change occurred about aging. It has always been considered uncontrollable, but in 1990, that is, only 30 years ago, a cellular change was identified at the molecular level that, when genetically inhibited, can slow aging.

Peter Drucker a management guru of the last years of the twentieth century, divide human life in three phases. From zero to thirty, learn, learn. From 30 to 60 years work, work. From the age of 60, do what you like, if you can.

It **means that human life has to be seen as** a whole and not just when human life and disease begin. To this end, life sciences scientific researchers continue research, as well as global policy makers to be concerned about providing continuous improvements in the economic, financial, health and social conditions of the world's population, complying with the World Health Organization Guidelines.

Disease Prevention

The Human Being is born, has his childhood and youth and begins to grow old. From the age of 30, the first signs of aging begin to emerge. If the person bows to this natural situation, he will age earlier. If a person fights against aging, it will eventually make a more natural life. It is necessary to decide from an early age what position one wants to take in life.

Aging is a reality and, as such, it is important to "train" the body and brain so that they do not become inert. "Move" is the word. We need to hold on to something that makes us move, namely a productive work that benefits us as well as society, preparing the body and mind for the natural process of aging. When something in the body begins to give warning signs, it is possible to seek to know the causes. It is the natural wear and tear of age and people will have proper care.

According to a study conducted by researchers at Harvard University (USA), the recipe for obtaining additional years of existence is simple, and has only 5 ingredients, and depends solely and exclusively on each person, according to the authors of the study, the five healthy habits are:

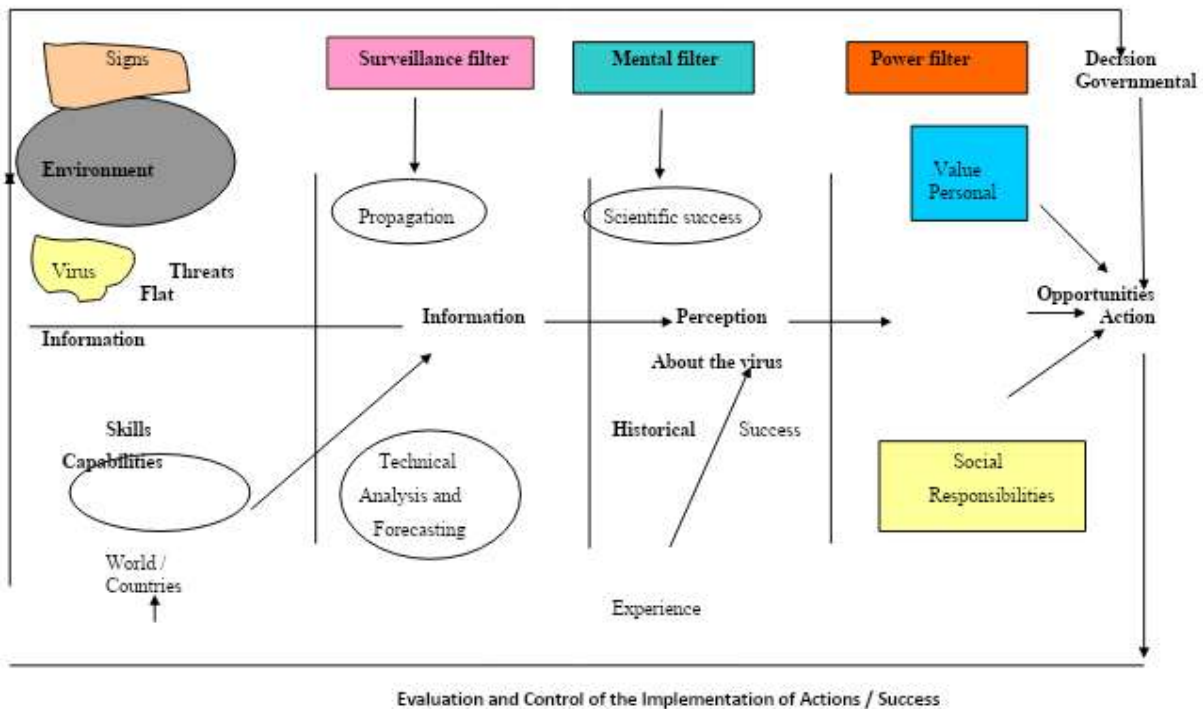
1. Have outdoor life and breathe fresh (unpolluted) air.
2. Perform physical activity.
3. Do not smoke.
4. Consume alcohol and alcoholic beverages moderately.
5. Have a varied feeding.

A way to prolong active life must be found, since the average life expectancy is higher. How to get there? We don't know that. But we have an obligation to prepare for this, taking all care to prolong active life as best as

possible, living and not "vegetating". After retirement/retirement age, you must continue to do what you like as long as possible.

The health-disease surveillance process is a process of conception and not of learning. The organizational structure follows the government strategy and is determined by it. The exhaustive list of information on viruses and most influential diseases in the surveillance process is external information, especially those related to global health as opposed to local and or regional viruses. The objectives to be achieved are quantitative in nature, so formal (quantitative) information is privileged to respond to *the World Health Organization and the Government of the land and its relations.*

Figure No. 2 - Health-Disease Information Filtering Process



Source: author's elaboration

To understand how governments use information about viruses and pandemics in support of decision-making and learning, it is necessary to look at the environment in terms of information needs, research, and use, that is, in terms of insight, knowledge creation and government decision-making process.

- ✓ **Insight – is induced** by changes in the environment that create discontinuities in the experience flows of people and the activities of organizations. These discontinuities are the signs (weak and strong) that must make sense. The organisations then set up scientific research centres through the experience and innovation of new pharmaceutical products.
- ✓ **Knowledge Creation – Organizations have three** types of knowledge: tacit, explicit, and cultural.
 - **Tacit knowledge** is personal knowledge, used by members of scientific research centers to perform their work. It is the object of learning through the experience of the research work carried out, during which they develop skills and abilities to make judgments about the success or not of the activities. Tacit knowledge is experimental and contextualized and cannot be easily codified, written or reduced to rules and recipes. This knowledge is vital for organizations, because it is an important source of new knowledge, discoveries and innovations that are the result of individual creation, applying their knowledge and intuition to face problems related to health-disease.
 - **Explicit knowledge** is knowledge that is formally expressed using a symbol system and can be easily communicated or disseminated. This knowledge can be based on objects or standards. Knowledge is based on objects when it is represented using a set of symbols (e.g. documents) or is embedded in physical entities (e.g. equipment, substances).

The surveillance of information on viruses and health (collection, selection, treatment, and analysis) is carried out by specialized technical teams that then submit to decision makers the alternatives for decision-making. The formal process is explicit and sequential.

The formal forecast is subject to the same limitations inherent to the informal process, that is, it is limited by the filter of the prediction of the methodology used to make the predictions. In stable competence, experience is

based and no "probing" or formal forecasting takes place. Reactive competence formally extrapolates past performance. The competence characterized by anticipation incorporates the extrapolation of formal performance.

The technology used for prevention puts a filter between researchers and the environment. A myopic filter that is narrower than the turbulence and complexity of the viral or pandemic environment will present inaccurate information to scientists.

The accuracy of a scientific research organization's performance expectations is limited either by the prediction filter or perception filter, depending on which of the two is narrowest. When the narrower filter excludes trends in the evolution of the virus and or pandemic, performance expectations will be inaccurate, regardless of computational refinement and prediction methodology.

Promoting Health

We live in an era of communications at the scale of the globe, information is the link that unites us. By being able to transmit it in large quantities quickly from continent to continent, we transform a largely separate and diverse world into a single global megaloon. The messenger on foot gave way to the information highway son a global scale.

Anything may be an asset to be compiled, stored, duplicated, sold, stolen and sometimes a source of murder. Many people around the world spend their working days gathering, studying, and processing information. Industries have been developed to produce equipment (computers, communication networks and software) to store and process information.

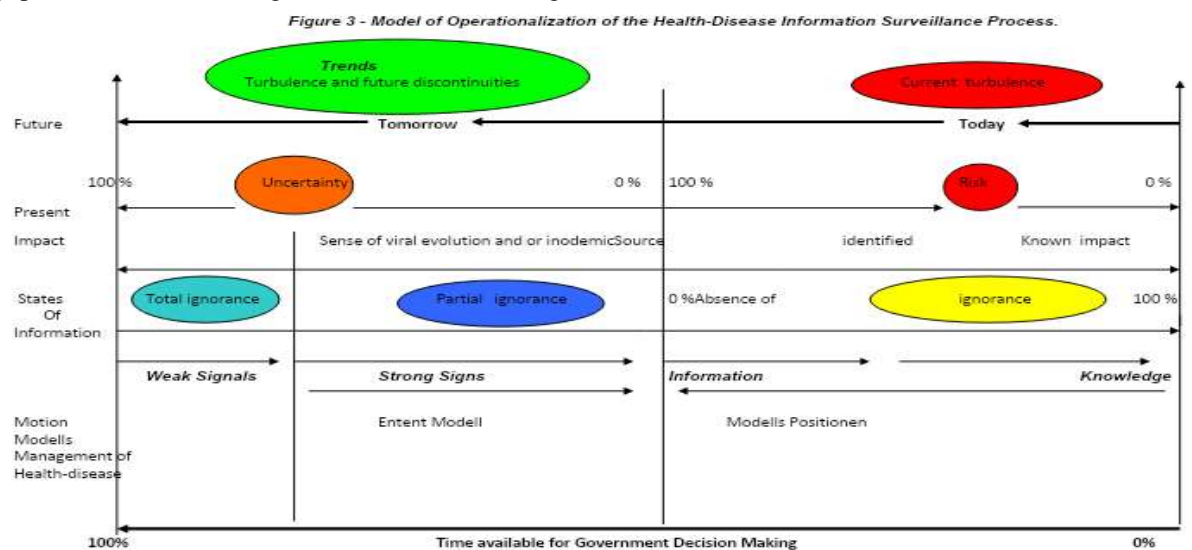
Although we can store it using various physical supports, the information itself is not physical, but abstract and so little purely mental. Knowledge is stored in people's memories, but information is out there in the world. Whatever it is exists somewhere between the physical world around people and the mental of human thought.

Being well informed means much more than having a significant amount of information: it means having relevant, interesting, useful, selected information (Freitas and Janissek-Muniz, 2006). For this, it is fundamental to predisposition, pro-action, attention to the surrounding environment of organizations, seeking to listen and know diseases and or pandemics, anticipate movements, observe needs and expectations (whether declared or implied).

Quantity is not what we are looking for, but rather to privilege the attention, speed, selectivity, and quality of information, which needs not only to be perceived, but also collected, interpreted, and disseminated. The global and interdependent economy is observed in large flows of information, so information plays an increasingly decisive role in the health-disease of populations in countries and worldwide for several reasons:

- Be important in decision-making.
- Be important to innovate products and services with greater added value.
- Be relevant to a country.
- Be a synergy factor within organizations.
- Be influential on the behavior of people and groups.

Is there a perfect health-disease system? No, but the main characteristics that make a Health-disease system require long-term public and or private investments in human resources, infrastructure, and the quality of life of populations. The following is a health-disease management model:



Source: author's elaboration

The weak signals are so called not for lack of importance, as the name may suggest, but by the difficulty in its capture. Their identification is difficult because, among other things, they are easily overshadowed by other factors, such as: preconceived ideas, routine attitudes, and bias of behavior on the part of people involved in health-disease-related activities.

Weak signals can be valuable if you can identify your potential for assistance in anticipating situations that configure threats. They are easily identifiable *signs a posteriori*, when a particular situation of this nature is fully identified, but if they are not given adequate treatment, they are hardly perceived *a priori*.

As a metric to evaluate the uncertainty and complexity of the health-disease problem, one can look at the variable perception. Several studies have operationalized the perception of the uncertainty of the health-disease problem through subjective measures to answer questions about the complexity of perception, frequency of change and importance.

Rulers manage people beyond other resources - including **information that** is subject to the **filter of cognitive abilities** and the "play" of influences and alliances. The process of monitoring health-disease information includes, among others, the following aspects:

- ✓ **Being systematic and ethical** – should not be based on unethical actions or be just a process of responding to specific questions.
- ✓ **Being formalized and evaluated permanently** – without formalization becomes a sporadic and unimportant process; it requires a permanent evaluation to verify its effectiveness and efficiency.
- ✓ **Having the necessary resources (human, material and financial)** – the information to be collected and analyzed aims to identify opportunities and threats to increase, promote and prevent health-disease, without wasting time and resources.

The process of monitoring health-disease information (weak, strong, quantified information) includes, among others, the following surveillances:

- ✓ **Social surveillance – information on sociocultural and environmental changes** and trends, such as information on social infrastructure, labor and *qualification, security in the region, population growth or decrease, population age distribution, life and career expectancy, lifestyle changes, etc.*;
- ✓ **Economic surveillance** – information on the evolution of the economy (local, regional, national, global), such as financing, taxes, interest rates, unemployment rate, inflation rate, wages, prices, exchange rates, etc.
- ✓ **Technological surveillance** – information that may affect the problem of health-disease from a technological point of view, such as information on new technological advances and advances in its transfer to organizations, etc.
- ✓ **Political surveillance** – information that may affect the government from the political point of view, such as the response to viruses and systems, economic, fiscal and labor policy of the government, etc.

A timely response to the changes is only possible if the changes are perceived before, that is, respond to the signals (weak and strong) produced by a change in the initial state of the virus and or pandemic, and its development. This presupposes that government organizations have the necessary skills to deal with this information to initiate the response or to have a perception of the need for decision-making by identifying the opportunity(s) (discovery phase).

The observation / surveillance of information about health-disease is an open and non-oriented attitude, that is, seeks to identify the discontinuities, opportunities to increase human life, prevent the disease and promote health. Systematic information research (weak and strong signs) actively seeks opportunities for the development of the health-disease problem. Both consume time; this is a function of the knowledge of scientific experts (researchers, observers, vigilantes, analysts); knowledge is more complex than information, but there is no knowledge without information.

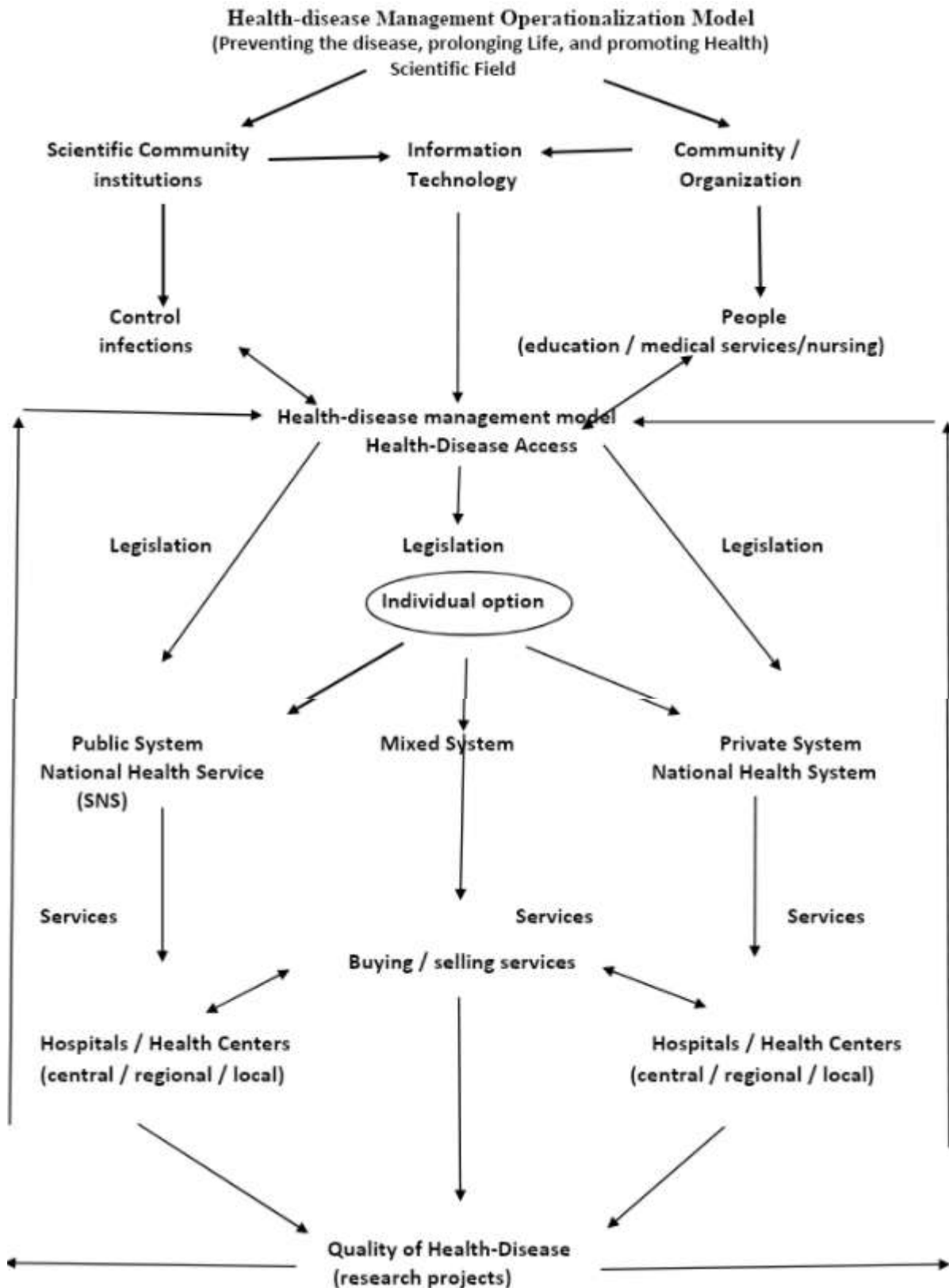
The available time of the Rulers for decision-making on health-disease is inversely proportional to the information available and knowledge; the use of the process of observing and monitoring information about viruses and or pandemics (weak, strong signals) allows them to increase the time available for government decision-making. "He who occupies the battlefield first and awaits his enemy is at ease; who then arrives at the scene and rushes to fight is tired" (Sun Tzu, 1971; Porter, 1980).

Health-disease management model

The definition of health-disease policy tends to take the form of a perspective rooted in collective intentions and reflects patterns of resource use and capabilities. Governments tend to regard information as a "resource" that can be acquired, stored, and possessed.

The information provides stability and comfort, and the governments to internalize it, transform it into knowledge, about health-disease and or about the world. However, there are limitations in the foresight models used, since, no non-quantifiable information (weak or strong signs) of the changes has been taken into account). This governments actively exploit the imperfections of political information, through political activities, as a way of obtaining advantages.

The sources of information that "political analysts" and "political strategists" often use are predictions made by credible institutions, national, European, and global, about the evolution and trends of viruses and zika's.



Source: author's elaboration

The Model of Health-Disease Management is presented for intervention in debate actions in the political, academic and governmental space, with the purpose of production and sharing information and knowledge, among the participants, in addition to the promotion of the development of search, recovery, organization, appropriation, production and dissemination skills of relevant information to scientific researchers, policy makers and other interest groups in society.

Scientific Field

Scientific advances in the health area and changes in the population's access to health care generate new care needs, so health professionals are required to have an integrative and transformative view of reality based on the knowledge of health sciences and scientific evidence.

Scientific research studies seek innovation and provide human response to health care and the development of knowledge, interventions and technology for application and use in the area of health to improve the care provided to citizens. Researchers seek solutions for the diversity and complexity of clinical situations and develop, implement, and evaluate highly complex health interventions, in addition to developing and implementing standards of clinical guidance; develop translational and evidence-based practice implementation studies; develop, implement, evaluate and control complex health interventions, especially epidemics.

Legislation

The World Health Organization (WHO) is an *international UN-linked body* that aims to promote access to quality health to all peoples of the world. It was founded on April 7, 1948, during meetings held for the formation of the United Nations in 1945. At the time, the need to think of an international body focused on the promotion of global health was discussed, since the lack of access to health and the spread of diseases posed a threat to world peace.

According to the WHO Official Records published in 1948, the concept of health that directs the organization's work and campaigns understands health as "a state of complete physical, mental and social well-being and not only, as the absence of infections or illnesses".

Thus, WHO's action goes beyond combating infectious diseases and epidemics and encompassing issues such as combating poor diet, promoting gender equality, mental health, etc. According to the WHO published in 1946, the principles that guide the organization's action are:

- The enjoyment of the maximum degree of health that can be achieved is one of the fundamental rights of every human being, regardless of race, religion, political ideology or economic or social condition.
- The health of all peoples is a fundamental condition for achieving peace and security and depends on the broadest cooperation of people and states.
- The results achieved by each State in the promotion and protection of health are valuable to all.
- The inequality of the various countries in terms of health promotion and disease control, especially communicable diseases, is a common danger.
- The healthy development of the child is of fundamental importance; The ability to live in harmony in an constantly changing world is indispensable for this development.
- The extent to all peoples of the benefits of medical, psychological, and related knowledge is essential to achieve the highest level of health.
- Well-informed public opinion and active public cooperation are of paramount importance for improving people's health.
- Governments have responsibility for the health of their populations, which can be fulfilled only by the provision of appropriate health and social measures.

WHO works to combat epidemiological outbreaks affecting all regions of the world, such as the Covid-19 outbreak in which WHO declared an international public health emergency? In addition to acting in emergency situations, WHO also helps in disease prevention through its Expanded Immunization Program, which aims to promote the distribution of vaccines and medicines.

Thanks to WHO's efforts to partner with member countries, smallpox was eradicated in 1980, the first disease to be eradicated because of human effort. As part of disease prevention, WHO maintains several campaigns to promote healthy eating, stimulate fruit and vegetable consumption and reduce tobacco consumption.

As one of the objectives of WHO is to disseminate information on the occurrence of diseases, the organization is responsible for the International Statistical Classification of Diseases (ICD), the International Classification of Functionality, Disability and Health (ICF) and the International Classification of Health Interventions (ICHI). These classifications are important because they allow the standardization of health diseases and events worldwide, contributing to these events being statistically analyzed and enabling the elaboration of strategies to combat them.

Alternative models of Health-disease

Everyone has the right to access quality preventive and curative health care at affordable prices in a timely manner. Timely access means that anyone has the possibility to access health care when they need it, which

requires a balanced geographical distribution of care centres and health professionals, as well as policies that minimize long waiting times.

Affordable health care means that people should not be prevented from resorting to the care they need because of their cost. Good quality health care means relevant, adequate, safe, and effective care. To this end, people must ensure two alternative models of health-disease:

- **Public Health-Disease Service - is a structure** through which each country guarantees the right to health (promotion, prevention and surveillance) to all citizens and whose primary objective is the pursuit, by the State, of the responsibility it has in the protection of individual and collective health and to do so must ensure integrated health care, promotion, surveillance, disease prevention, diagnosis and treatment of patients and medical and social rehabilitation. This public health care service is based on Beveridge's model and depends on taxes and social contributions.
- **Private Health-Disease Service** - the private sector aims to provide faster access to care, higher levels of comfort, the possibility of choosing a doctor, notoriety, and the location of the care provider. This health care service - diseases based on the Bismarck model, which depends predominantly on insurance.
- **Mixed Health-Disease Service** - Health-disease systems need to interact more and more with each other by creating a legal framework and policy instruments for such cooperation, in establishing clear standards and providing reliable information to patients on access to and reimbursement of health care received, in the other system. This means that whenever one system has technology and skills that the other does not have, they buy the care/services to each other, thus improving the quality of life of citizens. It is a mixed health care service based on taxes and that includes social insurance.

Structure / Hospital Organization

The hospital structure was defined by the WHO (World Health Organization) as an integral part of a coordinated health-disease system. The function is to provide complete care regarding complex treatments for the health and well-being, as well as a better quality of life for citizens.

In this context, the combination of human, technological, infrastructure and hospital risk control policies becomes essential for the success of the treatments provided, especially for complex interventions, such as cardiac surgeries, so knowing that true safety is synonymous with comfort, it is necessary to focus all the efforts and means available to offer more and more comfort and better and faster recovery to patients.

A good hospital structure can make a difference during the provision of medical care and help save many lives, so it is important to have a quality hospital structure, what are the most relevant aspects and how this differentiates the Hospital. Thus, the public and private hospital structure and organization should consist of specialized hospitals and generic hospitals, at national, regional, district and municipal levels, as well as in local Clinical and Health Centers.

Human resources

Patient care work involves many competencies and as such, it is important to establish multidisciplinary teams that, through care and technical knowledge, contribute to the good and rapid recovery of patients. The success of care involves excellence in the reception of patients and their families, as well as, knowing how to inform and guide and, above all, close follow-up of the patient throughout the period of hospitalization and recovery.

Specialized and general hospitals have exclusive health professionals, such as doctors, nurses, nursing assistants, pharmacists, nutritionists, physiotherapists, hygiene teams, infrastructure technicians and equipment, engineers, among others. Everyone is the mission of the care and the best rehabilitation of the sick.

Following the worldwide trend of the best specialized hospitals have a Heart Team. This is a team of professionals from different specialties involved in discussing the best approach for each patient. This committee of physicians provides the assurance of a more comprehensive and effective approach.

Infrastructure and Technology

In addition to the competence and professionalism of human resources, the physical structure and the best available technologies always result in more security. This has a positive impact on both patients and medical teams. The permanent technological update is directly related to the best results of a hospital organization.

Moreover, a high-level hospital structure with state-of-the-art resources and operational efficiency attracts the attention of health professionals to work onsite and reinforces the quality of the team of professionals working at the hospital.

Another factor that deserves attention is diagnostic and therapeutic support in the hospital structure. Rely on laboratory clinical analysis and microbiology, imaging tests, among other resources, contributes to success of surgeries, in addition to the proper and safe conduction of procedures and offers safety and tranquility to patients.

Low Hospital Infection Index

Conduct protocols, actions to prevent hospital infection and control of resistant microorganisms should be a priority in the hospital organization. Although some surgeries are considered clean and low risk of infection, care should remain.

The World Health Organization (WHO) considers hospital infection rates of up to 5% acceptable. The result is due to continuous work to prevent hospital infection. It includes actions to monitor and audit internal processes in accordance with SCIH standards, and the world's best practices for patient prevention and safety, certified and internationally accredited.

Thus, the hospital structure plays a fundamental role in the success of surgeries. Having the support of equipment and technology, and the competence of a team of specialized and dedicated professionals, makes all the difference.

VI DISCUSSION, CONCLUSIONS AND CLUES FOR FURTHER INVESTIGATIONS

General Considerations

For information to be used by governing politicians need to be valuable, since it is flooded with useless information. This requires a surveillance and filtering process to identify what relevant information to rely on in policy decision-making. Information adds value when it allows governments to realize political opportunities and threats, noticing trends or potential problems. The information adds value when your analysis/interpretation comes to new ways of doing politics.

Weak and strong signal and relevant information affect the success of governments, as they are a resource of high added value, since they allow governments to be constantly attentive /informed, about alternative (external) scenarios, in addition to consolidating at any time important policies, political decision-making. To this end, relevant signals and information should be managed by a surveillance and filtering process involving the ability of expert technical teams to identify/interpret global development trends in health-disease, while useful, in location and time.

Health-disease

The health status of a population depends not only on the health system, but on the combination of several factors, some of which are related to other systems, such as education, the environment, socio-economic conditions, among others. It is important that the country's development policies seek to combine, with the necessary efficiency, the binomial health-wealth for a healthy life of all.

Promote the deconcentrating / decentralization of health services using ICTs, as a way for hospital services to be used only for serious cases, operations, and scientific research (*Telemedicine*).

Promote the constitution of the Health Service Model, similar, consisting of public and private hospitals, in large population centers and smaller cities, using Telemedicine and teleconsultations, to avoid the hospital concentration of large population centers.

Promote the creation of the Health Database with the registration of health care -disease of all citizens, as a way to ensure the mobility of citizens in terms of health-disease.

Everyone has the social right to access quality and affordable preventive and curative health care in a timely manner, when they need them, which requires a balanced geographical distribution of care centres and health professionals, as well as policies that minimize long waiting times.

People should not be prevented from resorting to the care they need because of their cost, so good quality health care is the relevant, adequate, safe, and effective care that contributes to their well-being in terms of health care.

Public and private health systems must increasingly interact with each other so that there is cooperation within the political and legal framework, with clear rules and rules for providing reliable information to patients on access to and reimbursement of health care received, including another country.

There are huge disparities in access to good quality health care. Barriers to equity in access to health care can be multiple and include financial, administrative, geographic, legal, cultural, and organizational factors.

Unmet medical needs should be analyzed based on objective measures of use and health expenditure. The level of public, private and direct payments for health care is an indicator of the financial protection of citizens against the risks of disease and the use of health services.

Out-of-pocket payments are payments of goods and services directly made by citizens, from their income or household savings, where payment is made by the purchase of health-sickness goods/services or the enjoyment of the service without any reimbursement or reimbursement of costs, within the scope of the system used.

Limitations of the research study

Previous studies on the area of health-disease have numerous limitations that should be addressed in future investigations. First, they are often limited to partial studies, that is, on a theme and not on an overview of health-disease problems.

In addition, previous research studies are difficult to compare, due to differences in terms of health-disease systems and models, countries (European, American, Chinese, etc.), or research period. Likewise, previous studies are often limited to only one country, which reduces the potential for generalisation of conclusions.

Clues to New Investigations

The debate on the prevention of the Disease, prolonging life and promoting Health (from Theory to Practice), can support governments in political decision-making in different areas of activity, influencing all organizational

levels of governance, involving politicians, technical committees, and other members of government, and thereby provide political decision-making assertive, at all levels of the governing structure. We are now asked the following questions:

- Has the COVID-19 pandemic been provoked or has been a ploy of the world's major technology and pharmaceutical companies to bring about the transition from the Information and Communication Society to the Digital Society and have economic and financial benefits?
- Has the COVID-19 pandemic forced global globalization at once, without being made continent to continent, country by country?
- Is globalization not to call into question people's freedom and privacy, including health-sickness?

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- [241] Fonte: Eurostat, EU-SILC. Notas: Todas as razões; diferencial expresso em pontos percentuais. Figura B: Pagamentos diretos a partir do orçamento familiar em % do total das despesas correntes com a saúde, 2014 ou últimos dados disponíveis
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- [243] Fonte: Com Base no Relatório sobre o Envelhecimento Demográfico 2015 — serviços da Comissão. Figura D: Nível de escolaridade da mão-de-obra Emprego de trabalhadores titulares de um diploma do ensino superior, em percentagem do número total de postos de trabalho no setor da saúde e ação social e em todos os setores, 2016, Fonte: Eurostat
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