InterfacEHS
A Journal on Integrated Management of Occupational Health and the Environment

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THE CONFIGURATION (DILEMMAS) OF ENVIRONMENTAL AND HEALTH RISKS: TRENDS AND PERSPECTIVES IN BRAZIL

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ABSTRACT

This article analyzes the relationship between health and environmental risks within the social and economical development adopted by central and surrounding countries. It emphasizes an exploratory analysis of environmental effects on the individual's state of health, considering the macro-economical aspects that contribute to the consolidation of environmental and health paradigms on a global level. This text aims to highlight the main paradoxes, combining the aspects regarding existing iniquities in this context, in an attempt to identify the effects (direct and indirect) resulting from social and economical inequalities, particularly in urban spaces. It pinpoints this evidence with an analysis of the situation diagnosed in Brazil, hoping to show the impacts caused by the adopted model of development and the consequent generation of environmental and health risks to the population, as well as the response from the Public Health System.

Key words: sustainable development; environmental and health risks; social inequalities; access to health care.

INTRODUCTION

The topics of health and environment have always been interconnected. It is not possible to conceive of decent health conditions in a precarious environmental context. Thus, when we speak about development, these two subjects – health and environment - are necessarily included. Situations involving environmental and health risks are not sustainable along time and compromise the bases of sustainable development: economical and social development, as well as environment preservation.

The sustainable development goal supported by those three pillars can be expressed by the concept proposed by the World Commission on Environment and Development, in 1987. According to it, the official definition of sustainable development is “development that meets the needs of the present without compromising the ability of future generations to meet their own needs. ”

In this article we present two kinds of problems that affect public health and are directly influenced by the development models adopted by each country.

Initially we will treat the health issues related to social inequity, as a result of the economical model through which product exchanges are made in almost every country in the world. The dynamic of the economy deeply influences the social arrangement, as one can observe in the socioeconomically excluded, making up a significant portion of the population, who, empowered, are not able to achieve the minimal conditions for a satisfactory life for themselves and their descendants. This difficulty manifests itself in three real problems exposed in this article: a higher susceptibility to health risks, due to the precarious sanitary conditions they live in; lack of alimentation, which makes them more vulnerable to diseases; and the precarious access to public health services.

On a larger perspective, we will try to analyze the environmental problems as generators of health risks, which are not necessarily limited to the more vulnerable population. The effects of a development model, which is harmful to the environment balance, do not respect social classes or geographic differences. Still, this subject has been treated with certain irresponsibility when development politics are being defined. However, the dynamic of exclusion, referred to in the previous paragraph, gains new

proportions when one observes that peripheral countries are more seriously, yet not exclusively, affected by environmental problems.

Both situations are problematic and morally condemnable. Both go against sustainable development propositions. The first one, since it regards the country's internal problems, must be minimized by effective public politics that touches, at the same time, public health issues and economical exclusion. As for stopping harmful development in the environment, the propositions of international treaties present an alternative, in the context of historical negligence to the negative effect favoring the immediate economical benefit that results.

Since ECO-92, several countries have signed formal tools that generated compromises and obligations ruled by international law. Since the declaration of Agenda 21, Brazil has signed and ratified some conventions that directly affect health and environmental issues in the country. Among them, we stress The Convention on Biological Diversity, which caused a change in the Brazilian Legislation regarding the uses of genetic resources and traditional knowledge associated; the Convention on Climate Change, that led to the Kyoto Protocol, which limits the increase of gas emissions causing Global Warming; and the Vienna Convention and Montreal Protocol on Substances That Deplete the Ozone Layer, whose goal is to protect human and environmental health against the harmful effects of alterations to the ozone layer. This is the context of the discussion of public and environmental health in Brazil, and in the world. The problems associated are not of easy and immediate solutions, but call for deep changes in the governmental conception of development and their actions toward it.

HEALTH AREA PARADOXES AROUND THE WORLD

The environmental and health issues meet new challenges as mankind develops, and the ecosystem and quality of life around the globe suffers the impacts of this development.

These changes have meaningful implications on individual health conditions and they generate lifestyles with low sustainability if one thinks about behaviors that could be considered healthy.

More and more multisided organisms, scientists and ecological movement militants, have been alerted to the worldwide tendency to aggravate environmental risks and amplify mankind's vulnerability. However, the critical situations that have put the health of the population at risk persist, compromising the quality of water and air, thereby causing a continuous unbalance in our ecosystem.

In the context of international cooperation for sustainable development, political action for the actual implementation of United Nations' Agenda 21 has established, since the beginning of the 90's, new principles and governmental and intergovernmental agreements[1]. It proposes the adoption of a new ecological rationality directed at economical efficiency and equality, social responsibility, fighting against international and national disparities related to poverty, hunger, diseases, illiteracy and, especially the deterioration of ecosystems.

In addition to this, human behavior has been changing along its history, creating new habits that affect health quality. These lifestyle changes, both on the production and consumption patterns, create a new epidemiological profile.

The World Health Organization's (WHO) report for the year 2002, entitled *Reducir los riesgos y promover una vida sana* (Reducing the risks and promoting a sane life) shows a world paradox in consumption patterns, stressing the distance between the poor and rich countries. Many of the risks analyzed in this document are due to a lack of consumption among the poor and excessive consumption among the priviledged. More specifically, the manifestation and persistence of non-transmissible diseases associated with bad habits and food are found in large urban locations, coexisting with malnutrition in poorer areas.

According to Who (2002), the ten leading health risk factors, globally and regionally, are: underweight; unsafe sex; high blood pressure; tobacco consumption; alcohol consumption; unsafe water, sanitation and hygiene; iron deficiency; indoor smoke from solid fuels; high cholesterol and obesity. Together, these account for more than one-third of all deaths worldwide. Most of the examined risks in this report have a close

[1]These new agreements include: 1) the perfecting of the decision making process and planning and management systems, aiming the gradual articulation of economical, social and environmental issues; 2) the institutionalization of the information system for vigilance and evaluation of the reached progress; 3) the adoption of a national strategy for sustainable development.

connection with lifestyle, in particular with excessive or insufficient consumption. At the extreme opposite of poverty is over-nourishment, qualified as over-consumption[2].

The common risks such as: high blood pressure, high cholesterol, excessive tobacco and alcohol consumption, obesity, sedentary lifestyle and related diseases prevail in wealthier countries. At the same time, poor countries suffer a double charge, since they are both vulnerable to infectious diseases, more common there, and to non-transmissible diseases caused by new conditions of production and consumption in the modern world.

In regard to the aforementioned tendency, what can be observed is a fast expansion of such infirmities persisting, and resulting in almost 60% of world mortality. This mortality rate is related to an evolution in eating habits, more specifically, the constant consumption of industrialized food with high levels of fat, salt and sugar.

RISKS OF INEQUALITY IN QUALITY OF LIFE

The inequalities identified in modern societies have an inner heterogeneous structure with many dimensions – social, economical, ethnical, cultural, geographical. As a result of an inequality to access social goods, we have important differences in quality of life. Multiple social privations are due to structural inequalities that sustain themselves along time, rather than on individual skills (ACHESON, 2000). In our current society, we can affirm that the process of modernization has produced a globalization of risks and vulnerability and the world population has been unequally subjected to them. The generation of vulnerable population is related to the multiple dimensions of society risks, from the industrial and technological, to the ones related to urban environments. As for the juxtaposition of risks, the poor populations are all the more vulnerable, experiencing high levels of risk contact.

On the other hand, the idea of well being is being considered more and more as a parameter of equality in regard to the access to opportunities generated by the development process. Thus, the concept of development is beginning to be understood as

[2] The world contrasts are huge - while in the poor countries there are 170 millions of children underweight, and more than three million dying for this reason every year, more than a billion adults have excessive weight and around 300 millions are clinically obese. Approximately half million die every year in North America and Western Europe form diseases related to obesity (WHO, 2002).

a wide process of expansion of the right to make individual choices in many areas: economical, political, social or cultural. (SEN, 2001).

In the same perspective, the notion of quality of life is considered on a wide perspective: one side related to lifestyle and conditions, the other side including ideas on sustainable development and human ecology; eventually relating to democracy, development and social and human rights, producing a defining parameter of social and individual well being (MINAYO *et al.*, 2000).

Thus, it is possible to establish an inner relationship between the concept of health and quality of life – understood as human capacities socially determined. Health, in this context, is defined by quality of life and by the capacity of people to be and to act. As for the social inequities, we use the concept proposed by Sen (2001): consisting of the socially produced differences that are morally unfair. If we approach both concepts, we can say that social inequity in health means socially produced differences in quality of life and in the capacity of social and individual groups being and acting, that are, *per se*, morally unfair and consequently must be minimized.

Studies show that health determination is multidimensional and that the determinants interact, influencing the physical and psychical disposition of people, throughout their lives and through their generations. As for inequity, it materializes itself as unequal access to health services and unequal index distribution of these services among the social groups. Thus, social conditions determine the degree of exposure to the risk factors of getting ill and the access to health goods and services. In other words, the inequities in health have their roots in social inequities.

We know that the inequity patterns in health vary in space and time, and that those inequities can be worsened according to demographic and environmental determinants, access to health goods and services and social politics (DUARTE *et al*., 2002). Thus, the inequalities in health are stressed among social groups with different socioeconomic conditions, ethnicity, gender, age and territory.

As a consequence, these situations generate an excessiveness of problems that mainly affect the most vulnerable groups: early mortality, overcharging for medical procedures, higher demands for social services and reduction of the possibility of social ascension.

The confrontation of constant evidence that socially excluded people have a worse health situation around the world, and the attention to the health inequities, have been constant subjects on the WHO's political agenda.

The recognition of the effects of social stratification or that people included in social relationships have different chances to accomplish their material interests (WRIGHT *apud* TRAVASSOS, 2000) gave focus to the debates about the equality of health services, as a principle of social justice.

These statements are confirmed by the comparative studies made by Van Doorslaer *et al.* (1993), with nine European nations and the United States about their health pattern equality. Doorslaer showed that, in all the analyzed countries, mortality was not distributed in a proportional way, always concentrating on the poorer people. The same conclusion is shown by Travassos *et al.* (1995), in Brazil, using data of the Pesquisa Nacional de Saúde e Nutrição (PNSN), (National Research on Health and Nutrition), in 1989, coordinated by the Instituto Brasileiro de Geografia e Estatística (IBGE) (Brazilian Institute of Geography and Statistics). According to it, the mortality rate in Brazil for the urban population tends to rise inversely with familiar income *per capita* in all the larger regions in the country.

TENDENCIES OF THE ANALYZES OF INEQUALITIES IN HEALTH

Currently, there is a wide consensus that people exposed to harsh social and economical situations may suffer worse health conditions. Some studies have been trying to validate this point-of-view arguing the existing association between socioeconomic conditions and inequities in health.

Since the publishing of the *Black report*, when Townsend and Davidson (1982) showed an increase of inequities in the health of the British[3], there have been efforts to analyze the health conditions and the access to its services, according to the division of the population by socioeconomic level, measured by income, education, occupation or

[3] In the United Kingdom, since the 80's, three big evaluation researches have taken place: *The black report on social inequalities in health*, by Townsend & Davidson; *The health divide*, by Townsend, Davidson & Whitehead; and *Independent inquiry into inequalities in health*, by Acheson.

position in the social hierarchy and the differences among life expectancy in the United Kingdom (PAMUK, 1985; CHANDOLA, 2000; WAGSTAFF, 2000).

In the United States, salary inequalities are closely associated with mortality inequalities, homicides and low birth weight (KAPLAN *et al.*, 1996).

In Europe, the projects Socioeconomic Factors in Health and Health Care, and Socioeconomic Inequalities in Mortality and Morbidity in Europe, coordinated by Erasmus University, in Rotterdam, Holland, through sectional results published by Mackenbach and Kunst (1997), indicate that socioeconomic inequalities that effect the health of the population in countries belonging to the European Union, manifest themselves mainly in the educational, nutritional and health service domains, both in the way they work and the expenses *per capita* that maintain them[4].

In Brazil, some recent studies have been investigating health inequality through regional, infra-regional and inter-urban comparisons. The results of the research conducted: Medindo as Desigualdades em Saúde no Brasil (Measuring the health inequalities in Brazil), developed by the Instituto de Pesquisa Econômica Aplicada (Ipea), (Institute of Applied Economical Research), with the support of the Organização Pan-Americana de Saúde (Opas) (Pan-American Health Organization) is one example. This research makes a wide analysis of the health social inequality profile in Brazil using databases (Pnad, POF, AMS, Data-SUS, IDB/Ripsa[5] and others) available for general use and accessible indicators and methodology. Thus, it creates an inequality measurement pattern, able to analyze the human resources offering behavior and installed capacity, access and utilization of health services, federal and familiar federal expenses, quality of health, situation of health and health related to life conditions.

Another research that follows this tendency to analyze the social inequities is the Epidemiologia das desigualdades em saúde no Brasil: um estudo exploratório (Epidemiology of health inequities in Brazil: an exploratory study), developed through a partnership between the do Ministério da Saúde (MS) (Ministry of Health), Centro Nacional

[4] The Gini Coefficient method was used as a parameter to measure inequity among the 15 countries of the European Union in education, cultural activities, lifestyles, nutrition, unemployment, expenses on health services.

[5] Pesquisa Nacional por Amostra Domiciliar (Pnad), Pesquisa do Orçamento Familiar (POF) and Pesquisa Assistência Médico-Sanitária (AMS), made by IBGE; Data-SUS, Ministério de Saúde and Indicadores Demográficos e Socioeconômicos (IDB) from Rede Interagências de Informações para a Saúde (Ripsa).

de Epidemiologia (Cenepi), (National Epidemiology Center), the WHO and the OPAS, through the Programa Especial de Análises de Saúde (SHA), (Special Program on Health Analysis), from Washington. It analyzes the inequities according to socioeconomic and geographical aspects, in addition to the inequities that are related to population composition by gender, age and health public services, using databases from Data-SUS, IBGE, IDB/Ripsa and others.

This study suggests that the health inequity in Brazil is polarized on national and intra-regional levels and that, due to the magnitude of the differences between the indicators observed among the regions, the Brazilian pattern is really asymmetrical.

According to the research, three main determinants seem to explain, in statistical terms, the differences found in: urbanization, poverty and aspects related to the organization of health services. Urbanization suggests the exposure to a “modern” pattern of risks; poverty relates to the inner difficulties to obtain individual or social healthservices; and finally, the services can *per se* raise or create the inequalities in health. In this last aspect, two factors can be outlined: access and quality of services. The perspective is that this exploratory study must become a wider *Atlas of the Inequalities in Health in Brazil* and serve as a reference for the design of health politics and government management models.

ENVIRONMENTAL AND HEALTH RISKS IN BRAZIL

Social and economical development processes, in the way they interfere with the ecosystems can generate risk situations. The kinds of pollution a society produces, and the uncontrolled liberation of specific kinds of energy, directly affects the mortality profile of a population.

However, the influences of the environment on health may go intwo directions: one positive, since it can promote well being and contribute to fulfilling the accomplishments of human capacities, and also a negative one, generating emergencies and maintaining diseases and even causing death to a certain segment of the population. The path chosen is closely connected to the social and economical development model adopted by each

country and also to the design of the world pact, based on both economical increases and social and environmental responsibility.

In Brazil, it is possible to identify several factors that contribute to a non-sustainable development model: constant growth of the deforestation areas (The Amazon Rain Forest and The Cerrado), low water quality, insufficient basic sanitation, environmental contamination by pollutants, all associated with accelerated urbanization creating huge, poor neighborhoods on the outskirts of big Brazilian cities.

This chaotic development model has important implications in the emergence and re-emergence of diseases, leading the country to a complex epidemiological state, high in risk to health, especially within the more vulnerable population.

Talking about health risks in Brazil involves discussing different scenarios and their relationships to the socioenvironmental phenomena. Knowing that the Brazilian population is getting older (RIPSA, 2000; IBGE, 2001), the increase in cardiovascular and neo-plastic diseases, especially within the last ten years, has been related to the effects of genetics and life and work conditions for the people who are exposed to certain chemical pollutants. At the same time, infectious-parasitical diseases, strongly related to socioenvironmental conditions, show a decline in mortality rate (sixth cause of death) but present an uneven distribution throughout the country's regions within specific social groups. We may also observe the re-emergence of ancient diseases (cholera, dengue, malaria), especially in certain geographic areas, consolidating areas of epidemics with higher susceptibility for a systematic occurrence.

External causes, including accidents and violent actions, producing traumas, lesions and diseases, have been increasing (second cause of mortality), with a strong interdependence on socioenvironmental conditions.

These scenarios and their epidemiological tendencies have an intimate relationship with social inequity and the environmental impacts caused by the development model adopted. Even though there have been some advances in controlling these infectious-parasitical diseases (measles, poliomyelitis, AIDS and others), the sanitary conditions of the population remain seriously unequal. Actions such as increased coverage of health services within the population, access to new technologies and inputs, are not sufficient in such a context. To counteract this situation, structural changes in the social and

economical development model are necessary, focusing primarily on the promotion of human health through healthy environments, both in the production and consumption areas.

Health indicators in Brazilian territories show strong differences in mortality among regions and towns. In the northeast region, for example, the child mortality rate is 3.5 times higher (52.4/1000) than in the south (15.1/1000). Whereas deaths caused by respiratory problems, occur much more frequently in the south and southeast, especially near industrial iron, steel and petrochemical plants, such as in Cubatão (SP). It is important to stress that respiratory diseases corresponded to 16.22% of those hospitalized in 2000, occupying the second position of the most constant diseases (RIPSA, 2001). This confirms the WHO affirmation (1998) that associated 50% to 60% of respiratory cases with environmental exposure, both for chronic and non-chronic patients.

In the specific cases of diseases caused by the work environment, of which all cases have yet to be recorded, there was an increase of 35,000 patients in 1996 in only a limited area of 18.8 million people, concentrated in the southeast region (58%) and the south (19%), without including the non-permanent workers (RIPSA, 1998). From 1990 to 1996, there was an increase of 8% in work related diseases. In 1996, the rate went to 16.24/10,000 workers.

As for the transmittable diseases, quality of life conditions no longer offer protection against their dissemination. The perspective for peripheral countries is not optimistic: besides the endemic behavior of these diseases, they must also deal with such basic problems as nutrition, sanitation, housing, vector controls and access to basic health care (IBAMA/GEO, 2002). The Ministry of Health, through Funasa, has shown an increase of several diseases such as malaria, tuberculosis and leprosy, and also epidemics of meningococcal meningitis, cholera, dengue, leptospirosis, leishmaniasis and even hantaviruses, since the beginning of the 80's (Chart I).

Relevant factors of health risk are derived from a productive process that generates the contamination by chemical agents especially agro-chemicals, lead and mercury. Examples of these are the biocides used to control plagues, without any consideration for individual susceptibilities to the exposure. According to the WHO, 70% of human intoxication cases occur in developing countries, and in Brazil the data demonstrates this tendency. In 1999, there were 398 deaths in the country, caused by exposure to agro-

chemicals and 140 of them had an occupational origin. Exposure to the metallic mercury generated by industrial use primarily occurs in the south and southeast regions, and in the case of the “Legal Amazon”, because of the gold mining.

The mercury thrown in the environment can deposit itself in rivers and through the biological chain, transform itself into multi-mercurial organic compost, which can be found in the omnivorous fish consumed by the population who live by the rivers, causing damage to human health (IBAMA/GEO, 2002).

Pathology	1980/84	1995/89	Subtotal	1990/94	1995/99	Subtotal
Cholera	0	0	0	151.339	16.380	167.719
Dengue	11.000	141.663	152.663	211.448	1.346.469	1.557.719
Meningococcal Disease	6.771	12.743	19.514	26.631	30.109	56.740
Yellow Fever	122	67	189	131	132	263
Leprosy	86.294	111.841	198.135	158.800	203.963	362.763
Hantaviruses	0	0	0	3	41	44
Cutaneous Leishmaniasis	26.802	101.784	128.586	140.428	151.231	151.321
Visceral Leishmaniasis	4.991	8.003	12.994	11.031	15.772	26.803
Leptospirosis	0	7.179	7.179	12.138	20.072	32.210
Malaria (several)	1.264.903	2.489.008	3.753.911	2.713.818	2.518.373	5.232.191
Tuberculosis	422.024	412.637	834.461	396.127	421.883	818.010

Chart I - Evolution of reported infectious-parasitical diseases Brazil (1980-99)
Source: MS/Funasa, Brazilian Federal Government, 2001.

Another relevant factor that has been causing damage to the health of the population is atmospheric pollution, which compromises the air quality, affecting millions of people. In Brazil, many of the respiratory problems in recent years have been associated with the deterioration of air quality, mainly in metropolitan areas. Between 1970 and 2000, a substantial increase in the emission of pollutants in the country was registered, with variations from 200%, in the case of sulfur dioxide (SO_2), to 500% in the case of hydro-carbonates. Associated with gases released from the black smoke from the cars, these pollutants contribute to an increase in respiratory diseases. Studies indicate that, in São Paulo, a strong correlation between the increase of the pollution and the incidence of respiratory problems exists, corresponding to 20%-25% of the medical patients and to 10%-12% of the mortalities.

We can also observe an intensification of lung diseases during the 90's, for workers exposed to silica and asbestos in work places such as textile, extractive and civil construction industries, among others. Another factor that contributes to the increase in respiratory diseases is the 'burnings' – a normal practice in large agricultural areas throughout the country – as registered in Alta Floresta, in the state of Mato Grosso, where the number of people with problems increased 20 fold during a burning episode (IBAMA/GEO, 2002).

It is also important to mention natural episodes, such as environmental disasters (floods, drought, mudslides and forest fires), which have been seriously contributing to mortality in the country, as well as industrial accidents responsible for both human death and environmental damage. Preventive and controlling actions have been set in place, but have shown little effectiveness and the damaging effects to human health, as well as the aggression to the ecosystem caused by natural phenomena and industrial accidents, have continued in several regions of the country.

In Brazil, the recognition of the interdependence between economical development, quality of life, environmental and health conditions, are not widely known as can be observed in the continuity of environmental degradation. Both quality of life and the country's epidemiological profile are seriously affected by this situation.

HEALTH POLITICS IN BRAZIL

In Brazil, what can be observed about governmental actions in health politics is that collective actions, such as immunization, epidemic control and sanitation, have occurred in the field of public health, closely linked with the economical environment. Historically, a great gap has existed between preventive measures and curative ones. It would not be exaggerated to say that these differences have been highly damaging and unfair. Preventive measures are still being financed by the government; however, the loss in prestige of social development over the years, has resulted in a freezing of primordial activities for giving hospital and medical services to the population.

The Brazilian health system has always separated preventive and curative activities. Preventive actions were always focused on basic sanitation and stopping the

causes and transmission of diseases among the collectivity. This was done through sanitation services in regards to the environment, people and animal vectors, no matter if the people wanted it or not.

As for medical assistance, there has been a significant deterioration in public services, and reduction of expenses. The current health system gives priority to medical assistance operated by the private sector, financed by the government. This model has developed with the process of urbanization and industrialization that occurred during the 30's. The fast constitution of an urban working class created individual needs for medical assistance. This system was developed according to the demands of the workers, through a self-evaluation of their health. This model was adjusted and assessed by the industrial system, which needed people in good health to work.

Although there have been some initiatives to set a public health system in place for everyone, as established by the Constitution of 1988, serious deformations still persist in the whole process. For example, we are still able to find mishandling of public resources destined for health services in every governmental sphere; centralization of governmental actions, which many times are disorganized, not compromised and/or tied to the political machine; a model focused on curative and hospital medicine instead of on preventive actions; low level of medical services (both quality- wise and quantity- wise); precarious control of the internal redistribution of public resources and many other that are, without a doubt, contributing to the low credibility of the Brazilian public health system (MS, 2000).

In practice, the formal globalization of health services implies an exclusion of certain segments of the society. According to Faveret and Oliveira (1990), this has been happening to workers with stable incomes. To contain an eventual excess of demand for public services, they were pushed into the private system.

This migration to the private system can also be explained by the low quality public services offered, and consequently, the public system become restricted to the less privileged part of the population. As a result, an "excluding globalization" took place: the expansion of the system was followed by a rationing mechanism, causing a decrease in the efficiency of health services. In reality, this condition limited public service assistance to poor people, inducing all others with stable income to adhere to private or semi-private insurance.

These structural characteristics of the Brazilian health service have reinforced its double character: on one hand directed to the privileged social layers, who have easier access to private services, and on another, directed to those who depend solely on the public system. Thus, even with an original legislative proposal to create a universal assistance, the mechanisms for the creation of a unique system resulted in a dual system, characterized by the segmentation of its clients.

FINAL CONSIDERATIONS

Universally acknowledged as a human right, health and all the factors that interfere with its state demand deep contemplation. The interferences of the environment on our health creates new discussions, on the theoretical and empirical field, based on the understanding of how environmental variables can influence a better or worse health state (IBAMA/GEO, 2002). Thus, the environmental situation can encourage well being, but can also create many problems.

What can be observed is that, in relation to health aggravation, the environmental issues have an extremely important role. Environmental problems can aggravate risks to the health of the entire population, not only of the vulnerable, exposed to the results of a development model highly damaging to environmental balance. This intersection between health and environment reinforces the issues of pollution control programs and approaches the multisided organisms around this common goal. Furthermore, when we observe the difficulties in maintaining favorable health conditions in unsuitable environments destroyed by human action, our attention is called to the discussions about the mechanisms used to associate economical and social development and environmental preservation. In this way, we may begin to propose a model of sustainable development designed to reduce environmental and health risks.

From an individual perspective, what determines the search for health services is not foreseeable behavior or pre-programmed need, but an unforeseeable contingency, whether one can or cannot afford to maintain good physical and/or mental conditions. Thus, access to these services assumes a fundamental role for the individual, thereby making health, no matter which idealistic definition we may use for it, the product of objective existence conditions. It is obviously necessary to reinforce the idea of health

rights as a basic notion for governmental action, as long as we establish the difference between the right to health, the right to health services and the right to medical assistance.

The current health system is insufficient because the parameter commonly used for the allocation of scarce resources is based on curative medicine, emphasizing hospital procedures, which should in fact be the last link in the assistance chain. However, the political bases leading the investments are oriented towards immediate action and corrective measures, which are of course easier to be seen. Preventive action, which would generate better results on longer terms with less expense, is unfortunately left to the economical interests of groups connected with the furnishing of equipment and laboratories, among other lobby groups that end up directing the resources in this area.

In this context, mistakes of governmental measures in the health sector become clear, since disease is fundamentally a consequence of the basic standards of living of the population. Furthermore, the health profile of the collectivity depends on conditions connected to the very structure of society. The maintenance of the health state must have an articulated action in a wide range of social areas, related to work, salary, public insurance, education, food, environment and others. This reinforces the close relationship between health and socioeconomic sustainable development, demanding deep theoretical and empirical studies that would explain the multisided aspects of the relationship between health, environment and development, mentioned in this article.

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Article received on 06.12.2005. Approved on 18.01.2006.