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On the Concept of Health and Disease. Description and Explanation of the Health Situation

In the last 10 years the controversy over the concept of health and disease has been revived in some Latin American circles. It appears to us that three fundamental facts have contributed to this:

a. At the World Health Assembly of 1977 (WHA Resolution 30.43) ⁽¹⁾, the representatives of the Member Governments agreed that their main social goal and that of WHO should be to have all the citizens of the world reach a level of health by the year 2000 that allows them to live a socially and economically productive life (HFA 2000), and in the subsequent Declaration of Alma Ata (1978) it was emphasized, with the commitment of the governments of almost all the countries of the world, that primary health care was the road to these objectives, as part of an overall development with a spirit of social justice ⁽²⁾. In 1980 in the XXVII Directing Council of PAHO, the Governments in the Region of the Americas agreed on Regional Strategies and Objectives ⁽³⁾, establishing precise goals in terms of overall mortality and life expectancy at birth as well as total coverage of immunization, drinking water, disposal of excreta, and provision of medical services for all population groups. At this last opportun-

ity approval was also given for primary care to be conceived as a strategy of transformation of the health care model in relation to the criteria for efficiency, effectiveness, and equity and as the set of intersectoral actions oriented to the transformation of living conditions, especially of the "marginal" population groups.

This set of definitions and commitments, universally accepted as normative, has posed, to those who work in the health field, limitations on the theoretical and methodological bases traditionally utilized and has shown the need for new developments, that make it possible to treat the health and disease problem as an expression of the living conditions of different population groups and to understand the relationships between these and the most general social processes ⁽⁴⁾.

b. One of the consequences of the economic crisis and the foreign debt of the Latin American countries has been a deterioration of the living conditions of most of the population groups and, at the same time, a trend toward a substantial reduction in the per capita expenditure on health and on social projects by the official sector ⁽⁵⁾ with the consequent progressive transfer of the costs of the services and

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programs for health to the family budget.

In this context it has become increasingly evident that the goals of HFA 2000 and the objectives of the strategies of primary health care can be attained only with difficulty for most of the population, in most of our countries, unless substantial changes occur in the general social policies. In this manner a growing HEALTH DEBT is accumulating which weighs on the population and the rulers as the social costs of servicing the financial debt⁽⁶⁾. All this has contributed to weakening the legitimating power of the health care model, generating the need for proposals to restructure and change the health policies in the technical field.

c. In the framework indicated, the questioning of "normative planning" in health, which has remained reduced to simple formal dimensions in many of the Ministries of Health and Social Security institutions, has become more forceful. Opportunities have opened up for the development of "strategic thinking in health"⁽⁷⁾ and "strategic and situational planning"⁽⁸⁾—previously restricted to academia or the political opposition—as tools that promise to be more useful for the daily management of institutions and programs in situations of shared power and power scarcity. These "new" developments in planning and management require more comprehensive conceptualization of the health phenomena with greater explanatory power.

Epidemiology has as its study object the health and disease problems from a population-based perspective, population groupings, at the level of social groups. These levels cannot express themselves merely by the sum of individual processes; at the same time they are expressed, not only at the group level, but also at the level of the individual.

Traditional conceptions of health and disease have had to allow for the confrontation with more comprehensive conceptual and methodological developments, with greater capacity to apprehend the real complexity of the determining processes, to go beyond the simple unilateral vision, to describe and explain the relationships between the most general processes of society and the health of individuals and social groups. At the same time this represents the challenge to demonstrate that these developments really have a greater potential for mobilizing power resources related to obtaining favorable changes in the living conditions and health profiles of different population groups and for being articulated with the developments of strategic thinking in health and strategic planning that would permit greater efficiency and effectiveness in health actions.

The Health Situation

The description and explanation of the health and disease situation are not independent of *who* does the describing and explaining and from which *position*⁽⁹⁾. In this way all descriptions and explanations are those of an actor in a specific situation. This is a central point in order to understand why specific conceptions predominate and how they are modified. Although the way the phenomena are perceived has the power to mobilize social forces, it is those forces, the *actors*, that develop and promote them according to their social effectiveness with respect to their purposes, whether these are social or technical and scientific projects. The confrontation of concepts, theories, methods, and techniques is thus one of the areas for conflicts and consensus among social actors. The predominance of a form of thought is not only a function of its greater abstract explanatory power, but also of its greater explanatory capacity from the point of view of those who have the power to make their projects predominate. However, given the heterogeneous character of our societies, especially in circumstances of shared power, the HEGEMONY of those ideas is also a function of their potential to respond to the phenomena from the point of view of other social actors, and to "demonstrate" superiority on the technological realm in face of other forms of thinking⁽¹⁰⁾. The legitimation of a body of thought thus requires the accumulation of power on the one hand and, on the other, its development, not only methodologically, but also *technologically*. Thus it should have the capacity to assume the entire previous scientific and technical development, redefine it, and exceed it at a higher level of efficiency and effectiveness. Occupying space and accumulating power, with more advanced thinking on health and disease, therefore suppose not only the theoretical coherence and strength of that thought, but also a technical capability higher than that of the thinking that there are aspirations to overcome and a greater capacity to respond to the health problems of all the social groups—not only those that we perceive as important, but also those that are perceived as important by other social actors, especially by those whose bidding for power is necessary for the development of general and health projects, that we assess positively.

A health and disease situation, from the point of view of a social actor, contains:

- a. A selection of *problems*, phenomena that affect selected population groups.
- b. An enumeration of facts whose content and form

are assumed to be relevant (sufficient and necessary) to *describing* the selected problems.

c. An explanation, that is, the identification and perception of the web of relationships among the multiple processes that produce the *problems* in the different levels and spaces.

The “health situation” of a specific population group is thus a set of health “problems,” “described” and “explained” from the perspective of a social actor⁽⁴⁾, that is, “someone” who decides on a specific behavior in relation to that situation.

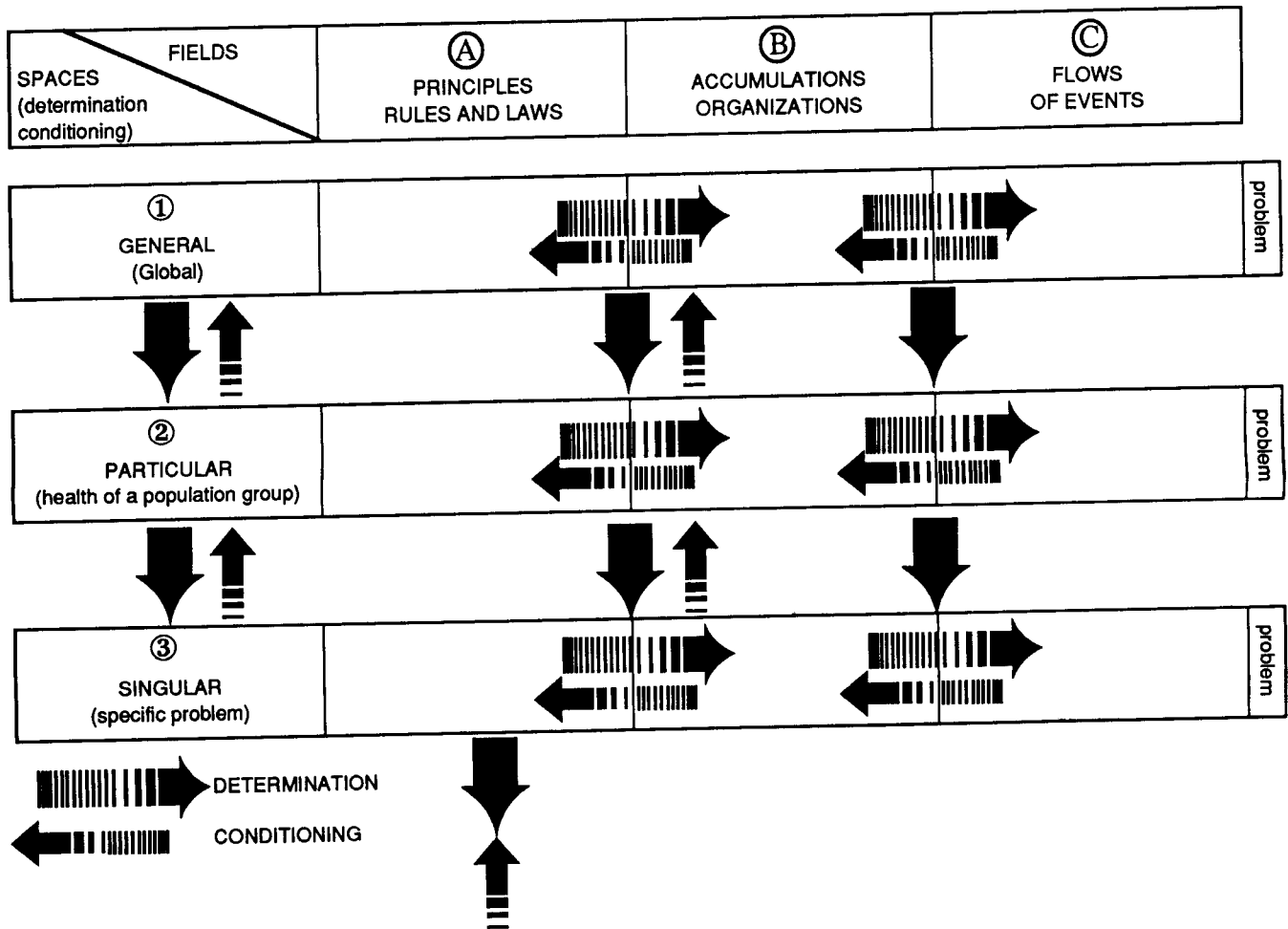
Definition, Description, and Explanation of Health and Disease Problems

The events that we perceive as health and disease phenomena occur in different dimensions. They can be *singular* variations (movements, flows of events)—among individuals or populations grouped according to individual attributes; they can be

particular—variations among social groups in a single society and at a single given moment (groups that differ in their objective conditions of existence), or they can be like *general* movements, flows of events that correspond to the society in general, globally. In this way the health problems can be defined as such in some of these dimensions (see diagram 1).

These problem dimensions are matched with different “spaces” of determination and conditioning; the problems are not only defined in different spaces, but also explained in different spaces. The way a problem is defined delimits the space for explanation utilized by the actor. Thus, when an actor defines a problem in the *singular* space he will be utilizing as an explanation the forms of accumulation (organization) and the laws and principles at the level of the singular—of “singular judgments”⁽¹¹⁾. Its explanatory power is limited to the uniqueness of the phenomena and its power to transform the problems is limited to the technological possibil-

Diagram 1. Explanation of health problems.



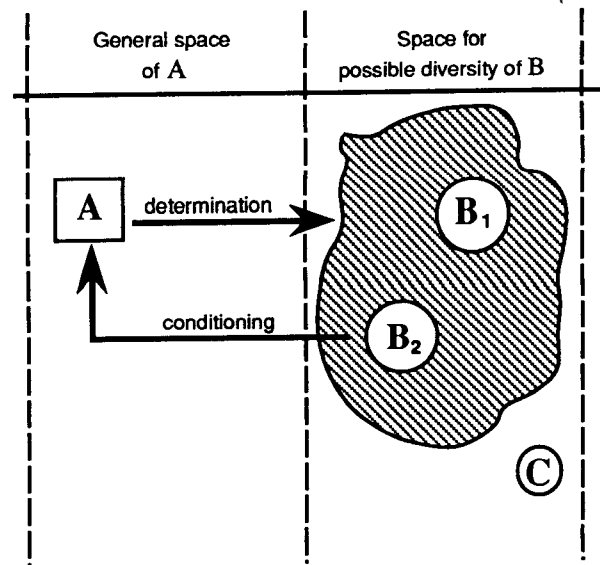
ities that it had developed within those limits. When a problem is defined in the *particular* space, as a profile of a population group, the actor has at his disposal the explanatory power of the accumulations, laws, and principles that explain the process of social reproduction of the objective conditions of existence of different population groups, and his technological capacity, in addition to those developed in the singular space, will incorporate the entire arsenal that makes it possible to modify those objective conditions of existence. We can make a similar observation with respect to problems defined in the *general* space, where the explanatory and transforming powers are broadened. Often a problem defined in the singular space ceases to be important when it is defined in the particular or general space. Let us take, for example, a specific actor for whom the access of the population to dietary supplements to alter the frequency of undernutrition constitutes a problem; if the actor can redefine the undernutrition problem in terms of improving the objective conditions of existence and the quality of life of the population groups for whom undernutrition is a problem, access to supplementary feeding will cease to be important or it will take on the transitory character, like an emergency. However, it is important to point out that the broader the space for defining and explaining the problems is, the greater the need for resources of power (technical, administrative and political) to act.

On the other hand, it is important to point out that the spaces indicated are not exclusive; on the contrary, we should assume them to be inclusive or recursive. The general space includes that of the particular and the particular that of the singular. Hence all actors in health are called by the facts to respond in the singular although they have the capacity to identify and explain problems at the general level.

The processes corresponding to higher spaces have a determining relationship with the processes that correspond to spaces lower in the hierarchy. This relationship should not be assumed to be *causal*, but as the capacity to delimit the “*space of possible diversity*” of the processes and phenomena (see diagram 2). Situation “A” delimits the possible diversity of “B” and excludes the possibility of “C.” The processes of determination corresponding at the level “B” and the laws of chance operate within that space of possible diversity.

However, the way that the facts are developed at a specific level is translated into organization, biological and social accumulations, affecting the higher levels of determination. Thus, for example, the health and disease profiles of a specific population

Diagram 1. Dynamics of the processes.



group are determined by the processes of social reproduction of its objective conditions of existence (particular level), which are determined by the processes that govern the general reproduction of that society and that establish the particular form of insertion of that group in such general processes. However, and precisely because the reproduction of the general relationships of society supposes the reproduction of the different groups that compose it, any modification at the level of the objective conditions of existence of a group will be expressed in one way or another in the general processes of reproduction ⁽¹²⁾. Thus among the processes of the upper and lower levels there is a relationship of “determination,” and in the opposite direction there is a “conditioning” relationship (see diagram 1.)

In the interior of each space or level there exists also a dynamic of determination and of conditioning. That is to say, a relationship of determination of the laws and principles about accumulations (organizational forms) and of these to the flows of events (phenomena) that they generate and, at the same time, a conditioning relationship among the flows of events, which produce biological and social accumulations and can force the “rules of the system” ⁽¹³⁾.

In light of this complex process of determination very often unilateral positions are assumed that emphasize some of their levels and components, exhibiting the vices of reductionism when problems corresponding to superior spaces are defined or explained in lower spaces, or resorting to mechanistic solutions when easily definable, explicable, and modifiable problems in lower spaces are dealt with only at the higher levels. It is obvious that this is related not solely or not so much to limitations of

knowledge as to the point of view and interests of the actor.

Description, Explanation, and Transforming Action in the Singular Space

This is the space of what we could call “epidemiology of *what*.” The “problems” of health and disease in this space appear as variations among individuals or individual attributes; the usual way to define them is by the frequency and severity of one particular pathology or accident among persons with specific attributes of time and space or individual biological or social character. The forms of organization—the accumulations that these facts produce—tend to be individual forms of life and behavior which have recently been called “lifestyles”⁽¹⁴⁾ or the individual exposure to risk factors or processes that in their expression constitute what are termed “groups at risk”⁽¹⁵⁾. The most generic laws and principles defined by epidemiology at this level are the laws of variation of the agents, of the host, and of the risks, although, in addition, a set of other laws and principles more specific for each type of pathology or problem has been defined⁽¹⁶⁾. From our point of view, this is the space that contains most of the theoretical, methodological, and technical developments of epidemiology for the study of epidemics to evaluate risk factors, for epidemiological surveillance of specific problems, and more recently for the evaluation of technologies.

To assume the problems at this level is in short to grasp the way the social and biological processes of determination and effect are articulated to produce the singular manifestations of the health and disease phenomena, and not just to assume the individual biological expression of the social processes. These singular expressions are not only biological expressions; they are singular expressions of biological and social processes. The actions that are thus derived from the definition and explanation of the health and disease problems tend toward control of the injuries and specific risks of a problem or group of problems; therefore the organization of the health care model from which they are derived tends to be that of programs or services directed toward specific pathologies, often vertical and centralizing in nature.

The extensive methodological and technical arsenal available for the approach at this level must be dominated by those who desire to respond to the health problems from the health services or under conditions of limited resources of power. Management at this level is basic not only to gain legitimacy, but also to show its limitations and the need for

redefining the problems in higher spaces and accumulating power in order to act on them.

Definition, Explanation, and Transforming Action in the Space of the Particular

This is the space that we could call “epidemiology of *who*.” The “problems” appear defined as variations of the health and disease profile at the level of population groups^(17,18). The explanation emphasizes the processes of social reproduction of the objective conditions of existence (quality of life) of each group and the laws and principles that govern the accumulations—the ways in which the different “moments” of that process are organized.

The existence and reproduction of men and their objective conditions of existence include as a first indispensable condition existence as a species—the replication and reproduction of the morphological and functional characteristics of the human species. For purposes of health and disease we should point out the processes of gestation, growth, and development, and their expression in the genetic capacities and patterns of immunological response. Hence, *biological reproduction* is one of the principal “moments” in the process of social reproduction of the objective conditions of existence of individuals and groups.

The existence of men and social groups, as with other forms of life, occurs immersed in multiple ecological systems in which they interact with many other human groups and other species under specific natural conditions. Another principal “moment” of social reproduction of these conditions of existence is therefore the moment of *reproduction of the ecological relationships*.

The relationships among men and between them and nature are mediated by the conscience and the forms of behavior from which they are derived. To reproduce a human group implies the reproduction of its forms of perceiving itself and the rest of the population groups and perceiving the social and natural world in light of which its behavior is defined (the conscience of the individual, the group, the nation, and the class; the level and forms of knowledge of the natural and social processes; etc.). The third principal “moment” to distinguish is the moment of *reproduction of the forms of conscience and behavior*.

The relationships among men and between them and nature are basically mediated by the capacity to work, to produce, and to distribute goods and services in order to fulfill needs. To reproduce the existence of a population group requires reproducing its economic relationships—its forms of insertion into

the productive process and the distribution and consumption of goods and services. The fourth principal “moment” to identify is thus the moment of *reproduction of the economic relationships*.

The process of social reproduction therefore includes at least four principal “moments”: of reproduction of the biological processes, that of ecological relationships and processes, that of the forms of conscience and behavior, and that of economic relationships⁽¹⁹⁾. Each of these processes is governed by principles and laws that the specific scientific disciplines have been charged with revealing. The different disciplines of biology, ecology, the sciences of the conscience and behavior (psychology, anthropology, education, etc.), and the different economic disciplines provide us each day with conceptual, methodological, and technical elements to understand the flows of events and the forms of organization (accumulation) corresponding to each moment. However, it should be noted that the objective conditions of existence of a social group and hence their health and disease profile are not the more or less random summation of the facts and accumulations in each reproductive moment, as independent processes. The notion of “moment” attempts specifically to overcome the concept of stage and the vision of “structures” or independent processes. Each moment involves all the other moments in its process and is at the same time affected by them. Entering by one moment we find ourselves with all the moments.

The laws and principles that govern in each particular reproductive moment are specific. Yet they are articulated—in the complex biological and social process of reproduction of the objective conditions of existence of each social group—in a different way. This way of articulation is an expression of the general process of reproduction of the society and of the form of insertion of that social group.

Dealing with the health problems at this level makes it possible to identify the accumulations that produce the health and disease profile of each group and to identify the technically feasible actions that at the level of biological reproduction (gestation, growth, development, genetics, immunology, etc.) could modify them. It also makes it possible to identify the accumulations at the ecological level (natural conditions, exposure to epidemiological cycles of diseases, environmental sanitation, environmental working conditions, etc.) and at the level of the forms of conscience and behavior (organization, participation, education, mobilization, etc.). At the level of economic relationships (working process, participation in distribution and consumption, access to assistance, etc.) that we can modify, it

becomes possible to identify the type of actions that must be produced in order to accumulate possibilities of transforming them. Or it allows identification of the type of actions that we should produce so that the economic, political, and cultural organization (the form of insertion of the social group in question) and the actions that they produce, impact on the general. Or the need for changing the general rules of the system.

The health actions that are derived from this particular approach tend to be organized in health plans and programs for population groups, opening up greater possibilities for decentralization and the participation of community organizations. This approach makes it possible to redefine many of the actions that could be defined in a singular approach or to strengthen them as part of an effort to modify the conditions of existence of a group. In like manner it allows the possibility of defining a set of indicators for periods prior to the process of determination, and also redefining the thinking on prevention and health promotion, thus agreeing with the most advanced conceptualizations of the “strategy of primary care,” to be understood not as “a marginal program for marginalized populations” but as the set of social actions directed toward promoting the transformation of the quality of life of all the sectors of the population⁽²⁰⁾.

We have wanted to insist on this space of the particular inasmuch as, in our opinion, many of the theoretical and methodological limitations and difficulties of those who work in the health services reside in the limitations on defining the problems and evaluating their actions in this realm. In addition, we think that many of the difficulties in the incorporation of the most advanced social thought in the technical spaces of health occur because of the limited emphasis on these processes of mediation and the limitation, often, on the approach in the general space. To grasp the space of the particular is to grasp the processes that mediate among the most general processes and their manifestations at the singular level. It is to assume the entire explanatory potential of the biological and social sciences, but based on the definition of health and disease “problems” and on the search for actions that strengthen our efficiency and effectiveness.

Definition, Explanation, and Transforming Action in the Space of the General

This is the area of health policies and plans. The problems appear basically as the need to decide among priorities, among them the health plans; as the need for prioritizing among different population

groups; and as the form of insertion of the health profiles of the population and of the health care model into the economic, political, and demographic processes and the natural conditions of the site where they take place. This is the area where the basic characteristics of the health care model tend to be defined.

Approaching the problems of health and disease at this level makes it possible to identify the relationships between them and the economic models, the historical changes in the political processes, and the impact of large warlike or natural catastrophies.

We will not expand our considerations of this space, because of our own limitations, the limitations of space, and the fact that the area belongs more to those doing social research in health. However, we want to point out the need for intensifying the development of conceptual, methodological, and technical tools for the prospective assessment of the health and disease problems. Under conditions such as those that currently exist in Latin America, the need has increased for instruments to evaluate the medium-term impact of the decisions of today in order to provide them with a more solid base. There has been considerable development of evaluation in other fields which contrasts with the still primitive state of its utilization in health^(21,22,23). It is also indispensable because many decisions have an impact many years later and are mediated by the impact of many other processes.

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(Source: Dr. Pedro Luis Castellanos. Presented at the IV Latin American Congress and V World Congress of Social Medicine, Medellín, Colombia, July 1987.)

Plague in the Americas, 1985—1988

During the last quadrennium, the human plague situation in the Americas was consistent with the endemicity of wild rodent plague in its natural foci. PAHO has received reports of 438 cases of plague with 42 fatalities (50% of the number of cases reported during the previous four years, 1981-1984). This reveals an overall case fatality rate of about 9.6%. It is interesting to note that there is no evidence that the pneumonic form of the disease is occurring in the Region. Bubonic cases of plague were reported from the five countries of the Americas where endemic foci of plague have been active for the last several years. During this period of time the geographic extension of the infected area of

Peru has contracted significantly. This was probably due to the regression of plague following the rather severe outbreak reported in 1984 which expanded to three of the northern departments of the country. The cessation of this outbreak in Peru contributed significantly to the decrease in reported cases during this quadriennium.

On a global basis, during the last four years, the Region of the Americas geographically comprised 5 of the 12 countries (42%) reporting plague to the World Health Organization (WHO). These five countries (see Table 1) were responsible for about 12.5% of the total number of global plague cases recorded by WHO.

Table 1. Plague cases and deaths in the Americas 1985-1988.

Country	Number of cases reported (deaths)				Total
	1985	1986	1987	1988	
Bolivia	—	94(15)	2(1)	2	98(16)
Brazil	71(2)	58(4)	44	25	198(6)
Ecuador	3(2)	—	—	—	3(2)
Peru	44(3)	—	31(6)	10(5)	85(14)
United States	17(2)	10	12(2)	15	54(4)
Total	135(9)	162(19)	88(9)	52(5)	438(42)

Bolivia continued to identify cases of plague in the Apolo focus of La Paz Department, a relatively new focus which initiated in 1967 and has produced cases since that time almost annually. The quiescent plague focus of Santa Cruz Department, located in the southeastern part of the country, produced two cases of plague in September-October of 1987. These are the first cases recorded from this focus since 1965 indicating that plague is actively circulating in this area.

In Brazil, there has been a decreasing trend of reported plague cases during the last four years with sporadic cases occurring throughout the year. There appear, however, to be seasonal peaks during the month of February and March and again from September to November. A case fatality rate of less than 3% suggests an active national surveillance system which leads to early identification and appropriate treatment of cases.

Ecuador experienced only three cases of plague with two deaths this quadrennium. These cases occurred in 1985 in Macara Canton, Loja Province in the extreme southern section of the country's frontier with Peru. They appeared to be associated with the outbreak of plague that appeared in Peru in 1984 and extended northward. The Chimborazo focus has not produced cases during the last four years following the small outbreak that occurred in 1983-1984.

In Peru, cases of plague were reported in 1985 from Cajamarca and Piura Departments during the first quarter of 1985 and only from Piura since then. This seems to indicate that the large bubonic plague outbreak of 1984 has subsided and that plague has retrenched into its perennial niche in Piura Department. No cases were reported in 1986. However, in 1987 and 1988 a total of 41 cases were reported from Piura Department with a mortality rate of nearly 27%.

Plague cases continued to appear throughout the endemic western area of the United States of America, with cases reported from nine of the western states. The investigations of these cases identified wild rodent epizootics in the proximity of many of these cases.

Reviewing the available information received by PAHO from the countries of the Region, it appears that the sporadic cases of plague occurring in Brazil and the United States, are probably caused through direct contact with infected wild rodents and their fleas. On the other hand, the small outbreaks occurring in the Andean Countries are probably the result of initial contact with infected wild rodents and subsequent human to human transmission from the index case via the human flea vector *Pulex irritans*. This is consistent with the rather explosive small, frequently familiar, outbreaks among individuals who attend the "velorio" of a fatal plague case. It is interesting to note that in the Andean countries, the initial cases in an area are usually fatal while subsequent cases generally survive. This may be due to delayed reporting since plague generally occurs in the very rural areas and some time is required to notify the national authorities. However, once the authorities are alerted, prompt case identification and treatment prevent subsequent fatalities.

Plague in its endemic wild foci is extremely difficult or impossible to eradicate and can, under certain conditions, rapidly expand to adjacent areas as evidenced by the outbreak in Peru in 1984. For this reason, it is mandatory that surveillance for plague be increased and carefully maintained to monitor potential expansion of current foci which may possibly result in invasion of highly populated areas with disastrous results.

(Source: Dr. James A. Rust, Consultant, Health Situation Analysis and Trend Assessment Program, PAHO.)

Working Group on AIDS Case Definition

Introduction

In 1981, following the recognition of a new syndrome, the acquired immunodeficiency syndrome (AIDS), the United States Centers for Disease Control (CDC) in Atlanta, developed a working definition for this syndrome in adults with the purpose of monitoring the epidemic ⁽¹⁾. In 1985, the World Health Organization (WHO) adopted this definition for worldwide use ⁽²⁾. WHO also proposed an alternative definition of AIDS based on clinical

criteria with the purpose of facilitating the recognition of this syndrome and the reporting of cases when laboratory facilities are not available ⁽³⁾.

Although the WHO clinical AIDS case definition has been of value in many countries of sub-Saharan Africa, there are justifications for the development of another auxiliary adult AIDS case definition in Latin America and the Caribbean. Among the main reasons are: 1) the increasing importance of specific endemic infections (e.g. tuberculosis) in the clinical presentation of AIDS cases in Latin America and

the Caribbean, 2) the availability of laboratory capacity to confirm clinical findings of HIV infection by antibody testing using ELISA, immunofluorescent or Western blot methods, and 3) the fact that the WHO/CDC case definition for AIDS cannot be applied widely among countries of the Region of the Americas, because diagnostic methods requiring culture, histology, cytology or proper radiographic imaging are not routinely available.

Methods

The Pan American Health Organization (PAHO), Regional Office of the WHO, and the WHO/Global Program on AIDS convened a working group of experts from seven countries (Argentina, Brazil, Canada, Honduras, Mexico, United States, and Venezuela), with the following objectives:

1. To review the application of the existing adult AIDS case definition currently in use^(3,4) in countries of the Americas, and
2. To propose a case definition of AIDS more suitable for use in the Americas that would supplement the existing standard one⁽⁴⁾.

The working group met in Caracas, Venezuela from 20 through 22 February 1989, and drafted a preliminary case definition based on empirical data^(5,6) and the collective professional experience of the participants.

Results

The group of experts proposed an AIDS case definition requiring a positive serologic test for HIV, plus the presence of a combination of one or

Table 1. Working group on AIDS case definition.

<i>Symptom/sign/diagnosis</i>		<i>Points</i>	
A	+	Kaposi's Sarcoma	6
	+	Disseminated/extrapulmonary/non-cavitary pulmonary tuberculosis	6
B	+	Oral candidiasis/hairy leukoplakia	3
	+	Pulmonary tuberculosis with cavitation or unspecified	3
	+	Herpes zoster ≤60 years age	3
	+	Central Nervous System dysfunction	3
C	+	Diarrhea ≥1 month	2
	+	Fever ≥1 month	2
	+	Cachexia or >10% weight loss	2
	+	Asthenia ≥1 month	2
	+	Persistent dermatitis	2
	+	Anemia, lymphopenia, and/or thrombocytopenia	2
	+	Interstitial infiltrates, diffuse and/or bilateral	2
	+	Persistent cough	2
		Total ≥6	

Plus: Positive HIV serology.

Exclusions: Cancer, chemotherapy, or steroid treatment; or when the listed conditions result from known causes not associated with HIV infection.

Footnotes to Groups A, B, and C

- Tuberculosis* - in the absence of chest x-ray, the diagnosis of pulmonary tuberculosis should be considered a Group B condition.
- Central nervous system dysfunction* - indicated by (1) mental confusion (e.g., temporal or spatial disorientation); (2) dementia; (3) decreased level of consciousness (e.g., stupor or coma); (4) convulsions; (5) meningitis or encephalitis, and/or (6) abnormal cerebellar tests (e.g., inability to tap the index finger ≥ 20 times in 5 seconds).
- Oral candidiasis* - may be diagnosed by the macroscopic appearance on oropharyngeal mucosa of characteristic removable white patches or plaques on an erythematous base.
- Hairy leukoplakia* - non-removable white plaques on the tongue.
- Diarrhea* - two or more loose or liquid stools per day, constantly or intermittently, for one month or longer.
- Cachexia or weight loss* - clinical emaciation, or weight loss greater than 10% of normal weight for the patient (when the patient's normal weight is unknown, the average weight of the population of same sex and height as the patient may be utilized for the calculation).
- Hematologic abnormalities* - anemia is defined as hematocrit <30% in males and <25% in females or hemoglobin <11g/dl in males and <10g/dl in females; absolute lymphopenia <1,000/ul (mm³); thrombocytopenia <100,000/ul (mm³). Only 1 condition satisfied (textual form) and only 2 points given (scoring system) for any one or more of these hematologic abnormalities.

more easy-to-diagnose clinical manifestations associated with the advanced stages of HIV infection (Table 1). The manifestations are grouped in three ranks (A, B, and C) in order of decreasing relative weight. Conditions in group A are each assigned six points, in group B three points, and in group C two points. Adult patients 13 years of age or older are classified as having AIDS if they are HIV-positive and have six or more points, or if they happen to meet the more stringent criteria of the existing standard definition of AIDS in adults⁽⁴⁾.

Discussion

PAHO initiated its AIDS case epidemiological surveillance system in 1983. Compliance with the revised case definition (WHO/CDC, 1987) is promoted within the Region of the Americas to report an AIDS case to PAHO. The consultation in Caracas, Venezuela provided an opportunity to develop an auxiliary definition more appropriate for reporting of AIDS cases in Latin America and the Caribbean. This auxiliary definition is intended to reflect the diversity of clinical findings and technical resources in Latin America and the Caribbean and will be useful in settings where the WHO/CDC AIDS case definition cannot be applied⁽⁴⁾ to report AIDS cases.

Following this meeting, PAHO informed all Member Countries of the draft definition and solicited comments on its suitability and compatibility with their national health care patterns as well as suggestions for improvement. As for example, it was suggested that lymphadenopathy $\geq 1\text{cm}$ ≥ 2 non-inguinal sites ≥ 1 month be added to group C, and that persistent cough or any form of pneumonia (except TB) be substituted for interstitial infiltrates and persistent cough. The Ministry of Health of

Brazil and CDC have also suggested revisions to the point system and have developed a protocol for clinical validation of this new definition.

In conclusion, knowing the importance of improving the quality of AIDS case reporting, further studies that will evaluate and validate the auxiliary definition proposed by the Working Group in Caracas, Venezuela are needed. PAHO will facilitate technical cooperation for such validation studies and the collection of other relevant information to establish an operational auxiliary AIDS case definition.

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First Chilean Meeting on Epidemiology

From 26 to 28 July 1989, the First Chilean Meeting on Epidemiology was held in Santiago, sponsored by the Pan American Health Organization and the Ministry of Health of Chile and organized by the Group for the Development of Research in Health (GREDIS).¹

The objectives of the Meeting were to evaluate the use of epidemiology in the country, to promote its

application in dealing with health problems, and to outline goals and strategies that would make it possible for epidemiology to be used systematically at all levels where health decisions are made.

The invited participants included epidemiologists from agencies affiliated with the Ministry of Health, from universities, and from nongovernmental organizations (epidemiologists are defined as all those working in clinics, laboratories, or public health who require epidemiology for their work). There were a total of 107 participants, mostly physicians

¹Nongovernmental organization that carries out research and training in epidemiology.

(75%), the provinces being represented by a relatively small group (10%).

Invitations had been extended to: participants (73), who formed working groups and presented their conclusions at plenary sessions, and guests (34), who attended the theme presentations.

The working groups were led by young epidemiologists, who also helped in drawing up guidelines for the discussion. This group of monitors assumed its task enthusiastically and played an important role in the outcome of the meeting.

There were four types of activities:

- a. *Presentation of major epidemiological themes:* "Challenges of modern epidemiology for the health services," "Epidemiological surveillance," "The risk approach," "Experience of collaborative research in Chile," all presented by distinguished international experts.
- b. *Presentation of secondary epidemiological topics:* Arterial hypertension, measles, health services administration following the recent transfer of primary care offices to municipal administration, and food handling. These topics were addressed by national experts with extensive experience, and their presentations emphasized the need for epidemiology in each case.
- c. *Discussion in working groups:* There were three categories of groups: educators and investigators, representatives of normative agencies and professionals working at the operational level. The groups, consisting of 10 to 14 participants each, discussed the use of epidemiology in all health activities, and then proposed strategies for improving the situation. The discussion focused on analyzing the situation of epidemiology according to its uses: diagnosis of the health situation, epidemiological surveillance, evaluation, research, and organization of health services. Each group discussed two uses of epidemiology.
- d. *Plenary:* Each group presented the points discussed, both those on which consensus was reached and those on which opinions were divided. The plenary permitted discussion among the groups.

As a result of the meeting, a document will be published presenting the conclusions, suggestions, and short- as well as medium-term projects, and a series of activities will be implemented for maintaining continuity in the development of epidemiology.

Conclusions of the Meeting

It was agreed that Chile has a history of developing and encouraging epidemiology and has pro-

duced epidemiologists who have cooperated in the spread of this discipline in other countries of Latin America. It was pointed out that health services are organized to cover the entire territory and that there are national programs for addressing those health problems which have had priority over time.

However, it is also clear that in recent years development of the public health sector has stagnated, making it difficult to respond efficiently to current health priorities. This had been the main reason for convening the meeting. The following observations reflect the conclusions reached by the participants and relate mainly to the limitations of epidemiology in the country today.

The Use of Epidemiology in Diagnosis of the Health Situation of the Community

In most cases, work is carried on without a health diagnosis and the analysis of information on the registers is insufficient. Local teams have been turned into generators of information "requested" by higher levels and rarely receive feedback from the system. The community does not participate in the diagnosis and is not informed of the findings.

When a diagnosis is available, it usually does not include risk factors but rather focuses instead on specific diseases or injuries. Mention was made of the lack of indicators for measuring important psychosocial factors that impinge on health.

Among the factors responsible for the lack of diagnoses or their debatable quality, the following were mentioned: high demand for care, insufficient training, and, finally, lack of motivation on the part of the health teams.

The Use of Epidemiology in Epidemiological Surveillance

In Chile, infectious diseases included in the Expanded Program on Immunizations, tuberculosis, and some other health situations are the subject of epidemiological surveillance.

It was concluded that the main problem of the system currently in use is that it does not lead to decision-making, or else that decisions are taken too late. This could be partly due to the fact that the information in the system is not analyzed in a timely manner. These deficiencies occur both at the local and at higher levels.

Mention was also made of the limitations in the generation of information, such as underreporting as a result of the growing number of people seen in private services, where reporting is not done, or in emergency services, where reporting is nonsyste-

matic; little dissemination and updating of standards; lack of manuals of procedure, and lack of validation of the information gathered.

There are no adequate feedback mechanisms in the system, nor is the information disseminated in the national scientific community or the population.

It was commented that the high turnover of staff responsible for epidemiological activities, particularly at the first health care level, makes it difficult to train staff and breaks up the continuity of the process.

The participants suggested that focus be placed in the following aspects:

Ethical aspects: relative to information from the community, confidentiality, and timely decision-making.

Personnel policy: number of epidemiologists needed in the health services, definition of their responsibilities, salaries, and need for continuing education.

Coordination: need to standardize programs including the ones for the environment. To study mechanisms of coordination between laboratory professionals, clinicians, and epidemiologists.

Department of epidemiology at the central level: provide guidance, supervision, and training of those responsible for epidemiological surveillance.

National reference laboratory to become an active part of the surveillance system.

Other health problems that should be incorporated into a surveillance system: chronic non-communicable diseases, environmental health, mental health, accidents and violent acts, and occupational health.

Uses of Epidemiology in the Organization of the Health Services

It was pointed out that little use has been made of epidemiology in organizing the health and medical services. Furthermore, epidemiologists have not participated in the recent changes in the area of medical care.

The organization process needs the epidemiological discipline in its adjustment to emerging health problems, and to evaluate and improve programs.

In Chile, epidemiological research is carried out mostly in the universities and is not meeting the needs of the health services, and its usefulness is limited.

The Use of Epidemiology in the Evaluation Process

It was concluded that in general the evaluation currently under way focuses on the quantitative aspect; does not incorporate criteria such as effectiveness, impact, equity, or the satisfaction of users and staff, and that the community does not participate in the evaluation of health services. The meaning of the evaluation is lost because it does not lead to the necessary changes.

It was estimated that, given the sweeping changes that have taken place in the organization of the national health system, epidemiology should be used to evaluate the private health system and also the management of municipal primary health care centers.

Epidemiological Research

Epidemiological research in the country is not adequately developed. As a result, there is an urgent need to formulate a policy toward that end. Among the main deficiencies mentioned were the following: lack of knowledge about sources of financing and their priorities, lack of research development programs at the institutional level, insufficient technical advisory services (laboratory, statistics, epidemiology), lack of interest in carrying out collaborative research, lack of skilled and motivated personnel, and lack of coordination between research groups.

It was recognized that there is little dissemination of research, partly because of lack of interest on the part of scientific journals in epidemiological topics and partly because of insufficient opportunities to present the results.

Furthermore, epidemiologists are not adequately trained, and this interferes with the availability of appropriate technologies with which to evolve from descriptive to analytical epidemiology.

Proposals

1. Proposals to the health system.

At the superior level (Ministry of Health):

1. Promote the use of epidemiology in all activities of the Ministry of Health.
2. Create the necessary conditions for achieving this, particularly in terms of time and training.
3. Return to a stable work modality and regain the necessary enthusiasm within the working teams.
4. Formulate research policy.
5. Create or maintain a teaching/advisory relationship with the universities.

6. Create and clearly define, within the Ministry of Health, a source of reference for epidemiologists that provides the necessary feedback for the local levels.
7. Review the programming method and work toward the use of programming based on a risk approach.
8. Modernize the surveillance system with the help of computational support at the different levels of the health system.
9. Incorporate the areas of environmental and occupational health into the epidemiological surveillance system.
10. Incorporate the Institute of Public Health as an active member of the epidemiological surveillance system.

At the local level (health services, municipalities):

1. Include an epidemiological source of reference in the health services structure (Department of Programs for Individuals, for example).
2. Create mechanisms that will make for stable integration of the community into the diagnosis, management, and evaluation process of the health services.
3. Promote local research on operational and/or evaluative aspects.
4. Combine the programs for individuals and for the environment.
5. Assign posts for epidemiologists to suitable persons. At the primary level, community health officials should be trained in public health and epidemiology.

II. Proposals to the University

1. Incorporate epidemiology at an early stage in the curriculum of health students as a form of analysis in daily practice.
2. Modify teaching techniques that make epidemiology less attractive for students.

3. Revive the graduate-level updating program in the School of Public Health.
4. Create a system of continuing education for epidemiologists.
5. Incorporate the results of the epidemiological surveillance system so that information on the country's health situation will be up to date.

III. Proposals to the Epidemiologists

To form an epidemiology development nucleus consisting of the organizers of the meeting. It is proposed that this group act at the national level, have sufficient authority to convene meetings, be multidisciplinary, and include representatives of all institutions related to epidemiology.

The following were proposed as future activities for the group:

1. Census of the epidemiologists in the country.
2. Training activities multidisciplinary both in terms of approach and participants.
3. Communication and dissemination activities:
 - Periodic meetings for the analysis of specific topics.
 - Publications: journal of epidemiology and a bulletin or periodic epidemiological letter (especially important for provincial groups).
 - Workshops on the analysis of methods of work.
4. Support activities: methodological advisory services.

The monitors of the working groups at the meeting have formed the initial group to undertake the task of giving strong impetus to the development of epidemiology in the country and, together with the organizers, carrying out the evaluation of the meeting and planning a scientific epidemiological event for April 1990.

Fellowships for Research on Tropical Diseases

The Social Research Laboratory of the Central University of Venezuela, with the support of the UNDP/World Bank/WHO Special Program for Research and Training in Tropical Diseases (TDR), is developing a fellowship program geared to the promotion of research. Resources will be granted to

investigators engaged in the study of social and economic aspects of transmission and control of six diseases included in the TDR: malaria, filariasis, leishmaniasis, leprosy, schistosomiasis, and Chagas' disease. The research will be carried out in the country of residence of each investigator.

Objectives of the Program

The basic objective of the program is to contribute to the search for new perspectives on the study of tropical diseases with a view to identifying possible solutions for the public health problems of Latin America. This program seeks to encourage the participation of social scientists in the area of health because it has been determined that social and economic dimensions play a fundamental role in the understanding of transmission and in improving the control of tropical diseases.

In addition, interventions in health are considered to be more lasting to the extent that they adapt themselves to the sociocultural and economic characteristics of the communities.

Areas of Research

Each candidate may choose both the problem he wishes to conduct research on and the theoretical-methodological approach he considers appropriate for his scientific purposes. Priority, however, will be given to research proposals that take into account the real problems of the country; seek to promote participation of the communities in the solution of their own health problems; seek to coordinate biomedical knowledge with that of the social sciences, and maintain institutional contacts with the government agencies responsible for disease control.

Although there are no restrictions regarding subject matter, some of the priority areas are listed by way of example:

On the Community:

- Lifestyles contributing to the risks and to the deterioration of health.
- Perception of the risk in the population.
- Migrations and transmission.
- Social representation of health, disease, vectors, death.
- Reconstruction of community participation processes in the areas of health and disease.
- Participation of women in the solution of health problems.

On Control Programs:

- Evaluation of the control programs.
- Recapture of practical knowledge.
- Review or production on the history of the programs.
- Study of official speech used in the control programs.

On the Research Processes

- Critical review of the research processes in the area.
- Reconstruction of the processes of research intervention.

Requirements

The program is aimed at investigators supported by an institution with a recognized academic tradition, particularly to graduate students and young researchers or those new to the social sciences and health areas, and at personnel in the public health control offices in the public agencies and nongovernmental organizations that are engaged in research. Exceptionally, attention will be given to proposals from undergraduate students working on their theses, provided they are participating in major research projects or working under qualified mentors.

Reception and Selection of Proposals

While proposals are accepted throughout year, the evaluation and approval by an International Committee takes place twice a year, in May and November.

The proposals may be presented in Spanish, Portuguese, English, or French, but correspondence and formal proceedings will be in Spanish.

The research proposals should be completed within one year, and an amount up to US\$ 5,000 can be applied for. In exceptional cases, the project and the financing can be extended for one additional year.

Informal Consultations

Anyone wishing to do so may send the Secretariat an informal proposal, expressing his/her interest in presenting a research proposal and indicating the subject that he/she wishes to conduct research on, including a statement of the problem and his/her institutional affiliation. The candidate will be mailed any pertinent comments, references, and/or suggestions on the proposal. More detailed information, as well as forms for presenting the proposals, are available upon request from Dr. Roberto Briceno-León, Laboratorio de Investigaciones Sociales, Universidad Central de Venezuela, Apartado Postal 47795, Caracas 1040-A; telephone (02) 662-6970 in Venezuela.

Diseases Subject to the International Health Regulations

Total cholera, yellow fever, and plague cases and deaths reported in the Region of the Americas as of 31 December 1989.

Country and administrative subdivision	Cholera cases	Yellow fever		Plague cases
		Cases	Deaths	
BOLIVIA	—	98	78	—
Beni	—	1	1	—
Cochabamba	—	92	72	—
La Paz	—	2	2	—
Santa Cruz	—	3	3	—
BRAZIL	—	8	2	1
Minas Gerais	—	7	1	—
Paraíba	—	—	—	1
Rondônia	—	1	1	—
UNITED STATES OF AMERICA	—	—	—	4
Colorado	—	—	—	2
New Mexico	—	—	—	2



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