

ACCESS TO AND FINANCING OF HEALTH CARE: WAYS TO MEASURE INEQUITIES AND MECHANISMS TO REDUCE THEM

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INTRODUCTION

Health systems and services primarily aim at contributing to the promotion and restoration of health status, as well as engaging in disease prevention and palliation for the whole population. However, health needs vary from person to person, which implies that there is a need for different types of interventions, both within and outside the health sector. Health care delivery then becomes an organized answer to various health needs through differential health care interventions.

Conditions in the health services and the population's health needs are subject to multiple factors related to the socioeconomic context. Socioeconomic development is linked not only to better health (lower health care needs), but also to higher financing and availability of health service resources, and to better access to health care.

The measurement and analysis of inequities in access to and financing of health care, including determinant factors influencing supply and demand of health care, are essential for monitoring the implementation of mechanisms aimed at reducing those inequities.

The objectives of health reform in the Americas include improving equity in service delivery, improving efficiency in management, and increasing the effectiveness of actions—all of which are necessary to meet the health needs of the population. Within this context, equitable access to effective health services is one of the guiding principles of Latin American and Caribbean health sector reform.

The First Summit of the Americas, held in Miami, Florida, in 1994, established a plan of action to guide national health sector reforms, including a specific initiative (Initiative 17) for achieving equitable access to basic health services. The central objective of the Latin American and Caribbean Health Sector Reform Initiative, which was launched in 1997, is to provide regional support to the promotion of equitable access to basic quality services in the Region of the Americas.

As part of the initiative, PAHO has developed a methodology to monitor and evaluate health sector reforms in Latin America and the Caribbean. This methodology entails the preparation of profiles on the countries' health systems and services as a way to establish the current health status baseline, in order to measure the impact of reforms. Additionally, PAHO is developing an instrument to moni-

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tor the effects of reforms on equity in access and utilization of health services.

This chapter examines the assessment of inequities in access to and financing of health care and the ways to measure and analyze inequities; it also presents a proposal to reduce inequities in both access to and financing of health care.

ASSESSING EQUITY IN ACCESS TO AND FINANCING OF HEALTH CARE

Assessing inequalities in access to and financing of health care involves the measurement and analysis of inequities, beginning with a measurement of *disparities*, or inequalities. An analysis of *inequities* involves applying a value-laden judgement to variations beyond certain range that are considered unfair or unjust, under normative criteria, and/or the lack of correspondence between the patterns of distributions in health care resources and health care needs.

The concept of inequity involves the notions of vertical and horizontal equity in health care. This, in turn, involves acknowledging that different health needs must be treated differently (vertical equity) and that people with equal needs ought to be treated equally (horizontal equity), regardless of ability to pay or any other socioeconomic characteristic.

The analysis of equity-related variations—i.e., those disparities or inequalities that have a connotation of inequity—must consider the health system framework in which the variations occur. This supports the analysis of inequities within real settings. The choice of ways to measure and analytical methods will depend on the measurement purposes, information availability, and the background of the real setting where variations are being analyzed.

Differential health situations, especially avoidable morbidity and mortality, are determined by multiple factors, with health care being just one of them. There are multiple models supported by statistical associations and causal relationships which give accounts

of the relative weight of the factors that affect differential health status of the population; these factors include socioeconomic context, physical and geographical environment, lifestyles and health behaviors, biological and demographic conditions, and *health care*. Most of these factors are also determinants for differential access and use of health care.

Multiple perspectives and measures are then needed to address this issue comprehensively. We need to combine them all within a coherent conceptual and methodological framework. Such an approach to address the problem of inequities in access and financing should take into account that:

- From the supply side, several institutional factors lead to the availability of health services to different target populations.
- From the demand side, several factors facilitate access to services according to need, regardless of ability to pay.
- The utilization of health services represents effective access to health care, assumed to be the result of the interaction between supply and demand factors.

Barriers to health care—such as geographical, economic, cultural, and economic obstacles—need to be taken into account, but there also are other factors that influence access to and utilization of health services. The whole set of factors that influence the use of services and the satisfaction of health care needs within an iterative circle of *need*→*demand*→*use*, makes the analysis of equitable cross-sectional distributions of health care more complex.

Most of these factors are interrelated and play a role in a process whereby health needs are sometimes expressed as health demands, some of which result in the utilization of personal and public health care, provided it is available and accessible. Therefore, access to health care cannot be assessed through a single, distinct measurement of a discrete event, as is the case for most health outcome measures.

In the pursuit of equity, the challenge for health systems is to attain a balance between the health needs of the population and the availability of organized resources supporting the provision of services to satisfy those needs.

Equity in health care is, therefore, pursued through three components:

- 1) a *needs-based role for health services*, which seeks to deliver services according to need, irrespective of sex, age, ability to pay, ethnicity, culture, or place of residence.
- 2) a constant pursuit of *allocative efficiency*, which searches for the best possible combination and distribution of health care benefits by setting priorities in the allocation of resources according to the epidemiological profile and cost-effectiveness of the interventions (health value for money); and
- 3) the search for *productive (or technical) efficiency*, to ensure that the available resources can support the best possible provision of care, adapted to the populations' needs and demands.

Social, economic, and health disparities between different areas and population groups influence the delivery of health care. Underprivileged areas tend to have a higher burden of disease, lower availability of resources, lower financing and access, shortages of health care personnel, lower prestige, and a limited capacity to solve health events that require more complex, technological levels of care; this is described as the inverse health care law (Hart, 1971).

Multiple factors related to socioeconomic development and incentives to providers (public or private) influence the supply of services. These factors include the financing of the system, the level of investment in the sector, the training of qualified personnel for the health services, and the allocation and efficient use of existing resources.

Measurement and analysis of inequities in access to and financing of health care is both a problem- and policy-oriented issue, and it can

become a tool in the search for solutions to inequities, such as removal of barriers to access, specific investment in health care, and the search for improvement of efficiency and effectiveness of health services.

MEASURING AND ANALYZING INEQUITIES IN ACCESS TO AND FINANCING OF HEALTH CARE

Important preconditions for the adequate assessment and analysis include the clarification of the purpose of measurement and the availability of appropriate information, including characteristics of the health system to be analyzed.

The availability of information should ideally cover a wide range of data from both the supply and demand sides, including the population, health status, health services (including access, use, and financing of health care) as well as the determinants for variations of all these factors.

Two main sources of information are used in measuring access to health care. The first is household surveys and other surveys that gather information on health needs and demands, patterns of utilization of services, and problems faced by the individuals in accessing health services. The second source is the use of routine statistics gathered within the health system, including data from health information systems, such as morbidity and mortality statistics.

The measurement of variations in access to health care must take into account the issues mentioned in the preceding paragraph and must establish meaningful parameters for comparison within a country and among countries. This involves selecting variables and categories of analysis such as geographic areas, income quintiles, educational level, race, ethnicity, type of insurance coverage, or institutional affiliation, provided that the information from either surveys or health care providers' statistics can be broken down by those categories.

To obtain a comprehensive picture of health care inequities that focus on access and financing, one must compare measurements of different dimensions of the process: availability of resources, access to health care, and utilization. The analysis is greatly enriched when variations in the distribution of these resources are compared to differential patterns of health care needs.

The coexistence of public and private services in most countries, involving different health care networks that provide services to different populations sharing a common geographical area, implies the need to integrate information on those different providers and target populations. It also implies the requirement of different information sources, integrated under common criteria and standards.

Availability of Health Care Resources

Availability of resources (at the geographical and institutional level) can be measured using a variety of indicators that are generally produced by all countries. Indicators such as those listed below must be stratified by various population groups in order to make distributional comparisons.

- Health expenditure and sources of financing:
 - public health expenditure per capita,
 - household contribution to sector financing, and
 - financing in personal care and public health.
- Availability of physical and human resources:
 - doctors or nurses per 10,000 inhabitants and
 - hospital beds per 10,000 inhabitants.

Administrative data is normally available for geographical areas, but often only for public resources. Information is not so readily available for the private sector. Geographical areas can be homogeneous and give a good picture of social or economic inequities, if the area is populated by one ethnic group or by

people in the same income group. However, an area often can encompass a mixture of ethnicity and socioeconomic groups, or it has no registered information. Data are often not available for different income groups, ethnic groups, or professions; one may have to rely on special studies or surveys to obtain this data. One strategy is to find ways to disaggregate routine data to smaller geographical areas.

As an example of data supporting the comparison of resources per population, Figure 1 shows the availability of hospital beds in Latin American and Caribbean countries.

Measuring Access to Health Care

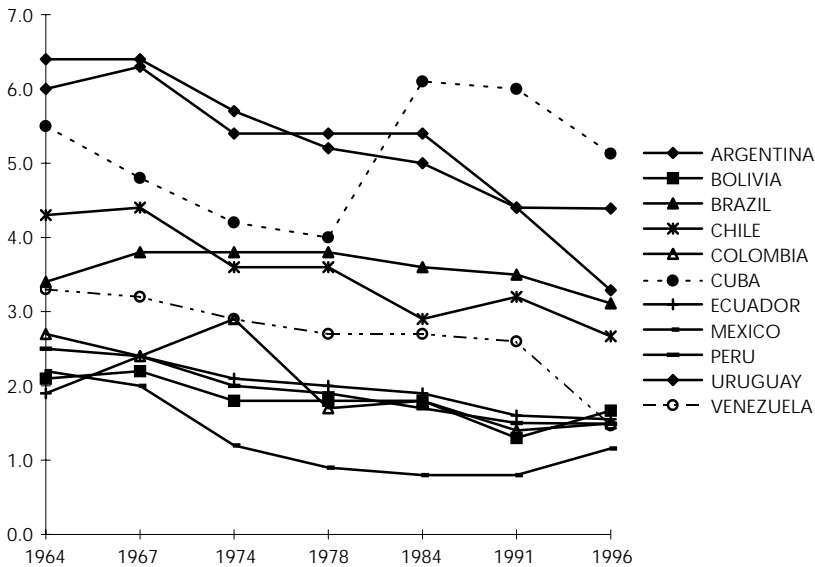
Access to health care often is measured only by geographic and economic barriers, including insurance coverage. Cultural and social factors also present access barriers to care, however. Measurement of the effect of cultural and social factors in access involves a sociological approach to the pathways to health care, which is not necessarily reflected in geographic and economic measures.

Geographic Access to Health Care

The assessment of geographic access is commonly approached by measuring the time individuals must take to cover the distance between their households and the health services, at least primary health care facilities. This indicator is subject to limitations of interpretation in relation to the concept of access. However, this indicator could become a useful proxy for geographical access in countries or areas where limitations of health care geographical coverage are important, due to the existence of rural and dispersed populations or the lack of health care centers.

Beyond simple geographical distance to health services, variations in access measured by this indicator depend on such factors as availability of proper transportation or roads and the existence of natural obstacles (rivers or mountains). This also means that geo-

FIGURE 1. Hospital beds per 1,000 inhabitants, in Latin American and Caribbean countries, trends 1964 to 1996.



Source: 1964–1991: *Health Conditions in the Americas*, PAHO, 1998.

graphic access can change over time, as roads or transportation conditions may improve.

Financial Factors Related to Health Care Access

Degree of Social Protection in Health

One of the variables indicating inequities in health care is the affiliation of various groups with social insurance for health. Salaried workers and their dependent families who work in the formal economic sector normally have the obligation to make financial contributions in order to be covered by public health insurance (or some scheme of social security) or private insurance. In Latin America, it is estimated that about 55% of the population is covered by a social insurance scheme for health care.

Low-income workers in the informal sector are for the most part not affiliated with any

public or private insurance. Their only protection for health comes from direct out-of-pocket payments for health care to private or public facilities or from subsidized care in public sector facilities provided through governmental policy. Health coverage for this segment of the population is generally less comprehensive than that available for people who work in the formal sector.

Although the situation may vary somewhat from country to country, generally those excluded from health insurance schemes are found among the poor, the elderly, women and children, indigenous groups, workers in the informal sector, the unemployed, and the rural population. Therefore, it may be helpful to analyze data according to categories that highlight these socioeconomic groups, and to examine differences between the population covered and not covered by the different types of schemes.

Financial Burden Associated with Access to Health Services

The financial burden includes the cost of direct out-of-pocket payments, fees, and drugs; from the household perspective, there also is a cost for travel and lost income, which adds to a total expense for health that is higher than the flow of funds that go to the health system. No routine data is normally available, so in this case also, one must rely on studies and surveys.

The significant household participation in health sector financing is an aspect of financing inequities. Household expenditure includes contributions to any health insurance as well as out-of-pocket expenditures. Information on National Health Accounts for eight Latin American and Caribbean countries estimated that household participation in health sector financing fell within a range from 31% in Bolivia to 79% in the Dominican Republic (Table 1). These results contrast with those in more developed countries: in the United Kingdom, Spain, France, the Netherlands, Italy, and Denmark, for example, household expenditures represent between 8.4% and 30.0% (Wagstaff and Doorslaer, 1999).

This financing pattern is inequitable, since expenditures for health services represent a greater proportion of the income for poor families than for wealthier ones. By relating patterns of private health expenditure to the

level of per capita income in countries of the Region, an inverse relationship can be observed (with some exceptions) between the percentage of private health expenditure and total health expenditure as it relates to per capita GDP.

UTILIZATION OF HEALTH CARE

The utilization of health services is influenced by health needs, gender, socioeconomic status, ethnicity, and cultural factors. An additional challenge for the measurement of access is to take stock of the differential patterns of utilization of various services, i.e., ambulatory care, hospital care, emergency medical services, immunization, rehabilitation services, prenatal care, etc. Such an effort calls for the development of a core set of indicators of access to health care that is clustered by types of services and sensitive enough to allow for monitoring and evaluation of trends and changes in this area.

Some of the indicators that can be used to measure the utilization of health services are:

- outpatient visits per capita of target population,
- utilization of hospital beds per 100 of target population,
- coverage of prenatal care,
- coverage of professional childbirth delivery, and
- coverage of immunizations.

Table 2 shows the number of medical consultations per inhabitant in Peru's departments, grouped according to poverty index.

The availability of data is the major shortcoming for measuring inequities in access to health care at different levels within a country. To measure access, utilization indicators such as the number of outpatient medical visits per person or hospital admissions per person are commonly used. Data on utilization assume that data collected by health centers refers mainly to the target population within

TABLE 1. Household participation in health sector financing, selected countries in Latin America and the Caribbean, 1999.

Country	Household participation in health sector financing (%)
Bolivia	31
Dominican Republic	79
Ecuador	33
El Salvador	53
Guatemala	55
Mexico	64
Nicaragua	32
Peru	37

Source: LAC/HSR Initiative, PAHO/USAID. National Health Accounts: Eight country studies in Latin America and the Caribbean; 1999.

TABLE 2. Selected indicators of health and health care in departments grouped in quintiles ranked by poverty, Peru, 1997.

Indicator	Q1	Q2	Q3	Q4	Q5
Population data					
Population (millions)	3.9	3.7	3.7	4.8	8.3
Poverty (%)	65.9	57.8	52.4	40.8	28.5
Life expectancy (years)	62.8	65.8	66.4	70.4	76.6
Utilization indicators					
Doctors/1,000 population	3.3	5.0	6.2	8.9	18.6
Hospital beds/1,000 population	1.1	1.5	1.3	1.9	2.4
Medical consultations/inhabitant	0.6	0.8	1.0	1.3	1.9
Hospital admissions/1,000 population	17.0	26.6	32.9	48.7	63.4

Source: Elaborated from MINSAL Perú - OPS (1998). Situación de salud de Perú. Indicadores básicos 1997.

a defined catchment area (which has to be verified). However, this assumption is limited by the cross-boundary flow of patients.

These indicators are based on routine data; however, national information systems on utilization of services seldom include socioeconomic data or data on race, ethnicity, culture, or religion of users (patients visiting hospitals or health centers), and do not include data of potential users within the target population who do not have access.

Survey data can then be used to characterize a given area according to categories of variables such as the population's socioeconomic status, race, ethnicity, culture, or religion, as well as by coverage by social insurance for health. Data from surveys is complementary to routine data; both could be used jointly when exploring the characteristics of those using and not using health services within a catchment area, or comparing usage between different areas.

PAHO's Division of Health Systems and Services Development (HSP) is currently working on an instrument for monitoring equitable access to basic health services that takes into account the issues raised in this paper. It will be field-tested and made available to Member Countries as soon as it is revised. The instrument includes indicators of health outcomes, utilization of services, and availability and accessibility to resources, as well as structural indicators.

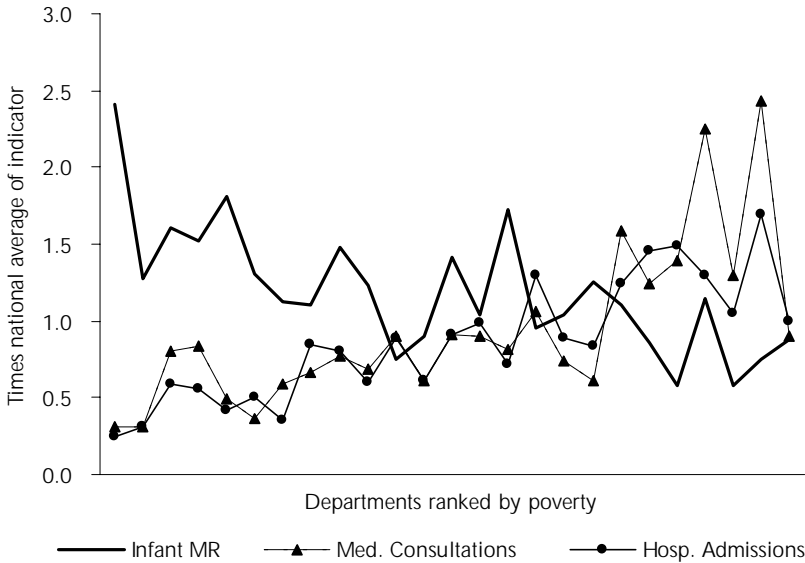
Countries in Latin America and the Caribbean have different levels of socioeconomic development, ill-health status, and availability and use of health care, as well as different patterns of geographical variations in these variables. However, it is possible to find similar patterns across countries, as described in the inverse care law.

This can be illustrated with some selected data from indicators of socioeconomic circumstances, health, and health care, based on data already available for geographical areas within those countries.

Figure 2, based on data from Peru's 25 departments, ranked by poverty, demonstrates the relationship between the population's socioeconomic development (represented here by the reduction of poverty in geographic areas) and infant mortality rate (a proxy for health needs), as well as access to and use of services (represented by the ratio of medical consultations and hospital admissions per population). Improvements in health and health care occur in areas with greater socioeconomic development, while more deprived areas have the lowest levels of health and health care.

The distributional pattern tends to be systematic, supporting the inverse care law. One risks bias in these comparisons if causality is assumed, but research on causality is hindered by the circularity of health care needs, demand, and use. The context of multiple and

FIGURE 2. Differential pattern of health (infant mortality rate) and access/use of services (medical consultations and hospital admissions) in departments ranked by poverty, Peru, 1997.

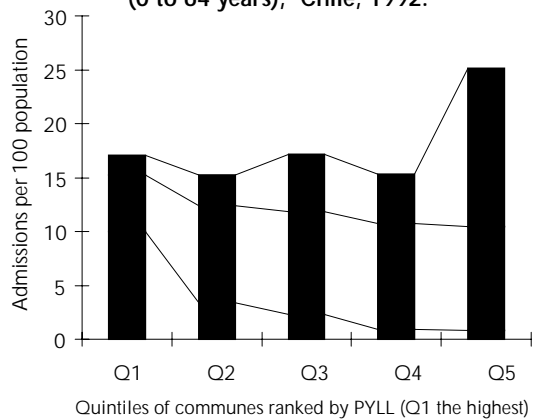


Source: MINSAL-OPS Perú. Indicadores básicos situación de salud 1997.

interrelated macro determinants of health makes it difficult to search for attributable impact of health services. There are only a limited number of studies and most of these are cross-sectional, which makes it difficult to infer causal explanations. From the knowledge in the current literature, one can make educated guesses to analyze variations in health care and those factors which are assumed to be determinant on access to and financing of health care services.

The analytical description of differential use of services according to differential needs for health care may be illustrated in data such as those used in Figure 3—this figure shows differences in the ratio of public and private hospital admissions per 100 population in groups of communes in Chile in 1992. These groups are ranked by potential years of life lost (PYLL) from 0 to 64 years of age, taken as a proxy for health care needs. Quintile 1 is the group of

FIGURE 3. Public and private hospital admissions per 100 population, by residence, in groups of communes ranked by potential years of life lost (0 to 64 years),^a Chile, 1992.



Source: Gattini, C., 1996.
^aRatio PYLL 0–64 years per 1,000 population, used as proxy for health care needs.

communes with the highest PYLL and admissions have been measured by commune of residence.

In this example, the group of communes with the lowest health care needs (Q5) has the highest ratio of hospital admissions per 100 population, mainly by getting access to private hospitals and specialties in public hospitals. The other quintiles (Q1 to Q4) have similar ratios of hospital admissions. Admissions to general medicine increase clearly towards quintiles with higher PYLL, compensating for the progressive reduction of admissions to public hospital specialties and private hospitals.

A similar pattern could be seen when communes are ranked by socioeconomic development, due to the relationship between socioeconomic factors and differential health care needs (if represented by PYLL). These data reinforce the importance of locating general hospitals in poorer and rural areas, as well as locating general medicine services within more complex hospitals, where needs are higher.

REDUCING INEQUITIES IN ACCESS TO AND FINANCING OF HEALTH CARE

The identification of mechanisms to reduce these inequities calls for a systemic examination to address the underlying causes of avoidable limitations to access in certain population groups. Some of these problems can be effectively solved within the boundaries of the health care system, while others will require the participation of other institutions in the social sector at the government level, particularly regarding the role of public sector financing.

Inequities in access and financing are due to factors that may reinforce each other's impact. In general terms, health care financing options are not neutral regarding equity. Progressive financing is the most equitable method of financing health services. It can be achieved through direct public funding (with revenue from taxes), through social health insurance schemes that cover the entire popu-

lation, or through a combination of these two. Direct user fees constitute the most regressive and inequitable method of health care financing (Dahlgren, 2000). Experience indicates that high user fees pose significant economic barriers to access to health services.

A country's health care financing strategy should be designed by selecting the combination of mechanisms that simultaneously promote financial sustainability and provide equity. Studies of patterns of health care services utilization indicate that among those with perceived illness, "financial problems" are an important reason for not seeking care when needed. These financial problems are in part explained by financing strategies that require patients to make financial contributions, as well as by the lack of adequate insurance available to the population. The areas of health system organization and health care financing strategies can provide mechanisms to reduce disparities that are inequitable.

A systemic strategy to increase access to services should simultaneously implement mechanisms to increase the availability of providers (with an emphasis on the areas which present shortages of provision) and increase expressed demand to satisfy health needs. Increasing demand should be accomplished by lowering financial barriers, expanding social protection, and improving users' accurate perception of illness.

Proposals for the expansion of social protection in health must address factors both external and internal to the health sector. External factors exist largely outside the health system, and include the society's overall socioeconomic status, level and distribution of poverty, state inefficiency in both collecting and distributing resources, and model of development. Internal factors are closely linked to the health system. Obviously, the health sector is not powerless in responding to external factors, nor can it necessarily modify internal factors at will. A primary challenge is to determine at which level of dialogue issues should be addressed when cooperating with external actors.

Among internal factors, there are structural barriers that are due to the system's degree of fragmentation. Usually, health care is provided by the following four subsectors within the health system.

- a. The *public sector*, usually provided by the central government, is based on overall taxation and is free to all users.
- b. *Social security*, usually provided by specialized institutions, is based on payments by formal-sector workers and employers (although sometimes voluntary membership is possible); it is free but restricted to members (and occasionally their families).
- c. The *private sector*, usually based on a pay-per-service system or funded by insurance schemes where a periodic fee or premium is collected, offers services restricted to paying patrons.
- d. The *voluntary sector*, usually provided by nongovernmental organizations (NGOs) or community services (including either insurance or services, or both), is mainly oriented to the poorer population. This sector compensates for the exclusion or lack of coverage by the more "conventional" sectors mentioned above. For this reason, this sector is also known as *alternative* or *complementary* to the conventional sectors.

REDUCING BARRIERS TO EFFECTIVE ACCESS

Structural Barriers

There are three levels of intervention to reduce structural barriers:

1. Improving access within the mandate of each subsector (an internal question).
2. Strengthening the sector's leadership to effectively reach agreement among the first three subsectors (the conventional subsectors) to unite or at least cooperate to avoid duplicating actions and coverage.
3. The growth of the voluntary subsector can be understood because it is not clear how far

the conventional subsectors can respond and provide access to the entire population in an effective and efficient manner while respecting cultural values. The question, then, is not how to avoid the voluntary subsector (where it is justified), but rather how to ensure that it provides a reasonable level of health to the population it affects. Furthermore, this subsector is unlikely to be able to afford all levels of attention. Thus, the extension of social protection in health will have to include the articulation of the conventional and voluntary sectors for *services* that are beyond those the latter can reasonably provide (i.e. spinal cord surgery). By the same token, the insurance component of the voluntary sector will need to be linked to the national (public and/or private) insurance system for the purposes of reinsurance and coverage of catastrophic situations that might ruin the voluntary system.

Financial Barriers and Financing Inequities

A review of the health care financing components in a given country, along with an analysis of information on utilization patterns by specific groups (the poor, the elderly, the unemployed, indigenous peoples, etc.), will provide an initial assessment of inequities in health financing as well as financial barriers to access to care. The concept of inequity in financing is related to what proportion of household income each income group must devote to health care. Mechanisms should be implemented to reduce the share of financing among low-income households, whether through health insurance premiums (private or public), payment of fees to formal providers (in the public or private sector), payment to informal providers, or self-medication.

In the course of identifying mechanisms to reduce inequities in health financing, the role of public financing in the redistribution of resources will have to be given significant attention. Public financing can be targeted to reduce low-income families' financial contri-

butions when those contributions reduce access or increase inequities.

To attain the goal of guaranteeing access regardless of a family's ability to pay, a combination of traditional mechanisms and complementary financing mechanisms should be employed. Traditional mechanisms include (a) public financing (through taxes), (b) user fees, (c) private health insurance, and (d) national health insurance. Complementary mechanisms are those aimed at compensating vulnerable groups for the effects of financial barriers, which lower their demand for health care.

Among traditional financing mechanisms, user fees have proven to reduce access to health care, while access to private (for-profit) health insurance has no potential to reduce inequity, since ability to enroll is determined by ability to pay. Complementary mechanisms are subsidies to the provision of care to vulnerable groups for reasons such as poverty, medical condition, or age. They can be implemented by publicly financing a social insurance scheme targeted to a specific beneficiary population. By definition, subsidies are to be paid using public resources, which requires that providers who normally charge for their services be financially compensated for providing services to the beneficiary populations. This is a crucial point in the analysis of providers' behavior, and it directly affects the possibility of increasing availability of services.

REDUCING CULTURAL AND ETHNIC BARRIERS

Studies of utilization patterns for health services often face difficulties regarding differing perceptions of illness and attention to preventive care among different population groups. Studies of health needs show that low-income groups express demand below their relative need. Thus, some mechanism is needed to narrow the gap between need and actual demand.

This issue is closely related to the organization of health systems, insofar as systems should be responsive to users' knowledge and perception of health problems. In some countries, responsiveness will include an ability to deal with language barriers. The creation of a population of educated consumers requires a core strategy of health education.

INCREASING AVAILABILITY OF HEALTH CARE SERVICES

Availability of services is closely related to availability of financial resources. A set of incentives that promote health care provision to population groups who have lower access will encourage providers to increase supply to areas or population groups with reduced access. Provider payment mechanisms can be successfully used to influence the availability and makeup of services to be offered. These mechanisms may include differential payment to foster provision in specific geographical areas as well as among priority populations.

Better utilization of available and limited resources can effectively increase the availability of health care. A more productive combination of inputs involved in the health care delivery process can help achieve technical efficiency, so that more services can be offered using the same amount of resources. By the same token, improvements in health service management can translate into successful increases in health care availability.

Another strategy would involve revising the health care model to make it more responsive to the epidemiological profile of the population to be served, as well as following criteria of cost-effectiveness in defining the package of care to be provided.

Because there are many factors that can cause inequities in access to care, multiple dimensions of the problem must be considered in attempting to reduce gaps in access to care. It also is important to identify the institutional factors that hinder or support equitable access policies in real settings. All this requires an

integrated information system that covers multiple dimensions, uses several sources, and is supported by functional networks.

Both efficiency and equity can be fostered through a system of health care delivery (whether public, private, or mixed) that is organized in a multilevel basis. As long as referral from one level to another is based on need, such a system can provide appropriate access, not only to primary health care, but also to more complex levels of care.

CONCLUSION

In order to ensure access to health care according to need—and irrespective of age, sex, ability to pay, ethnicity, or cultural aspects—this discussion proposed a comprehensive framework for equity in access to and financing of health care. The first component addresses methods to measure and analyze avoidable disparities, which is followed by a proposal of policies and mechanisms to reduce inequities in access to and financing of health care. In order to document inequities, the chapter emphasizes the need to use a set of complementary mechanisms, multiple indicators, and information sources on socioeconomic circumstances, health needs, allocation of resources, and the use of health care.

However, in addition to documenting inequities, it is important to implement and evaluate mechanisms aimed at reducing disparities in access to health services and financing of health care.

Although there are some good indicators of equity, health sector information systems rarely register information about ethnicity, income, occupancy, or any other socioeconomic characteristics on a routine basis. Data unavailability is the major shortcoming for measuring inequities in access to health care.

There are basically two sources of information: 1) vital statistics and data from health sector activity registries and 2) population surveys on access to services. From a techni-

cal standpoint, it would be ideal to combine vital statistics and health registry data with the data obtained through access surveys.

The most widely used way to measure equitable access involves administering surveys to a representative sample of the population. However, the process is expensive, involves the participation of large numbers of personnel, and requires very complex statistical analysis. Although some of these difficulties may diminish somewhat as surveys are repeated, significant financial resources will always need to be outlaid for their execution.

On the other hand, routine statistics already provide information from different sources, but data usually do not address differential access between subgroups in the population. A strategy for overcoming this limitation involves collecting data that is as disaggregated as possible for small area levels.

Several mechanisms are proposed to improve equity in health care. These mechanisms pursue a dual purpose: creating a needs-based delivery of services irrespective of ability to pay, and constantly pursuing efficiency in the allocation of resources (value for money).

Taking into account the need to reduce barriers to effective access and improve availability of health services, some of the measures that can be implemented for ensuring and improving equitable access to health services are the following:

- increasing the availability of services, particularly to underserved areas;
- relying on public funds to finance the utilization of services by the most vulnerable groups (defined by socioeconomic or epidemiological criteria);
- reducing cultural and/or ethnic barriers to health care access and providing care in an intercultural context;
- diminishing the segmentation of health services networks (public and private) so they can cover different groups of the population;
- improving the integration of the health care delivery networks, in order to facilitate access irrespective of insurance coverage;

- expanding social protection in health by incorporating segments of the population currently excluded from social health insurance; and
- reducing the financial burden for accessing services, with an emphasis on the poor.

Monitoring equitable access to basic health services is crucial, as is documenting the impact of different policies and strategies in terms of effective reduction of disparities in access to health care. All of this should be part and parcel of PAHO's priority lines of action in the area of health systems and services.

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