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Contents

CONFERENCE NEWS

Equitable Access to Health Care and Infectious Disease Control

Concepts, Measurement and Interventions

Report of an International Symposium
13–15 February 2006, Rio de Janeiro, Brazil

Introduction

Access to quality health care and disease control tools such as drugs, vaccines and diagnostics is a crucial determinant of population health and an essential component of strategies designed to reach the Millennium Development Goals.[1] The United Nations and its various technical agencies and programmes therefore play a critical role in advancing the agenda to improve access to health care.

While there is general agreement that more equitable access to life-saving technologies must be improved, there is an ongoing debate over the best means of enhancing such access and, at a more basic level, a lack of consensus on the definition of what access actually means and how it ought to be measured. It can be argued that this lack of consensus on the definition and operationalization of the concept has hampered progress in generating and applying knowledge to identify and strengthen pathways between access and health outcomes, especially in low-income countries.

This symposium, which took place on 13–15 February 2006 in Rio de Janeiro, Brazil, brought together 31 international experts who work on different dimensions of access and who represent different organizations and distinct perspectives on this topic. The Oswaldo Cruz Foundation (FIOCRUZ) organized the symposium, in collaboration with the UNICEF/UNDP/World Bank/WHO Special Programme for Research and Training in Tropical Diseases (TDR), the World Health Organization (WHO) and the United Nations Research Institute for Social Development (UNRISD). The symposium was financially supported by the TDR Programme

The objective of the symposium was to stimulate critical debate on current concepts and measurement tools related to access to health care, its relationship to social determinants of health, and the focus on pro-poor programmes. To this end, sessions were devoted to reviewing approaches, definitions and measurements of access in relation to various dimensions of health care; discussing the relationship between access to health care and social determinants of health; reviewing operational approaches for measuring and improving inequities in access; summarizing existing approaches within the United Nations (UN) system to the construction of indicators and measurement tools around access; highlighting the critical role of research on access to health care for

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[1] See http://unstats.un.org/unsd/mi/mi def_list.asp

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in Tropical Diseases (TDR) sponsored by
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reaching the Millennium Development Goals; and identifying research gaps from a social science research perspective.

I. Access, Equity, Health Systems and Infectious Diseases

In his opening address, **Thandika Mkandawire** analysed the debate over "targeting vs. universalism" and its relevance to the concept of health care access. For Mkandawire, health policies are social policies and as such should be used to correct market failures, guarantee individuals' life chances, redistribute and assign resources, and promote social welfare. The core concerns of social policy—need, deserts, and citizenship—are social constructs which derive full meaning from the cultural and ideological definition of the concepts of "deserving poor", entitlement and rights.

Ideological shifts and fiscal constraints in many countries have led to important changes in recent decades. Universalism has been driven by ideologies of equality and citizenship (or nation-building) but the rise of new ideologies, such as those that privilege individual responsibility and a limited role for the state, has had profound influence in some of the key industrialized countries. These ideological shifts in the North have had repercussions in the South: the attack on the welfare state translated into an attack on the "developmentalist" approach, which hitherto enjoyed strong conceptual and ideological support.

The fiscal crises of the late 1970s led to the perception that there was a need for budgetary restraint and to the idea that global competition required changes in tax policies and a reduction in social transfers. It was argued that a better use of limited resources would be to target the "deserving poor". Consequently, social policy was directed at providing funds to "mitigate the social dimensions of adjustment", reflecting a shift in emphasis from development to poverty reduction. Increased focus on efficiency and the development of the so-called new managerialism encouraged concepts from the private sector to replace the traditional ideas of public administration.

These political transformations have resulted in what could be called a "crisis of universalism" because they largely undermined the political coalitions and the social pacts behind universalistic policies. This crisis can be viewed as a result of the attack on the welfare state and the concept of social and economic development that it supported, but it was also stimulated by the gap between theory and practice generated by universalistic policies; the stratification and capture of universalistic policies by political elites; the false sense of unity that hid underlying exclusion; and discrimination by gender, race and ethnicity that rejected the need for affirmative action.

The concept of equity is really at the heart of the debate between universalism and targeting. Although current debates on poverty pay little attention to equity, one argument advanced in defence of targeting is its redistributive virtue. In a redistributive system transfers would be skewed in favour of the poor. Universalism is accused of not being redistributive and of wasting scarce resources on the middle and upper income classes and the "undeserving poor".

In contrast, levels of inequality are actually lower in societies that pursue universalistic policies than in those societies that rely on means-testing and other forms of selectivity. This is not to say that there is a functional relationship between universalistic policies and redistributive policies in other areas, but that there is an affinity between the preference for universalism and other measures such as high taxation and progressive taxes. Targeting exacerbates this trend since it leads to the creation of a dual structure. As Amartya Sen has argued, "Benefits meant exclusively for the poor often end up being poor benefits".[2]

In developmental contexts social policy has had a multiplicity of effects on equity, social inclusion, nation-building, conflict management and human capital formation. The current case for targeting rests on the narrowing of the social agenda to poverty alleviation.

Lessons learned show that different forms of targeting generate administrative errors in inclusion, exclusion and transaction costs. Targeting has resulted in inequalities related to identifying "the poor" (needy people and communities), corruption and clientelism. When poverty is extensive, targeting becomes unnecessary and costly. Such administrative constraints on targeting are compounded in poor countries where most people earn their livelihood in the informal sector, where people may be "invisible" to the state and where the state has limited overall capacity. Targeting can also

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[2] Sen, A. 1995. "The political economy of targeting." In D. van de Walle and K. Nead (eds.), *Public Spending and the Poor: Theory and Evidence*. Johns Hopkins University Press, Baltimore, MD, p. 14.

lead to reduced budgets devoted to poverty and welfare so that "more for the poor" means "less for the poor". The paradox is that optimal targeting requires meeting an increase in the needs of one group by a reduction in the resources allocated to it. This induces perverse incentive effects, high marginal tax rates and poverty traps.

There are now many critiques against targeting. It can be considered invasive; it can stigmatize the poor and subject them to bureaucratic arbitrariness, which can induce ex-ante insecurity about whether they will continue to meet programme eligibility criteria as the minimum threshold for inclusion increases. These critiques are so pervasive that agencies such as the World Bank are now proposing new forms of more universalistic policies such as "level playing fields", lump sum transfers or uniform tariffs.

The choice between targeting and universalism is ultimately a political economy problem, because it involves choosing instruments for the redistribution of resources in society and for determining levels of social expenditure. The debate on targeting in many poor countries skirts this issue partly because the funds to be targeted often come from external sources, as a fixed poverty reduction allocation, and are supposed to be disbursed by autonomous specialized agencies or non-governmental organizations (NGOs). Choosing between targeting or universal approaches ultimately relies on the autonomy of poor countries vis-à-vis international donor agencies and requires a political decision of societies themselves, since sustainable welfare programmes need the support of the middle classes.

Access to effective interventions is shaped by the design of health systems, which are themselves shaped by social forces and values. **Alex Irwin** and **Orielle Solar** discussed the health system as a social determinant of health, emphasizing challenges and opportunities to improve health equity, defined as "the absence of unjust, avoidable or remediable differences in health between groups defined by social, economic, demographic or geographic conditions".

Because health equity refers to both outcomes and opportunities, the political implications of health equity require that health be seen as a "special good", directly responsible for individual well-being and capability. This implies that governments have a responsibility to guarantee opportunities to attain health, and that reducing health inequities requires action on the social determinants of health, a social justice orientation, and the view that health policy must extend further than health care.

In a comprehensive model, the health system itself should be viewed as an intermediary determinant of health. Within this framework, a health system is defined as "all organizations, institutions and resources destined to produce health actions".[3] Health actions are understood as any effort that has health improvement as its primary goal—be it through personal health services, public health services, or by means of intersectoral actions on health determinants that are the root cause of health inequities. Examples include the provision of food supplements through the health system, and transport policies and interventions that aim to tackle geographic barriers to health care. The health system also plays a role in mediating the differential consequences of illness in people's lives, by ensuring that health problems do not lead to a further deterioration of social status and by facilitating social reintegration through, for example, programmes to support the reinsertion of the chronically ill into the workforce. The health system can also contribute to empowerment by facilitating public participation in monitoring, evaluation and decision making about system priorities and the investment of resources. However, these activities do not take place in most health systems due to their predominantly hierarchical and authoritarian structure.

The extent of people's exposure to risk factors that render them vulnerable to illness and injury, and the social consequences thereof, depend on the social conditions in which people live and work, which also reflect their different positions in power hierarchies, social standing and resource levels. The health system, as a product of these same social processes, reflects existing levels of inequality and social stratification, and can exacerbate inequitable access to health services and unjust or avoidable differentials in exposure, vulnerability and health outcomes. But the health system can also be a place in which to respond to power differentials that underlie health inequalities in order to help reduce them and their negative consequences for population health.

To respond to health inequities, health systems will need to promote universal access and social protection. This requires strengthening several aspects of health systems, including leadership, governance and accountability;

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[3] World Health Organization. 2000. *The World Health Report 2000—Health Systems: Improving Performance*. Oxford University Press, Oxford.

development and implementation of more equitable national health policies; promoting intersectoral actions; generating evidence on measuring equity, including through qualitative research methods and approaches such as historical and contextual analysis; and more appropriate human resource development, among others.

In summary, health systems and their impact on equity in health depend on the underlying values of a society, on the level of solidarity among its members, and on an understanding of the importance of the social determinants of health.

Although the health system has an important role in promoting access, the ability of health services to reduce inequalities may also depend on characteristics of the organization of the health system. **Leiyu Shi** discussed the role of primary care in improving effectiveness and equity in access and population health.

Primary care has several core functions, including first contact (primary care should be the first place people go with each new health problem); continuity of care or longitudinality (primary care should focus on the person as a whole and not just on a particular disease or organ, and it must do this over the life course by creating a long-term relationship between the individual and the health provider); comprehensiveness (primary care services should be capable of resolving the majority of a population's health needs); and coordination and integration of care (primary care serves to facilitate and coordinate specialty care, and care delivered by other parts of the health system, including public health and other community actions).[4]

Based on these definitions, primary care's first contact function provides a bridge between the accessibility of the health system and health services utilization. Likewise, the definition of an eligible or covered population is linked to utilization and to a person-focused, doctor-patient relationship through the primary care feature of longitudinality. The range of services that the health system can offer finds its link to problem recognition and resolution through the primary care feature of comprehensiveness, and continuity of care within the overall health system is facilitated by primary care's coordination function.

The evidence (primarily from countries of the Organisation for Economic Co-operation and Development—OECD) overwhelmingly supports the role of primary care in improved health outcomes at both individual and population levels.[5] The evidence also supports the contention that well-structured primary care systems can facilitate other aspects of access (such as effectiveness and appropriateness) and that this type of access (as opposed to access to other forms of more specialized care) may directly contribute to reductions in health inequalities.

For these reasons, strengthening primary care and its core functions should be emphasized by countries wishing to improve access to the types of health services that people need most. Because most population health needs are addressed in primary care, investments in primary care systems may have significant benefits in terms of improved population health and surmounting inequalities in health.

Mauricio Barreto further refined the focus of access from broader social and health systems aspects to specific infectious disease control tools. In the period immediately following the Second World War, the scientific community in wealthy countries considered, incorrectly, that infectious diseases had ceased to be a threat and that they would soon disappear. But the behaviour of infectious diseases changed in the last two decades of the twentieth century, and in these countries new infectious agents have emerged while some older infectious diseases have re-emerged. In contrast with developed countries, in the developing world, emerging and re-emerging infectious diseases added to an epidemiological profile where more persistent infectious diseases still had great importance in population morbidity and mortality.

The emergence and re-emergence of infectious diseases has been attributed to a complex set of circumstances that coupled social inequalities with insufficient knowledge about the spread of infectious agents, demographic and behavioural changes, industrial and technological development, economic development and land use, international travel and commerce, adaptation and change of microbes, and the weakening of public health measures.

For these reasons current efforts should be oriented toward preventing the repetition of past errors, given that complex problems were previously addressed with partial solutions that did not alter their root causes.

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[4] Starfield, B. 1998. *Primary Care: Balancing Health Needs, Services, and Technology*. Oxford University Press, Oxford.

[5] Starfield, B., L. Shi and J. Macinko. 2005. "Contribution of primary care to health systems and health." *The Milbank Quarterly*, 83(3):457–502.

What is needed is the construction of a new conceptual and theoretical consensus on the causes of infectious diseases, in particular, continuing the unfinished debates of the nineteenth century to better understand the connections between illness and health, and between molecules and society. This new consensus should be based on better understanding of the social determinants of health, including environmental change, among others.[6]

Likewise, it will be important to improve the development and transfer of scientific knowledge and technology; to develop and use international law; to clarify the moral and ethical basis for the control of infectious diseases; to enhance epidemiologic surveillance at the international level; to strengthen the means of controlling infectious diseases; to improve national and international communications to better manage outbreaks; to support the primary care basis of health systems; and to expand and strengthen North-South and South-South cooperation.

With the publication of McKeown's studies in the 1950s it seemed clear that the role of the health system in control and treatment of infectious diseases was secondary. But the role of health systems has been strengthened in more recent decades due to notable advances in scientific knowledge and biomedicine, and some lessons have been learned from infectious disease control experiences. First, to be effective, knowledge and technology for the control and treatment of infectious diseases need to be available at the primary care level, but this has not yet happened in most health systems. Second, misuse of technologies has had important side effects such as microbial resistance, immuno-suppression and increased prevalence of allergic reactions. Third, the cost of many new technologies has created access barriers for vulnerable groups, including the poor, and this has contributed to health inequities. Each of these barriers will need to be overcome in order to meet the challenges posed by infectious diseases in the twenty-first century.

II. Concepts, Determinants and Measures of Equity in Access

Access is a complex concept with many different definitions; its meaning has changed over time and according to context. In the health services literature the term is often used inaccurately and authors are not always explicit in defining the relationship between access and the utilization of health services; thus "access" has referred to characteristics of health services supply, demand, and even to the relation between the two. It has been limited to aspects of the decision to seek care but has also encompassed the effectiveness of the medical care received. **Claudia Travassos** presented an overview of this complex concept by reviewing definitions of access and their relationship to aspects of health service utilization.

According to Donabedian,[7] accessibility is just one aspect of health service supply in a specific population and refers to "the features of health services and resources that favour or limit their utilization by potential users". This definition does not define propensity to seek care, but "the lack of (dis)adjustment between patients' needs and services and resources used". Donabedian defines access as the ease with which people can obtain medical care, and thus his definition additionally includes organizational and geographic aspects of health services.

Penchansky and Thomas[8] define access as "the level of adjustment between clients and health system". Their definition focuses on the two-way relationship between health service supply and individuals, and includes five dimensions: availability, accessibility, accommodation, affordability and acceptability. Availability refers to how individuals' requirements match up with service capacity. Accessibility-related issues include distance from services, transportation resources and travel time. Affordability has to do with whether individuals are able to pay for services. Accommodation refers to how individuals are able to take advantage of the organization of services. Finally, acceptability has to do with patients' satisfaction with providers' practice, as well as providers' attitudes about patients' personal characteristics.

In Frenk's[9] definition of access, characteristics of supply and of the population are also complementary. Accessibility is seen as the relationship between a set of obstacles to seek and obtain care ("resistance") and the corresponding ability of the population to overcome

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[6] Barreto, M.L. 2003. "Science, policy, politics, a complex and unequal world and the emerging of a new infectious disease." *Journal of Epidemiology and Community Health*, 57(9):644–645.

[7] Donabedian, A. 1973. *Aspects of Medical Care Administration*. Harvard University Press, Cambridge, MA.

[8] Penchansky, D.B.A. and J.W. Thomas. 1981. "The concept of access: Definition and relationship to consumer satisfaction." *Medical Care*, 19:127–40.

[9] Frenk, J. 1985. "Concept and measurement of accessibility." *Salud Pública de México*, 27:438–53.

obstacles ("power of utilization"). Resistance includes ecological, financial and organizational components. The power of the population is understood as time, transportation, financial resources and the capacity to deal with the organization. This model assumes that various equilibriums between the population's power of utilization and the supply resistances are possible to reach the same level of accessibility. As a consequence, Frenk suggests that a different way of organizing health services may be necessary for each socio-economic group.

Between the 1960s and 1990s Anderson and colleagues[10] developed a utilization model based on individual factors consisting of predisposing factors (factors that exist prior to the appearance of the health problem and that affect people's predisposition to use health services), enabling factors (means available to people to obtain health care), and health needs (health conditions perceived by people or diagnosed by health professionals).

Beginning in the 1990s, the United States Institute of Medicine (IOM) proposed a definition of access as "the utilization of health services in an adequate time to obtain the best possible result".[11] In this definition access becomes nearly synonymous with utilization. In a similar vein, the WHO recently proposed an indicator for health system assessment related to access called "effective coverage", defined as the proportion of a population needing a certain health procedure that actually received it.[12] This definition is comprehensive and combines potential access, realized access (utilization) and effective access (quality of care).

Based on this review of the concept and definitions of access presented by Travassos, there seems to have been a tendency to amplify the scope and concept of access from its original idea of entry into health services to include the process of care and even health outcomes. Donabedian's conception of access is itself sufficiently abstract to apply to almost any context, but it limits itself to potential access. The use of broader concepts of access does not always take into consideration the understanding or measurement of each factor that determines each step in the process of use and quality of services. Thus, the complex nature of measures of access that are derived from these broad definitions make measuring access more difficult and may limit our ability to correctly interpret results.

Much as the definition and measures of access show great variation, so, too, does the definition of equity and its relationship to access. **Gavin Mooney** discussed the intersection of access and equity from the perspective of the social goods produced by the health system. For Mooney, equity is about distributing "good" in some culturally relevant or culturally determined sense. The willingness to help the disadvantaged is a function of both social compassion and the "capacity to benefit".

Other than access, the dimensions for considering equity that are most often suggested are use (utilization) and health. Use is problematic both conceptually and theoretically because, without removing all freedom of choice, it is difficult to imagine that "equal use" would be a good measure of fairness. On reason why "use" is so prevalent may be that it can be measured.[13] But use is clearly neither the same as nor a good proxy for access.

Given all the other determinants of health in a society, it is at best inappropriate to ask a health service to deliver equal health to all. If we did, it would be very expensive and inefficient since it would attract too many resources to health care, some of which would be more efficiently used to promote health (or other social goods) in other sectors of the economy. Access at least leaves individuals and the community with some element of choice with respect to their use of health care.

Other potentially useful concepts in discussing equity are horizontal equity (the equal treatment of equals) and vertical equity (the unequal, but equitable, treatment of unequals). In practice, health care equity is most often set in terms only of horizontal equity, at least on the delivery side. Vertical equity is addressed more often in funding, as in progressive taxation. The extent to which societies are prepared to pursue vertical equity will vary depending on how compassionate they are.

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[10] Andersen, R.M. and J.F. Newman. 1973. "Societal and individual determinants of medical care utilization in the United States." *Milbank Memorial Fund Quarterly*, 51:95–124; Andersen, R.M. 1995. "Revisiting the behavioral model and access to medical care: Does it matter?" *Journal of Health and Social Behavior*, 36:1–10; Aday, L.A. and R. Andersen. 1974. "Framework for the study of access to medical care." *Health Services Research*, 9:208–20.

[11] Millman, M. 1993. *Access to Health Care in America*. National Academy Press, Washington, DC.

[12] World Health Organization. 2001. Background paper for the technical consultation on effective coverage of health systems. World Health Organization, Geneva.

[13] Mooney, G. et al. 1991. "Utilization as a measure of equity: Weighing heat?" *Journal of Health Economics*, 10:475–80.

Also useful are the concepts of procedural justice (getting the procedures, or the means, fair) and distributive justice (the fairness of the outcomes or the ends). Different societies and cultures may opt for one or the other. While often it is assumed that it is only ends that are of value, means can also be valued.

For example, to have health care equally accessible for all can be seen in some countries as a sign of a decent society. That can be valued in itself and in addition to any gains in outcomes, such as better health. These considerations are likely to be cultural in the sense that not all cultures or societies will place the same importance on having universal access.

There are many views of access, most often dependent on whose vantage point is taken. Mooney felt that access is best interpreted from the perspective of the potential patient or the citizen. It is most often the patient who makes the final decision as to whether to use health services, so the patient's perception of both the barriers faced and the severity of these barriers matters. Seen from a wider societal perspective, citizens also have a role to play in determining for the health care system (as a social institution) what "good" they want health services to achieve. Part of this good is likely to relate to access and equity.

Access barriers may include price, time inconvenience or other factors. In addition, cultural barriers are potentially important and yet frequently invisible to policy makers, who are most often from the dominant culture. In Australia for example, one of the biggest barriers faced by Aboriginal people is that most health services are based on a value structure that is non-Aboriginal.[14]

The concept of need is often used together with access (or use), as in "equal access for equal need", as a way of defining equity. In resource allocation formulas, need is usually taken to be about the amount of sickness in a population. Such formulas address the question of how, fairly, to allocate resources to different regions of a country. Resources are then allocated pro rata with need, with various adjustments.

Mooney preferred the concept of "capacity to benefit" to that of need. First, the capacity component relates to the resources in health care only. Second, it embraces the notion of doing good or producing benefit. Sickness-based need incorporates only health problems, with no consideration as to whether health services can do anything about them.

It has been argued that the best people to define equity in health care are informed citizens, as shown in the following definition by a Citizens' Jury in Perth.[15]

> Equal access for equal need, where equality of access means that two or more groups face barriers of the same height and where the judgment of the heights is made by each group for their own group; where need is defined as capacity to benefit; and where nominally equal benefits may be weighted according to social preferences such that the benefits to more disadvantaged groups may have a higher weight attached to them than those to the better off.

This definition includes a number of features. First, it incorporates the potential users' perceptions of the barriers to use. Second, it adopts capacity to benefit as need. Third, by weighting benefits differentially according to degrees of disadvantage, it endorses vertical equity.

The works of Coburn,[16] Navarro[17] and Wilkinson[18] indicate that there is no level playing field across different societies and cultures for pursuing equity in health care. For example, neoliberalism creates an environment that makes equity in health care either less attractive than in more "solidaristic" or communitarian societies, or results in "weaker" constructs of equity being accepted in policy. This is in part because neoliberalism results in greater inequality in income distribution, which in turn leads, other things being equal, to more ill-health. In neoliberal societies there is thus likely to be a higher social inequity base from which to start. It is also in part because equity in health care is more successfully pursued by publicly (rather than privately) funded health care. The low tax base that neoliberal governments seek makes the funding of

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[14] Houston, S. 2004. *The Past, the Present, the Future of Aboriginal Health Policy* [doctoral thesis]. Curtin University, Perth.

[15] Mooney, G. and S. Blackwell. 2004. "Whose health service is it anyway? Community values in healthcare." *Medical Journal of Australia*, 180(2):76–78.

[16] Coburn, D. 2000. "Income inequality, social cohesion and the health status of populations: The role of neo-liberalism." *Social Science and Medicine*, 51(1):135–46.

[17] Navarro, V. 2000. "Are pro-welfare state and full-employment policies possible in the era of globalization?" *International Journal of Health Services*, 30(2):231–51.

[18] Wilkinson, R.G. 2005. *The Impact of Inequality: How to Make Sick Societies Healthier*. Routledge, Oxford.

social welfare programmes and public health care systems more difficult.

Thus, Mooney argued, when considering the social determinants of health, neoliberal globalization is likely to have a negative influence on health and health care equity. It may be useful to see equity in health as the key; consider the links between that and the economic structure of the society, and in turn the social determinants of health; and thereafter see health care as a residual in the policy chain of equity.

In order to bring together the various components of access, health systems and equity, **Alex Irwin** and **Orielle Solar** presented a conceptual framework for access that aims to address health system bottlenecks and links the access debate to intersectoral action on social determinants. For them, health equity is concerned with outcomes as well as opportunities. This means that equity "does not require everyone to have the same level of health, but it demands such a distribution of determinants of health...that every individual has the same possibilities to lead a long and healthy life".[19]

The idea of access to health care services and access to health opportunity is expressed in the notion of effective coverage, defined as "the fraction of maximum possible health gain an individual with a health care need can expect to receive from the health system".[20] This implies the need to resolve access-related problems by not only removing barriers but also actively identifying opportunities for improving access. By studying use of services by different social groups according to level of need, it is also possible to detect differences that might not otherwise be perceptible.

may be available, they may not actually be used by those in need.

Evaluation should start with the measurement of effective coverage. If the level of effective coverage is satisfactory, the evaluation process does not have to go further. If it is low, one should look at contact coverage. If contact coverage is satisfactory, one must determine the factors that prevent patients from receiving effective services. If contact coverage is also low, then acceptability and accessibility coverage should be measured. If the physical accessibility and acceptability of services are high, one must look for the problem among those factors that affect individual personal behaviour in order to find out why acceptable and physically accessible services are not used. If accessibility coverage is low, one should check whether resources are available, and then take necessary action based on the findings. In practice, of course, the relationship between the different domains of the coverage measure is not strictly straightforward and hierarchical.

However, there is a hierarchy of coverage measures, with effective coverage the highest domain and itself an intermediate goal. The key to measurement of effective coverage is to determine what constitutes an effective intervention. In other words, there should be a common agreement about the criteria for counting the occurrence of an intervention as an effective intervention, and how much variance from the established criteria would be acceptable. Assessing effective coverage also requires the simultaneous evaluation of other functions such as stewardship, financing and organization of services and resources.

The second component of the equity in access