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Is Equity of Access to Health Care Achievable in Latin America?

Equity is defined as the ability to impartially recognize the right of every person, a sense of justice and impartiality being its guiding principles. Access is the establishment of communication to obtain information or use of available resources. Therefore, from the social perspective, equity of access means equal rights to information and available resources.

For equity of access to be attainable in Latin America or any other global region, it is necessary to take into account some fundamental principles that aim to ensure a health system is appropriate given the social, political, epidemiologic, and economic environment of its region.

The establishment of a health budget should be linked to population necessities and regularly revised; decisions about health priorities should be based on necessities with a sufficient health care services structure that is effectively equipped to answer the health demand generated by the identification of these necessities, and based on coherent legislation supporting the decisions established in the health care arena.

Coherent and humane treatment, as well as knowledge of a population's specific health reality, cultural issues, and health necessities are also fundamental requisites to be taken into account to transform the concept of equity of access into something attainable.

Access to health care, although it has to do with the same fundamental principle, varies depending on the perspective by which it is evaluated. From a patient's perspective, access is to have his/her treatment delivered in the best way, with the best therapeutic options, and at the lowest possible cost—or at no cost through a public health care system. From a physician's perspective, access to health care means service for all patients in a way that meets their treatment needs. For medical devices manufacturers, to improve access means to provide the market with innovative technologies that could benefit patients' health results.

In this article, analyses developed by specialists in equity of access to health care in Argentina, Brazil, Colombia, and Mexico are presented.

Argentina

The Argentine health system is tripartite: public, social insurance, and private. The first guarantees universal health care for nearly 16 million people through primary care centers and hospitals (although these services are used mainly by persons in lower income groups). This sector is financed mainly through taxes but users can be asked for a minimal fee for service. A very important free provision of drugs program operates through these providers. The social insurance sector comprises more than 300 institutions formed mainly by labor unions organized at national and subnational levels covering nearly 17 million

people. Health coverage level is fixed by law in the Mandatory Medical Program (PMO). This sector is financed by compulsory contributions made by employees (3%) and employers (6%). Finally, the private sector is mainly financed through organized prepaid medical plans, and covers about 3.2 million people. These operate similarly to social insurance, using PMO as a reference standard of minimum level of coverage.

National health policy regarding drugs rests on several topics. Since 2002 a national law has mandated the prescription of pharmaceuticals by their generic name; the objectives of this policy are to improve quality of prescriptions and promote price competition. Also, Argentina has several national programs providing free medicines. REMEDIAR and other free provision programs are highly centralized, achieving important purchasing power in the prices of many drugs (i.e., antiretroviral therapy). Finally, the health authority describes different levels on the financial coverage of health care in the PMO. For drugs, this means 40% coverage for 178 commonly used drugs, 70% coverage for 112 drugs prescribed for chronic conditions, and 100% coverage of drug costs in some particular cases such as insulin, cancer, and tuberculosis drugs.

Two nationally representative surveys are useful when analyzing the health care access issue in terms of utilization and expenditures in Argentina. The National Expenditures Survey (NES) 2005 and the Health Care Utilization and Expenditure Survey (HCUES) 2005. Using NES and HCUES to construct standardized figures for the share of health expenditure in total household expenditure and for the presence of health coverage across income quintiles, one can find a regressive pattern for the first indicator (15% for the poorest quintile, 11% for the richest quintile) and also an inverse relationship with health coverage (50% for the poorest, 89% for the richest).

There are some interesting points derived from HCUES in relation to the access problem for ambulatory consultations across income quintiles. Although there were no important differences on the utilization rate (near 40%), there were differences on the proportion of people who pay for the access (17% for the poorest, 41% for the richest). This reflects a nonregressive pattern on consultations. Also, one can find a remarkable selection pattern that indicates that for any socioeconomic condition there is always a place where one can find health care services. Regarding hospitalizations, HCUES shows that poor people are more frequently hospitalized than other groups and often without paying a fee. There is not a clear trend for drug utilization rates among income groups and in most cases people pay to get medications.

Comparing the share of health expenditure versus drug expenditure in total household expenditure across income groups, the analysis of NES depicts the presence of a regressive pattern for both indicators; also drugs are the main component for lower income people. So, why do poor people have a bigger

proportion of drug expenditure? A possible answer could be that they are very exposed to illness and chances of prevention are minimal, so they cannot avoid the use of and expense for pharmaceuticals. This regressive pattern is found for several classes of drugs. For example, poor people spend a bigger proportion of health expenditure than rich ones for: 1) fever or pain (57% vs. 32%); 2) cardiac problems (53% vs. 32%); and 3) antibiotics (58% vs. 38%).

According to NES (1997 vs. 2005), the incidence of catastrophic drug expenditure has decreased, especially on the poorest people (29% in 1997 vs. 17% in 2005). This fact reflects an improvement on equity of access to pharmaceuticals during these years. The aim, however, is to achieve equity of access to treatment. Not only medicines; treatment is the composite good that satisfies needs, and need of health care is central on every equity criteria on health. Achieving equity of access should not be thought as a trade-off problem, but instead the real challenge is to achieve equity in health care access.

In Argentina and within the public sector, improving equity in access to health care means focusing on: 1) improving capacity, structure, and management, and 2) a generalization of evidence-based practice. The aim of improving equity in access should be to ensure an adequate program based on a health technologies assessment (HTA) criteria. Argentina has an extreme need for more transparent policies regarding the uses of HTA studies. Although there were several actions implemented by the national health authorities during the past decade, no one group defines a clear role for HTA. Indeed, in Argentina we must discuss: 1) the implementation of national/subnational agencies in charge of HTA and/or the regulation (and/or the coexistence) of private and independent agencies, and 2) the formulation of national HTA guidelines.

The problem of access to health care for Argentineans has been always a matter of perspective. Health systems must center on equity of access, but we know that partial analysis results in partial results; only by getting the complete picture is it possible to get full, general, and useful results.

Brazil

Equity in health care, the aim of every health manager, should begin with a few fundamental concepts. In Latin America there is a need to establish specific parameters that will underpin the strategies employed in achieving equity of access to health care. Brazil, for example, shows very marked differences defined by demographic factors (access in large cities and in the south of the country is better than in the north and northeast or in small towns) as well as economic ones (people with private health insurance have prompt and more complete access than patients who depend on the public system).

To understand this market, an analytic separation can be made between Brazilians who have private health insurance—around 40 million people—and the 150 million who depend on the public system [1]. Even in the private system, the rules of operation are regulated by the state, which is also responsible for supervising financial viability within a country. We believe all health care plans should follow the same rules.

When a health technology is evaluated for adoption and pricing according to the rules laid down by the Ministry of Health, the process is practically the same independent of who will pay in the future. Although it may take longer, this process is generally complete in 24 months. The product must meet a series of scientific and economic specifications to be approved for eventual use in the country. The major differences in processes become apparent after this stage.

The model of payment in the public system is basically a fixed budget based on the disease. For example, if a patient has

breast cancer and receives first-line treatment, the government pays a predetermined amount of money and leaves decisions regarding the appropriate medical protocol to the health care provider, who works within the value of the reimbursement.

Meanwhile, the private system is maintained on the fee-for-service model, with remuneration to providers based on a published list of prices. Discounts from a supplier to a provider generate a significant component of the financial result of this operation. This model is the subject of extensive criticism because it does not stimulate the optimization of resources [2]. Private operators (health care plans), in turn, use some forms of analysis with a view to generating criticisms of new procedures when faced with requests for their adoption in health care. A little of how each of these functions in Brazil is described here.

Scientific Critical Analysis

The goal of financing institutions is the ideal form of scientific evidence, represented by meta-analyses and randomized clinical trials. A prescriber, on the other hand, does not always manage to provide this level of evidence and, ultimately, he or she adopts a technology in a less critical way than required by the financing institution. Several examples of this debate exist. For example, the use of abstracts, without a thorough analysis of the full text of articles, as well as interpretations of inappropriately designed studies, represent some of the causes of discussion [3]. The pertinent debate, perhaps, is over the lack of information to which the patient has access, which ultimately creates unrealistic expectations about the results of some treatments. Clinically irrelevant changes may be understood and used in different ways among the players.

Legal Analysis

According to the law that regulates the operators of health care plans (known as Law 9656, dating from 1998), drugs that do not have the necessary approval from the Ministry of Health for a specific indication are considered off-label and do not need to be covered by the insurance. Even if the universal application of this rule is difficult, it is widely used for drugs of high cost. The tendency is that when there is unequivocal support for the importance of a determined medicine, there is less strictness in the application of the rule. The arguments over oral drugs, especially in cancer treatment, continue to grow. It is well known that very expensive oral drugs will only become a reality if financing institutions begin to pay for them. There is very little experience with pharmaceutical benefit programs in Brazil. In this scenario there is a great deal of tension and judicial demands and very little useful experience [4].

Pharmacoeconomics Analysis

With strong growth in interest during recent years, this theme has begun to be addressed by stake-holders in a more professional way. Although this is still at the stage of defining basic concepts applicable to the country, there is a strong drive to broaden the debate, although it remains difficult to translate these concepts to the bedside in Brazil, as it is throughout the world [5]. Understanding of the effects on budgets and the need to create a list of priorities in the allocation of resources is no longer a theoretical discussion. Suppliers of medicines and devices already recognize that they need to focus on this area and offer sophisticated subsidies for discussion. The government fears, however, stimulating growth in this area; financing institutions have been critical of this and have preferred providers who are aware of the problem.

So, is equity of access to health care in Latin America achievable? When we invert the current reasoning, which is to distrib-

ute resources that are insufficient for the actual needs of the system, in such a way that we can define what kind of medicine we want and, based on this, request a realistic, appropriate quote, there is a real possibility that we can reduce differences in our countries.

Colombia

Colombia is one of the few countries in Latin America that has implemented a nationwide social health insurance program targeted to the poor. This program, known as the Subsidized Regime (SR), began to be implemented in 1996 as part of one of the most ambitious and innovative health care reforms in the region, enacted by Law 100 in 1993. The reforms sought to improve health outcomes and protect families from the economic consequences of poor health through mandated social health insurance coverage for all the population, to increase quality and efficiency of health care services by introducing competition in health insurance and health care provision markets and supply-side reforms, and to augment equity through better targeting of public services.

The SR allocates public subsidies to individual insurance premiums for the poor according to a proxy-means testing index. The SR is financed through a combination of resources obtained from a solidarity contribution from formal workers' mentioned above, national tax revenues and social investment transfers to municipalities earmarked for health, and local tax revenues. Resources allocated to the SR have reached considerable amounts, almost 3% of the gross domestic product in 2009 [6].

The benefits package of the SR emphasizes coverage for preventive and basic ambulatory care services, and catastrophic care. Medications within a national listing and medical transportation expenses are also covered. There is no coverage, however, for specialist care and there are important gaps in coverage for hospital care except for some surgical procedures and orthopedics. Children aged less than 1 year and pregnant women have almost no restrictions in coverage. There are no copayments and out-of-pocket expenses are restricted to non-covered services. The premium for the SR benefits package was valued at US\$142 in 2010.

There is evidence that the SR has contributed to equity improvement in several aspects. One of these is health insurance coverage. The growth of enrollment in the SR has been amazing, from 0% to almost 51% of the total population in 16 years (1993–2010). Currently, about 24 million poor people have SR insurance coverage [7]. A key feature of SR insurance has been reaching the people most vulnerable to economic shocks. In 2008, 81% of the population in the lowest quintiles had health insurance. A comparison of the proportion of insured individuals by income quintile in 1992 and 2003 shows an increase of 37 percentage points or a variation of 444% for the first quintile (9% in 1992 to 48% in 2003), whereas in the fifth quintile the increase was 21 percentage points (60% in 1992 to 81% in 2003 [8]). Rural and urban disparities in insurance coverage have been progressively bridged. In 1993 there was a rural–urban insurance coverage difference of 26% that was reduced by 13 points in 2003, and health insurance coverage in rural areas currently is mainly at the expense of the SR.

The SR adds to equity by providing financial protection from catastrophic health expenditures. Miller et al. [9] found that compared to uninsured persons, average and large outliers in health care expenditures in SR enrollees decrease. The SR has also played a role in poverty alleviation. Household survey data analyses reveal that between 1997 and 2003 health subsidies reduced poverty levels and income inequality by more than two and three percentage points, respectively [10].

Quasiexperimental studies have also found that the SR has made a difference in access and use of services, particularly for the poor and population in rural areas. For example, Giedion et al. [11] found that compared to the uninsured, the insured poor have a 40% higher probability of ambulatory consultations, a 17% higher probability of taking a child with diarrhea to a health care institution, a 23% higher probability of taking a child with respiratory infection to a health care institution, and a 7% higher probability of birth attendance by a health professional or at a formal institution. Miller et al. [9] also found a higher likelihood of preventive visits, and of growth monitoring and well-child visits.

Regarding improvements in equity in health outcomes a few studies point toward positive results, although on very broad health indicators. Miller et al. [9] found lower probabilities of cough, fever, or diarrhea and number of days unable to carry out daily activities due to illness in children younger than age 5 years covered by the SR. Other research finds that infant mortality decline has been larger amongst the poor, and between 1995 and 2005 overall differentials in infant mortality between wealth groups slightly decreased, from a 2.5 to a 2.2 times larger mortality rate in the lower quintiles with respect to the higher [12]. The latter results, however, do not establish a causal relationship to the SR.

The Colombian health care reforms, particularly the provision of health insurance for the poor, have contributed to overall equity improvement in financial protection, access to and use of health services, and in some health outcomes. Nevertheless, there is evidence of differentials in these indicators by sociodemographic and geographic groups, which may require tailoring health insurance policies to address specific needs [10].

Further progress is to be expected given that there is a recent mandate issued by the Colombian Constitutional Court to reach universal health insurance and to upgrade the breadth and scope of the SR benefits package in the next years. Implementation of this policy raises the challenge of designing an effective package under budget constraints. Health technology assessment can be a key instrument to guide the selection of interventions to be included in the new package, but Colombia will need to strengthen both public and private sector capacity to generate and use economic evaluation for priority setting.

Mexico

Article four of the Constitution of Mexico [13] clearly states that all Mexicans have the right to health care, but this has not been possible due to factors ranging from the purely economic (insufficient resources) to the geographic (communities in remote areas with difficult access).

Demographically [14], Mexico, as with many countries in the world, has an increasingly aging population, and with it an increase in prevalence of degenerative chronic diseases, the treatment of which is generally lifelong, thus putting pressure on the health care budget, which is 5.9% of the gross domestic product. On the other hand, given the socioeconomic characteristics of this country, contagious diseases still persist and are common among the poor, whose treatment is also costly in light of the need for new generations of antibiotics to address the fact of ever-increasing bacterial resistance, a product of the self-prescription which for many years was a part of cost containment for social security.

On one hand, the low health care budget is a result of the chronic economic crisis with periodic exacerbations that affect the national economy combined with costly and complicated administrations. According to numbers from the Organization

for Economic Cooperation and Development [15], the health administration consumes 10% of the budget destined to health care; thus, a percentage of the health expenditure has fallen back directly onto families. It is calculated that 3.6% of total family income goes to health care and from that approximately 43.3% goes to the purchase of medicines.

There are various health care institutions in Mexico, which together cover 56.2% of the population. Among them is the Mexican Institute of Social Security (IMSS), which covers the majority of social security recipients in Mexico (42.8%), the beneficiaries of which are, for the most part, workers in the private sector. It is an obligatory insurance plan: all employers by law have to insure their employee(s) via this institution, which is financed in three ways: 1) contributions from employers; 2) from federal funds; and 3) by employees who contribute a small part of their salary.

The Social Security Institute for State Workers covers 9.6% of the population. In this case, the beneficiaries are workers in the public sector and it is financed with public resources as well as worker contributions.

The remaining 3.8% is covered by a series of state institutions that function as a captive insurer, which is to say the beneficiaries of medical coverage are the workers and their families of Mexican Petroleum or government entities with special characteristics such as the Secretary of National Defense or the Secretary of the Navy.

The other 43.8% of the population does not have access to social security and responsibility for this population falls directly to the Ministry of Health through hospitals, local and state agencies, and the National Institutes of Health, and is operated by the newly created Popular Insurance, which has grown rapidly and to which a good amount of resources have been devoted—mostly for the purchase of medicines and other health supplies—leaving almost nothing for the infrastructure of clinics and hospitals. This arrangement functions as an open health plan in which a beneficiary pays with an extremely low cost policy (the resources come primarily from the public sector). The objective is to provide access to services to people who have established small businesses, working in an informal economy that once was under the auspice of public hospitals run by the Secretary of Health. Access to this system is currently limited to those with the 110 most frequent illnesses and, since consolidating this system, the Secretary of Health acts only to guide health policy without providing actual services.

There are other specific programs that have been implemented, such as IMSS Opportunities, directed toward unprotected populations and funded by public resources.

It is interesting to note that a family can have access to two systems of health coverage, which is to say, they can be doubly insured. For example, people can be covered through the Social Security Institute for State Workers because they have a family member (e.g., a wife) who works in the public sector and a family member (e.g., a husband) has the right to IMSS because he is employed in the private sector. This creates duplicate access to health care and also doubles family contributions.

The level of prescriptions dispensed also represents a problem in the dispensation of medicines in the public sector. A patient must purchase medicines in pharmacies where the price is three or four times higher than the original value. On the other hand, there is no customized system for drug supplies, which is why the prescribed amount is either insufficient to complete the treatment indicated or is overly prescribed, resulting in a waste of important resources.

Medicines are dispensed in private pharmacies by individuals who often have not even received basic education. Some even make recommendations on products to “alleviate the symptoms of the patient.” It is not uncommon for pharmacy

workers to change medical prescriptions according to their convenience. Pharmacies and commercial centers commonly have doctors incorporated within stores to see patients; evidently, prescriptions are made out in favor of the products that the commercial chain or establishment is selling. Who pays the costs of complications resulting from these unscrupulous practices?

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REFERENCES

- [1] Agencia Nacional de Saude Suplementar [National agency of supplementary health]. Available from: www.ans.gov.br. [Accessed March 15, 2011].
- [2] Stefani SD. O tumultuado cenário das relações de prestadores e fontes pagadoras [The tumultuous scene of relationships between providers and payers]. *Rev Bras Oncol Clínica*, 2005;2:19–24.
- [3] Greenhalgh T. How to Read a Paper—The Basics of Evidence Based Medicine. (3rd ed.). London: BMJ Books, 2006.
- [4] Reis Neto JP, Frenkel J, Stefani SD. Five-year Brazilian Pharmaceutical Assistance for Chronic Disease Management. 12th Pharmaceutical Benefit Management Meeting, Arizona, 2006.
- [5] Desch C. Pharmacoeconomics: a scientific approach to resource allocation at the bedside. *ASCO Ed Book* 1997;33:180–3.
- [6] Santa María M, Zapata JG, Arteaga C, Reyes CE. Descentralización, el financiamiento de la salud y la educación y los departamentos: ¿Cuáles son las alternativas? [Decentralization, funding health care and education departments: what are the alternatives?] Bogotá: Mimeo. Fedesarrollo y Federación Nacional de Departamentos, 2009.
- [7] República de Colombia, Ministerio de la Protección Social, Sector de la Protección Social. 2009. Informe de Actividades 2008-2009 al Honorable Congreso de la República [Republic of Colombia, Ministry of Social Protection, Sector of Social Protection. 2009. Activities Report 2008-2009 to the Honorable Congress of the Republic]. Available from: www2.igac.gov.co. [Accessed December 1, 2010].
- [8] Pinto D. Colombia: good practices in expanding health care coverage. In: Gottret P, Schieber GJ, Waters HR (eds.). *Good Practices in Health Financing: Lessons from Reforms in Low and Middle-Income Countries*. Washington, DC: The International Bank for Reconstruction and Development/The World Bank, 2008.

- [9] Miller G, Pinto D, Vera M. High-powered incentives in developing country health insurance: evidence from colombia's régimen subsidiado. NBER Research Working Paper. Available from: <http://www.nber.org>. [Accessed December 1, 2010].
- [10] Flórez CE, Acosta OL. Avances y desafíos de la equidad en el sistema de salud colombiano [Progress and challenges of equity in the Colombian health care system]. Working Document No. 15. Bogotá: Fundación Corona, 2007.
- [11] Giedion U, Díaz BY, Alfonso EA, Savedoff W. The impact of subsidized health insurance on health status and on access to and use of health services. In: Glassman et al. (eds.). *From Few to Many. Ten Years of Health Insurance Expansion in Colombia*. Washington, DC: Interamerican Development Bank, 2009.
- [12] Flórez CE, Soto V. Avances y desafíos de la equidad en el Sistema de Salud Colombiano [Progress and challenges of equity in the Colombian health care system]. Working Document. Bogotá: Fundación Corona, 2007.
- [13] Constitution of the United States of Mexico-Last Reform DOF 29-07-2010 article 2/b/111 - Chamber of Deputies of the Congress of the Union, General secretary, Secretary of parliamentary services, Documentation Center, information and analyses. DOF 29-07-2010.
- [14] Guilera N, et al. Desigualdad en salud en México: los factores determinants. *Comercio Exterior México* 2006;56:106–13.
- [15] Wirtz VJ, Russo G, Kageyama-Escobar ML. Access to medicines by ambulatory health service users in Mexico: an analysis of the national health surveys 1994 to 2006. *Salud pública Méx* 2010;52:30–8.