

The Office of the International Labor Organization
The Office of the Pan American Health Organization

*The Initiative for Extension of Social Protection in Health
to Excluded Groups in Latin America and the Caribbean*

**OUT-OF-POCKET HEALTH EXPENDITURE IN LATIN
AMERICA AND THE CARIBBEAN:
THE EFFICIENCY RATIONALE FOR EXTENDING SOCIAL
PROTECTION IN HEALTH**

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Social Protection in Health to Excluded Groups in Latin America and the Caribbean
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FOREWORD

There is consensus in the Americas as to the growing importance and size of the population with no coverage under social security health services, mainly in the informal sector in urban and rural areas. In certain countries coverage is very limited, both in terms of the number of persons protected and the contingencies covered.

In view of this situation, and in keeping with the objectives of the World Summit on Social Development (Copenhagen, 1995), the International Labour Office (ILO) and the Pan American Health Office (PAHO) have started (as it is already running, but has not yet finished) an initiative seeking alternative forms of health care coverage for excluded population groups. Accordingly, these alternatives should be effective, sustainable, and proven.

The ILO/PAHO meeting in Mexico (29 November – 1 December 1999) is the starting point for this initiative.

The ILO, working through its Social Security Department, Strategies and Tools against Social Exclusion and Poverty (STEP) Program, Regional Office for the Americas and the Caribbean (Lima), and PAHO, conducted the following studies:

1. Overview of the Exclusion of Social Protection in Health in Latin America and the Caribbean;
2. Out-of-pocket Health Expenditure in Latin America and the Caribbean: The Efficiency Rationale for Extending Social Protection in Health;
3. Elements for the Comparative Analysis of Extension of Social Protection in Health in Latin America and the Caribbean;
4. Synthesis of Case Studies of Micro-insurance and other Forms of Extending Social Protection in Health in Latin America and the Caribbean;

These studies will serve as the basis for the discussion during the Mexico meeting.

In addition, ILO and PAHO have prepared a document detailing their position regarding the extension of social protection in health for excluded populations in Latin America and the Caribbean.

***Out-of-Pocket Health Expenditure in Latin America and the Caribbean:
The Efficiency Rationale for Extending Social Protection in Health***

This report concerns the “Out-of-pocket Health Expenditure in Latin America and the Caribbean: The Efficiency Rationale for Extending Social Protection in Health”¹.

¹ This document was prepared under the guidance and supervision of the ILO and PAHO/WHO. The Social Security Department, its STEP Program, the Regional Office for Latin America and the Caribbean as well as the ILO Offices in Lima and Santiago, participated on behalf of the ILO. The Organization and Management of Health Systems and Services Program, Division of Health Systems and Services Development participated on behalf of PAHO/WHO. The Latin American Center for Health Systems Research (CLAISS) was entrusted with the corresponding studies and research.

EXECUTIVE SUMMARY

The introduction of mechanisms and efforts to expand coverage of social protection in health to marginalized groups is justified not only for reasons of equity but also for the efficiency of health expenditure. As is analyzed in this report, high out-of-pocket expenditures by households, as well as untargeted and unorganized implicit public subsidies, represent a serious problem in terms of efficiency losses in health financing at the systemic level.

The principal effects on efficiency can be divided into two groups. The first is a result of the direct impact of a partial or total lack of insurance, and has to do with the social welfare losses related to the absence of optimal insurance. The second effect, whose magnitude is much less known, stems from the mechanisms that people use in order to compensate for not having insurance. This can involve accepted practices such as the indiscriminate use of emergency services, or illegal ones, such as people misrepresenting themselves as being covered by the system when in fact they are not. These two effects translate in practice into efficiency losses due to high out-of-pocket expenditures and unorganized implicit public subsidies.

Diagnosing the Problem Requires Precise Information to Define Out-of-pocket Expenditures

This report puts forth a classification system that makes it possible to clarify the different concepts that fall under the rubric of out-of-pocket expenditures. We have distinguished three types of expenses: pure out-of-pocket payments, contributions of users, and copayments.

Unfortunately, most of the information available on health expenditures in the region generally lumps the purchase of private insurance and the different forms of out-of-pocket expenditures together under the category of “household expenditure on health.” This must be taken into account when analyzing out-of-pocket expenditure figures contained in surveys of family health expenditures.

Lack of Social Security Coverage and the resulting High Out-of-pocket Expenditures is a Reality in Latin America

Despite the intentions of Latin American governments to guarantee universal access to health care, a significant number of people in the region (approximately 20 percent) do not have such access. Problems of access for these population groups is also due to lack of resources, the unavailability of services, cultural factors (indigenous groups that to a great extent resort to traditional medicine), economic inaccessibility, geography (mainly remote rural communities far from health care services), and functional restrictions.

Another excluded population group is low-income workers in the informal sector. It is important to distinguish this group because most of these workers are not insured, which means that they do not have health coverage even though in some countries they have the option to apply for public or private sector formal insurance. In Chile, around 12 percent¹ of this segment of the population can acquire health insurance, but do not do so. These workers frequently use public health services as indigents, a practice that is possible because the systems are unable to distinguish between users with resources and users who truly are in need. Thus, this group receives subsidized services, even though they are capable of contributing, at least in part, to the financing of their health needs.

Finally, high-income workers in the informal sector use private insurance whose coverage is incomplete. The extent of the coverage varies according to the cost of the plan, that is, the insurance premium increases according to increases in the cost of service or coverage. Nevertheless, private insurance does not offer total coverage. Indeed, the private health plans normally have mechanisms that limit the financial risk for the insurer, which take the form of copayments for some benefits combined with maximum benefit limits and deductibles.

In Latin America, out-of-pocket expenditures constitute the most important source of financing of the health sector.

Many Factors Help Explain the Lack of Insurance Affiliation

The first element that explains the lack of insurance is opportunistic behavior. There is important evidence that uncovered groups have access to public health facilities as indigents (FONASA, Chile, 1998). When people can obtain services for free, it does not encourage them to take an insurance that they have to pay for.

Another reason for the marginalization of these groups from formal health coverage schemes is the limitations imposed by what is being offered. Insurers face the problem of specifying the value of the premium they should charge these population groups, most of whom have variable income structures. This results in the estimated price of premiums being well above what they would cost if the individuals to whom they are directed belonged to affiliated groups.

A third element involves the greater transaction costs associated with administering portfolios made up of informal workers because of the increased nonaffiliation and subsequent reaffiliation that occurs because of the temporary nature of incomes of this group. In addition, these groups' unstable incomes make transaction costs higher by

¹ Authors' estimate based on the administrative bulletins of FONASA and AFP, and on projections of population by sex and age nationwide, 1950-2050 (INE, 1995).

increasing the effort required by insurers to collect premiums, which in the worst case scenario is reflected in an increase in arrears of the portfolio.

To protect themselves against these greater administrative costs and the risks associated with these population groups, insurers increase the premiums of the plans they offer.

Costs of Lack of Coverage and Strategies to Reduce Them

The marginalization of workers in the informal sector translates into social costs and inefficiencies in the allocation of subsidies. In the first place, it leads to the excessive use of emergency services, which are more expensive, generating greater health costs in relation to adequate care. In addition, marginalization results in fraudulent use of services, that is, when an uninsured person utilizes the services by pretending to be someone with coverage. This translates into undesirable subsidies that do not follow criteria for either efficiency or equity.

Possible solutions to this problem begin with implementing measures that allow for reducing the factors that cause premiums to rise because of risks associated with these groups; that is, reducing the incentives for opportunistic behavior, which is facilitated to the extent that free coverage is available through the use of emergency services. Fraud in terms of pretending to be a subscriber can be attacked by improving controls to prevent access by people without rights to coverage, and by improving the costs associated with evasion of contributions and with administration.

A plausible approach to reducing the above-mentioned problems is through policies that promote collective affiliation of this segment of the population with health insurance. Collective contracting of insurance makes it possible to reduce both the risk of opportunistic behavior and the administrative costs associated with the collection effort, which in turn would have an impact in terms of reduced premiums.

Use of Out-of-pocket Expenditures (Copayments) in Defining the Benefit Package

The search for efficient allocation of resources based on measures that affect demand, such as the use of copayments, has not been sufficient to achieve the objective of containing escalating costs in the sector. Any public or private insurance plan should define what services to cover and in what proportion. The design of an optimal or adequate copayment structure is no trivial matter, inasmuch as an incorrect definition can cause serious problems in the allocation of resources as well as declines in the well-being of the population.

One of the most controversial issues regarding copayments is their use in limiting access to benefits that are indispensable to the recovery of health. This is a serious risk, especially for low-income populations.

A frequent practice in the use of copayments involves “catastrophic events” that tend to remain outside health insurance coverage. There are numerous practical examples that endorse the need to complement the percentage copayment structure with the obligation to establish in insurance schemes, mainly private ones, maximum expenditure limits for users, beyond which the scheme would operate free of payment.

Despite this, there is yet another reason that endorses the adequate use of copayments. The evidence shows that it is politically difficult to exclude health services from health plans (public or private). However, one alternative is not to exclude any benefit, except on rare occasions, and to utilize the copayment as a tool to prioritize the coverage of each area of insurance through differentiation by intervention.

Efficiency Gains from Improved Organization of Out-of-pocket Expenditures

From the theoretical perspective, it can be concluded that out-of-pocket expenditures could be a factor in improving the efficiency of health expenditure in the following areas:

1. *efficiency gains in expenditures by individuals based on arguments of classical insurance theory*, which are justified by the random nature of incidence of disease and the financial risk that comes about as a result of expenditures associated with meeting the demand for health services. The available evidence showing that the poorer segments of the population have greater price-demand elasticity for health services leads to the conclusion that the separation of contribution and consumption facilitated by insurance schemes will mean more adequate consumption of health services, compared with the model in which these users must directly absorb all the costs of services at the moment they need medical attention;
2. *efficiency gains from grouping beneficiaries and from organising expenditures and contributions*. This allows for generating profits through economies of scale by reducing uncertainty in forecasting future expenditure, making it possible as a result to reduce the cost of the premium.² A second benefit comes from the fact that being able to ensure a stable financial flow to purchase health services reduces the uncertainty of providers, making it more attractive for them to commit to an offer that provides stable benefits. In addition, this association increases the negotiating capacity of the affiliated group with the providers in terms of price, opportunity, and quality;
3. *efficiency gains from organising the implicit subsidies to workers in the informal sector who take advantage of public benefits intended for indigents*

² The existence of very small insurance schemes, where the factor that determines the variance of future expenditure can be significant, could invalidate this benefit, either because the premium that should be paid to obtain comprehensive coverage is very high or because the package that can be offered to make the premium payable is unattractive.

and those who are poorer. The marginalization of certain groups of workers from formal health coverage schemes, which leads them to not contribute their compulsory premiums to these systems, could be reduced in these cases. This condition is possible only if the insurance system is in some way integrated with the rest of the system, avoiding the duplication of subsidies.

A challenge that arises from this theoretical analysis is the need for a greater study and verification of the assumptions that have been outlined. For that purpose, this report presents an agenda of future fields of research.

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OUT-OF-POCKET HEALTH EXPENDITURE IN LATIN AMERICA AND THE CARIBBEAN: THE EFFICIENCY RATIONALE FOR EXTENDING SOCIAL PROTECTION IN HEALTH

I. INTRODUCTION

One of the problems that the health sector faces at the global level is the lack of financing to meet basic health needs. This is particularly true in the case of the poorer Latin American countries, but it is also true of the informal and marginal sectors of medium-income economies of the region. As reflected in public policies in all countries of the region, it is evident for reasons of equity that efforts and resources directed toward social protection of the poorer segments of the population must be increased. However, making an effort and introducing mechanisms to expand coverage of social protection in health for these population groups is justified not only on the basis of equity, but also for reasons of efficiency of health expenditure. As is analyzed in this conceptual report, high household out-of-pocket expenditures, as well as the existence of untargeted or disorganized implicit public subsidies, also represent a serious problem inasmuch as they contribute to efficiency losses in health financing.

The equity rationale for extending social protection in health is being analyzed carefully in working documents being prepared in conjunction with this report. For this reason, this report focuses primarily on analysis of the efficiency arguments that justify this effort. The objective is to develop a theoretical support framework to serve as a basis for the joint effort of the International Labour Organization (ILO) and the Pan American Health Organization (PAHO) to expand coverage of social protection in health in the region.

The principal effects on efficiency can be divided into two groups. The first is a result of the direct impact of a partial or total lack of insurance, and has to do with the social welfare losses related to the absence of optimal insurance. This report focuses on this area. The second effect, whose magnitude is much less known, stems from the mechanisms that people use in order to compensate for not having insurance. This can involve accepted practices such as the indiscriminate use by people of emergency services as indigents, or illegal ones, such as impersonating those who are covered by the system in order to take advantage of their benefits. These two effects translate into efficiency losses from the individual point of view due to high out-of-pocket expenditures, as well as for the system overall because of unorganized implicit public subsidies.

This report is organized into eight chapters, each with its corresponding sections. The first chapter is the introduction. The second chapter analyzes the issue of defining and quantifying out-of-pocket expenditures and examines current evidence with regard to the magnitude of the problem. The third chapter briefly explains the areas where efficiency gains are possible. Chapters Four and Five then examine the justification for efficiency in terms of the economic theory of insurance, and the potential efficiency gains from organization of out-of-pocket expenditure into “pools” that share risks and resources. These can take the form of microinsurance or other alternative mechanisms that expand coverage of social protection in health. Chapter Six analyzes the problem of implicit subsidies to workers in the informal sector and the potential efficiency gains for the health system that would come from organizing the contribution from these workers. Up until this point, the report will have looked at the positive aspects and gains from any formula to expand coverage. The seventh chapter analyzes some of the challenges faced by these coverage formulas, particularly the potential negative effect (moral hazard) and how copayments relate to this problem as well as to health benefits packages in social security. The final chapter is devoted to the most important elements of the future research agenda as they relate to the efficiency of the various forms of expanding coverage of social protection in health in the region.

II. CHARACTERIZATION OF OUT-OF-POCKET EXPENDITURES ON HEALTH AND THEIR CAUSES IN LATIN AMERICA AND THE CARIBBEAN

1. *The Definition of Out-of-pocket Expenditures*

A mix of four sources of financing are used to provide health services: (i) general taxes; (ii) compulsory contributions to social security (public and/or private); (iii) voluntary contributions to private formal or informal insurance schemes; and (iv) direct out-of-pocket payments.

To facilitate an understanding of the term “out-of-pocket expenditures,” we have opted to set forth a classification system that makes it possible to identify the distinct elements that fall under the rubric of this term.

The first element is related to the traditional form of private payment for services provided privately, which have been called “pure out-of-pocket payments” or “direct payments.” These finance 100 percent of the price of the service at the time that medical attention is provided. A typical example is the purchase of medicines not paid for by any insurance mechanism.

A second form of out-of-pocket expenditure is payments that are additional contributions (formal or informal) at the time when public services are used, financed in general through general taxes. This classification group is most clearly represented by the typical user fees in hospitals in many countries of the region where public health services, in general, are financed through public funding and external donations. Within this model, user fees are established as a way to capture funds for very underfinanced public systems, representing an important portion of their financing. The objective of this out-of-pocket expenditure, which only partially covers the cost/price of the service, is to increase financing of the system, rather than to contain the insurance risks mentioned in the next case.

A third form of out-of-pocket expenditure is disbursements by members of some type of public or private insurance system that aim to share the financial risks of health expenditure with affiliate. Typical examples are copayments and deductibles. As will be seen later, the principal objective of this type of mechanism, at least theoretically, is to counteract problems characteristic of insurance systems, such as moral hazard or moral risk.¹ They also have effects in heading off increased costs associated with unnecessary demand for health services (unneeded use of sophisticated technology,

¹ Moral risk refers to insured individuals who assume more hazardous behavior in view of the fact that they are protected (e.g., they do not take preventive health measures or take appropriate care of themselves, increasing as a result the probability of illness).

unwarranted exams and diagnostic tests, use of high-cost drugs when lower-priced generic substitutes are available, etc.).

Unfortunately, most of the information available with regard to health expenditure in the region includes the purchase of private insurance and the different forms of out-of-pocket expenditure in a single category: "private household expenditure on health." The figures on out-of-pocket expenditures contained in these surveys of family health expenditure should be reviewed in this context².

Generally, out-of-pocket payments fall under private types of financing mechanisms, while user fees tends to be classified as public financing mechanisms, since they frequently are used as a source of public sector income. However, from the perspective of national health accounts, these are "private payments for public services" and should not have consequences different than those generated by payments for services provided by purely private providers. This is another source of frequent error in the analysis of national accounts and in household expenditure surveys.

Given the availability of information in the region coming basically from household surveys that identify "private expenditure" in its entirety without differentiating between out-of-pocket expenditure and voluntary expenditure on insurance premiums, we will refer in the remainder of this report to private expenditure as a proxy variable for out-of-pocket expenditure. The use of this proxy can bias the conclusions in countries with a high prevalence of voluntary private insurance. Information regarding the importance of the payments of premiums for voluntary insurance in total out-of-pocket expenditures is not available for most of the Latin American countries, but according to studies conducted by PAHO³ for the period 1982-1989 in such countries as Argentina, Brazil, Costa Rica, Peru and Uruguay, 80 percent of private expenditure corresponded to direct out-of-pocket expenditures. In addition, the cited study shows that of this direct expenditure, payments to medical service providers and for medicines are the most important items, representing around 70 percent.

Frequently, instruments such as copayments and deductibles are regarded as financing mechanisms, although according to how they were originally conceived, they were not created for this purpose, strictly speaking. Their principal objective is not to serve as a financing source—although they do generate financing—but rather as instruments to control moral hazard. In other words, cofinancing has more to do with sharing risk and controlling the increase of costs caused by the uncontrolled response by providers to the growing demand for health services by people who are insured, and who in the absence of copayments have no incentives to avoid the unnecessary use of health

² This also impedes analysis of the impact that variable insurance in health has on out-of-pocket expenditures.

³ Suárez R., Pamela Henderson, Edgar Barillas, and César Vieira (1994). National Expenditure and Financing of Health in Latin America and the Caribbean: Challenges for the 1990s. (1994). Technical Report Series No. 30. Pan American Health Organization, World Health Organization, Washington, DC. March 1994.

systems. However, it is necessary to recognize that in practice these copayments are frequently utilized as sources of income, with their original role left aside. It is for this reason that we consider it important to include copayments as a separate classification within out-of-pocket payments.

2. Coverage of Social Protection in Health, Implicit Subsidies, and Out-of-pocket Expenditures in the Region

Salaried workers and their families dependent on the formal sector of the economy have the obligation to contribute in order to be covered by public health insurance (or some scheme of social security) or private insurance. These forms of insurance generally provide partial coverage or exclude some benefits from coverage for which users generally have to pay directly out-of-pocket at the time they require medical services. Principally, benefits for clinical medicines, dental care and mental health tend to be minimal or nonexistent.

The population that lacks resources or is indigent receives health services in public sector facilities where, in theory, care is completely free.

Health coverage for this segment of the population is generally less than that for people who work in the formal sector. It is common to find long waiting lists not only because there are a number of medical services that are not covered, but also because the benefits provided are limited in some areas (certain specialties and access to hospitalization).

On the other hand, despite the intention of the Latin American governments to guarantee universal access to health, a significant number of people—at least 20 percent of the population—remain excluded from access to social protection in health. In fact, by way of example, around 30 percent of the population do not receive care regularly in Bolivia, Ecuador, and Paraguay. That percentage reaches 44 percent in Guatemala⁴. Problems of access for these groups is also due to a series of factors such as lack of availability, cultural factors (indigenous groups that to a great extent resort to traditional medicine), economic inaccessibility, geography (mainly remote rural communities far from health care centers), and functional restrictions that are analyzed in other documents prepared for the conference⁵.

Another population group without insurance coverage is low-income workers in the informal sector. It is important to distinguish this group because most of these workers are not insured, which means that they do not have health coverage even though in some countries they have the option to apply for public or private sector formal

⁴ Clearinghouse on Health Sector Reform in Latin America and the Caribbean. Country Reports, 1997 and 1998.

⁵ Overview of Exclusion from Social Protection in Health in Latin America and the Caribbean. Document prepared by the ISALUD Foundation at the request of ILO and OPS, 1999.

insurance. In Chile, around 12 percent⁶ of this segment of the population can acquire health insurance but do not do it. These workers frequently use public health services as indigents, a practice that is possible because the systems are unable to distinguish between users with resources and users who truly are in need. Thus, this group receives subsidized services, even though they are capable of contributing, at least in part, to the financing of their health needs.

Finally, high-income workers in the informal sector generally are covered by private insurance. The extent of the coverage varies according to the cost of the plan, that is, the insurance premium increases according to the increase in the cost of services or coverage. Nevertheless, private insurance generally does not offer total coverage. In fact, private health plans normally involve some mechanisms that limit the financial risk for the insurer, which take the form of copayments, maximum benefit limits, and deductibles.

In sum, formal workers use three types of contributions: user contributions, pure out-of-pocket payments, and copayments. For their part, indigents make direct payments to acquire services that are not covered. In most cases, low-income workers in the informal sector are not affiliated with any insurance (public or private). They obtain their health care by paying directly to private or public facilities or, in many cases, they receive subsidized public coverage in public sector facilities. Finally, high-income workers in the informal sector use copayments, direct payment up to the amount of the deductible, and payment of contributions, although they can receive subsidies if their out-of-pocket expenditure demonstrates their inability to pay for the service (for example, catastrophic events).

The following figure is a schematic summary to help understand social protection and health care coverage for different population groups.

⁶ Authors' estimates based on administrative bulletins of ISAPRE, FONASA and AFP, and on projections of population by sex and age nationwide, 1950-2050 (INE, 1995).

Figure 1: Health Coverage of the Population

Population	Coverage in Health	Degree of Coverage
Compulsory Contributors	Formal or private and regulated public insurance	Depends on the expenditure line. Little dental coverage, drugs, or outpatient care.
Not Compulsory Contributors		
- Indigents	Ministries of Health or Social Security	In general, lesser quality than the compulsory contributors; furthermore, a significant portion of the population is not covered.
- Low to average informal incomes	Uninsured. In some countries they can opt for formal insurance	Without coverage, when they are not insured.
- High-income informal incomes	Voluntary private insurance	Depends on the payment

3. Impact of Out-of-pocket Health Expenditures on Families: Magnitude of the Problem in the Region

The section that follows analyzes the importance of resources that families use to obtain medical goods and services as a share of total health expenditure; that is, expenditures made by households, which are understood to be all the previously defined components of out-of-pocket expenditures. All this has also been called “private health expenditure,” although in some countries private expenditure includes compulsory contributions administered by private entities.⁷ Its complement is so-called “public spending” that is financed by general taxes, contributions from local and municipal governments, and social security contributions directed to medical programs and specific programs such as maternal care.

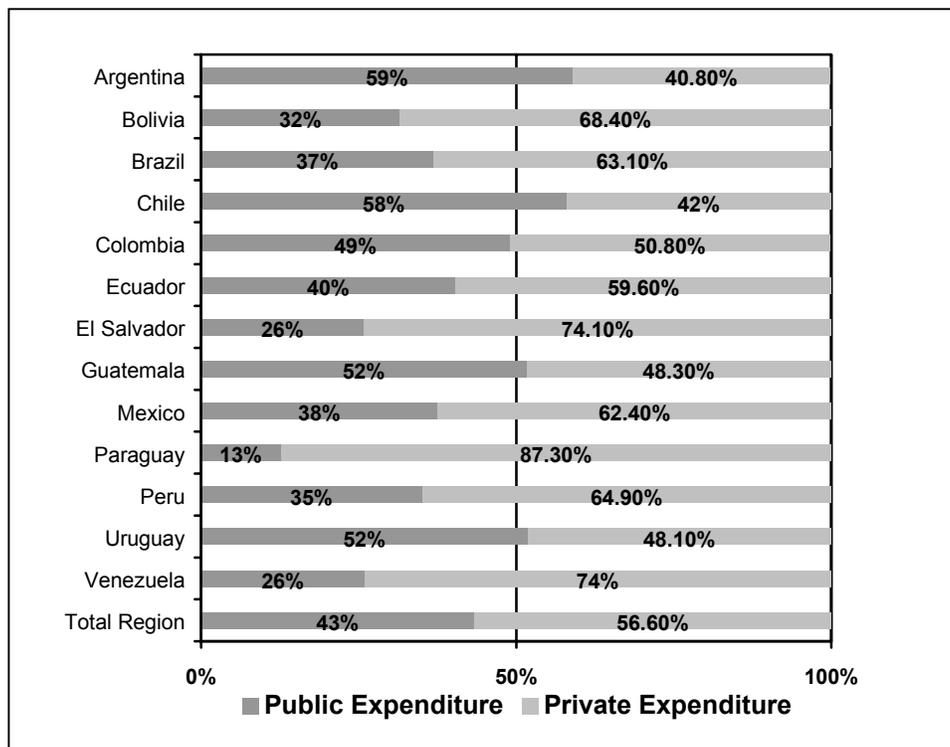
Up-to-date information with regard to the composition of expenditure according to sources of financing is limited and little systematized. The principal information problem is the measurement of out-of-pocket household contributions. This information generally is estimated on the basis of national surveys of family budgeting of income and expenditures and of family surveys on household living conditions.

Figure 2 shows the distribution of total health expenditure between public and private spending for selected countries in the region. As the figure shows, household

⁷ An example is the case of Chile, although this is the exception.

expenditures in the region in 1991 represented around 57 percent of national health expenditure, while government expenditures represented the remaining 43 percent.⁸

Figure 2: Household Expenditure as a Percentage of National Health Expenditure, 1990



Source: Suárez R., Pamela Henderson, Edgar Barillas, and César Vieira (1994). *National Expenditure and Financing of Health in Latin America and the Caribbean: Challenges for the 1990s*. (1994). Technical Report Series No. 30. Pan American Health Organization, World Health Organization, Washington, DC. March 1994.

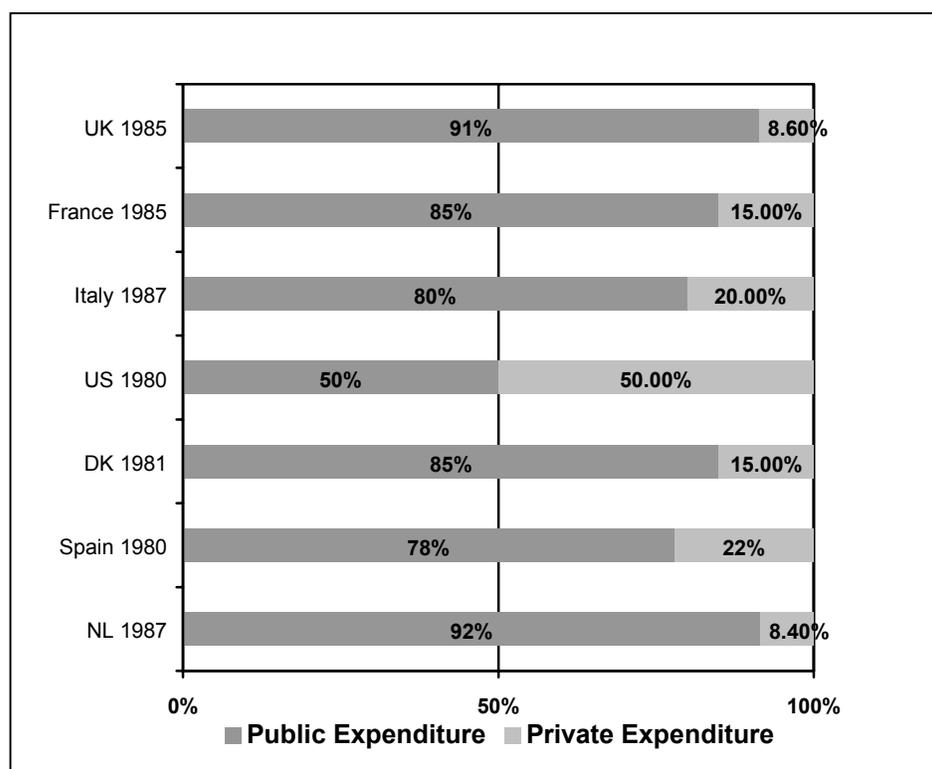
The most recent information for several countries shows that the proportion of private spending in total of health expenditure has either remained steady or increased over time. Thus, household expenditure in Mexico over 1992-96 represented 65 percent of total expenditure, a percentage that is similar to that of Ecuador in 1993. In Peru, the figure reached 62.3 percent in 1996⁹.

⁸ Suárez R., Pamela Henderson, Edgar Barillas, and César Vieira (1994). *National Expenditure and Financing of Health in Latin America and the Caribbean: Challenges for the 1990s*. Technical Report Series No. 30. Pan American Health Organization, World Health Organization, Washington, DC. March 1994.

⁹ Clearinghouse on Health Sector Reform in Latin America and the Caribbean.

These results contrast with those of more developed countries. In the United Kingdom, Spain, France, the Netherlands, Italy, and Denmark, household expenditures represented between 30 and 8.4 percent (Figure 3).

Figure 3: Percentage of Direct Household Expenditure in Total Health Expenditure in Selected OECD Countries



Source: Adam Wagstaff, Eddy Van Doorslaer (1992)

This desegregation of expenditure for Latin America shows that, unlike what is perceived by the governments of most countries of the region, household expenditures in many countries is the most important financing source of national health expenditure.

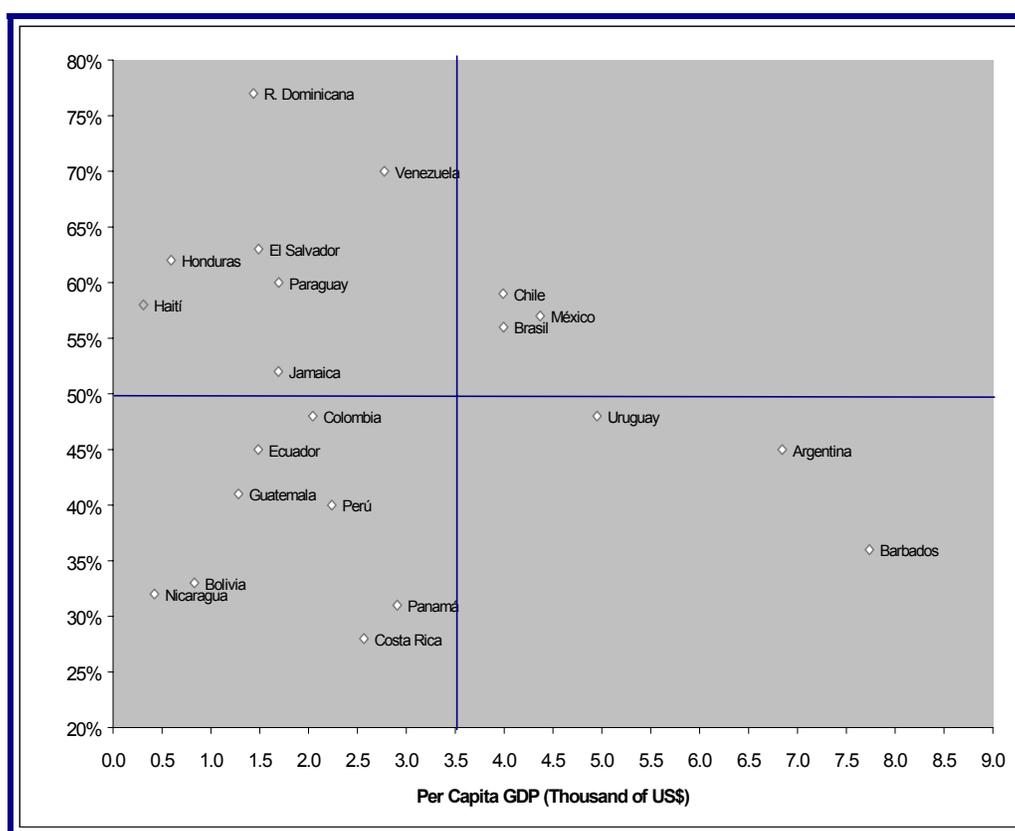
On the other hand, it is important to note the differences in the public-private spending mix in the region. In Costa Rica, public expenditure in 1990 represented 76 percent of total expenditure, while in El Salvador that figure was around 26 percent. For the region, the pattern of out-of-pocket expenditures observed in OECD countries also holds—that is, the higher-income countries seem to depend more on public spending, and vice versa, the poorer countries on private expenditure.

**Out-of-Pocket Health Expenditure in Latin America and the Caribbean:
The Efficiency Rationale for Extending Social Protection in Health**

In terms of equity, health systems¹⁰ with a significant public spending component—financed with general taxes—can be more equitable if the tax system is more progressive (in most cases), since this source permits greater flexibility from the perspective of the use of resources (targeting of public spending to populations most in need).

The Latin American health systems—with financing structures in which the average central government expenditure is around 21 percent of the total, while households contribute 57 percent—are characterized by highly inequitable systems.

Figure 4: Relative Weight of Private Health Expenditure in Different Countries by Per Capita GDP in US\$



Source: Health Expenditure Database. Public Policy and Health Program Division of Health and Human Development, Pan American Health Organization. Latest Revision: September 1998.

¹⁰ Wagstaff and van Doorslaer (1999).

In general, expenditures by poorer families to purchase health services represents a greater proportion of their income than what this expenditure represents for wealthier families. The situation in the Latin American and Caribbean countries is seen in Figure 4.

By relating patterns of private health expenditure in countries of the region to the level of per capita income,¹¹ an inverse relationship can be observed (with exceptions) between the percentage of private health expenditure and that of total health expenditure as it relates to per capita GDP. That is, in poorer countries of the region people participate with greater out-of-pocket expenditures, which translates into serious inequity.

The exceptions are partly explained because the variable extension of health insurance coverage in countries is not indifferent to the participation of out-of-pocket expenditures in the financing of health. In countries with low levels of insurance coverage, such as Venezuela, the Dominican Republic, Honduras, and Haiti, health costs are financed mainly through out-of-pocket expenditures. In countries such as Costa Rica, Bolivia, Nicaragua, and Panama, which have more extensive coverage of social protection in health, out-of-pocket spending represents a smaller portion, similar in fact to that of Canada. As mentioned earlier, another variable that can affect these results is the quality of information on private health expenditure, whose heterogeneity was analyzed previously.

This situation is not unique to our region. Other studies show similar patterns in the African countries regarding per capita household expenditure on health.¹²

The high level of out-of-pocket expenditure in the region is currently a source of financing. Because of its fragmentation and disorganization, however, it is not being exploited to its maximum potential due to efficiency losses for the system as a whole. Therefore, just as important as public policies to achieve greater financing for the poor—by targeting already-existing public resources and/or by increasing total resources available for health—are public health policies that facilitate the most efficient use of existing resources through current out-of-pocket expenditure.

In this regard, it is necessary that reforms of health systems in Latin America incorporate measures to expand and improve public and/or private health insurance coverage. The principal gain from this effort is the improvement of efficiency in the allocation of resources by reducing the levels of financial risk in health to which the population is exposed. This mainly implies reducing the importance of direct out-of-pocket expenditures by families, particularly by promoting aggregation and organization

¹¹ This trend is clearer in the group of countries with per capita GDP above US\$3,500.

¹² World Bank (1994). *Better Health in Africa: Experience and Lessons Learned*. Development in Practice. Washington, DC.

formulas for resources from current out-of-pocket expenditures in order to improve their efficiency.

III. EFFICIENCY ARGUMENTS THAT JUSTIFY EXPANSION OF COVERAGE, PARTICULARLY INSURANCE VS. OUT-OF-POCKET EXPENDITURES

Out-of-pocket expenditure affects both the people in need of insurance as well as those who are contributors to social security systems. For the first group, the direct payment represents their total expenditure, while for the second it is a copayment or a total payment for those benefits that are not covered by insurance.

Out-of-pocket expenditure, particularly at the levels observed in the region, is a significant problem in terms of both equity and efficiency. Indeed, there are strong efficiency arguments that discourage the use of out-of-pocket payments as a form of financing, promoting in their place the establishment of organized mechanisms, among them types of health insurance, that would increase the efficiency of these expenditures.

The principal effects on efficiency can be divided into two groups. The first is a result of the direct impact of a partial or total lack of insurance, and has to do with the social welfare losses related to the absence of optimal insurance. The second stems from the mechanisms that people use to get around not having insurance. This can range from accepted practices such as the indiscriminate use of emergency services, to illegal ones, such as people fraudulently presenting themselves as being covered by the system when in fact they are not.

This type of behavior implies that the subscribers to system are financing the services provided to uncovered population groups, which generates a type of implicit subsidy not defined in the system.

The following four sections analyze the most important arguments with regard to efficiency losses from out-of-pocket expenditures and these implicit subsidies. The chapters analyze the advantages and disadvantages associated with out-of-pocket payments, explore their effects (direct and indirect) on the efficiency of the health system, and propose structures for out-of-pocket payments or copayments that would make it possible to reduce the inefficiency of health systems. The last section analyzes in more detail the impact of copayments on the efficiency of health expenditures.

The Efficiency Rationale for the Extension of Coverage

There are at least three efficiency reasons that make it necessary to explore formulas to expand coverage, particularly insurance or microinsurance for sectors currently excluded from social security, but whose out-of-pocket expenditures are considerable.

These are:

1. reasons based on classical insurance theory, and the efficiency gains in individual expenditures;
2. reasons based on population groups associated with the determinants of the cost of an insurance premium and its relationship to the acquisition of adequate coverage, minimum volumes of the supply of services, and the capacity to negotiate prices, quality, and opportunity;
3. reasons associated with the specification of implicit public subsidies and their targeting.

In addition, the role of copayments in the efficiency of expenditure is analyzed, along with its potential role in the political viability of defining high-impact benefit packages as part of the process of extending social security in health.

IV. EFFICIENCY RATIONALE BASED ON CLASSICAL INSURANCE THEORY

The random nature of episodes of health and disease constitute the fundamental uncertainty that creates the demand for insurance. In turn, the need for health services to cope with illness and for the expenditures associated with the demand for such services determines the financial risk against which people protect themselves when they obtain health insurance.

According to insurance theory, it is sufficient that a person be adverse to risk that jeopardizes his or her utility, that is, sufficiently adverse to the extent that insurance that offers a just premium is more attractive than remaining in the at-risk situation. This is the starting point in establishing insurance that, in general, enables people to perceive themselves as having greater utility than they would have were they to face an uncertain financial risk that could be caused by illness. That is, we have an efficiency argument that justifies the promotion of insurance that reduces financial risks faced by users. This argument establishes the first advantage of insurance, from an efficiency perspective, over the traditional out-of-pocket payment mechanism.

A second effect that follows is that the insurance scheme, to a great degree, separates the moment of contribution to the system from the moment of need for consumption of a service. In all services where there is price elasticity for demand, the perceived price determines what will be the level of demand. Upon separation of the moment of contribution from the moment of demand, the price perceived by the claimant is very significantly reduced (although usually not to zero, either because of direct or indirect copayments and/or the opportunity cost of time). This separation produces the classical effect of insurance, which is to substantially reduce the "price perceived" by the user at the time of need for the service. In the presence of services with price elasticity to demand greater than zero, this will permit a substantial increase in the demand for that service at the moment when the consumer most needs it. The positive effect is evident in comparison with out-of-pocket expenditure, where the user has to cover the total cost of the service at the time he or she needs it. This has negative effects for reasons inverse to the argument for the separation of contribution and consumption in terms of the maximum quantity and quality of the service that can be demanded.

The effect of contribution-consumption separation is more favorable to those who are poorer, since the theory and existing evidence show that these are the segments of the population that demonstrate greater price elasticity to the demand by health services.¹³

There is, however, a potential negative effect that constitutes the other side of the coin from the positive effects of separating contribution and consumption. The significant

¹³ Gertler P. and J. van der Gaag (1990). *The Willingness to Pay for Medical Care: Evidence from Two Developing Countries*. World Bank.

reduction of the perceived price causes the user to consume more than what he or she would consume (expected effect) at the perceived total price, and this includes the doubtful individual/social benefit. This is called “moral risk” in the health insurance literature. We will review this potential problem upon analyzing the role of the copayment as one of the components of out-of-pocket expenditure.

V. EFFICIENCY GAINS FROM GROUPING BENEFICIARIES AND ORGANIZING EXPENDITURES/CONTRIBUTIONS

A second argument in favor of increasing the coverage of social protection is related to the efficiency gains derived from economies of scale for people who put their resources together and thus constitute a single risk pool. At least four gains can be observed by using economies of scale:

1. a larger risk pool (which results when groups organize themselves and put together their resources in order to extend health coverage) makes it possible to reduce uncertainty in forecasting expenditures and to reduce the cost of the insurance premium;
2. an organised pool of resources ensures financing flows needed to be able to demand services, reducing the uncertainty of service providers with regard to demand and making it possible and attractive to provide services;
3. the volume handled by a common pool of resources increases the negotiating capacity of the organized group with service providers in terms of the opportunity for services and their quality and price;
4. a larger pool of risk and resources reduces administrative costs because it implies economies of scale in administrating relationships with providers and in managing information and other aspects.

1. *Size of the Risk Pool and its Effect on Improving the Forecasting of Expenditure*

The level of risk that people face depends on the accuracy with which it is possible to predict the probability of the adverse event. The greater the uncertainty, the greater the associated risk.

The health insurance premium is determined by its actuarial cost, administrative cost, taxes, associated profits, and an uncertainty factor “e.”

The greatest difficulty in defining the premium is related to the uncertainty of estimating the probability of occurrence of each intervention. The greater the number of participants, the smaller the variance of the cost, and as a result the smaller the degree of uncertainty. Reducing the degree of uncertainty implies that the factor of error *e* included in the formula of determinants of the premium will be smaller. This means that for the same level of coverage, larger groups of people should pay a smaller insurance premium or, conversely, for the same cost, they should be able to obtain greater coverage.

The organization of people into groups or “pools” of resources and risk enables them to take advantage of this effect. However, this same reasoning shows us why the *e* factor can cause large problems for very small insurance schemes, making the scheme unviable. This can be due to the fact that the premium for comprehensive coverage is too expensive as an effect of *e*, or because the benefit package has to be very small in order to achieve a premium within the reach of users. This discussion is particularly relevant in interpreting what is happening with efforts to expand coverage to groups with small numbers of affiliates in the region.

2. Impact of Reducing Uncertainty in Demand in Terms of Greater Income Stability for Providers and a Viable, Sufficient Supply

The uncertainty with regard to the health events faced by each individual, added to the obstacles posed by direct out-of-pocket payment for care, represent a greater risk for service providers at the time of deciding whether they will offer a community their services, particularly with regard to investments that will be amortized over considerable periods of time.

Uncertainty about the cost of an intervention and whether or not there is demand for these services affects the behavior of health service providers. The use of out-of-pocket expenditures as the only source of financing represents a risk and an uncertainty that in many cases can result in the decision not to offer the services in question or to offer them at a much greater price than warranted by the investment in the costs. In rural and/or poor areas in particular, the existence of insurance mechanisms for people who are in a position to ensure a flow of income to the providers represents the difference between whether or not a given service is offered. Promotion of formulas to increase the risk pool can in this regard determine a utility gain by simply ensuring service at the moment when the individual requires it.

The organization of expenditure and of common risk pools, particularly if these pools are of significant size, implies at least two important changes for providers:

1. it makes it possible for them to predict with greater certainty the probability of the occurrence of health events and thus the demand for services;
2. it ensures a flow of continuous demand and of greater volume as an effect of the contribution-consumption separation previously analysed.

It is probable that this effect explains why on many occasions the first attempts to provide to communities where there are no formal insurance markets are based on service providers establishing prepayment mechanisms, or on communities combining their resources for the purpose of "hiring" health workers to provide basic services to their community.¹⁴

The effect of ensuring the existence of supply can itself be the fundamental objective of mechanisms to expand coverage, and implies a significant efficiency gain in the use of the same resources that existed previously.

3. The Effect of the Size of the Pool on its Capacity to Negotiate Price, Quality, and Availability of Services with Providers

It is evident that each individual independently has very little capacity to negotiate the price, quality, and availability of services with each provider who might be needed in the future.

There are three reasons for this: a) given that the events will occur in the future and that it is uncertain that they will occur at all, the opportunity cost in terms of time and effort to pre-negotiate individually simply can be—and very probably is—too high for each isolated individual; b) even if this negotiation were to be attempted, the volume would not be attractive to the provider; and c) it is impossible (or extraordinarily expensive) for every person individually to develop the technical and managerial abilities required for this negotiation, given the asymmetries of information.

For this reason, health care for people who do not belong to any insurance scheme, and who must pay the total cost of each service at the time they need it via out-of-pocket expenditure, results in major efficiency losses in the use of their resources in comparison with what their costs would be were they affiliated with organized schemes.

The organization of resources into common pools gives groups the sufficient volume, and enables the development of the technical and managerial capabilities, needed to influence service providers with regard to quality, availability, and price of the services. This effect has become particularly popular with the development of health schemes administered through the insurance markets.

It is evident that the size of the pool is the determinant in developing the aforementioned negotiating capacities. Just as this theoretical framework indicates that the organization of pools of risk/resources is more advantageous than having each individual face his or her problem in isolation, it also indicates that the small forms of organization (very small schemes)—despite achieving organization itself—do not have the size necessary to

¹⁴ Creese, A. and S. Bennett (1997). Rural Risk-Sharing Strategies in Sub-Saharan Africa. World Bank Discussion Paper No. 365, George Shieber (ed.).

attain this negotiating capacity, or have a size sufficient only to negotiate restricted benefits (high frequency and low cost benefits).

4. *Reduction of Administrative Costs for Groups and Service Providers*

Finally, and as a logical consequence of the two previous points, grouping in pools of risk/resources permits significant savings in the administrative costs both of the extension scheme and of the providers involved with it.

The larger the group, the greater will be its economies of scale in all the processes of affiliation, monitoring of contributions and benefits, and other areas. Every member can therefore potentially have greater benefits using the same amount of resources he or she spent previously out-of-pocket.

In addition, the administrative costs of service providers can also be reduced, since instead of having to deal with each individual to define prices, negotiate the benefit package, promote services and collect accounts, the provider interacts with a single organization, which reduces its costs.

There is also a potential gain in the quality of the clinical information available for the patient and the organization because of the capacity for negotiation and the demand for such information from the organized group. The same occurs with regard to a potential gain associated with control of demand induced by the provider, since the organized group will have information on behavior of the various providers and examine more systematically the validity of such behavior.

VI. EFFICIENCY GAINS FROM ORGANIZING THE IMPLICIT SUBSIDIES OF WORKERS IN THE INFORMAL SECTOR

Health insurance systems in general have mechanisms and legal restrictions (compulsory contributions) aimed at achieving coverage that is as broad as possible. Despite this, however, there is a sizeable proportion of the population that is not incorporated into these systems in the region.

There are many reasons that explain this marginalization from the system (economic, cultural, and geographical factors, shortsightedness, incomplete markets, opportunistic behavior, etc.). But regardless of the reasons that motivate such behavior in general, which were analyzed in the previous chapters, the situation introduces inefficiencies and harms the social well-being of the population.

The case of informal workers who do not contribute is a clear example. Because it is not possible to oblige these workers to incorporate themselves into the formal health system, a great proportion of them do not do it, even though they are just as averse to risks as other workers who are forced to contribute.

This does not mean, however, that these workers are not maximizing their utility, since their decision is due to a great extent to opportunistic behavior. There is significant evidence that these groups have access under the category of indigents to services in public health facilities.¹⁵

Another reason for the marginalization of these groups from formal health coverage schemes is the limitations imposed by what is offered. In this regard, insurers face the difficult problem of specifying the value of the premium to collect from these populations groups, which usually have variable income structures.

A second element is the greater transaction costs associated with the administration of portfolios made up of workers in the informal sector. Costs are higher due to higher nonaffiliation and subsequent reintegration associated with the temporary nature of incomes of these workers. In addition, the instability of income increases the transaction costs because it increases the effort required by insurers to collect premiums, which in the final analysis is reflected in an increase in arrears of the portfolio.

Finally, the financial risk of insurers is increased because these groups cannot be obliged to affiliate themselves with formal systems due to the flexibility of their income.

To protect themselves from greater risk and higher administrative costs associated with these population groups, insurers increase the premiums of the plans.

¹⁵ Baeza, C. and M. Heads (1998). Public Policy Towards the Private Sector in Health: Challenges to Public Policy from Private Sector Participation in Developing Countries. CLAISS Working Document.

The exclusion of workers in the informal sector translates into social costs, inefficiencies in the allocation of subsidies, and inequities in terms of contributions at the global level of the system. First, there is excessive use of emergency services, which, because they are more expensive, generates greater health costs than does timely care. In addition, marginalization translates into fraudulent use of services, which occurs when an individual who is not insured uses insurance benefits by impersonating someone who is covered. This translates into a type of unwanted subsidy, since it does not follow criteria for either efficiency or equity.

The possible solutions to this problem involve implementing measures that make it possible to reduce the factors that drive up the cost of premiums, such as the risks associated with these groups. That is, there must be a reduction in the incentives for opportunistic behavior, which is facilitated to the extent that there are mechanisms for free coverage, such as the use of emergency services. Controls to stop people without rights to coverage from using services established for subscribers must be improved, as must be controls to reduce evasion of contributions.

One plausible way to address these problems is through policies that promote the collective affiliation of this segment of the population to health insurance. The contracting of collective insurance makes it possible to reduce both the opportunistic behavioral risk as well as the administrative costs associated with the collection effort, which would in turn reduce the premium that needs to be charged.

Another measure is to convert current implicit subsidies into explicit subsidies in the form of lower premiums for these groups. This can be translated into a Plan of Coverage for Workers in the informal sector, the basis upon a variable subsidy according to income levels could be established. In addition, the subsidy could be provided to organized groups of workers in the informal sector, rather than considered to be a subsidy for individuals.

VII. THE CHALLENGE OF ORGANIZING OUT-OF-POCKET EXPENDITURES TO INCREASE COVERAGE

1. *Moral Risk and the Role of Copayments*

One of the principal problems faced by health insurance providers in a market with imperfect information is that users modify their behavior after acquiring medical insurance. The economic literature calls this behavior “moral risk.” After purchasing the insurance, the user has lower costs for health services and thus has less incentive to make adequate use of them. It is even possible that having the insurance will diminish the person’s incentive to take care of his or her own health.

The method most used by traditional insurance to minimize this type of behavior has been to establish partial coverage, which corresponds to direct contributions or copayments for which the individual is responsible when requiring health services.

This tool, which acts directly on the demand for medical services, looks to reduce the use of unnecessary benefits by internalizing in individuals, even to a limited degree, the costs of health services.

The evidence is clear that copayment systems have a significant impact on the demand for medical services.¹⁶ Specifically, a study showed that health plans with copayments on the order of 25 percent were able to reduce health expenditure by 20 percent. Contrary to what is argued by supporters of total coverage systems (without cofinancing), this did not translate into a decline in the health of people in copayment systems as compared to that of people with total coverage. Furthermore, the study showed that overutilization of medical services can be detrimental to health, since unnecessary care can generate erroneous prescriptions.

For low-income segments of the population, it is possible that cofinancing can translate ultimately into reduced demand for services necessary to good health. In this case, it is probable that these population groups do not have access to health insurance because of their limited economic capacity to cope with the copayment structure. On the other hand, there is important evidence that the potential moral hazard problem is less serious in insurance schemes targeted to poor groups, since even if there is no formal copayment or a low one, these groups often face indirect copayments, either through opportunity costs in terms of travel and waiting (time thus unavailable for caring for the

¹⁶ Newhouse, Joseph P. and The Insurance Experiment Group (1993). *Free for All? Lessons from the RAND Health Insurance Experiment*. Harvard University.

family or formal or informal work) or even through indirect financial costs associated with transportation, inputs not included in costs for care and/or informal payments.¹⁷

However, the inefficiencies associated with overutilization of medical services originate not only with factors related to the demand for such services, but also with factors related to supply. Regarding the latter, the asymmetries of information of users with regard to the adequacy of available services leads providers to play an additional role of an agent who decides for the users which health services they should acquire. In a system of payment for services rendered, this tends to translate into agent-providers having few incentives to contain costs, since their income clearly increases to the extent that they produce more and more services, in turn generating the use of them.

In this context, the search for efficiency in resource allocation based on measures that act on demand, along with the use of copayments, have been insufficient to achieve the objectives of containing escalating costs in the sector.

Any public or private insurance plan should determine which services to cover and in what proportion. The design of an optimal or adequate structure of copayments is not trivial, inasmuch as an incorrect definition can introduce serious problems into the allocation of resources, declines in the well-being of the population, and even unviable financing of the scheme to expand coverage.

One of the most disputed aspects of incorporating copayments is related to the design of a system that is efficient in controlling unnecessary demand, but which does not translate into limiting access to benefits that are indispensable for people to recover their health.

In this area, private insurance has traditionally established percentage coverage structures that are combined with maximum service limits. Private insurers in Latin America very commonly use this structure. Although it notably reduces the financial risks of the insurer, however, it leaves individuals who suffer a high-cost health event without required treatment by passing most of the cost of care onto the consumer.

Those who are chronically ill face a similar situation. Even though treatment per event is low in cost, the requirements over prolonged periods for such care constitute considerable expenditures from the standpoint of the family budget.

One element common to both cases—unlikely but high-cost catastrophic disease, and chronic illness—is the absence of adequate coverage by private insurance for high-cost events. It is essential that mechanisms to expand coverage, particularly microinsurance, carefully address the problem of coverage of catastrophic events at the time when contribution schemes are defined.

¹⁷ Abel-Smith, B. and Rawal (1992). Can the Poor Afford “Free” Health Services? A Case Study of Tanzania. *Health Policy and Planning* 7(4): 329-41.

There are numerous practical examples that show why the percentage copayment structure should be complemented by the obligation to establish in insurance schemes, mainly private ones, maximum expenditure limits for users above which services would be provided free of charge. This proposal would make it possible to minimize potential efficiency losses that originate in private insurance schemes with limited services that have public reinsurance schemes.

2. *The Benefit Package: Another Potential Role for Copayments?*

Defining the benefit package is indispensable for any health insurance, particularly for formulas to expand coverage through risk and resource pools that are limited in size. The definition of the benefit package in those cases should be as explicit as possible and delimited to those services that can be included with copayments that do not in practice cause severe access problems. Assuming small size (we do not have evidence of what occurs in practice in the region), it is preferable to explicitly define the package of benefits.

However, although it is beyond the objectives of this document, there is another potential role of copayments that suggests caution in disqualifying it as a mechanism to control moral risk, even for poor populations where it would be less valid. The processes of reforming social security in health in the region have had the problem, as have many others, of explicitly defining the basic health benefit package. This problem developed following the World Bank's *World Development Report* in 1993. One option is to specify an explicit service package that excludes a number of benefits. But this has proven to be unsustainable in the political sphere.

The evidence shows that it is very difficult politically for authorities as well as the general public to accept excluding some health services from insurance coverage (public or private). However, an alternative is not to exclude any provision, except on rare occasions, and to utilize the copayment as a tool to prioritize each area of insurance coverage through its differentiation by intervention. If this is the case, we believe that one should be very cautious in not ruling out the copayment as a tool to control moral risk, even under conditions where it might not seem valid.

VIII. NECESSARY AREAS OF RESEARCH

In general, there are very few sources that deliver reliable information on the division between voluntary insurance expenditure, expenditure on copayments, and out-of-pocket expenditures. The general approximations have been based on surveys of family budgets. However, it is not very clear which categories of expenditures are considered in each part of the survey—those that tend to be lumped together as private health expenditure, or those defined as household expenditure on health. The distinctions of the components of this expenditure can be very useful in the discussion of concrete formulas for expanding social security coverage in health, and/or for improving the efficiency of that coverage in the different countries of the region.

Other alternative data sources that could be more reliable, such as studies of health demand conducted in the different countries, often pose serious comparability problems, which makes them difficult to work with if the objective is to conduct regional studies.

However, there are approximations that make it possible to form some idea about the general behavior of out-of-pocket expenditure. Thus, for example, it is evident that as the income of countries increases, the proportion of insurance increases in comparison with out-of-pocket expenditure. This is to be expected as security comes to be regarded as a “normal” good; that is, people purchase more of this good as their income increases.¹⁸ Accordingly, lack of insurance tends to be an income problem, rather than a consequence of free choice by consumers.

Another area where there is practically no systematized information for the region concerns current forms of organization for extending coverage of social security in health, and the determinants of success or failure of those formulas.

This report is based on the development of a conceptual framework for the efficiency rationale that justifies extension of coverage of social security in health. However, it is indispensable that the theoretical elements described here be contrasted with the empirical evidence on the effects that different formulas of extending social protection in health have on the efficiency of expenditure. Only with such evidence can there be greater accounting of what ultimately can be achieved by efficiency gains suggested by theory in terms of expanding coverage of social security in health.

¹⁸ Musgrove, P. (1996). *Public and Private Roles in Health: Theory and Financing Patterns*. Human Development Department, World Bank.

In this regard, it seems to us indispensable that there be progress in the near future in the following areas of research related to the efficiency of formulas to expand coverage:

- a) how much is in fact spent in the region on pure out-of-pocket expenditures, formal and informal contributions by users, copayments, and voluntary premiums?
- b) what is the regional evidence with regard to the institutional and financial sustainability of pure micro-insurance schemes or other modalities of expanding coverage of social protection in health? And what is the evidence with regard to efficiency gains in all the areas suggested in this report?
- c) what determines success or failure both of sustainability and achieving efficiency gains?
- d) what is the regional evidence with respect to the minimum size of micro-insurance or other modalities needed to ensure their sustainability with comprehensive benefit packages?
- e) what is the evidence with regard to the sizes of risk pools, financial sustainability, and the characteristics of the benefit package? Is there a relationship between sustainability and practices of risk selection and exclusion of high-cost and low-probability health events?
- f) what is the amount of the implicit subsidies to workers in the informal sector that could be rechanneled into models to expand coverage via demand subsidies for insurance? Are there schemes of this nature? What is the evidence with regard to their relative efficiency compared with subsidy schemes offered by traditional public providers?

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