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Financing mechanisms for health insurance and the implications on equity(1)

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1. Introduction

Social health insurance implies that although combinations of different sources of financing are possible, the members contribute to the financing of the services. The main sources of financing besides member contributions are government subsidies and tax relief, co-payments and user charges. Each of these sources of finance can have a different design, different political objectives and a different impact.

Government subsidies to cover the health costs of certain groups are a way of achieving greater population coverage. People who cannot afford regular contributions because they have low or zero incomes are then included in social health insurance, the cost being covered by the state.

Contributions may be paid exclusively by insured persons, or may be paid in part by the employer. In the latter case, the contribution is normally split 50:50, but in some countries employer and employee pay different shares. Contributions can be flat rate and equal, wage-related or income-related. They can include dependants, or may require that dependants have to pay their own contributions. The main difference between varying types of contribution is the effect on the distribution of health costs among the members, the solidarity effect.

Co-payments are additional payments made by patients, often at the point of service, for health care services they receive. For example, a patient may pay a nominal fee for each visit to a health facility, while the insurance scheme covers the remainder of the cost of the visit. Co-payments can be designed to encourage or discourage the consumption of particular health services. To discourage excessive consumption of drugs, patients can be charged relatively high co-payments for drugs that are covered in the benefit package.

If insurance is introduced to replace a tax-funded system in which services were free at the point of contact, co-payments and user charges will clearly lead to a redistribution of health costs, with the sick and the elderly paying the most. This is why it is important to have a system of exemptions from co-payments and user charges.

To cover costs incurred by the health fund as a result of hazardous activities or behaviors, such as smoking and alcohol consumption, a special consumer tax can be used as an additional funding for health insurance.

This presentation/paper outlines some of the issues for analyzing the impact of different financing mechanisms for health systems including health insurance on equity of health services. Starting with the conclusions from Wagstaff et al. in the article: Equity in the finance of health care: some further international comparisons(2), this presentation/paper discusses the financing mix in the LAC countries, focusing on financing of health insurance, and their implications for equity in financing.

2. Health systems, categories an financing

The main sources of financing of health services are general taxes and social insurance for public financing and private insurance and direct payment for private financing:

Public financing
Private financing
General taxes

Private insurance
Social insurance
Direct payment

Within these categories there are a variety of sub categories and health systems are normally financed from a mix of several sources.

Before analyzing the different types of health insurance systems it is worthwhile to start with an overview of the ways in which health care has been organized through recent history. A classification based on the historical development of systems for health care that is commonly used in the LAC countries has been developed by Carmelo Mesa Lago(3). Frederico Tobar has summarized the development and the following is built on his work(4).

There are four principally different forms of health systems:

1. Social assistance systems (Sistemas Asistencialista)

2. Social insurance systems (Sistemas de Seguro Social)

3. Universal public health systems (Sistemas de Seguridad Social)

4. Private insurance systems (Sistemas de Seguro Privado)

The social assistance models originated from the early years of capitalism as a model to provide social care including health care for the poor, deprived and unemployed without means to provide for themselves. This classification is used today for those models of care that are directed and limited to provide care for socially excluded or vulnerable population groups. Financing is normally by the state or to some degree by NGOs.

Social insurance schemes were developed for and by the working classes during early industrialism to provide social benefits for the workers and their families. Schemes are financed and administrated by the workers themselves, by the trade unions (mutual schemes) or co-financed and administered by the employer and in several countries also with contributions from the State (tripartite schemes). Participation is restricted to the workers and may include family members. It is also normally compulsory for all workers within a workplace, an industry or a trade union. Prepayments and contributions from the beneficiaries, the workers, characterize social insurance schemes. The tripartite model originates from Germany and is also referred to as the Bismarck model.

Universal public health systems were developed following the emerging idea in the 20th century that health care was a human right and the State should be responsible and guarantee health care to all its citizens (the Welfare State). Health care systems with universal coverage (at least in theory) were developed in England and several European countries and in a number of Latin American countries (Venezuela, Costa Rica, Panama, Mexico, Paraguay, Argentina, Guatemala, The Dominican Republic, El Salvador and Bolivia)(5). The universal systems are financed by the State, through taxation and in many countries co-payments or fees when using the services.

Private insurance models were developed to respond to needs by persons not covered by the other models or to offer coverage for services not covered by the other models or to offer services of higher quality for those who could afford it. Private insurance are based on prepayment calculated according to the risks of the population covered, premiums can be the same for everybody based on the collective risk or different for each individual calculated according to his or her individual risk or according to ability to pay.

In reality the models described above have many variations in the LAC countries and can hardly be found in its "pure" form. Nevertheless some examples of models close to the classification can be mentioned(6).

Health insurance schemes that can be categorized as social assistance schemes in that they are directed to vulnerable groups are Medicaid in the United States and the Fonasa in Chile, both with public financing although organized as social insurance schemes. Also close to this category is the Subsidiary Regime (Régimen Subsidiado) in the General Health Insurance Scheme in Colombia (Sistema General de Seguridad en Salud de Colombia).

Two examples of decentralized social security systems are the Health Promotion Units (Entidades Promotoras de la Salud) in the General Health Social Security System in Columbia and the "Obras Sociales" in Argentina. There are also some examples of social security schemes centrally administered by the State as the Medicare in the United Stated and the Guatemalan Institute of Social Security (Instituto Guatemalteco de Seguridad Social).

One example of a systems that can be described as universal public health systems is the Costarican Social Insurance (Caja Costaricense de Seguridad Social) that covers about 90% of the country’s population.

Isapres in Chile, the organizations for prepayment in Argentina, the private insurance companies in Guatemala and the United States and the Health Maintenance organizations also in the United States are all examples of private health insurance schemes. The financing of the four categories of health systems can be summarized according to the following table:

System:	Financing:
Social assistance systems (Sistemas Asistencialista)	Public financing
Social insurance systems (Sistemas de Seguro Social)	Private and Public financing Prepayment, co-payments by employers and employees
Universal public health systems (Sistemas de Seguridad Social)	Public financing, taxation Co-payments and fees
Private insurance systems (Sistemas de Seguro Privado)	Private financing, premiums and co-payments

2.2 Financing mixes in the OECD countries

Apart from Switzerland and the US, public financing dominates in the OECD countries, ranging from 61% in Portugal to 90% of health care expenditure in Sweden. In the Netherlands, Germany and France, the main source of financing is social insurance (See Graph 1).

3. Equity in financing of health services

3.1 Measuring equity in financing

Wagstaff et al.1 measure the effects of health care financing on the distribution of income, the difference between the Gini coefficient before and after households pay for health services. The difference will depend on the progressivity of the health care financing system, but also on the average proportion of income spent on health care, the extent to which households with similar incomes are treated unequally (horizontal inequity) and the extent of any reranking in the move from the pre-payment income distribution to the post-payment income distribution. All four effects are discussed in a paper by Doorslaer et al.(8). This presentation is focusing on the progressivity.

3.2 Progressivity indices for OECD countries

Wagstaff et al measure progressivity using the Kakwani index(7)1. A positive (negative) value of the index indicates a progressive (regressive) structure of the financing mechanism. In the Table 1, the results are presented for the four sources of financing with general taxes divided in direct and indirect taxes. Progressivity is indicated by the positive sign (+) and regressivity by a negative sign (-) .

The direct taxes used to finance health care are progressive in all countries and indirect taxes are regressive in all the countries. Social insurance is regressive in the Netherlands and in Germany, but progressive in all other countries. Private insurance is progressive in 7 countries and regressive in 5 countries. Progressivity versus regressivity in health insurance is discussed more in detail in part 5 below.

3.3 Equity in financing in LAC countries

Direct payments are found to be a highly regressive means of revenue in the OECD countries, though the regressiveness varies across countries, reflecting the differences in exemptions from paying the fees.

In the LAC countries 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 is generally estimated on the basis of national surveys of family budgeting of income and expenditures and of family surveys on household living conditions. Most of the information available refers to the household expenditure and includes the purchase of private insurance and the different forms of out-of-pocket expenditure in a single category. For a discussion of the use of private expenditure as a proxy variable for out-of-pocket expenditure, see the PAHO/ILO paper: Out-of-pocket health expenditure in Latin America and the Caribbean: the efficiency rationale for extending social protection in health(9). Graph 2 shows the sources of financing for countries selected according to the availability of data.

Graph 2 shows that household expenditures in many countries in Latin America is the most important financing source of national health expenditure. 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. In general, expenditures by poorer families to purchase health services represent a greater proportion of their income than what this expenditure represents for wealthier families.

In the OECD countries taxes are found to be a progressive means of raising revenue for health. In the LAC region, there is a group of countries (The Bahamas, Barbados, Costa Rica, Jamaica, Grenada, Cuba, and Trinidad and Tobago) that have integrated public health systems finance mainly through taxes and with public provision of services. Costa Rica is the exception in this group because its social security subsector is coordinated with the public subsector. The latter is the dominant insurance and service delivery model.

The private subsector has traditionally had a minor role and has often been seen as complementary to public insurance. More recently, however, there has been a certain boom in this subsector in some countries (such as Jamaica). The effect of under financing

of the public sector and the growth of a private sector have probably reduced the equity in financing in several of these countries.

4. Health insurance, categories and financing

This part will primarily discuss the Social insurance model (Modelo de seguro social) for health insurance and the development of public and private components into this model. Looking at the existing schemes of health insurance in the LAC countries one will find that the schemes tends to grow in complexity when being refined to overcome problems of limited coverage or problems of financing.

A basic model is illustrated below, financed by contributions from employers and employees, insuring the workers in the formal sector and in most cases contracting private health facilities to provide care. Without contributions from the employers the model describes the mutual scheme.

Financing
Coverage
Service provision
Contributions
from employers
and employees
Employees (and family members)
Private and public health facilities or own
facilities

The coverage of this model is limited to the workers (and in many cases their families) in the formal sector.

The tripartite model, where the State also contributes can be illustrated as follows:

Financing
Coverage
Service provision
Contributions from
employers and
employees, and
from the State.

Co-payments.
Employees (and family members)

Employees (and their families) in the
informal sector, rural population and
other groups without possibility to
pay the premium
Private and public health facilities or
own facilities

In this model, the contributions from the State is frequently used to increase coverage to excluded groups, employees (and their families) in the informal sector, rural population and other groups without possibility to pay the premium. Copayments are often requested from the beneficiaries when visiting the health facilities.

A group of countries (Argentina, Chile, and Uruguay) uses various forms of financing, insurance, and service delivery, but with a significant amount of public regulation(10).

These countries also exhibit significant differences in terms of the percentage of public financing in total health expenditure. In principle, the public subsector covers the entire population, although its target is the population not covered by the other subsections.

The social security subsector is financed through fees and the premiums of employers and workers, and service delivery is performed by private institutions in the case of Chile (Institution for Health Insurance, ISAPRES), unions in Argentina (Social Benefit Program), and state agencies in Uruguay (Directorate of Social Security for Illness, DISSE). Social security services in the three countries reach more than half the population and are delivered through public facilities or contractors. The private subsector is organized and offers various health service plans. The private sector, both for-profit and nonprofit, is also an important provider of services of medium to high levels of complexity.

Chile has been a leader in reforming the relationship between financing, insurance, and service delivery in the public subsector. It operates on the basis of regulated competition (which includes the National Health Fund, FONASA and ISAPRES) and the gradual elimination of cross subsidies. Chile's lead is followed by Argentina, which has deregulated the Social Benefit Program (allowing for the possibility of free choice at the national level) and created the Public Self-managed Hospital. Meanwhile, Uruguay heavily regulates the Collective Medical Care Institutions (IAMCs), which provide the social insurance that covers the risk of disease and maternity, and which receive part of their financing from public funds.

The Brazilian system is defined as a national health system with public financing and mixed service delivery. However, its model of financing, organization, and high levels of private service delivery make it a form of social security with a tendency toward a unified system. Brazil is the only country in the Region that has moved toward a unified health system. This country did not opt for breaking up its health insurance entities, but rather for their progressive unification into a public entity with the goal of universal coverage.

Many countries (Mexico, Haiti, the Dominican Republic, Guatemala, Honduras, El Salvador, Nicaragua, Panama, Guyana, Suriname, Venezuela, Ecuador, Peru, Bolivia, and Paraguay) have segmented health systems with a mix of financing mechanisms and sub systems.

5. Equity in financing of health insurance

5.1 OECD countries(11)

In the Netherlands and in Germany the social insurance is regressive but in France it is progressive. What makes the difference is that in France, all workers are included while in the other two countries the better-off are not involved in all or part of the schemes. Social insurance is also progressive in countries like Ireland, Italy, Spain and the UK, where it raises a not significant proportion of revenues, probably because of the exemptions for pensioners, who are often among the lower income groups and because contributions are assessed on the individuals own earnings rather than on the household income. In several of these countries it even emerges as a more progressive source of financing than general taxation (See Graph 3).

Private insurance is regressive in countries where it is relied upon the bulk of the population as in Switzerland and the US, but otherwise typically progressive, reflecting the higher demand for insurance cover by the better-off.

In Denmark and France, where private insurance buys cover against public sector co-payments, the index is progressive in Denmark but regressive in France, reflecting that this kind of insurance is more common among lower income groups in France than in Denmark.

In Italy, Portugal, Spain and the UK, private insurance is used for supplementary cover to that provided by the State. In these countries, private insurance is

progressive, except in Spain.

In Germany, the Netherlands, Switzerland and the US, private insurance, for the individuals concerned, is the only cover.

The small value (Graph 3), in absolute terms of the private insurance index for the US is attributable to coverage gaps and under-insurance among the low-income groups.

5.2 Latin America and the Caribbean

The following table gives some examples of health insurance schemes in the Latin American countries and a discussion of the progressivity/regressivity of these insurance schemes based on the experiences of the OECD countries. Of course this discussion can only be superficial since no real studies have yet been carried out for the LAC countries using the method developed for the OECD countries by Wagstaff et al.

Insurance	Characteristics	Expected progressivity/regressivity
Obras Sociales, Argentina	Compulsory social insurance for workers and their families, covering the health needs of about 45% of population. Financed by employers and employees.	Progressive like in France since it is compulsory for all workers.
Private insurance, Argentina	Voluntary risk based insurance, covering health needs of appr. 7% of population. Private financing.	Regressive like in the US.
Mexican Institute of Social Insurance (Instituto Mejicana de Seguro Social)	Social insurance for workers covering health needs for about 40% of population. Financed by employers and employees and by the State.	Regressive like in the Netherlands and Germany.
IMSS-Solidarity (Instituto Mejicana de Seguro Social - Solidaridad) Mexico	Social insurance for persons with no other cover. Financed by the State.	Progressive since it is financed by the State (if co-payments are not significant).
MARINA. SEDENA, PEMEX,		

ISSTE, Mexico

Compulsory social insurance for the marines, the armed forces the petroleum industry and the public functionaries. Financed by the State.

Regressive like in the Netherlands and Germany.

Provisional Health Institutions (Instituciones de Salud Previsional, ISAPRES), Chile

Voluntary private insurance for incapacity to work. Covers health services and subsidies. Financed by premiums and co-payments.

Regressive like most private insurance.

National Health Fund (Fundo Nacional de Salud, FONASA),

Chile

Social insurance for health needs of workers and their families. Financed by premiums and by the State.

Regressive like in the Netherlands and Germany.

Health Promotion Units (Entidades de Promotoras de Salud, EPS), Colombia

Social insurance for health needs of workers and their families. Financed by employers and employees.

Regressive like in the Netherlands and Germany.

Administrations of Subsidized schemes (Administradoras de Régimen Subsidiado, ARS), Colombia

Social insurance for low-income groups. Financed by premiums by the State and by redistribution from EPS.

Progressive.

Costarican Social Insurance (La Caja Costaricense de Seguro Social), Costa Rica

Compulsory social insurance, covering health needs of 90% of population. Financed by premiums from employers, employees and by the State.

Progressive.

Basic Health
Insurance (Seguro
Básico de Salud),
Bolivia

Universal social insurance, presently
covering basic health needs for about 55%
of population. Tax financed.

Progressive.

Notes

1.Author: Bernt Andersson, Regional Health Advisor, PAHO/WHO, Washington

2.Wagstaff et al.: Equity in the finance of health care: some further international comparisons. Journal of Health Economics 18 (1999) 263-290.

3.Mesa-Lago Carmelo. El desarrollo de la Seguridad Social en América Latina y El Caribe. Estudios de la CEPAL No 43.

4.Tobar Federico. Típologia de Sistemas de Seguridad Social. Febrero del 2000.

5.ILO/PAHO. Elements for the comparative analysis of extension of social protection in health in Latin America and the Caribbean. Presented to the regional tripartite meeting in Mexico 29/11-1/12/99.

6.Tobar Federico. Típologia de Sistemas de Seguridad Social. Febrero del 2000

7.1 Wagstaff et al.: Equity in the finance of health care: some further international comparisons. Journal of Health Economics 18 (1999) 263-290.

8.van Doorslaer. E. Wagstaff a. et al. 1999. The redistributive effect of health care financing in twelve OECD countries. Journal of Health Economics 18. 293-315.

9.ILO/PAHO. Out-of-pocket health expenditure in Latin America and the Caribbean: the efficiency rationale for extending social protection in health. Presented to the regional tripartite meeting in Mexico 29/11-1/12/99.

10.ILO/PAHO. Elements for the comparative analysis of extension of social protection in health in Latin America and the Caribbean. Presented to the regional tripartite meeting in Mexico 29/11-1/12/99.

11.Based on Wagstaff et al.: Equity in the finance of health care: some further international comparisons. Journal of Health Economics 18 (1999) 263-290.

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