Vysoká škola ekonomická v Praze
Fakulta managementu
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Diplomová práce

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Health Care System in Chile and Comparison of Certain Results with the OECD Countries

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Prohlášení:

Prohlašuji, že diplomovou práci „Health Care System in Chile and Comparison of Certain Results with the OECD Countries (Zdravotní systém v Chile a porovnání některých výsledků se zeměmi OECD)“ jsem vypracoval samostatně. Použitou literaturu a podkladové materiály uvádím v přiloženém seznamu literatury.

Jindřichův Hradec, srpen 2007

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podpis studenta

Anotace

Health Care System in Chile and Comparison of Certain Results with the OECD Countries (Zdravotní systém v Chile a porovnání některých výsledků se zeměmi OECD)

Tato práce se zabývá chilským zdravotnickým systémem.Cílem práce je charakterizovat tento systém,představit jeho klady a zápory a srovnat vybraná data se standardem zemí OECD s důrazem kladeným na srovnání s Českou republikou.V práci je zahrnuta část věnována popisu Chilské republiky.

Srpen 2007

Poděkování

Za cenné rady, náměty a inspiraci

bych chtěl poděkovat

MUDr. Rudolfovi Stříteckému,

z Vysoké školy ekonomické v Praze,

Fakulty managementu v Jindřichově Hradci,

za gramatickou pomoc

Garethu Thomasovi,

Richardu Brooksbymu

a všem lidem z Chille,

kteří mi pomohli získat data pro mou práci

a všem, kteří mi poskytli cenné rady a informace.

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ÚVOD

Tématem mé diplomové prace je Zdravotní systém v Chile a porovnání některých výsledků se zeměmi OECD.

Cilem mé diplomove bylo zaprvé popsat některá zakladni fakta o Chile, o geografickém a territoriálním rozložení, popsat, jak politický a administrativní systém v Chile a také představit některá sociální a demografická data, kde uvedu počet obyvatel, počet žen a mužů a jejich rozdělení podle věku a také procento lidí, kteří bydlí ve městě a na vesnici.

V druhé a třetí části mé práce provedu systematické představení a charakteristiky, které prezentují náš duální Zdravotní systém v Chile s jeho úspěchy a neúspěchy a představím základní pojmy, co je potřeba dělat, aby se zlepšila například efektivnost a vyrovnanost našeho systému. Na začátku představím organizaci našeho systému z hlediska ekonomického, organizačního a z hlediska jeho vývoje. Poté analizuji různé aspekty jako efektivnost a vyrovnanost.

V poslední části mé práce srovnám vybraná data se standardem zemí OECD s důrazem kladeným na srovnání s Českou republikou a na závěr mé prace budu prezentovat ty změny, které jsou navrhovány pro zlepšení našeho Zdravotního systému.

1. CHILE

1.1 A GEOGRAPHICAL PROFILE

Chile, located in the southern zone of the South American continent, shares its border to the north with Peru, to the northeast with Bolivia, to the east with Argentina and to the west and south lies the Pacific Ocean.

The unique shape that Chile displays, a long and narrow strip compressed between the Andean mountain range and the ocean that varies in width between 100 and 355 km and which extends from north to south for 4,270 km, decisively determines the regional divisions of the country and all aspects of Chilean life.

Moreover, the area of Chile's Antarctic territory is framed by the meridians 53º to 90º West and extends as far as the South Pole.

Chile has several islands located in the Pacific Ocean:

- Nearest to the continent are those that form the Juan Fernandez archipelago and the San Felix and San Ambrosio islands
- The furthest away and the most remote are Room and Gomez, as well as the island of Passover or Easter Island. This last island lies at a latitude of 27º South and at a longitude of 109º 30'' West, straight across from the port of Boiler and at a distance of 3,760 km from the South American coast.

Altogether, more than 5,800 islands and small barren islands/islets (374 km²) and one portion of Antarctica form the total area of Chilean territory. Excluding the Antarctic territory (1.250.000 km²), Chile extends over 756,252 km², - more than double that of Italy and almost the average to that of Spain.

In general, Chilean geography is rough and mountainous, since only 20% of the territory is level. Because it is located in a zone of geologic instability, Chile undergoes frequent earthquakes and has great volcanic activity. In the country there are more than 2,000 volcanoes, of which about 50 are still active.

1.2 CHILE – COUNTRY AND TERRITORY

Chile is a unitary State with sovereignty over a clearly delimited national territory that has not undergone important variations over the last century. Nevertheless, the internal political-administrative organization of the country underwent radical reorganization as a result of the policies of the Modernization of the State established in 1974 and legitimized by the Constitution of 1981. The new plan of Regionalisation changed the territorial organization of the State of Chile, established until then into Provinces, departments, subdelegations and provinces, to form a new regime of 13 regions subdivided into 51 provinces as well as 342 communes.

1.3 REGION

The Political concept of Region – administrative – this may be defined as a geographic space that has its own particular characteristics:

- A homogenous territorial unit, with relatively similar physical, human and economic aspects
- The geographic space corresponding to the most fundamental and essential political unit which itself forms the basic administrative unit of the country
- The internal government of the region corresponds to that of the Intendant, named by the President of the Republic

1.4 PROVINCE

The province is defined as the territorial unit into which the region is divided having a distinctive geographical scope with its own characteristic and predominant productive capacity/identity.

- In the case of the province the population is hierarchically structured - intercommunicating with its capital.
- At the provincial level, the internal government corresponds to the Governor, who is subordinate to the Intendant, and has the exclusive confidence of the President of the Republic. The Governor oversees the monitoring of public services in the administration of the province.
- In the matter of consultative representation, there exists the Provincial Economic and Social Council, presided over by the Governor.
- One of the essential differences between the province and region, is that in the former the production of its own resources is intensified; in the latter however, the diverse sectors of the regional economy are integrated for the benefit of the whole territory.

1.5 COMMUNE

The commune is the territorial unit into which the province is divided for local administration purposes. The commune facilitates the benefit of services, in order to satisfy local interests, and stimulates the organization and participation of the community.

- The communal administration corresponds to the Municipality, composed of the Mayor and the Municipal Council as a higher authority, presided over by the Mayor and having decision-making and supervisory powers. The Mayor and Council are chosen by popular suffrage every four years
- To act effectively, the Municipality counts on Units such as the Communal Secretariat of Planning and Coordination. In addition, in each commune there is an Economic and Social Advice body which has the consultative, representative character of the various social groups
- The municipal government is the nearest and most immediate encounter between the citizenship and its authorities

1.6 CAPITAL OF CHILE

Santiago is the capital of Chile and the cultural, administrative and financial center of the Republic of Chile. With about six million inhabitants, it comprises 35, 9% of the total population of the country.

Historically, Santiago has been the main city of Chile, not only politically, but also economically. More than 40% of the economic production of the country is concentrated here and it is the seat of the great majority of international and national companies.

1.7 TYPE OF EXCHANGE

The official currency is the Chilean Peso ($) dating from 1975 and the ISO 4217 code is CLP. In April 2007, the American dollar (1 USD) was equivalent to 539[1] pesos Chilean (CLP) and one Euro (1 EU) was equivalent to 720[2] pesos Chilean (CLP).

1.8 POPULATION

According to the results of the 2002 census, the population of Chile is 15,116,435 inhabitants, that is to say, almost five times as many as the country had at the beginning of the XX century.

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[1] Source Xe.com, The World's Currency Site

[2] Source Xe.com, The World's Favorite Currency Site

1.10TOTAL POPULATION

The censuses made between 1952 and 2002 reveal that, in the course of fifty years, the Chilean population has increased in absolute numbers by 9,183,440.

Considering the last censuses, it is possible to state that between 1992 and 2002 the population of Chile grew by an annual average rate of 1, 2 per one hundred inhabitants. During the previous decade, that is to say, between 1982 and 1992, the rate annual average rate was of 1, 6 confirming smaller growth with respect to the previous decade.

In absolute numbers, the country's population rose from 13,348,401 to 15,116,435, which represents an increase of 1,768,034. This diminution in the rate of growth of the population locates Chile, at the beginning of the XXI century, between the four countries of smaller/ lower growth in Latin America.

1.11POPULATION BY SEX

The distribution by sex, in the total population sample, is that 50, 7% are women and that 49, 3% are men.

The 2002 census has entries for 7,668,740 women and for 7,447,695 men, a proportion by sex very similar to the census of 1992.

The composition by sex is described by means of the Index of Masculinidad (I.M.) that is interpreted as the number of men for each one

hundred women. There have been no great variations by this indicator with respect to the total population. The decisive factor in the small modifications in the index is the mortality differential between sexes that has varied in the course of time and with the age of the people.

Regions I, II, III, I SAW, X, XI and XII present an Index of Masculinidad above one hundred, which means a greater amount of men than women in the total population. In the Metropolitan regions V and VIII however, the female sex predominates and the same phenomenon occurs, to a lesser extent, in the remaining regions of the country.

Population by sex and index of masculinidad. 1992 and 2002

Census	Men	Women	I.M.
1992	6,533,254	6,795,147	96, 4
2002	7,447,695	7,668,740	97, 1

1.12URBAN – RURAL POPULATION

The percentage of population that lives in urban areas is 86, 6%; whereas, in the countryside, the rural population is 13, 4% of the total population

In 1992, 83, 5% of the population lived in urban areas, whereas 16, 5% resided in the countryside. The results of the 2002 census show an increase in the urban percentage and a decline of the rural percentage. The percentage

distribution by areas, at regional level, acquires knowledge in the following graph.

At regional level, the minimum value of the urban percentage in respect to the total population of each region, is of 66.4% (VII Region); 6 of them surpass 90% (I, II, III, V, XII and R.M.).

During this time, the rural population diminished from 16, 5% to 13, 4%, which means a movement of 181,674 people during the intercensal period.

The Index of rural Masculinidad is above one hundred (more men than women); this applies as much to the country's total rural population as it does to each one of the regions. Two regions II and XII exceed this value.

However, in the urban part of most of the regions, this indicator is below one hundred; though they register indices of masculinidad above one hundred in the extreme regions (I, II, XI and XII). They emphasize those regions Metropolitan and IV present both lower values than those of the national average country (94, 7 men for each one hundred women). These differences must mainly be due to the emigration of young women from the countryside towards the urban areas. Also this influences masculine mortality there is a differential in both areas.

1.13TOTAL POPULATION BY AGE GROUPS

According to the 2002 census, 25, 7% of the population are 15 years or younger and 11, 4% are 60 years or over. However in 1960, these same groups of age represented 39, 6% and 6, 8%, respectively.

For an analysis of the composition or structure by age, it is possible to group the population in several ways. Accordingly, young people can be considered as (0-14), greater adults (15-59) and senior/elderly adults (60 or more years).

The 2002 census data confirms a percentage reduction of minors of fifteen years in contrast to an increase in the percentage of greater adults. First they represent 25, 7% and those senior adults of sixty years or plus represent 11, 4%.

The demographic changes - births, mortality and migration -, directly influence the structure of the population by sex and age through the course of time, changes that are also a consequence of the incidence of social, economic and cultural factors on the guidelines for the demographic behaviour of individuals, of pairs or of partners, of the family and of society as a whole.

2. THE CHILEAN HEALTH SYSTEM

2.1 Structure

The Chilean health system is based on two main sectors, public and private, and both of them act to provide insurance and health services.

The public system is run by the Ministry of Health, whose task is to design policies and programs, and coordinate the organizations in the area. At the same time, the National Health Fund (FONASA[3]) is a decentralized service responsible for collecting, administering and distributing the financial resources of the public system. In this way, the FONASA operates the social health insurance of users in the public sector.

- The productive base of this system comprises twenty-six independent health services, bodies with legal personality and their own patrimony, responsible for secondary and tertiary health benefits offered through a network of two hundred hospital establishments with different levels of complexity, as well as centers of public care (attached to the hospitals).
- At the same time, primary health care in the public system is in the hands of Centers of Primary Care, which simultaneously offer

[3] National Health Fund

medical services of low technical complexity through a system of public care, and conduct activities of health promotion and sickness prevention. The network of primary care comprises in total:

- 376 doctors' surgeries
- 1,102 rural centers
- 720 rural doctors' surgeries

The private health system is composed of health insurance companies (ISAPRES) and particular health producers. The ISAPRE originates from the reform of the social security system of 1981, and at the present time they comprise twenty-two institutions with free public access with twelve institutions exclusively for workers of specific companies (self-insurance).

The private suppliers of health are:

- Clinical centers
- Independent hospitals
- Professionals who take care of both members of the ISAPRE and the contributors to the public system through a designated scheme of free choice
- In some cases the ISAPRES offer health benefits directly, integrating the insurance activities and the provision of services

Regulation of the health system is the responsibility of the Health Ministry, which supervises, evaluates and controls the existing health policies. At the same time, the supervision of ISAPRES is carried out by a decentralized public body that is responsible for registering and controlling these institutions.

2.2 Access and Financing

Access to health care in Chile takes place through a system of obligatory membership. Thus, all the dependent workers of the country, including pensioners, are obliged to contribute 7% of their income to the health system. This payment can be made to the FONASA, in which case the contributor and any persons in his employment are assigned either to the public health care system, or to an ISAPRE, which in this case is part of the private health system.

The choice of public system is unilateral, since the decision of the user is enough to allow him access, together with his employees, to the health benefits provided by the sector. The insurance scheme corresponds to the pattern of social security to the extent that the benefits obtained are not necessarily related to the level of the contribution made. In addition, the characteristic redistribution of these systems takes place from people of higher income towards those of lower income.

Furthermore, the public system welcomes people and / or families who have no income, classified as poor, who as non-contributors become beneficiaries of the FONASA.

When the person assigns himself to the FONASA he gains access to two types of health care providers:

- In the institutional scheme the patient can go to the primary care doctors' surgeries belonging to the municipalities, and for care of greater complexity, he may be referred to the hospital establishments within the public system.
- The second type of care, free choice, is open to the beneficiaries of FONASA, who can go to a range of private

providers associated with FONASA, such that the beneficiaries of the FONASA have the right to care and free medicines in the primary care doctors' surgeries within the public system.

However, access to hospital establishments requires a contribution that fluctuates, according to the income level of the user, between 0% and 50% of the tariff established for the benefit. In addition, access to the scheme of free choice is subject to a structure of contributions based on the type of benefit.

The dominant feature in respect of the payment to the health providers in the public sector is centralized and is bureaucratic in character.

- The allocation of resources takes place on the basis of historical budgets and criteria of discretionary negotiation.
- Payments to professional and non-professional personnel are tied to variables of a categorical type, which do not bear relation to the productivity of the work conducted.

Recently a set of payment instruments has been designed based on a prospective standard according to the population assigned. In the case of the municipal doctors' surgeries, and according to the type of hospital care benefit, an attempt has been made to introduce a greater level of efficiency and accounts control in the supply of benefits in the public system.

On the other hand, the ISAPRE system operates as an individual and private health insurance scheme, where the benefits offered are a function of the premium paid and the level of medical risk of the insured (experience rating). In this context, the obligation to contribute 7% of income is a particular characteristic to the Chilean ISAPRE system.

- In effect, according to the amount of the quotation, as well as the medical risk of the insured, the ISAPRE offers a health insurance plan that relates the expected cost to the payments made
- In economic terms, the amount of service is the endogenous variable in the transaction, which adjusts to a price that is determined exogenously. An exception to this is that it is possible to acquire additional insurance plans in exchange for a contribution higher than 7% of income
- The insurance plans offered by the ISAPRE specify the percentage of reimbursement in terms of the benefits and services associated with it (examinations, days spent in care, beds, etc.), as well as ceilings on the rate of reimbursement. In general terms, the percentage of reimbursements and the ceilings grow with the premium paid into the health plan
- A variant of the individual insurance plan is a collective agreement offered by the ISAPRE to groups of people, typically unions and workers in the same company. In every case, the agreement offers specific benefits according to the income level of those insured (supervisors, employees, workers), consistent with the logic of the individual insurance plan

Payment to the private providers operates through reimbursements by those served, a system that diminishes the financial risk for the health providers. There also exist more alternatives of access at reduced prices to limited subgroups of providers than in the variant offering total freedom of choice. This last scheme can operate through lists of providers who have an agreement with the respective ISAPRE, where the payment system remains as before, or

through a scheme of care exclusive to those ISAPRES which have their own infrastructure of health providers.

The ISAPRE system covers 35.4% of the population, whereas the FONASA covers 64. 6%. It should be pointed out that the figure for both systems excludes the Armed Forces, which have a different regime.

- The cover of the public system is overestimated since it is an estimate of potential beneficiaries, including the contributors and the population on lower incomes that do not contribute and so become beneficiaries of the public system by default
- For the ISAPRE system corresponds to the population that is actually contributing to this sector. In this case, 56.5% of the active contributors make their contribution to the ISAPRE system, while 43.5% contribute to the public system
- Almost all pensioners (93.5%) contributed to the public system in 2004

The total cost in the public system that year amounted to the equivalent of US$ 4,243[4] million, which was financed through the contributions of members of the FONASA (33 % of the total income of the sector), the original contribution of the fiscal budget (47%), the contribution towards basic access to health benefits within the public system - by free choice of the FONASA scheme -

[4]Report on Public Finances, Fiscal Policy and the Budget Bill for 2007

amounting to the equivalent of 7% of the total, whereas the remaining 12% came from other sources of income.

On the other hand, the cost in the system of ISAPRES during 2007 rose to the equivalent of US$ 5,169[5] million. This number corresponds to the contributions received from its members and excludes the component from contributions for which systematic information does not exist.

2.3 The Dual Health system

The structure of insurance in the public and private health sectors creates a dual system that separates the population into two groups. Thus, the logic of an insurance plan that works on individual and private bases is that the insured chooses according to income and medical risk. On the other hand, the common fund character of the FONASA insurance is associated with a mechanism of adverse selection, since people with high income and low medical risk have the incentive to move over to the private system.

- In this way, both schemes contribute to the creation of a dual structure that concentrates on people with higher income and low risk in the ISAPRE system

[5] Data Isapre February 2007

- Those with lower income and high risk are concentrated in the FONASA system, an institution that acts as an insurance of last instance and thus makes the dual health insurance system viable.

The ISAPRE system grew continuously from its creation in 1981 to represent in 1995 the above-mentioned figure of 30.4% of the population covered by public systems, and has continued to grow steadily. During the last twelve years the ISAPRE's growth rate has approached an annual average of 19%. The growth of the ISAPRE system is even stronger among the sector of the population that contributes, and in particular, to those who are actively working. The growth of the private health sector is reflected in the indicators of health costs and benefits.

This dynamic perspective indicates that the ISAPRE system has been successful in extending its base of cover. On this matter there are two important causal factors to emphasize.

- First, the rapid economic growth experienced by the Chilean economy from 1986 has raised the income of the population and extended the base of users whose level of contribution allows them to acquire health cover in the private sector which they consider advisable.
- Second, the ISAPRES has developed an aggressive policy of growth towards sectors of average and lower-middle income on the base of collective and secure plans providing less cover.

The preference of an increasing section of the population for the ISAPRE system is an essential element in the evaluation of the Chilean health system, since it reveals the preferences of users of the private system for the public sector alternative.

Nevertheless, the best relative evaluation carried out by the beneficiaries of the private system is not synonymous with universal approval of it. For example, according to a survey of public opinion made by the Public Training Center in June 2006, 48% of the beneficiaries of the public sector say they are dissatisfied or very dissatisfied with their health system, whereas 51% feel they are insufficiently covered or have no cover at all.

At the same time, a significant percentage of users of the ISAPRES sector- 45% - expressed dissatisfaction with their own health system, while 39% said they felt insecure in such a scheme.

3. EFFICIENCY IN THE HEALTH SYSTEM OF CHILE

A system of allocation of resources is deemed efficient when it has exhausted all the possibilities of production and interchange so as to optimize the well-being of the people whom they oversee or serve at the point of access. The efficient allocation of resources is obtained when a series of conditions is fulfilled.

- First, the service users have a wide, specific range of preferences with regard to the goods and services offered, and freely spend their income on them.
- Second, the service providers demand inputs and outcomes in competitive conditions, equivalent to the marginal cost of production of goods and services.
- Third, providers and users determine in decentralized form the market price at the point of access.
- Fourth, there are no external factors, so that the agents completely assimilate the benefits and costs of the activities.
- Fifth, providers and users are completely informed.
- Sixth, the consumption and production figures converge.

It is well known that health service markets fail essentially in establishing the required conditions for ensuring the efficient allocation of resources. For example, the users have no defined preferences, or else the providers have more information on what is required for sickness prevention and recovery than the users expect or demand; health care activities are subject to powerful external factors, hospital establishments might not take advantage of economies of scale, and medical inputs are not homogeneous, or are not offered in competitive conditions. On the other hand, the random nature of health benefit demand, as well as the high associated costs of certain treatments, necessitates the application of insurance to adequately cover the associated risks. As is well known, insurance markets are subject to problems of information asymmetries that work against efficiency. The various obstacles to efficiency that characterize the operation of the insurance market and the activities of health services provide a classic role for governmental intervention that compensates for the faults of the market and makes possible an efficient allocation of resources. For such purposes the government has a set of instruments that, to a greater or lesser degree of intervention, are as follows:

- provision of information
- regulation
- mandates (obligatory norms)
- financing
- production

Nonetheless, public intervention also has specific failings, such as inadequacies in storing and processing information, distortions associated with the collection of public income, and civil employees and politicians having objectives other than social welfare.

The natural faults of the market in the provision of insurance and health services, together with the above-mentioned deficiencies of governments, create a sector in whose organization elements of the market and public intervention come together. The strengths and weaknesses in the private and public sectors vary according to each country, suggesting a pragmatic treatment is needed for determining the most suitable combination. On the other hand, intrinsic difficulties in harmonizing the diverse objectives that motivate the various health systems - fairness, efficiency and containment of costs and satisfaction of the user – mean that no country has found an optimal solution to the problem of the allocation of resources in the health sector. It is clear, however, that many countries could obtain substantial gains if they were able to reorganize their systems of health provision.

It may be postulated that the problems of efficiency in the private sector are concentrated in the organization of insurance, whereas those more important in the public sector are associated with the sphere of in health service provision. In this way, the system of dual health care in Chile seems to have acquired the efficiency problems that typically affect the public sector, and these have taken root, before a more satisfactory consolidation of the system was possible.

3.1. - Private Sector

The efficiency problems presented and displayed by the private health system are associated mainly with the characteristics of the insurance available. These in addition are determined by the institutional framework that governs the operation of insurance companies. In effect, the obligatory allocation of 7% of income for individual health insurance offered by insurers competing with each other almost inevitably implies the proliferation of a scheme of selection of risks characterized by a multitude of plans available, which are difficult for users to evaluate, offer short- term cover not necessarily coincident with that determined by a scheme of voluntary affiliation, or are provided by other insurers with high administration and sales expenses. The potential advantages of the Isapre system would bring gains in efficiency provided by schemes involving competitors and their associated products:

- Freedom of choice
- Variety of products
- Flexibility
- Economic Discipline

Such benefits are related more to the area of lenders, but their development has been made possible by the mediation that the health insurance companies have made regarding the users.

3.1.1 Obligatory quotation of 7% for Individual Insurance

The obligatory quotation of 7% to acquire individual health insurance constitutes an important anomaly in the organization of the Chilean health system. In effect, the obligatory quotations based on income are typical of mandatory social security schemes, which redistribute resources from people with high incomes towards those with low incomes within the health system. In such schemes the quotation acts as a tax of specific use that has the exclusive object of financing the health sector. Mandatory social health insurance delivers benefits of a homogeneous character to its users, independently of the amount required from everyone. This, together with the quotation calculated as a proportion of a person's income, gives rise to the above-mentioned process of internal redistribution characteristic of this type of health insurance.

On the other hand, the essence of individual and private insurance, like that offered by the Isapres system, is the correspondence between the insurance premium and the health benefits expected. Such a scheme does not consider redistribution, before or after, of resources according to the amount that each contributor expects to receive in benefits based on the payment realized. As in all types of insurance, it is important to distinguish between the expected payments and the actual payments, since these last are realized only when the event occurs that the insurance covers. In this sense, there will always be a process of redistribution of ex-post resources, from those who do not make use of the insurance towards those who require it. But such transference is integral to the essence of insurance, as is the spreading of risks among the contributors to the scheme. Individual insurance schemes can be discussed

from a perspective of efficiency and fairness, but they have a distinguishing rationality defined by their scope and purpose. In this context, the financing of such insurance through a quotation as a proportion of income introduces an alien element to this rationality and is a source of inefficiency and loss of well-being for the population affiliated to the system. In fact, the actual scheme means that most people, strictly speaking family groups, assigned to the Isapre system, do not choose their health insurance plan, but that this is imposed on them by the described norm. It happens to the extent that the premium, whose value is not chosen, determines the amount of the acquired service (insurance cover). In this respect, the Isapres' market offers a great variety of insurance plans, depending as it does on the level of quotation and the health risks of its members. Thus, with the level of risk to the insured determined, the market will provide a level of cover based on the payment made, without people making their own choice.

An exception to the situation described above is the person (or family group) who demands of his insurance more than his level of contribution allows. In this case the contributor has the option of acquiring additional insurance that makes his demand consistent with the acquired product. The divorce between choice and consumption arises in cases where the amount demanded of the insurance policy is lower than that predetermined by the obligatory quotation.

The obligatory quotation of 7% is inefficient not only because it restricts the choice of a section of the population, but also because it imposes negative external factors on the rest of the population. In fact, the existence of a segment of the population paying a high quotation and expecting greater health benefits in return means that the Isapres compete on the basis of superfluous benefits: for example, sophisticated medical technology, luxury rooms and so on. On balance this structure of demand has a general effect on the prices of benefits for the different categories of user, especially if the inputs

are specific and are represented within the sector (for example, doctors). It implies a possible deterioration in the quality or an increase in the price of those products destined for other segments of the market (for example, health in old age).

3.1.2 Competition, Mobility and Short-Term Insurance

The competitive character of the Isapre insurance market, which encourages freedom of choice, and the changeover to Isapre after the search for better choices of health plans, results in insurance of a transitory character, which provides cover limited in time, and works against accepting long-term commitments between Isapre and its members. Three main inefficiencies derive from this scheme:

- Underprovision of health promotion activities and preventive health.
- Vulnerability of old age.
- High administration and sales expenses inside the Isapre system.

First, it is possible to establish that the Isapre does not offer or encourage attention on preventive health generally. This happens to the extent that the institution is not sure of internalizing the benefit derived from investment in preventive health, that is, a lower future cost in curative treatment, since the contributors can leave Isapre any time they wish. In this sense, the supply of this

type of activity is subject to underprovision, as happens in all those areas where external factors arise. This result is clearly inefficient, since society and the beneficiaries of the Isapre end up spending more on health than if they had taken appropriate preventive measures.

Nevertheless, the argument of external factors would apply only to the insuring companies, and could not be extended to the users of the system, who would totally incorporate the benefits associated with health promotion and sickness prevention. If this were to be so extended, the insurance market itself would have to provide effective activities of promotion and prevention. But in reality this does not happen. One reason may be the lack of knowledge on people's part with respect to the technical methods and processes necessary to generate a desirable state of health. Perhaps the most important reason is simply shortsightedness towards the future or, expressed in more technical form, high rates of discount that significantly limit the future benefits derived from health care as against immediate compensation for behavior detrimental to health. In this respect the state has reserved the right to make the consumption of certain goods obligatory on the basis of their desirable character, and because of this underconsumption, costs are imposed on society through helping people only in necessity, regardless of whether they have taken preventive measures or not. The existing information supports the case that there is private underprovision of health promotion activities and preventive health. Although Isapre is obliged to offer a free annual preventive examination to its beneficiaries, this is rarely taken as it receives little publicity, or else its implementation creates inconvenient schedules, long queues for attention, superficial examinations, and so on. For this reason, the spending on preventive examination amounted to 0.2% of Isapre's total costs during 2004.

The second implication in the matter of short-term insurance is the possible vulnerability of old age, the likelihood that a person who been has

affiliated with the Isapre system during his youth and adult life, when his expected expenses of health are relatively smaller, has to leave the system when reaching old age, when the expenses expected in health care increase substantially, and the premium for obtaining insurance that reasonably covers such expenses rises correspondingly.

The vulnerability of old age is one of the main areas where the Isapre receives bad publicity. To an extent this works against one of the objectives that people value most in their health system, namely the security of being taken care of whenever necessary. This is far from expecting that members of an Iaspre system are likely to withdraw when they are more vulnerable and in greater need of health care.

In addition there exists a general bias in the structure of insurance that discriminates against old age, since in this case the expected high costs of health for the latter period of life will lead to partly endogenous result in the structure of the demand generated by the system. In effect, the costs of developing specific medicines or infrastructure, or training specialists, for older people, will be higher than simply applying a cash-cost approach to this category of health treatment.

In any case the value that people give to security of access to health care during old age is recognized by the Isapre itself. For these institutions, the interest is to find a satisfactory solution to the problem, in order to improve their public image, or because of market considerations, since the institution that manages to offer an attractive product in this field will monopolize a significant share of demand. In this matter, it is illustrative to mention that one of the plans being developed in this field is to set up a basic health plan for old age linked to the fulfillment of three requirements:

- A supplementary quotation of 1. 5% of income.

- Membership of the Isapre for at least 10 years before age 65.
- To follow a program of preventive health activities during this time, and to comply with suitable treatments if disease is detected.

It is interesting to note that the privately proposed solution to the problem of protection of old age requires the sacrifice of areas of free choice on the part of the users, when the system demands loyalty to the institution for a minimum period of 10 years. This case perfectly illustrates the type of trade-off that can arise between the objective of free choice and mobility versus the acquisition of long-term liabilities provided by more comprehensive forms of insurance.

Despite this, the existing information supports the case that the vulnerability of old age is the effective factor in the sector:

- First, only a small proportion of people aged 60 or over are beneficiaries of the Isapre system
- Second, the actual structure of premiums in the market establishes that the cost of the insurance for people over 60 fluctuates between 2. 5 and 5 times more than that corresponding to young adults
- Third, to date, the Isapres have not managed to develop effective solutions for treating the problem described above

A mechanism that could preserve the objectives of competition and security in the latter period of life is the financing of health cover by the elderly person, beginning with his pension savings. In fact, some years ago it was proposed to allocate a health quotation fraction to a savings account so as to finance the greater costs expected for health in old age. This initiative was held up by the debate over whether the rate suggested (0.9%) had to be included

in the quotation of 7%, or should be additional. Others postulate that higher insurance premiums for old age could be financed with the income generated by the current pension fund, after taking into consideration the reduction in family premium associated with old age. Nevertheless, debate continues on the assumptions on which these results are based.

Another problem associated with the individual health insurance provided by institutions that compete for users is the high costs of administration and sales. The empirical evidence in the case of Chile supports this hypothesis: during the period 1990-95 the administration and sales costs of the Isapres rose to about 30% of the costs of medical benefits made by the same institutions. On the other hand, empirical evidence shows that economies of scale would diminish the cost of administration and sales to the beneficiary as the number of people assigned to the system grows. Thus, the average cost in these areas as a percentage of the total income of the system fell from 19.9% in the period 1985-89 to 15.1% during 2003-04. The case for economies of scale is also guaranteed in performance, as the largest Isapres tend to present lower administration and sales expenses to their members.

3.1.3 Transparency and Multiplicity of Plans

A necessary condition for the smooth operation of the markets is an efficient allocation of resources so that users may carry out informed decisions with respect to the alternatives available. Several authors[6] question the beneficial allocation by the market of resources in the health system, given the informational difficulties that face consumers in making informed choices that will optimize their own well-being. This criticism has been directed in particular to the asymmetry of existing information between the providers of health care and the users, but it can also be applied to health insurance providers.

The Chilean case suitably illustrates the difficulties that people have when facing the choice of private health insurance. In effect, the user himself faces a great variety of health plans offered by the Isapres, without being able to count on the information necessary to discriminate among them. And although this has always been the case, it is not clear that such a variety of plans in this field leads to greater gains in well-being than are generally associated with a wider range of choice.

In 2004 there were about 12,400 different health insurance plans offered by the Isapres. Such variety responds to the diversity of prices, determined exogenously by the obligatory quotation of 7% of income. The market generates a continuous range of insurance plans to respond to the analogous supply of premiums originated in the above-mentioned structure of financing. Furthermore, the Isapre market offers inside each income category a range of alternative plans of doubtful utility.

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[6] Diamond and Fuchs

This feature must distinguish the present diversity in subjects such as the degree of aversion to risk and other characteristics of a general nature. In these cases the diversity of supply is conducive to gains in well-being. However, when the plans are different according to the type of benefits covered, an irrational factor of uncertainty is introduced, which can, along with the others, lead to users making inappropriate choices.

The informational difficulties that characterize the market of Isapre insurance schemes increase when one considers that each institution works with a specific structure of tariffs, which determine the contributions towards benefits. A system of tariffs can comprise several thousand tariffs according to each type of benefit, which can be consulted by the user of the Isapre. It will be understood that under such conditions it is nearly impossible to make a rational evaluation of the factors involved in choosing between one health insurance scheme and another.

3.1.4 Access and Payment to Health Suppliers

The Isapre system of insurance works basically through a scheme of free choice of suppliers, in which the users select the health service provider according to their preferences and the costs that they face in each case. On the other hand, and allowing for exceptions, the providers are reimbursed retrospectively according to the service taken (service fee).

Free entry to the private health system is highly appreciated by the users. People can go to different specialists for a diagnosis or its confirmation, choose among a range of establishments for the conduct of more complex examinations or treatment, and so on. To sum up, every user can make ample use of his freedom of choice. In addition, the established mode of payment

makes the remuneration of the provider dependent on the choice of the user, which is effective and sympathetic health care, which contrasts with the prevalent modalities of care in the public system.

Despite this, the combination of free choice and retrospective payment by benefits presents some associated problems that can limit the gains in satisfaction of the users.

- First, the subordination of demand to supply. That is, if demand by benefits is led over a long period by the providers, which is not necessarily bad, the arguments in respect of the benefits of free choice lose some of their force.
- Second, the interface with the private health system disappears. In this way, the user chooses to go to a specialist after having diagnosed himself the type of ailment from which he is suffering instead of going to a general practitioner who would provide an informed based diagnosis and refers him, if necessary, to the required type of specialist. By this present scheme, it is likely that the user will visit the wrong specialist, who may refer the person to the correct alternative, or perform a service without there necessarily being any comparative advantages. This process repeated countless times indicates the level of inefficiency the current system may reach.
- Third, the potential source of inefficiency is associated with the payment system that reimburses the suppliers according to care given. In this scheme the lender acts free of financial risk, which is absorbed completely by the users (intermediaries through the health insurance agencies). Because of this the lender will have no incentives to contain the costs of the system. On the contrary: it is probable that costs will increase in response to actions that benefit the health service provider, such as reducing the risk of intervention, satisfying the consumer

in the presence of a third contributor and using new technologies without regard to their cost-effectiveness.

For the above-mentioned reasons, retrospective payment by the user is a procedure rarely used by health systems around the world. The most common systems are those that transfer part of the risk to the supplier:

- Prospectus payments per capita
- Associated payments to diagnosis
- Global budgets and others

However, in the case of the system of retrospective payment according to care, the objective of cost containment is circumscribed to the sphere of the demand (copayments and similar), which can excessively restrict the access to health care and work against the security that the health system must offer its users[7].

3.1.5 Containment of Costs

The most significant problem experienced by health systems in the developed countries over the last years has been the explosion of costs[8]. This phenomenon has been especially acute in the United States, where in the

[7] Ellis and McGuire,2001

[8] Hoffmeyer and McCarthy,2001

opinion of specialists the procedures of private insurance companies has been an aggravating factor in the cost explosion[9].

The obvious question is whether something similar is happening in the Chilean case, given the relative importance of private insurance in the financing sector. The statistical information available shows that the technical cost of benefits to beneficiary in the private health sector has remained relatively stable from 1986, after the quotation for health insurance stabilized at the present rate of 7%. The tendency shown by the costs of health care in recent times has reflected a similar pattern of evolution in the revenue of the system. In a certain sense this is a tautological result, since the optimized conduct of the institutions in a competitive framework leads to the growth of costs aligning with expansion of revenue.

The previous result originates in the fact that insurance premiums basically are determined by the fraction of 7% of income that must be allocated for this purpose. It establishes a qualitative difference in respect to these systems where the insurance premium is determined freely in the market.

Nevertheless, is necessary to make some qualifications before making any more definitive conclusions, for example:

[9] Weisbrod, 1994

- In the first place, it is necessary to consider the evolution of the contributions for which there is only one study available made by one Isapre institution, which estimates that the per capita cost by contribution plan was increased to an annual average rate of 12.9% between 1991 and 1999, with the result that the relation between cost in contributions and operational cost of the Isapre was increased from 19. 9% to 32. 2% between the years in question.
- Second, we need to consider that the amount collected from the voluntary additional quotation as a percentage of the obligatory quotation grew from a 10% in 1990 to about 15% in 1995.
- Third, the numbers of cost average are influenced by the changes that the distribution of the Isapres contributors experiences in the time, which has expanded towards levels of lower income

The above-mentioned points suggest that the cost to beneficiary in health benefits, checked against the income level of contributors, should have risen significantly over the last years. Finally is important to recognize the interrelation of costs and income between the public and private systems. In effect, the average income of the Isapre contributor is determined by the revenues and costs that the user expects to find in this sector, as against the alternative provided by Fonasa[10]. While the Isapre alternative is better than Fonasa, a greater part of the population will be assigned to the Isapre and the smaller will be the income of the average contributor. On the other hand, some studies postulate that the costs of the public sector inputs depend positively on

[10] National Health Fund

the level of private sector activity, which directly influences demand by the inputs of health care and raises market prices as a whole.

3.2 The Public Sector

The main problems in the matter of public sector efficiency are associated with the management and production of health care. This arises through a range of characteristics associated with the traditional organization of public provision:

- Centralization of functions
- Allocation of resources according to supply criteria
- Absence of mechanisms that ensure receipt towards the beneficiaries
- Use of tariffs and distorted prices
- Discipline of any financial breach
- Bureaucratic type management with low autonomy and significant restrictions in the use of inputs

It is necessary to establish that the public system has been actively searching for solutions to its main problems. In effect, from the beginning of the 1990s a series of initiatives has been developed to reform the system of financing to the suppliers to make flexible the management and the labor regime of the sector and to reorient the activity of Fonasa towards public insurance. The advance of these reforms has been made difficult by the unions in the sector, which apart from being against some of the changes have transferred an important part of the debate in the sector towards the sphere of their own rights.

The analysis of public sector efficiency is made at the level of the main sector institutions:

- Fonasa
- Health Services that administer the hospital establishments
- Centers of Primary Care in charge of the municipal administration

3.2.1 National Health Fund (FONASA)

Fonasa is the financial organism of the public health system. The role that the Fonasa plays inside the public health system is crucial in the allocation of resources in the sector, that is:

- What to produce
- How to produce
- Whom to produce for

In this sense, Fonasa replicates within the public health sector the functions that the markets carry out for most of the goods and services that are traded in the economy. The main difference is that Fonasa has its own codes of mediation. In this way, it offers health services to users, using as distribution criteria mechanisms of economy and rationing (queues, waiting lists) instead of prices. In addition, the historical modality of organization has been directed to finance the supply of benefits, independently of the results achieved or users' preferences. As is detailed in the following sections, such practice has had a negative impact on the culture and behavior of public health organizations.

However, the creation of internal markets and the separation of the production and finance are an important instrument for generating greater efficiency in the public health sector. The work of Fonasa ideally is visualized as one of mediation among consumers who require health care and those who provide the benefits. With each of these agents the insurer adopts the role of facilitator.

- When faced with consumer demand, it acts as the provider, offering them alternative health plans with different cover[11].
- When faced with the suppliers, it acts in support of the user's claim it must make good decisions with respect to the purchase that it carries out[12].

An equally important source of inefficiencies connected to the work of Fonasa is the lack of information systems concerning the contributors and beneficiaries of the sector. It gives rise to diverse problems that obstruct the operation of the public health system. Thus, for example, the recovery of costs by the institution's methods can be subject to considerable levels of evasion to the extent that the payment capacity of the users cannot be supervised effectively. This situation is even more serious in the case of those Isapre beneficiaries, who claim to be poor in order to enter public hospitals free of charge to receive complex medical care that would cost them a high level of contribution to the private system. This practice has favored the present segmentation in the dual health system by encouraging, at least for certain ranges of income, the cover of less complicated activities in the private system, and of more complicated ones in the public sector. Despite this, it is essential to recognize that the Fonasa is modernizing its information and management systems so that it can properly identify its beneficiaries, have control over the resources that finance the system, and therefore provide efficient management.

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[11] Oyarzo and Galleguillos, 1998

[12] Oyarzo and Galleguillos, 1998

3.2.2 The Health Services and the Hospital Establishments Network

The problems of the public hospital efficiency have arisen within the framework of budgetary resources growth. In effect, during the 1980s, the public cost in health experienced a strong downward movement and significant backlogs in essential areas like personnel, medical inputs and infrastructure. Later, the government of Aylwin[13] made a serious effort to reverse these tendencies. In this way, the public cost in health increased by 70% in real terms between 1990 and 1994..

Nevertheless, the significant increase in cost has not been accompanied by a comparable improvement in the perception that the population has of the care given by the establishments of the public health system. Thus, the CEP-Adimark survey in 1998 identified health as the second most serious national problem, behind delinquency. Thus, 49.2% of those polled evaluated the work of the Lagos government in the subject of health as poor, whereas the general policy of the government was disapproved of by only 20% of the population. However, the government of Pinochet obtained in 1988, in a period of depressed expenditure, a rate of approval in the policy of health care

[13] Former President during the period 1990-1994

significantly superior to that obtained by the government of Lagos at the end of his mandate (33% versus 19%).

The lack of any response throughout the system to the injection of new funds, as reflected in opinion surveys, is validated by statistics that show that the increase in the personnel contracted during period 1989-2003 was not followed by a consequent improvement in benefits production and procedures, so that the productivity of the greater resources assigned to the sector would have been very low. A report on the subject was discussed internally in the Ministry of Health in 2001. There it was argued that it was necessary to make institutional changes that assured the total productivity of resources in the sector. The report at issue was rejected by the Medical School, which argued that it did not consider criteria such as the quality of care and other qualitative variables. The above-mentioned points are, nevertheless, sufficiently clear for us to postulate the presence of serious efficiency problems in the management and production of the public health services. Such an assessment is a common working hypothesis among most sector analysts. The source of the problems referred to would be the prevailing bureaucratic organizational model, which depends critically on the system of financing in use. In effect, the hospital care of the public sector has had two main sources of financing in the period between the reforms of beginnings of the 1980s and the present day.

- The medical materials and inputs are financed through the FAP mechanism (invoicing according to care given). This is a costs recovery system based on the care given, which suffers from inadequacies in the matter of paying benefits and the compilation of an information system of the care administered.

- Labor costs are financed centrally, with Health Service (hospital) personnel having the rank of public employee under the

central administration of the government. As such, its wages are predetermined according to a set of categorical variables:

- Professional title
- Experience
- Place of work, independently of the performance levels, effort or result

The financing structure oriented towards supply stimulates bureaucratic organization, where the procedures and the forms are more important than the results. In this context, public management develops within a set of institutional and administrative rules, which, having as their original aim the defense of probity in public management, acquire a dynamic of their own that eventually entangles the operation of the organization in a network of norms that forgets its original function[14].

The organizational and financial structure mentioned above causes the operation of the establishments to become independent from the decisions and preferences of the users. As a rule, the separation of supply in respect to demand causes significant losses in well-being, as the goods and services that are consumed do not respond to the preferences or requirements of the population. However, it can be argued that the peculiarities of the health service make the sovereignty of demand less critical, since in this market a user goes to a provider in search of knowledge and information. Despite this, the separation of supply from demand also favors abuses of authority, mistreatment

[14] Marcel, 1993

in general, and less satisfactory care than obtains in schemes where the payments to the provider depend on the decisions of the users.

The organizational structure and the effective financing in the public system also work against the independent management of the health establishments.

- In effect, the decentralization of the Health Services is merely a formal question if most of the budgetary decisions are into the hands of central authorities.
- The centralized determination of wages
- The number of employees in the hospital establishments is controlled by the Ministry of Property
- The dismissal of civil employees is severely restricted by the existing regulations.

It is clear that in such conditions it is not possible to obtain a supply of health services that adapts to the specificities and contingencies of each environment, nor is it possible to expect greater efficiency in the management of public health establishments. Finally, the deficiency of a price system that gives clear signals for the allocation of the resources within the public health system causes economic indiscipline and constitutes a sufficient condition for settling on an inefficient form of resourcing. The existence of a weak budgetary restriction, where the meaning of an operational deficit is never clear, contributes to this financial breach of discipline in the hospital establishments.

The authorities controlling of the sector share this diagnosis and have designed a scheme of financing and of alternative organization. In this manner, some years ago a new system of financing to the hospitals started up as a pilot scheme under the name PAD-PPP (Associated Payments to Diagnosis and Prospective Payments by Benefits). This means that:

- The first component of the new system (PAD) establishes a payment by diagnosis of the needs of the patient who receives hospital attention. In this manner, the new system transfers resources on the basis of results and establishes suitable incentives so that the establishments may provide health benefits with efficiency. The system is planned on cost basis averages but it contains the necessary flexibility that health care requires. Thus, if an initial diagnosis has been made in another type of medical establishment, it establishes that the payment is made on the basis of the PPP, that is, a payment according to the care actually given.
- The PPP mechanism also applies to benefits of low usage, for which no pre-established PAD exists. Unlike the present scheme, payment according to care has a prospective character on the whole, as it establishes a predetermined budget that every health service can assign according to the priorities of the case. In this way a control mechanism of costs in the PAD-PPP system is introduced.

The problem resides in the new system of payments operating at the level of the health services (not of the hospitals), and has only done so at a referential level. The financing of the hospital centers on the basis of the PAD-PPP mechanism requires the regime of wages and employment in the sector to be flexible. In particular, payment by needs diagnosis is not compatible with a scheme of payment according to care given, operating centrally and with a scale of remuneration that does not correspond to considerations of productivity. In general, it is more essential to equip public hospitals with a certain degree of autonomy so that the introduction of the new mechanisms of payment makes sense. The problem in the way of an effective modernization of the public sector has been the opposition of the unions that operate there. From a combination of claiming their rights and of cultural elements, strong resistance to the introduction of changes has arisen against the advance

towards greater autonomy in the sector. Thus, such initiatives are seen as an attack on labor stability and as an attempt to privatize the sector. In principle they are neither. But resistance to change can aggravate of the situation so that more radical changes are needed.

3.2.3 Doctors' Primary Care Surgeries

Doctors' primary care surgeries administered by the municipalities experience similar problems to the ones described in the case of the hospital establishments.

In effect, the primary health care has been financed since 1981 on the basis of the Fapem (invoicing according to care given in municipal establishments), an instrument that works as a budgetary allocation decided by historical-discretionary criteria on four levels:

- Fiscal budget
- Central (headquarters) / regional allocation
- Regional / commune allocation
- Commune/ Doctors' surgeries allocation

The Fapem [15] in principle financed the expenses of the surgeries of all primary care doctors including labor costs**.** Primary care workers acquired the status of special employee, being contracted by their respective municipalities with a salary subject to supply and demand. Nevertheless, over the last years, wage negotiations have tended to be subject to a national scheme, which has been encouraged by the pressure of the sector union. The delivery of wage concessions through this channel breaks the labor relation between the municipal workers and the Mayor, reduces the scope of the local administration, and vindicates the argument for centralization. The statute of the municipal health worker, where national clauses are introduced on the remunerations and the sector workers' career as civil employees, is a step further towards the recentralization of primary health care.

In the case of the municipal management of primary care, the possible inefficiencies are reinforced by a weak budgetary restriction. There, the losses experienced become deficits financed by municipal resources. The amount of deficit is then used by the municipalities to press, at the central level, for greater financial contributions. The problem for the government is to distinguish whether the losses happen because the finances granted are insufficient to cover the operating costs, or a degree of inefficiency in the management of the doctors' offices exists.

A new financing system for primary health care based on a per capita payment is being implemented. This system would replace the Fapem financing

[15] Invoicing according to care given in Municipal Establishments

scheme and transfer to every doctor's surgery a quantity of money proportional to the population registered there. The transference by beneficiary varies according to the classification of each commune as urban / rural or poor / rich. The per capita system determines the level of financing to be transferred through a formula (population registered by subvention per capita), granting autonomy to every administrator in the administration of these funds. The formula scheme introduces greater transparency and objectivity than the Fapem system. Moreover, per capita financing would introduce a mechanism for supervising the accounts in the operation of primary health care. In effect, the per capita subsidy links the approval of the user with the providers' resources, introducing a quasi-market aspect in the system of primary care. Nevertheless, the existing geographic distance between the doctors' offices makes difficult the role that competition and free choice can play in the allocation of resources within the sector. A serious problem of efficiency associated with the municipalization of primary health care has been the breaks in the concept of integrity in the health care that followed decentralization. Partly the problem is operational, since the doctors' surgeries and the hospitals lack a flexible and effective mechanism of coordination and mutual reference. More serious is the fact that health care and attention activities are not made essential, as may be expected from local planning based on the population's specific needs.

The separation of primary care from the higher levels of health care is identified by the doctors who work in the surgeries as a cause of the deterioration of their perspective of work and professional development. As a corollary a disinterestedness of doctors in regard to their work occurs in primary care, resulting in a high turnover and problems of personnel shortage in these establishments.

The operation of a health care network that integrates the different levels of care can be determined through bureaucratic and hierarchic procedures, as happens in centralized systems. It is also possible to establish a health network through contracts established voluntarily by the parties involved, as occurs in sections of the private health providers' sector. The crucial problem in Chile is that the connection between municipalities and health services has failed to establish an effective welfare network, perhaps because the incompatible objectives and incentives of each type of organization have created this result.

4. FAIRNESS IN THE DUAL HEALTH SYSTEM

Fairness is an indivisible category in the analysis of health policy. Issues that have to do with people's health are directly linked with their well-being and quality of life. Lack of health can cause pain and suffering, besides preventing the normal performance of human life. Therefore the criteria of allocation and distribution of resources that are assigned to health care are strongly influenced by the ethical judgments that prevail in different societies.

To analyze fairness is complex because of the normative character of the concept and the existence of differing ethical judgments that, allowing for varying degrees of consistency, are held by the people who compose a society. While there are situations that obtain relative consensus within the population, thus reflecting some consistency with the most common meanings of fairness, there also exist questions that divide society into antagonistic groups causing a confrontation among differing conceptions of fairness, which even though opposed, can be completely legitimate. The resolution of these questions corresponds in the last instance in the sphere of the political process, where the interests and values held by different groups in the population have to be made compatible.

The public debate on questions of fairness in the Chilean health system emphasizes critical elements in the operation of the sector. Perhaps the most

important discussions are about the fairness of a system that divides the population into rich and poor, according to their respective designation to one of the two systems, Isapre and Fonasa. Other themes in the fairness debate are the appropriateness of the public subsidies that enter the private system, the redistribution that takes place within the Fonasa system from people of average income to those of low income, and the pattern of resources allocation within the public lending system.

4.1 Fairness in the Dual Health System

The dual health system that characterizes the Chilean case raises two central questions on the subject of fairness:

- First, is a scheme equitable that assigns to people different degrees of access to health benefits according to their level of income?
- Second, does it answer considerations of fairness to differentiate people according to their level of medical risk between the above-mentioned systems of health?

The latest official figures maintain that for 2002 the cost per capita in the public sector rose to 62.5% of the cost per capita in the private system, a figure that compares rather favorably with 27.6% in 1996, and that reflects the substantial increase in the public cost of health that has occurred over the last few years.

The previous data represent global budgets that do not correspond to the actual cost of individual health benefits.

- In the case of the public sector it is necessary to reduce the cost of:

- Investment
- Public health
- Medical licenses

- In the case of the Isapres it is necessary to discount the cost allocated to:
  - Medical licenses
  - Administration
  - Sales and utilities
  - Add the contribution made by the users of the private system

Given the modifications made to the case, one concludes that the cost per capita during 2002 of the public system in health benefits was 51.1% of that made by the private system.

The above-mentioned differences of cost are translated into a differentiated access to health benefits between the public and private systems, reflecting in the last instance the greater ability to pay of the users of the Isapres. However, this differentiated access does not necessarily work against the conceptions of fairness that have greater validity in present Chilean society.

Indeed, the present system accepts the existence of differences in access to different goods and services, including those that satisfy basic necessities such as food and shelter. In this sense, it is recognized that fairness is not synonymous with equality, and the essential question is how much

inequality is acceptable, and what is the consistent minimum level for the satisfaction of people's basic needs[16].

However, various statistics available suggest that access to health care is distributed among the population far more fairly than income or the consumption of goods and services.

The dissociation between results and perceptions may be explained in two ways:

- First, a significant percentage of the population maintains that health care has to be provided in conditions of greater equality than nowadays, even though such provision is noticeably more egalitarian than that associated with other goods and services

- Second, a significant asymmetry can exist between the reality represented by statistics, and the perception of the matter among a sector of the population. It can be based on objective considerations, as problems of care in the public sector are, or can originate from a political agenda more interested in revealing the problems of the health system than other social problems.

- The second question on fairness relates to the segmentation of health systems according to the level of medical risk of the population. The relation between fairness and risk can be illustrated in the case of two people, identical as far as income and preferences are concerned, who

[16] Gonzalo Villaroel, Reformas en la salud Latinoamerica, Exito o Fracaso?

in addition have the same ex - post health risk. The criterion of horizontal fairness, to treat identical cases equally, postulates that both people should be treated equally by the health insurance as far as premiums, cover, etc. are concerned, and that if one of them acquires a greater ex-post health risk, the insurance appropriately covers the expenses associated with this condition.

Nevertheless, the question is what happens to people who have different health risks at the moment they acquire insurance. Is it equitable that people of greater risk are discriminated against in the sense that they pay a higher premium and are offered less cover? The answer to the last question will surely differ according to what the cause is of the greater risk that the person faces. In the case of someone taking a voluntary risk, such as behavior that causes noticeable damage to health in those situations where the risk is exogenous, the person does not have greater control over the insurance acquired. In the last case most people will probably describe an insurance system that discriminates against greater health risks as unjust.

The Isapre insurance system is indeed based on risk discrimination, in the sense that the insurance premium is related to the person's health risk. The most obvious example is the greater price of premiums for elderly people that represents between 2.5 and 5 times the value of the associated premium plans for younger people. This discrimination of risk implies that the probability of belonging to an Isapre is higher for people who are in better health. The result is a system that offers better access to benefits to those who need it less, at the same time as people who experience greater need would be better assigned to the public system. This situation is the product of the logic of competition in a private insurance market, beyond the intentions of the Isapres' administrators. In effect, if a company implemented an equitable tariff policy for elderly people that maintained the premiums associated with the plans for the youngest

people, it would experience a process of adverse selection by attracting the "bad" risks and causing the emigration of the "good" risks, causing its fast elimination from the market.

4.2 Redistribution within Fonasa

All health systems redistribute income towards the poorest groups that accede to benefits for free or heavily subsidized health care.

The mechanisms used to make this redistribution vary according to the organization of the health system. The most commonly used are:

- Contributions in the general case of the social security schemes
- Taxes in the systems that base their financing on the contributions[17]

The hybrid condition of the Chilean health system is also reflected in the system of redistributing resources to finance the health care of the poorest. In effect a part of this activity is financed by general taxes that channel a designated fiscal contribution to the public health system. The other part is financed by contributions made by the people assigned to Fonasa. The problem is that this last system does not work if there exists the alternative of

[17]Hoffmeyer, 1999

private insurance, since people with higher income transfer towards the Isapres sector and the redistribution ends up being financed by the contributors of average income that remain in the Fonasa.

The social security systems that cover the population and that redistribute income through contributions can be criticized on the grounds of efficiency, but maintain a redistributive logic that corresponds most of the time to reasonable criteria of fairness. Nevertheless, this logic breaks down when the communal system is fragmented and covers only a fraction of people located in the lower income bracket. In this context it is not clear that the contributions must be used to finance the poorest groups, still less if there is no information system that effectively distributes the subsidies in these groups. Beyond the associated problems of fairness in such a practical matter, this accentuates the adverse selection present in the dual system, since it increases the incentives of those who finance the internal redistribution of Fonasa to transfer to the Isapres system. In this respect it is possible that groups of medium / low income are more affected by the particular Chilean health system structure, since the alternative is to finance (partially) the health of the poorest when they are in Fonasa, or else in the lowest sector of Isapre system clients with very precarious health risk cover.

4.3 Public Subsidies to the Isapres

The fairness of the hybrid system is also brought into question by the various subsidies that favor the beneficiaries of the Isapre system. This situation is regarded as unjust because public resources are allocated to the people of higher income and strengthen insurance plans in the private system instead of improving care in the in the public sector.

Altogether there are six types of public subsidy that favor people assigned to the Isapre.

Only in the case of the extra 2% contribution and the care of beneficiaries of Isapres in the public system is there a subsidy benefiting those who belong to the Isapres system.

Nevertheless, there are four subsidies that aim to encourage activities related to health at the level of the general population, regardless of the health system to which the person belongs.

- The first general subsidy is the wage payment to mothers contributing to the health system, public or private, in the pre- and post-natal period, and in case of absence from work due to serious illness of a baby less than 1 year old.

The payment referred to is more of a labor subsidy channeled through the health care institution. Its aim is to encourage the labor allegiance of the woman, regardless of her income level, or health system to which she belongs. But the subsidy is regressive to the extent that it stipulates a proportional payment of the wage earned by the beneficiary.

- Second, the cost of the programs of national immunization and complementary meals favors everyone who attends public establishments to make use of these benefits.

The justification for the universal character of these subsidies is in the public externalities component or associated with activities of sickness prevention and health promotion. However, these programs are focused because people of higher income do not attend the doctors' public surgeries.

- Next, there are subsidies associated with tax exemption according to health contribution and the cost of health provision

- These benefits have a universal character, their economic rationality being debatable.

- The third subsidy establishes tax exemption of that fraction of income assigned to the obligatory health contribution

This is done to avoid possible double taxation in the pension system (understood as a tax). Nevertheless, the nature of a tax that includes the health care contribution to an individual insurance scheme and associates this payment with the expected amount of benefits is questionable. Besides, it is a regressive subsidy to the extent that it favors those on higher incomes.

- The fourth subsidy: as public health provision is free of VAT[18], it has been decided to extend this benefit to private providers whose contribution does not exceed the referential tariff of Fonasa

Nevertheless, the reason for excluding VAT from the health sector is not clear in an economy where this tax covers practically all goods and services.

- The fifth subsidy: the extra 2% contribution, which favors only Isapres contributors

This benefit works through tax exemption that is offered to companies that complement by this amount the contributions made by workers in low

[18] Value Added Tax

income brackets to the Isapre. This benefit has some characteristics of a subsidy but only within the private health institutions.

Finally, the public system grants a subsidy, in fact, to the beneficiaries of the Isapres who go to public health establishments and receive benefits free of charge that would entail a significant contribution in the private system. This situation arises from the lack of information about the mechanisms and controls of the public system and is especially important in the case of low income contributors to the Isapre when they require complex health benefits.

4.4 Allocation of the Public Cost

Unlike in the Isapre system, the health benefits granted by the public health system contain a clear redistributive bias, granting benefits to the population without regard to their socioeconomic level and positively discriminating towards groups on lower income[19]. This redistribution is specified as one of the main objectives of health policy.

The statistics for public health costs as against the indicators of poverty for the geographic areas covered by the different health services are related. To achieve this result, estimations of poverty from the communal information contained in a survey[20] were produced. This procedure gave a precise result in 18 of the 26 health services in that it was possible to extrapolate exactly the

[19] Minsal, Chilean Ministry of Health

[20] Casen 2002, Socioeconomic Characterization Survey

extent of poverty. In the eight remaining cases there was only information about a subgroup of communes in the geographic area covered by the respective health service.

The result of the analysis was that the allocation of public resources among the services followed a rather regressive distribution because the cost per capita corrected by the cost differentials of health provision favored regions showing less poverty. This conclusion is preliminary because the assumptions used to fit the cost differentials according to Health Service are debatable.

A similar conclusion is reached by a study of the communal distribution of public resources for municipalized primary care in 2003. The information used in this study has as its primary source the Undersecretary's Office of Regional Development and the Ministry of Health. Thus, when the communes are arranged according to their level of population living in poverty, those in the upper income brackets obtain between 50% and 100% more resources than the other communes.

The unequal distribution of public contribution to primary health care establishments is a consequence of a regressive bias as much in central contribution as in local. This last point can be easily explained by the greater availability of resources in the richest communes. One surprising result is the regressive bias in the Fapem[21] transference.

[21] Fee-for- services

- First, the character of the Fapem transference decided by negotiation between the central and regional/local level favors groups with greater political influence or pressure, which are not those with greater deficiencies

- Second, the transfer of population from the public health system to the private means the population benefiting from primary care live in the richest municipalities

To the extent that the allocation criteria are at least partially based on already out-of-date estimates of the beneficiaries in the population, the effect described takes place.

COMPARISON OF CERTAIN RESULT WITH THE OECD COUNTRIES

NOTE: All tables are source by WHO Statistical Information System (WHOSIS)

http://www.who.int/whosis/database/core/core_select.cfm

LIFE EXPECTANCY AT BIRTH (YEARS) MALES
Country / Value / Latest Year

Australia	79.0	2005
Austria	77.0	2005
Belgium	76.0	2005
Brazil	68.0	2005
Canada	78.0	2005
CHILE	**74.0**	**2005**
China	71.0	2005
CZECH REPUBLIC	**73.0**	**2005**
Denmark	76.0	2005
Finland	76.0	2005

France	77.0	2005
Germany	76.0	2005
Greece	77.0	2005
Hungary	69.0	2005
Iceland	79.0	2005
Ireland	77.0	2005
Italy	78.0	2005
Japan	79.0	2005
Luxembourg	76.0	2005
Mexico	72.0	2005

Netherlands	77.0	2005
New Zealand	77.0	2005
Norway	77.0	2005
Poland	71.0	2005
Portugal	75.0	2005
Republic of Korea	75.0	2005
Russian Federation	59.0	2005
Slovakia	70.0	2005

Spain	77.0	2005
Sweden	79.0	2005
Switzerland	79.0	2005
Turkey	69.0	2005
United Kingdom	77.0	2005
United States of America	75.0	2005

LIFE EXPECTANCY AT BIRTH (YEARS) FEMALES

Country / Value / Latest Year

Australia	84.0	2005
Austria	82.0	2005
Belgium	82.0	2005
Brazil	75.0	2005
Canada	83.0	2005
CHILE	**81.0**	**2005**
China	74.0	2005
CZECH REPUBLIC	**79.0**	**2005**
Denmark	80.0	2005
Finland	82.0	2005
France	84.0	2005
Germany	82.0	2005
Greece	82.0	2005
Hungary	77.0	2005
Iceland	83.0	2005
Ireland	81.0	2005
Italy	84.0	2005

Japan	86.0	2005
Luxembourg	82.0	2005
Mexico	77.0	2005
Netherlands	81.0	2005
New Zealand	82.0	2005
Norway	82.0	2005
Poland	79.0	2005
Portugal	81.0	2005
Republic of Korea	82.0	2005
Russian Federation	72.0	2005
Slovakia	78.0	2005
Spain	84.0	2005
Sweden	83.0	2005
Switzerland	84.0	2005
Turkey	74.0	2005
United Kingdom	81.0	2005
United States of America	80.0	2005

HEALTHY LIFE EXPECTANCY (HALE) AT BIRTH (YEARS) MALES
Country / Value / Latest Year

Australia	71.0	2002
Austria	69.0	2002
Belgium	69.0	2002
Brazil	57.0	2002
Canada	70.0	2002
CHILE	**65.0**	**2002**
China	63.0	2002
CZECH REPUBLIC	**66.0**	**2002**
Denmark	69.0	2002
Finland	69.0	2002
France	69.0	2002
Germany	70.0	2002
Greece	69.0	2002
Hungary	62.0	2002
Iceland	72.0	2002
Ireland	68.0	2002
Italy	71.0	2002

Japan	72.0	2002
Luxembourg	69.0	2002
Mexico	63.0	2002
Netherlands	70.0	2002
New Zealand	69.0	2002
Norway	70.0	2002
Poland	63.0	2002
Portugal	67.0	2002
Republic of Korea	65.0	2002
Russian Federation	53.0	2002
Slovakia	63.0	2002
Spain	70.0	2002
Sweden	72.0	2002
Switzerland	71.0	2002
Turkey	61.0	2002
United Kingdom	69.0	2002
United States of America	67.0	2002

HEALTHY LIFE EXPECTANCY (HALE) AT BIRTH (YEARS) FEMALES
Country / Value / Latest Year

Australia	74.0	2002
Austria	74.0	2002
Belgium	73.0	2002
Brazil	62.0	2002
Canada	74.0	2002
CHILE	**70.0**	**2002**
China	65.0	2002
CZECH REPUBLIC	**71.0**	**2002**
Denmark	71.0	2002
Finland	74.0	2002
France	75.0	2002
Germany	74.0	2002
Greece	73.0	2002
Hungary	68.0	2002
Iceland	74.0	2002
Ireland	72.0	2002
Italy	75.0	2002
Japan	78.0	2002

Luxembourg	74.0	2002
Mexico	68.0	2002
Netherlands	73.0	2002
New Zealand	72.0	2002
Norway	74.0	2002
Poland	68.0	2002
Portugal	72.0	2002
Republic of Korea	71.0	2002
Russian Federation	64.0	2002
Slovakia	69.0	2002
Spain	75.0	2002
Sweden	75.0	2002
Switzerland	75.0	2002
Turkey	63.0	2002
United Kingdom	72.0	2002
United States of America	71.0	2002

PROBABILITY OF DYING (PER 1000 POPULATION) BETWEEN 15 AND 60 YEARS (ADULT MORTALITY RATE) MALES

Country / Value / Latest Year

Australia	84	2005
Austria	111	2005
Belgium	120	2005
Brazil	225	2005
Canada	90	2005
CHILE	**128**	**2005**
China	155	2005
CZECH REPUBLIC	**156**	**2005**
Denmark	116	2005
Finland	136	2005
France	128	2005
Germany	110	2005
Greece	110	2005
Hungary	256	2005
Iceland	73	2005
Ireland	91	2005
Italy	89	2005

Japan	92	2005
Luxembourg	119	2005
Mexico	162	2005
Netherlands	89	2005
New Zealand	92	2005
Norway	91	2005
Poland	208	2005
Portugal	139	2005
Republic of Korea	123	2005
Russian Federation	470	2005
Slovakia	201	2005
Spain	111	2005
Sweden	78	2005
Switzerland	84	2005
Turkey	181	2005
United Kingdom	101	2005
United States of America	137	2005

PROBABILITY OF DYING (PER 1000 POPULATION) BETWEEN 15 AND 60 YEARS (ADULT MORTALITY RATE) FEMALES

Country / Value / Latest Year

Australia	47	2005
Austria	55	2005
Belgium	64	2005
Brazil	118	2005
Canada	56	2005
CHILE	**64**	**2005**
China	98	2005
CZECH REPUBLIC	**70**	**2005**
Denmark	70	2005
Finland	62	2005
France	58	2005
Germany	57	2005
Greece	47	2005
Hungary	107	2005
Iceland	50	2005
Ireland	57	2005
Italy	46	2005

Japan	45	2005
Luxembourg	53	2005
Mexico	94	2005
Netherlands	65	2005
New Zealand	61	2005
Norway	56	2005
Poland	79	2005
Portugal	59	2005
Republic of Korea	50	2005
Russian Federation	173	2005
Slovakia	77	2005
Spain	46	2005
Sweden	50	2005
Switzerland	46	2005
Turkey	112	2005
United Kingdom	62	2005
United States of America	81	2005

PROBABILITY OF DYING (PER 1000 BIRTHS) UNDER FIVE YEARS OF AGE (UNDER-5 MORTALITY RATE)

Country / Value / Latest Year

Australia	6	2005
Austria	5	2005
Belgium	5	2005
Brazil	33	2005
Canada	6	2005
CHILE	**10**	**2005**
China	27	2005
CZECH REPUBLIC	**4**	**2005**
Denmark	5	2005
Finland	4	2005
France	5	2005
Germany	5	2005
Greece	5	2005
Hungary	8	2005
Iceland	3	2005
Ireland	5	2005
Italy	4	2005

Japan	4	2005
Luxembourg	5	2005
Mexico	27	2005
Netherlands	5	2005
New Zealand	6	2005
Norway	4	2005
Poland	8	2005
Portugal	5	2005
Republic of Korea	6	2005
Russian Federation	14	2005
Slovakia	9	2005
Spain	5	2005
Sweden	4	2005
Switzerland	5	2005
Turkey	29	2005
United Kingdom	6	2005
United States of America	8	2005

INFANT MORTALITY RATE (PER 1000 LIVE BIRTHS)
Country / Value / Latest Year

Australia	5.0	2005
Austria	4.0	2005
Belgium	4.0	2005
Brazil	28.0	2005
Canada	5.0	2005
CHILE	**8.0**	**2005**
China	23.0	2005
CZECH REPUBLIC	**3.0**	**2005**
Denmark	4.0	2005
Finland	3.0	2005
France	4.0	2005
Germany	4.0	2005
Greece	4.0	2005
Hungary	6.0	2005
Iceland	2.0	2005
Ireland	4.0	2005
Italy	4.0	2005

Japan	3.0	2005
Luxembourg	4.0	2005
Mexico	22.0	2005
Netherlands	4.0	2005
New Zealand	5.0	2005
Norway	3.0	2005
Poland	6.0	2005
Portugal	4.0	2005
Republic of Korea	6.0	2005
Russian Federation	11.0	2005
Slovakia	7.0	2005
Spain	4.0	2005
Sweden	3.0	2005
Switzerland	4.0	2005
Turkey	26.0	2005
United Kingdom	5.0	2005
United States of America	7.0	2005

NEONATAL MORTALITY RATE (PER 1000 BIRTHS)

Country / Value / Latest Year

Australia	3	2004
Austria	3	2004
Belgium	2	2004
Brazil	13	2004
Canada	3	2004
CHILE	**5**	**2004**
China	18	2004
CZECH REPUBLIC	**2**	**2004**
Denmark	3	2004
Finland	2	2004
France	2	2004
Germany	3	2004
Greece	3	2004
Hungary	5	2004
Iceland	1	2004
Ireland	4	2004
Italy	3	2004

Japan	1	2004
Luxembourg	3	2004
Mexico	11	2004
Netherlands	3	2004
New Zealand	3	2004
Norway	2	2004
Poland	5	2004
Portugal	3	2004
Republic of Korea	4	2004
Russian Federation	7	2004
Slovakia	4	2004
Spain	2	2004
Sweden	2	2004
Switzerland	3	2004
Turkey	16	2004
United Kingdom	3	2004
United States of America	4	2004

MATERNAL MORTALITY RATE (PER 1000 BIRTHS)

Country / Value / Latest Year

Australia	6	2000
Austria	5	2000
Belgium	10	2000
Brazil	260	2000
Canada	5	2000
CHILE	**30**	**2000**
China	56	2000
CZECH REPUBLIC	**9**	**2000**
Denmark	7	2000
Finland	5	2000
France	17	2000
Germany	9	2000
Greece	10	2000
Hungary	11	2000
Ireland	4	2000
Italy	5	2000
Japan	10	2000

Luxembourg	28	2000
Mexico	83	2000
Netherlands	16	2000
New Zealand	7	2000
Norway	10	2000
Poland	10	2000
Portugal	8	2000
Republic of Korea	20	2000
Russian Federation	65	2000
Slovakia	10	2000
Spain	5	2000
Sweden	8	2000
Switzerland	7	2000
Turkey	70	2000
United Kingdom	11	2000
United States of America	14	2000

DEATH DUE HIV / AIDS (PER 1000 BIRTHS)

Country / Value / Latest Year

Australia	<10	2005
Austria	<10	2005
Belgium	<10	2005
Brazil	8	2005
Canada	<10	2005
CHILE	**<10**	**2005**
China	2	2005
CZECH REPUBLIC	**<10**	**2005**
Denmark	<10	2005
Finland	<10	2005
France	2	2005
Germany	<10	2005
Greece	<10	2005
Iceland	<50	2005
Ireland	<10	2005
Italy	5	2005

Japan	1	2005
Luxembourg	<50	2005
Mexico	6	2005
Netherlands	<10	2005
New Zealand	<200	2003
Norway	<10	2005
Poland	<10	2005
Portugal	<10	2005
Republic of Korea	<10	2005
Spain	5	2005
Sweden	<10	2005
Switzerland	<10	2005
United Kingdom	<10	2005
United States of America	5	2005

AGE- STANDARDIZED MORTALITY RATE FOR NON-COMMUNICABLE DISEASES (PER 1000 000 POPULATION)

Country / Value / Latest Year

Australia	362.0	2002
Austria	406.0	2002
Belgium	427.0	2002
Brazil	712.0	2002
Canada	388.0	2002
CHILE	**453.0**	**2002**
China	665.0	2002
CZECH REPUBLIC	**568.0**	**2002**
Denmark	503.0	2002
Finland	422.0	2002
France	368.0	2002
Germany	444.0	2002
Greece	457.0	2002
Hungary	695.0	2002
Iceland	385.0	2002
Ireland	484.0	2002
Italy	403.0	2002

Japan	287.0	2002
Luxembourg	406.0	2002
Mexico	503.0	2002
Netherlands	443.0	2002
New Zealand	423.0	2002
Norway	416.0	2002
Poland	593.0	2002
Portugal	461.0	2002
Republic of Korea	537.0	2002
Russian Federation	960.0	2002
Slovakia	636.0	2002
Spain	395.0	2002
Sweden	379.0	2002
Switzerland	358.0	2002
Turkey	757.0	2002
United Kingdom	434.0	2002
United States of America	460.0	2002

AGE- STANDARDIZED MORTALITY RATE FOR CARDIOVASCULAR DISEASES (PER 1000 000 POPULATION)

Country / Value / Latest Year

Australia	140.0	2002
Austria	204.0	2002
Belgium	162.0	2002
Brazil	341.0	2002
Canada	141.0	2002
CHILE	**165.0**	**2002**
China	291.0	2002
CZECH REPUBLIC	**315.0**	**2002**
Denmark	182.0	2002
Finland	201.0	2002
France	118.0	2002
Germany	211.0	2002
Greece	258.0	2002
Hungary	364.0	2002
Iceland	164.0	2002
Ireland	214.0	2002
Italy	174.0	2002

Japan	106.0	2002
Luxembourg	177.0	2002
Mexico	163.0	2002
Netherlands	171.0	2002
New Zealand	175.0	2002
Norway	181.0	2002
Poland	324.0	2002
Portugal	208.0	2002
Republic of Korea	186.0	2002
Russian Federation	688.0	2002
Slovakia	371.0	2002
Spain	137.0	2002
Sweden	176.0	2002
Switzerland	142.0	2002
Turkey	542.0	2002
United Kingdom	182.0	2002
United States of America	188.0	2002

AGE- STANDARDIZED MORTALITY RATE FOR CANCER (PER 1000 000 POPULATION)

Country / Value / Latest Year

Australia	127.0	2002
Austria	127.0	2002
Belgium	148.0	2002
Brazil	142.0	2002
Canada	138.0	2002
CHILE	**137.0**	**2002**
China	148.0	2002
CZECH REPUBLIC	**177.0**	**2002**
Denmark	167.0	2002
Finland	115.0	2002
France	142.0	2002
Germany	141.0	2002
Greece	132.0	2002
Hungary	201.0	2002
Iceland	136.0	2002
Ireland	151.0	2002
Italy	134.0	2002

Japan	119.0	2002
Luxembourg	134.0	2002
Mexico	88.0	2002
Netherlands	155.0	2002
New Zealand	139.0	2002
Norway	137.0	2002
Poland	180.0	2002
Portugal	140.0	2002
Republic of Korea	169.0	2002
Russian Federation	152.0	2002
Slovakia	170.0	2002
Spain	131.0	2002
Sweden	116.0	2002
Switzerland	116.0	2002
Turkey	95.0	2002
United Kingdom	143.0	2002
United States of America	134.0	2002

AGE- STANDARDIZED MORTALITY RATE FOR INJURIES (PER 1000 000 POPULATION)

Country / Value / Latest Year

Australia	35.0	2002
Austria	38.0	2002
Belgium	45.0	2002
Brazil	81.0	2002
Canada	34.0	2002
CHILE	**50.0**	**2002**
China	79.0	2002
CZECH REPUBLIC	**50.0**	**2002**
Denmark	40.0	2002
Finland	60.0	2002
France	48.0	2002
Germany	29.0	2002
Greece	35.0	2002
Hungary	67.0	2002
Iceland	34.0	2002
Ireland	35.0	2002
Italy	29.0	2002

Japan	39.0	2002
Luxembourg	51.0	2002
Mexico	58.0	2002
Netherlands	23.0	2002
New Zealand	37.0	2002
Norway	35.0	2002
Poland	53.0	2002
Portugal	33.0	2002
Republic of Korea	67.0	2002
Russian Federation	217.0	2002
Slovakia	50.0	2002
Spain	31.0	2002
Sweden	30.0	2002
Switzerland	32.0	2002
Turkey	42.0	2002
United Kingdom	26.0	2002
United States of America	47.0	2002

DEATHS AMONG CHILDREN UNDER FIVE YEARS OF AGE DUE TO NEONATAL CAUSES (%)

Country / Value / Latest Year

Australia	55.6	2000
Austria	56.0	2000
Belgium	50.1	2000
Brazil	38.0	2000
Canada	58.5	2000
CHILE	**52.8**	**2000**
China	49.2	2000
CZECH REPUBLIC	**48.9**	**2000**
Denmark	73.8	2000
Finland	55.1	2000
France	52.6	2000
Germany	50.7	2000
Greece	63.0	2000
Hungary	56.9	2000
Iceland	61.0	2000
Ireland	61.1	2000
Italy	62.0	2000

Japan	40.0	2000
Luxembourg	54.0	2000
Mexico	52.5	2000
Netherlands	63.1	2000
New Zealand	48.3	2000
Norway	54.0	2000
Poland	59.1	2000
Portugal	47.9	2000
Republic of Korea	71.5	2000
Russian Federation	40.8	2000
Slovakia	52.7	2000
Spain	52.4	2000
Sweden	59.4	2000
Switzerland	62.1	2000
Turkey	49.1	2000
United Kingdom	59.1	2000
United States of America	56.9	2000

DEATHS AMONG CHILDREN UNDER FIVE YEARS OF AGE DUE TO DIARRHOEAL DISEASES (%)

Country / Value / Latest Year

Australia	0.1	2000
Austria	0.0	2000
Belgium	0.3	2000
Brazil	12.0	2000
Canada	0.2	2000
CHILE	**0.5**	**2000**
China	11.8	2000
CZECH REPUBLIC	**0.2**	**2000**
Denmark	0.3	2000
Finland	0.8	2000
France	0.9	2000
Germany	0.2	2000
Greece	0.0	2000
Hungary	0.1	2000
Iceland	0.0	2000
Ireland	0.0	2000
Italy	0.0	2000

Japan	0.4	2000
Luxembourg	0.0	2000
Mexico	5.1	2000
Netherlands	0.0	2000
New Zealand	0.2	2000
Norway	0.3	2000
Poland	0.1	2000
Portugal	0.1	2000
Republic of Korea	0.4	2000
Russian Federation	2.5	2000
Slovakia	1.4	2000
Spain	0.1	2000
Sweden	0.0	2000
Switzerland	0.2	2000
Turkey	12.2	2000
United Kingdom	0.9	2000
United States of America	0.1	2000

DEATHS AMONG CHILDREN UNDER FIVE YEARS OF AGE DUE TO PNEUMONIA (%)

Country / Value / Latest Year

Australia	1.2	2000
Austria	0.7	2000
Belgium	0.8	2000
Brazil	13.2	2000
Canada	1.1	2000
CHILE	**6.2**	**2000**
China	13.4	2000
CZECH REPUBLIC	**3.6**	**2000**
Denmark	0.9	2000
Finland	1.2	2000
France	0.6	2000
Germany	0.7	2000
Greece	2.6	2000
Hungary	3.9	2000
Iceland	0.0	2000
Ireland	1.3	2000
Italy	1.0	2000

Japan	3.9	2000
Luxembourg	1.1	2000
Mexico	8.5	2000
Netherlands	1.1	2000
New Zealand	2.7	2000
Norway	1.4	2000
Poland	2.7	2000
Portugal	1.8	2000
Republic of Korea	1.8	2000
Russian Federation	6.3	2000
Slovakia	9.4	2000
Spain	1.3	2000
Sweden	0.8	2000
Switzerland	0.7	2000
Turkey	14.0	2000
United Kingdom	2.2	2000
United States of America	1.3	2000

DEATHS AMONG CHILDREN UNDER FIVE YEARS OF AGE DUE TO INJURIES (%)

Country / Value / Latest Year

Australia	10.6	2000
Austria	8.4	2000
Belgium	9.7	2000
Brazil	3.2	2000
Canada	7.2	2000
CHILE	**9.1**	**2000**
China	8.4	2000
CZECH REPUBLIC	**12.5**	**2000**
Denmark	5.5	2000
Finland	6.9	2000
France	8.3	2000
Germany	6.6	2000
Greece	5.8	2000
Hungary	5.6	2000
Iceland	4.9	2000
Ireland	2.9	2000
Italy	4.0	2000

Japan	11.6	2000
Luxembourg	14.9	2000
Mexico	7.0	2000
Netherlands	5.2	2000
New Zealand	11.4	2000
Norway	6.2	2000
Poland	5.6	2000
Portugal	9.0	2000
Republic of Korea	11.2	2000
Russian Federation	12.0	2000
Slovakia	6.0	2000
Spain	6.5	2000
Sweden	3.4	2000
Switzerland	7.5	2000
Turkey	4.0	2000
United Kingdom	4.4	2000
United States of America	10.3	2000

DEATHS AMONG CHILDREN UNDER FIVE YEARS OF AGE DUE TO OTHER CAUSES (%)

Country / Value / Latest Year

Australia	32.5	2000
Austria	34.9	2000
Belgium	38.7	2000
Brazil	32.8	2000
Canada	32.9	2000
CHILE	**31.2**	**2000**
China	16.3	2000
CZECH REPUBLIC	**34.7**	**2000**
Denmark	19.4	2000
Finland	36.0	2000
France	37.5	2000
Germany	41.8	2000
Greece	28.6	2000
Hungary	33.6	2000
Iceland	34.1	2000
Ireland	34.2	2000
Italy	32.8	2000

Japan	43.9	2000
Luxembourg	29.9	2000
Mexico	26.8	2000
Netherlands	30.6	2000
New Zealand	37.4	2000
Norway	38.1	2000
Poland	32.5	2000
Portugal	41.0	2000
Republic of Korea	15.0	2000
Russian Federation	38.0	2000
Slovakia	30.5	2000
Spain	39.6	2000
Sweden	36.3	2000
Switzerland	29.5	2000
Turkey	19.8	2000
United Kingdom	33.4	2000
United States of America	31.3	2000

HIV PREVALENCE AMONG ADULT AGED 15+ AGES (PER 100 000 POPULATION)

Country / Value / Latest Year

Australia	99	2005
Austria	173	2005
Belgium	162	2005
Brazil	454	2005
Canada	222	2005
CHILE	**229**	**2005**
China	62	2005
CZECH REPUBLIC	**<100**	**2005**
Denmark	125	2005
Finland	<100	2005
France	263	2005
Germany	69	2005
Greece	98	2005
Hungary	<100	2005
Iceland	<500	2005
Ireland	151	2005
Italy	300	2005

Japan	<100	2005
Luxembourg	<500	2005
Mexico	244	2005
Netherlands	127	2005
New Zealand	<100	2005
Norway	67	2005
Poland	78	2005
Portugal	363	2005
Republic of Korea	<100	2005
Russian Federation	775	2005
Slovakia	<100	2005
Spain	380	2005
Sweden	107	2005
Switzerland	264	2005
United Kingdom	137	2005
United States of America	508	2005

PREVALENCE OF TUBERCULOSIS (PER 100 000 POPULATION)
Country / Value / Latest Year

Australia	5.9	2005
Austria	8.8	2005
Belgium	10.2	2005
Brazil	76.3	2005
Canada	3.6	2005
CHILE	**15.9**	**2005**
China	208.0	2005
CZECH REPUBLIC	**10.8**	**2005**
Denmark	5.8	2005
Finland	4.8	2005
France	10.3	2005
Germany	5.6	2005
Greece	14.9	2005
Hungary	24.9	2005
Iceland	2.2	2005
Ireland	9.7	2005
Italy	5.4	2005

Japan	37.5	2005
Luxembourg	9.1	2005
Mexico	26.9	2005
Netherlands	5.4	2005
New Zealand	9.2	2005
Norway	4.0	2005
Poland	29.3	2005
Portugal	25.2	2005
Republic of Korea	134.7	2005
Russian Federation	149.6	2005
Slovakia	19.9	2005
Spain	21.7	2005
Sweden	4.6	2005
Switzerland	5.6	2005
Turkey	44.2	2005
United Kingdom	11.0	2005
United States of America	3.4	2005

INCIDENCE OF TUBERCULOSIS (PER 100 000 POPULATION PER YEAR)

Country / Value / Latest Year

Australia	5.8	2005
Austria	11.5	2005
Belgium	12.8	2005
Brazil	59.6	2005
Canada	4.7	2005
CHILE	**14.6**	**2005**
China	100.3	2005
CZECH REPUBLIC	**10.4**	**2005**
Denmark	7.5	2005
Finland	6.2	2005
France	12.9	2005
Germany	7.2	2005
Greece	16.5	2005
Hungary	21.7	2005
Iceland	2.8	2005
Ireland	12.1	2005
Italy	6.8	2005

Japan	28.2	2005
Luxembourg	11.3	2005
Mexico	22.7	2005
Netherlands	7.0	2005
New Zealand	9.0	2005
Norway	5.2	2005
Poland	26.1	2005
Portugal	32.9	2005
Republic of Korea	96.4	2005
Russian Federation	119.0	2005
Slovakia	17.0	2005
Spain	27.5	2005
Sweden	5.9	2005
Switzerland	7.3	2005
Turkey	28.8	2005
United Kingdom	14.2	2005
United States of America	4.5	2005

ONE–YEARS–OLDS INMUNIZED WITH ONE DOSE OF MEASLES (%)

Country / Value / Latest Year

Australia	94	2005
Austria	75	2005
Belgium	88	2005
Brazil	99	2005
Canada	94	2005
CHILE	**90**	**2005**
China	86	2005
CZECH REPUBLIC	**97**	**2005**
Denmark	95	2005
Finland	97	2005
France	87	2005
Germany	93	2005
Greece	88	2005
Hungary	99	2005
Iceland	90	2005
Ireland	84	2005
Italy	87	2005

Japan	99	2005
Luxembourg	95	2005
Mexico	96	2005
Netherlands	96	2005
New Zealand	82	2005
Norway	90	2005
Poland	98	2005
Portugal	93	2005
Republic of Korea	99	2005
Russian Federation	99	2005
Slovakia	98	2005
Spain	97	2005
Sweden	94	2005
Switzerland	82	2005
Turkey	91	2005
United Kingdom	82	2005
United States of America	93	2005

ONE–YEARS–OLDS INMUNIZED WITH THREE DOSES OF DIPHTHERIA TETANES TOXOID AND PERTUSIS (DTP3) (%)

Country / Value / Latest Year

Australia	92	2005
Austria	86	2005
Belgium	97	2005
Brazil	96	2005
Canada	94	2005
CHILE	**91**	**2005**
China	87	2005
CZECH REPUBLIC	**97**	**2005**
Denmark	93	2005
Finland	97	2005
France	98	2005
Germany	90	2005
Greece	88	2005
Hungary	99	2005
Iceland	95	2005
Ireland	90	2005
Italy	96	2005

Japan	99	2005
Luxembourg	99	2005
Mexico	98	2005
Netherlands	98	2005
New Zealand	89	2005
Norway	91	2005
Poland	99	2005
Portugal	93	2005
Republic of Korea	96	2005
Russian Federation	98	2005
Slovakia	99	2005
Spain	96	2005
Sweden	99	2005
Switzerland	93	2005
Turkey	90	2005
United Kingdom	91	2005
United States of America	96	2005

BIRTHS ATTENDED BY SKILLED HEALTH PERSONNEL (%)
Country / Value / Latest Year

Australia	100.0	2003
Brazil	97.0	2003
CHILE	**100.0**	**2004**
China	83.0	2004
CZECH REPUBLIC	**100.0**	**2005**
Finland	100.0	2002
Germany	100.0	2006
Hungary	100.0	2005
Ireland	100.0	2002
Italy	99.0	2003
Japan	100.0	2004
Luxembourg	100.0	2002
Mexico	93.0	2003

Netherlands	100.0	2003
New Zealand	97.0	2001
Poland	100.0	2005
Portugal	100.0	2001
Republic of Korea	100.0	2003
Russian Federation	99.0	2005
Slovakia	100.0	2004
Switzerland	100.0	2006
Turkey	83.0	2003
United Kingdom	99.0	1998
United States of America	99.0	2003

TUBERCULOSIS: DOTS CASE DETECTION RATE (%)
Country / Value / Latest Year

Australia	42.4	2005
Austria	55.7	2005
Brazil	53.5	2005
CHILE	**112.1**	**2005**
China	79.7	2005
CZECH REPUBLIC	**64.6**	**2005**
Denmark	71.0	2005
Finland	0.0	2003
France	0.0	2003
Germany	51.7	2005
Greece	0.0	2005
Hungary	43.0	2005
Iceland	53.3	2005
Ireland	0.0	2005
Italy	72.3	2005
Japan	57.3	2005

Luxembourg	59.4	2005
Mexico	110.2	2005
Netherlands	46.6	2005
New Zealand	50.6	2005
Norway	44.5	2005
Poland	62.3	2005
Portugal	84.6	2005
Republic of Korea	18.1	2005
Russian Federation	29.9	2005
Slovakia	39.1	2005
Spain	0.0	2005
Sweden	56.0	2005
Switzerland	0.0	2005
Turkey	2.7	2005
United Kingdom	0.0	2005
United States of America	85.1	2005

TUBERCULOSIS: DOTS TREATMENT SUCCESS (%)

Country / Value / Latest Year

Australia	85	2004
Austria	69	2004
Brazil	81	2004
CHILE	**83**	**2004**
China	94	2004
CZECH REPUBLIC	**73**	**2004**
Denmark	88	2004
Germany	68	2004
Hungary	54	2004
Iceland	50	2004
Italy	95	2003
Japan	57	2004
Mexico	82	2004

Netherlands	83	2004
New Zealand	66	2004
Norway	89	2004
Poland	79	2004
Portugal	84	2004
Republic of Korea	80	2004
Russian Federation	59	2004
Slovakia	88	2004
Sweden	64	2004
Turkey	91	2004
United States of America	61	2004

CHILDREN UNDER FIVE YEARS OF AGE UNDERWEIGHT FOR AGE (%)

Country / Value / Latest Year

Brazil	3.7	2003
CHILE	**0.8**	**2006**
China	6.1	2002
CZECH REPUBLIC	**2.1**	**2002**
Mexico	3.4	2006
Turkey	7.0	1998
United States of America	1.1	2002

CHILDREN UNDER FIVE YEARS OF AGE OVERWEIGHT FOR AGE (%)

Country / Value / Latest Year

CHILE	**11.7**	**2006**
China	6.1	2002
CZECH REPUBLIC	**4.4**	**2002**
Mexico	7.6	2006
Turkey	4.0	1998
United States of America	7.0	2002

NEWBORNS WITH LOW BIRTH WEIGHT (%)

Country / Value / Latest Year

Australia	7	2002
Austria	7	2002
Brazil	10	2002
CHILE	**5**	**2002**
China	6	2002
CZECH REPUBLIC	**7**	**2002**
Denmark	5	2002
Finland	4	2002
France	7	2002
Germany	7	2002
Greece	8	2002
Hungary	9	2002
Iceland	4	2002
Ireland	6	2002
Italy	6	2002
Japan	8	2002

Luxembourg	8	2002
Mexico	9	2002
New Zealand	6	2002
Norway	5	2002
Poland	6	2002
Portugal	8	2002
Republic of Korea	4	2002
Russian Federation	6	2002
Slovakia	7	2002
Spain	6	2002
Sweden	4	2002
Switzerland	6	2002
Turkey	16	2002
United Kingdom	8	2002
United States of America	8	2002

PREVALENCE OF ADULTS (15 YEARS AND OLDER) WHO ARE OBESES (%) MALES

Country / Value / Latest Year

Australia	19.4	2000
Brazil	8.9	2003
CHILE	**19.0**	**2003**
China	2.4	2002
CZECH REPUBLIC	**13.7**	**2002**
Denmark	9.8	2000
Finland	21.2	2001
Germany	13.6	2003
Greece	26.0	2004
Hungary	17.1	2004
Iceland	12.4	2002
Ireland	14.0	2002
Italy	9.3	2003

Japan	2.9	2001
Mexico	18.6	2000
Netherlands	10.2	2001
New Zealand	21.9	2003
Norway	6.8	1998
Poland	15.7	2000
Republic of Korea	1.7	1998
Spain	13.0	2003
Sweden	10.4	2003
Switzerland	7.9	2002
Turkey	12.9	1997
United States of America	31.1	2004

PREVALENCE OF ADULTS (15 YEARS AND OLDER) WHO ARE OBESES (%) FEMALES

Country / Value / Latest Year

Australia	22.0	2000
Brazil	13.1	2003
CHILE	**25.0**	**2003**
China	3.4	2002
CZECH REPUBLIC	**16.3**	**2002**
Denmark	9.1	2000
Finland	23.5	2001
Germany	12.3	2003
Greece	18.2	2004
Hungary	18.2	2004
Iceland	12.3	2002
Ireland	12.0	2002
Italy	8.7	2003

Japan	3.3	2001
Mexico	28.1	2000
Netherlands	11.9	2001
New Zealand	23.2	2003
Norway	5.8	1998
Poland	19.9	2000
Republic of Korea	3.0	1998
Spain	13.5	2003
Sweden	9.5	2003
Switzerland	7.5	2002
Turkey	29.9	1997
United States of America	33.2	2004

PREVALENCE OF CURRENT TOBACCO USE IN ADOLESCENTS (13-15 YEARS OF AGE)(%)

Country / Value / Latest Year

CZECH REPUBLIC	**34.6**	**2002**
Greece	16.2	2005
Hungary	27.8	2003
Poland	19.5	2003
Republic of Korea	10.2	2005
Russian Federation	27.3	2004
Slovakia	27.3	2003
Turkey	8.4	2003
United States of America	23.1	2000

PREVALENCE OF CURRENT TOBACCO SMOKING AMONG ADULTS (15 YEARS AND OLDER)

Country / Value / Latest Year

Brazil	26.3	2003
CHILE	**48.3**	**2003**
China	57.4	2003
CZECH REPUBLIC	**38.9**	**2003**
Germany	33.2	2003
Hungary	42.7	2003
Iceland	22.0	2005
Ireland	23.7	2005
Japan	47.9	2003
Luxembourg	36.0	2004
Mexico	35.9	2003
New Zealand	25.1	2001
Russian Federation	56.7	2003
Slovakia	41.0	2003
Spain	40.5	2003
Turkey	50.7	2003
United States of America	24.1	2003

PER CAPITA RECORDED ALCOHOL CONSUMPTION (LITRES OF PURE ALCOHOL) AMONG ADULTS (>= 15 YEARS)

Country / Value / Latest Year

Australia	9.0	2003
Austria	11.1	2003
Brazil	5.8	2003
CHILE	**6.6**	**2003**
China	5.2	2003
CZECH REPUBLIC	**13.0**	**2003**
Denmark	11.7	2003
Finland	9.3	2003
France	11.4	2003
Germany	12.0	2003
Greece	9.0	2003
Hungary	13.6	2003
Iceland	7.0	2003
Ireland	13.7	2003
Italy	8.0	2003
Japan	7.6	2003

Luxembourg	15.6	2003
Mexico	4.6	2003
Netherlands	9.7	2003
New Zealand	9.7	2003
Norway	5.5	2003
Poland	8.1	2003
Portugal	11.5	2003
Republic of Korea	7.9	2003
Russian Federation	10.3	2003
Slovakia	10.4	2003
Spain	11.7	2003
Sweden	6.0	2003
Switzerland	10.8	2003
Turkey	1.4	2003
United Kingdom	11.8	2003
United States of America	8.6	2003

PHYSICIANS (NUMBER AND DENSITY PER 1000 POPULATION)

Country / Value / Density / Latest Year

Australia	47,875	2.47	2001
Austria	27,413	3.38	2003
Brazil	198,153	1.15	2000
CHILE	**17,250**	**1.09**	**2003**
China	1,364,000	1.06	2001
CZECH REPUBLIC	**35,960**	**3.51**	**2003**
Denmark	15,653	2.93	2002
Finland	16,446	3.16	2002
France	203,487	3.37	2004
Germany	277,885	3.37	2003
Greece	47,944	4.38	2001
Hungary	32,877	3.33	2003
Iceland	1,056	3.62	2004
Ireland	11,141	2.79	2004
Italy	241,000	4.20	2004
Japan	251,889	1.98	2002

Luxembourg	1,206	2.66	2003
Mexico	195,897	1.98	2000
Netherlands	50,854	3.15	2003
New Zealand	9,027	2.37	2001
Norway	14,200	3.13	2003
Poland	95,272	2.47	2003
Portugal	34,440	3.42	2003
Republic of Korea	75,045	1.57	2003
Russian Federation	609,043	4.25	2003
Slovakia	17,172	3.18	2003
Spain	135,300	3.30	2003
Sweden	29,122	3.28	2002
Switzerland	25,921	3.61	2002
Turkey	96,000	1.35	2003
United Kingdom	133,641	2.30	1997
United States of America	730,801	2.56	2000

NURSES (NUMBER AND DENSITY PER 1000 POPULATION)

Country / Value / Density / Latest Year

Australia	176,188	9.10	2001
Austria	76,161	9.38	2003
Brazil	659,111	3.84	2000
CHILE	**10,000**	**0.63**	**2003**
China	1,358,000	1.05	2001
CZECH REPUBLIC	**99,351**	**9.71**	**2003**
Denmark	55,425	10.36	2002
Finland	74,450	14.33	2002
France	437,525	7.24	2004
Germany	801,677	9.72	2003
Greece	42,129	3.86	2000
Hungary	87,381	8.85	2003
Iceland	3,954	13.63	2003
Ireland	60,774	15.20	2004
Italy	312,377	5.44	2003
Japan	993,628	7.79	2002

Luxembourg	4,151	9.16	2003
Mexico	88,678	0.90	2000
Netherlands	221,783	13.73	2003
New Zealand	31,128	8.16	2001
Norway	67,274	14.84	2003
Poland	188,898	4.90	2003
Portugal	43,860	4.36	2003
Republic of Korea	83,333	1.75	2003
Russian Federation	1,153,683	8.05	2003
Slovakia	36,569	6.77	2003
Spain	315,200	7.68	2003
Sweden	90,758	10.24	2002
Switzerland	77,120	10.75	2000
Turkey	121,000	1.70	2003
United Kingdom	704,332	12.12	1997
United States of America	2,669,603	9.37	2000

DENTISTS (NUMBER AND DENSITY PER 1000 POPULATION)

Country / Value / Density / Latest Year

Australia	21,296	1.10	2001
Austria	4,037	0.50	2003
Brazil	190,448	1.11	2000
CHILE	**6,750**	**0.43**	**2003**
China	136,520	0.11	2001
CZECH REPUBLIC	**6,737**	**0.66**	**2003**
Denmark	4,437	0.83	2002
Finland	6,674	1.28	2002
France	40,904	0.68	2004
Germany	64,609	0.78	2003
Greece	12,394	1.13	2001
Hungary	5,364	0.54	2003
Iceland	283	1.00	2000
Ireland	2,237	0.56	2004
Italy	33,000	0.58	2004
Japan	90,510	0.71	2002

Luxembourg	323	0.71	2003
Mexico	78,281	0.79	2000
Netherlands	7,759	0.48	2003
New Zealand	2,586	0.68	2001
Norway	3,733	0.82	2003
Poland	11,451	0.30	2003
Portugal	5,510	0.55	2003
Republic of Korea	16,033	0.34	2003
Russian Federation	45,972	0.32	2003
Slovakia	2,364	0.44	2003
Spain	20,005	0.49	2003
Sweden	7,270	0.82	2002
Switzerland	3,598	0.50	2003
Turkey	17,200	0.24	2003
United Kingdom	58,729	1.01	1997
United States of America	463,663	1.63	2000

TOTAL EXPENDITURE ON HEALTH AS PERCENTAGE OF GROSS DOMESTIC PRODUCT

Country / Value / Latest Year

Australia	9.6	2004
Austria	10.3	2004
Brazil	8.8	2004
CHILE	**6.1**	**2004**
China	4.7	2004
CZECH REPUBLIC	**7.3**	**2004**
Denmark	8.6	2004
Finland	7.4	2004
France	10.5	2004
Germany	10.6	2004
Greece	7.9	2004
Hungary	7.9	2004
Iceland	9.9	2004
Ireland	7.2	2004
Italy	8.7	2004
Japan	7.8	2004

Luxembourg	8.0	2004
Mexico	6.5	2004
Netherlands	9.2	2004
New Zealand	8.4	2004
Norway	9.7	2004
Poland	6.2	2004
Portugal	9.8	2004
Republic of Korea	5.5	2004
Russian Federation	6.0	2004
Slovakia	7.2	2004
Spain	8.1	2004
Sweden	9.1	2004
Switzerland	11.5	2004
Turkey	7.7	2004
United Kingdom	8.1	2004
United States of America	15.4	2004

GENERAL GOVERNMENT EXPENDITURE ON HEALTHS AS PERCENTAGE OF TOTAL EXPENDITURE ON HEALTH

Country / Value / Latest Year

Australia	67.5	2004
Austria	75.6	2004
Brazil	54.1	2004
CHILE	**47.0**	**2004**
China	38.0	2004
CZECH REPUBLIC	**89.2**	**2004**
Denmark	82.3	2004
Finland	77.2	2004
France	78.4	2004
Germany	76.9	2004
Greece	52.8	2004
Hungary	71.6	2004
Iceland	83.4	2004
Ireland	79.5	2004
Italy	75.1	2004
Japan	81.3	2004

Luxembourg	90.4	2004
Mexico	46.4	2004
Netherlands	62.4	2004
New Zealand	77.4	2004
Norway	83.5	2004
Poland	68.6	2004
Portugal	71.6	2004
Republic of Korea	52.6	2004
Russian Federation	61.3	2004
Slovakia	73.8	2004
Spain	70.9	2004
Sweden	84.9	2004
Switzerland	58.5	2004
Turkey	72.3	2004
United Kingdom	86.3	2004
United States of America	44.7	2004

PRIVATE EXPENDITURE ON HEALTHS AS PERCENTAGE OF TOTAL EXPENDITURE ON HEALTH

Country / Value / Latest Year

Australia	32.5	2004
Austria	24.4	2004
Brazil	45.9	2004
CHILE	**53.0**	**2004**
China	62.0	2004
CZECH REPUBLIC	**10.8**	**2004**
Denmark	17.7	2004
Finland	22.8	2004
France	21.6	2004
Germany	23.1	2004
Greece	47.2	2004
Hungary	28.4	2004
Iceland	16.6	2004
Ireland	20.5	2004
Italy	24.9	2004
Japan	18.7	2004

Luxembourg	9.6	2004
Mexico	53.6	2004
Netherlands	37.6	2004
New Zealand	22.6	2004
Norway	16.5	2004
Poland	31.4	2004
Portugal	28.4	2004
Republic of Korea	47.4	2004
Russian Federation	38.7	2004
Slovakia	26.2	2004
Spain	29.1	2004
Sweden	15.1	2004
Switzerland	41.5	2004
Turkey	27.7	2004
United Kingdom	13.7	2004
United States of America	55.3	2004

SOCIAL SECURITY EXPENDITURE ON HEALTHS AS PERCENTAGE OF TOTAL EXPENDITURE ON HEALTH

Country / Value / Latest Year

Australia	0.0	2004
Austria	61.0	2004
Brazil	0.0	2004
CHILE	**33.3**	**2004**
China	55.2	2004
CZECH REPUBLIC	**89.2**	**2004**
Denmark	0.0	2004
Finland	21.9	2004
France	95.7	2004
Germany	87.0	2004
Greece	56.0	2004
Hungary	85.3	2004
Iceland	37.0	2004
Ireland	0.8	2004
Italy	0.1	2004
Japan	80.0	2004

Luxembourg	80.3	2004
Mexico	67.3	2004
Netherlands	95.5	2004
New Zealand	0.0	2004
Norway	16.3	2004
Poland	82.4	2004
Portugal	1.2	2004
Republic of Korea	79.2	2004
Russian Federation	36.2	2004
Slovakia	86.3	2004
Spain	7.4	2004
Sweden	0.0	2004
Switzerland	70.8	2004
Turkey	54.8	2004
United Kingdom	0.0	2004
United States of America	28.0	2004

PRIVATE PREPAID PLANS AS PERCENTAGE OF PRIVATE EXPENDITURE ON HEALTH

Country / Value / Latest Year

Australia	20.4	2004
Austria	33.6	2004
Brazil	35.8	2004
CHILE	**54.0**	**2004**
China	5.5	2004
CZECH REPUBLIC	**2.1**	**2004**
Denmark	9.2	2004
Finland	10.3	2004
France	57.3	2004
Germany	39.1	2004
Greece	4.3	2004
Hungary	3.2	2004
Iceland	0.0	2004
Ireland	32.7	2004
Italy	3.6	2004
Japan	1.9	2004

Luxembourg	17.6	2004
Mexico	5.6	2004
Netherlands	50.6	2004
New Zealand	22.6	2004
Norway	0.0	2004
Poland	1.9	2004
Portugal	15.9	2004
Republic of Korea	7.1	2004
Russian Federation	9.9	2004
Slovakia	0.0	2004
Spain	16.2	2004
Sweden	1.9	2004
Switzerland	21.1	2004
Turkey	12.5	2004
United Kingdom	8.2	2004
United States of America	66.4	2004

PER CAPITA TOTAL EXPENDITURE ON HEALTH AT INTERNATIONAL DOLLAR RATE

Country / Value / Latest Year

Australia	3123.3	2004
Austria	3417.7	2004
Brazil	1519.7	2004
CHILE	**720.3**	**2004**
China	276.7	2004
CZECH REPUBLIC	**1412.4**	**2004**
Denmark	2779.6	2004
Finland	2202.5	2004
France	3040.1	2004
Germany	3171.3	2004
Greece	2179.4	2004
Hungary	1307.9	2004
Iceland	3294.4	2004
Ireland	2617.8	2004
Italy	2414.4	2004
Japan	2292.6	2004

Luxembourg	5177.6	2004
Mexico	655.4	2004
Netherlands	3092.0	2004
New Zealand	2080.9	2004
Norway	4079.9	2004
Poland	814.1	2004
Portugal	1896.9	2004
Republic of Korea	1134.6	2004
Russian Federation	582.7	2004
Slovakia	1060.6	2004
Spain	2099.2	2004
Sweden	2827.9	2004
Switzerland	4011.3	2004
Turkey	556.8	2004
United Kingdom	2559.9	2004
United States of America	6096.2	2004

PER CAPITA GOVERNMENT EXPENDITURE ON HEALTH AT INTERNATIONAL DOLLAR RATE

Country / Value / Latest Year

Australia	2106.8	2004
Austria	2582.4	2004
Brazil	821.7	2004
CHILE	**338.4**	**2004**
China	105.1	2004
CZECH REPUBLIC	**1259.3**	**2004**
Denmark	2287.4	2004
Finland	1700.0	2004
France	2382.4	2004
Germany	2439.8	2004
Greece	1149.8	2004
Hungary	936.5	2004
Iceland	2746.3	2004
Ireland	2080.0	2004
Italy	1812.4	2004
Japan	1863.8	2004

Luxembourg	4678.5	2004
Mexico	304.0	2004
Netherlands	1928.1	2004
New Zealand	1609.7	2004
Norway	3406.0	2004
Poland	558.8	2004
Portugal	1358.8	2004
Republic of Korea	596.5	2004
Russian Federation	357.5	2004
Slovakia	782.4	2004
Spain	1487.5	2004
Sweden	2401.8	2004
Switzerland	2347.3	2004
Turkey	402.4	2004
United Kingdom	2208.6	2004
United States of America	2724.7	2004

HOSPITAL BEDS (PER 10 000 POPULATION)

Country / Value / Latest Year

Australia	40.0	2002
Austria	77.0	2005
Brazil	26.0	2002
CHILE	**24.0**	**2004**
China	22.0	2003
CZECH REPUBLIC	**84.0**	**2005**
Denmark	38.0	2004
Finland	70.0	2005
France	75.0	2004
Germany	84.0	2005
Greece	47.0	2004
Hungary	79.0	2005
Iceland	75.0	2002
Ireland	57.0	2004
Italy	40.0	2004
Japan	129.0	2001
Luxembourg	63.0	2004
Mexico	10.0	2004
Netherlands	50.0	2003

New Zealand	60.0	2002
Norway	42.0	2005
Poland	53.0	2004
Portugal	37.0	2004
Republic of Korea	66.0	2002
Russian Federation	97.0	2005
Slovakia	69.0	2005
Spain	35.0	2003
Sweden	52.0	1997
Switzerland	57.0	2004
Turkey	26.0	2005
United Kingdom	39.0	2004
United States of America	33.0	2003

SUMMARY

The problems of efficiency and fairness in the Chilean health system have led to a variety of proposals for change with respect to the present situation. In this way a reform proposal has been drawn up by an interdisciplinary team according to an order made by the Ministry of Health.

- The reform proposal is based on a diagnosis that the prevailing dual health system in the country shares the deficiencies of private and individual health insurance plans and the faults associated with public provision schemes that are based on bureaucratic schemes of organization and finance on the basis of supply

- At the same time, the reform proposal recognizes existing strengths: among others, the achievements in the matters of public health that indicate a leading position in the Latin American region, the development of the private health infrastructure and the amount of knowledge and organizational skill that is accumulated in institutions like the Isapres and Fonasa.

There are five central lines to the reform proposal:

- To define a Guaranteed Health Benefits Plan (PGBS)

- To establish a regime of administered competition

- To redirect public subsidies from the supply towards the users

- To establish a handling system of the risk based on communitarian parameters and for long term

- To provide autonomy to the sector with public suppliers

The PGBS[22] is the central instrument on which the other proposed changes are organized. One is a basket of health benefits that the state guarantees to everyone, subsidizing its acquisition to those who lack the necessary resources, and bringing the rest of the population under its cover. In this way the PGBS becomes the new allowance entitlement in health care, replacing the contribution of 7% of income.

The PGBS design is the responsibility of a Reform Commission, a decentralized public body comprising technicians and representatives of civil society. The PGBS must be socially and economically validated.

The PGBS takes care of individual health provision. In order to protect the operations of the public health system a public health plan is established (PSP) that must be financed from general taxation and be the responsibility of the health services.

In addition, the creation of voluntary additional plans complements the cover of the PGBS on the basis of an additional payment. The fairness of the health system is shown by the extension of the PGBS, not by the existence of additional plans. To the extent that the PGBS actually covers the health needs of the population, the additional plans will be elective, and access to them is not essential for health care.

The Guaranteed Health Benefits Plan is offered by administrators of designated PGBS organizations, which can be public property (Fonasa) or private (at present the Isapres). The PGBS is offered in competitive conditions

[22] Guaranteed Health Benefits Plan

and its price must be determined by the market to reconcile the standard design with the availability of existing resources. Nevertheless, the homogeneous character of the PGBS introduces transparency into the transactions and overall induces the administrators to look for the yield through efficient agreements with the health providers before users make their choices.

In addition, a free payment system between administrators of the PGBS and health providers is arranged. The homogeneous character of the product together with the use of competition to attract and retain users is intended to privilege those systems of payment more effectively, which typically requires participation of the providers in the financial risk associated with the practices of sickness prevention and health recovery.

The PGBS will be offered on the basis of collective risk rather than individual. It means that the insurance premium of or the price of the PGBS will not vary according to the medical risk of the user. In dynamic terms, the market price will fluctuate according to the added conditions of supply and demand on the package of benefits. This means that throughout his life the user will face a price of the PGBS that will not be subject to surcharges due to increases in personal health risk. This, together with the condition that the administrators will be forced not to practice risk discrimination with their portfolio or with potential beneficiaries, implies that people will have real security in the matter of health.

The requirement of a PGBS price based on collective risk and the prohibition to practice selection by risk makes it necessary to establish mechanisms that make viable the operation of the companies that will administer the plan. Three types of instruments are established:

- In the first place, an adjustment of premiums is introduced according to categories associated with pre-existing risk, which presents the portfolio of a specific institution, and there must be a compensatory

mechanism among companies based on the composition according to age / gender / locality of its portfolio

- Second, a scheme of reinsurance is organized that covers specified catastrophic events, like those benefit costs included in the PGBS that exceed a fixed ceiling for the beneficiary-

- Third, the fact that individuals with pre-existing illnesses move between administrators is a problem that up to now has a theoretical solution (consisting of monetary compensation between the companies). Alternatively, the mobility of certain risks can be replaced by an appropriate regulation that ensures the patient effective care on the part of his first administrator.

The financing of the health system comes from the users. These are acquired by the PGBS, which through the mediation of the administrators finances the supply of health benefits. An important change assumed by the reform is the reassignment of public financing from supply towards users with smaller resources, so that these supplement the PGBS. The reform places the user in a central role, giving him the authority to choose his providers through a mechanism that ensures that the provider will make an effort to offer care of value and quality.

The transfer of public financing towards the users requires granting autonomy to the public providers of health care: hospitals and doctors' surgeries. It must be possible to finance these through the sale of health care to the users by the administrators of the PGBS. For this purpose they must have real management autonomy and the ability to handle resources, including the staff. The importance of the public sector suppliers, in particular hospitals of greater complexity, makes the matter of the autonomous sector critical for the success of the reform. Together with the political difficulties associated with the drive

towards autonomy, this is recommended as the strategic variable for the transition from the present health system towards that proposed in the reform. In this manner, the reform proposal introduces modifications that essentially alter sensitive areas of inefficiency, short term individual insurance plans and bureaucratic public provision. It also introduces greater fairness through guaranteeing users a set of benefits that takes care of their health and gives them authority by placing them at the center of the allocation resources system. On the other hand, the reform proposal preserves the most valuable advantages of the present system, which are public health organizations and human capital, and contains elements of political economy that make their implementation viable. But certainly it is a proposal for radical change, which needs resolution and political will for its introduction.

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