

Health-care financing and equity: public insurance in Chile

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This article sets out to examine the sources of health-care financing and their use, drawing on the health system accounts available in Chile; the role of public spending at the present time and its effect in reducing inequities in the Chilean system; and the distribution of health-care provision by income level in the population. Solidarity and equity seem to be peculiar to the public sector, although even there equity is found only in certain types of health-care provision. The article then goes on to analyse three public insurance (National Health Fund) programmes designed to reduce inequities in health-care access, which have acted as a test bed for the current Health Reform Plan in Chile; it reviews the central component of that reform, the Plan for Universal Access with Explicit Guarantees (Plan AUGE), which was approved in 2005 and has begun to be gradually applied; and it describes aspects of financial equity.

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I

Introduction

Health system reforms have been in progress around the world for over a decade. Interestingly, these reforms have been taking place simultaneously in countries with differing development levels, with health-care institutions that have developed in a variety of ways, with contrasting approaches to and general conceptions of health system organization, and with methodologies that combine instruments and institutions in very diverse ways.

Everything seems to show that there is no one “right” institutional solution, no single “winning” model that can be applied in all situations to resolve today’s health-care challenges, in particular the increased demand for medical provision. This increase, and the longer time period over which demand operates, has led to health expenditure (both individual and institutional) growing faster on average than overall spending by the population.

The fact is that there is a strong positive correlation between countries’ general economic development, health expenditure and life expectancy (WHO, 2004). The goal, then, is to strike a virtuous balance between excellence in health care and budgetary effectiveness.

This article sets out to examine the fiscal contribution and some programmes in the Chilean health sector that have had strong effects on equity in

access to health-care goods and services. Following this introduction, section II looks at overall health spending in Chile and its financing sources, highlighting the duality between the country’s public and private insurance schemes. It also describes inequalities in access to health-care goods and services that the country’s health systems, as now constituted, are incapable of resolving. Section III describes some special programmes whose distinguishing feature is that they target provision and resources on very needy groups. Although from a general health-care point of view it is desirable for provision to be universalized, this kind of piecemeal coverage does mean that assistance can be provided to those whose low incomes would otherwise debar them from seeking treatment. By way of example, three programmes of this type are examined: Medical Loans (Préstamos Médicos), Catastrophe Insurance (Seguro Catastrófico) and the Older Adult Programme (Programa Adulto Mayor). Section IV reviews the new Plan for Universal Access with Explicit Guarantees (Plan de Acceso Universal con Garantías Explícitas (Plan AUGE)), which universalizes coverage of 56 medical conditions by the public insurance system and private insurers. Section V analyses aspects of financial equity. Lastly, section VI offers some conclusions.

II

Public health financing and equity

Concern about rising health-care costs has led to a wide debate, and there have been those in Chile who have ascribed purely financial motives (in particular, the reduction of public expenditure) to the recent reforms, ignoring or downplaying their public health objectives. Public administration must always involve tight spending controls, but in this case it should not be forgotten that, while public-sector health spending increased by 286% in real terms in the 1990s, GDP also rose considerably over the same period (by about 100%).

According to recent studies correlating GDP with health-care expenditure over long periods, the latter tends to grow faster than GDP in the early stage of development and then to converge with and even grow more slowly than it in subsequent stages (López Casanovas, 2004). Chile is probably in the early phase described for the European Union in the study cited.

For a comparative examination of health spending in relation to the institutional configuration of each country, this spending needs to be broken down by financing source: first, the direct fiscal contribution,

plus contributions from municipalities which supplement that from the State budget; second, the health insurance contributions that people are obliged by law to pay to the public insurance fund (the National Health Fund (FONASA)) or private health insurance institutions (Isapres), plus compulsory contributions to *mutuales* (mutual support societies) to cover occupational accidents.

Private health expenditure, meanwhile, includes all forms of individual or group insurance designed to cover health problems, plus additional voluntary contributions

by subscribers and out-of-pocket expenditure, which strictly speaking is that which beneficiaries carry out themselves without reimbursement because they are wholly or partially uninsured.

Table 1 shows the distribution of spending in Chile in 2003 (Urriola, 2004). What is most significant is that the direct fiscal contribution had to be increased greatly (by 32%) between 2000 and 2003 to make up for health-care shortcomings (Comisión de Reforma, 2003). In 2003, the public contribution accounted for 67.1% of total health expenditure.

TABLE 1

Chile: Health system accounts, 2003
(Millions of current pesos)

Providers ^a	Public sector					Private sector				Total
	Direct subsidy		Compulsory contributions			Out-of-pocket spending				
	Fiscal	Municipal	FONASA	Friendly societies (<i>mutuales</i>)	Isapres	Voluntary contribs. to Isapres	Services copayments	Drugs copayments	Other directs	
<i>Public sector</i>	544 778	44 051	350 766	3 638	16 415	5 311	0	0	73 018	1 037 977
SNSS establishments	455 545		339 100						65 697	860 342
Municipal PHC		44 051								44 051
ISP	3 072		199						4 177	7 448
Hospitals run by armed forces and by Orden Hospital J.J. Aguirre	82 564									82 564
	3 597		11 467	3 638	16 415	5 311			3 144	43 572
<i>Private sector</i>	0	0	119 762	116 494	343 742	147 484	265 895	0	32 539	1 025 916
Hospitals, clinics and professionals			119 762		343 742	147 484	265 895		32 539	909 422
Friendly societies				116 494						116 494
<i>Administration</i>	0	0	16 494	15 835	76 575	32 506	0	0	0	141 410
FONASA			16 494							16 494
Isapres					76 575	32 506				109 081
Friendly societies				15 835						15 835
<i>Health authority</i>	115 816									115 816
<i>Pharmacies</i>	101 009	0					0	363 296	0	464 305
Public spending	101 009									101 009
Private spending								363 296		363 296
<i>Unassigned</i>				5 446	3 777	1 603				10 826
<i>Total</i>	761 603	44 051	487 022	141 413	440 509	186 904	265 895	363 296	105 557	2 796 250
%	27.2%	1.6%	17.4%	5.1%	15.8%	6.7%	9.5%	13.0%	3.8%	100.0%

Source: Urriola (2004).

^a SNSS: Sistema Nacional de Servicios de Salud (National System of Health Services). PHC: primary health care. ISP: Instituto de Salud Pública de Chile (Public Health Institute). FONASA: Fondo Nacional de Salud (National Health Fund). Isapres: Instituciones de Salud Previsional (private health insurance institutions).

According to official statistics (FONASA, 2004a), the number of people in the public insurance scheme¹ increased by about 6% in the 1990s and comprised 67% of the population, while the direct fiscal contribution increased by 286% in real terms over the same period, as already mentioned. This might seem excessive at first sight, but in fact it represents a deliberate effort to make up for low government health spending in the 1980s. Even as it is, average annual health expenditure per inhabitant in Chile is just US\$ 139, according to the World Health Organization (WHO), which is much less than in Argentina or Uruguay and similar to the level in Mexico (table 2).

Because of the rise in fiscal spending, the public health sector in Chile has achieved greater equity in recent years. There is a further justification for the increase, which is that average revenues from individual contributions differ enormously between the public and private systems. In 2003, average contributions per beneficiary were 46,032 pesos² in the public insurance system and 161,427 pesos in the private system. The direct fiscal contribution increased the average per capita revenue available in the public system to 114,377 pesos, i.e., its net impact was to reduce inequalities between the public and private sectors.³

The revenue gap between the public insurance system and private insurers is also due to the fact that the State takes responsibility for the 20% or so of the population who declare they have no income (at least no stable income), and that it is necessarily the repository for those excluded from the Isapres because of the “skimming”⁴ these carry out among potential subscribers.

There are various indicators for rating people by risk. Table 3 shows that higher-risk groups (children and older adults) are predominantly enrolled in FONASA.

¹ Excluding the armed forces, although their network of hospitals is taken into account in Table 1.

² Dollar values have been calculated for all purposes using the average annual value published by the Central Bank of Chile, which was 691.4 pesos per dollar in 2003.

³ For those wishing to compare this information against the balance sheets of the Superintendency of Health Insurance Institutions or FONASA that show the total value of contributions, it should be noted that incapacity benefits (*subsídios por incapacidad laboral* (SIL)), which are payments for days not worked, have not been treated as health spending and have therefore not been included in table 2 or in average expenditure calculations. This spending could be included in a broader satellite account, however, such as social security.

⁴ By “skimming” is meant discriminatory risk selection whereby higher premiums are charged to higher-risk individuals, so that those who ultimately remain in the private insurance schemes are individuals representing a lower risk or lower average costs. This disadvantages those at higher risk, such as older adults, women of childbearing age and people with chronic diseases.

TABLE 2

Various countries: Government health spending in dollars between 1997 and 2001
(Dollar average per inhabitant, at the average exchange rate)

Country	Government health spending in dollars per inhabitant (average between 1997 and 2001)
Argentina	380
Chile	139
Spain	786
United States	1 939
Mexico	133
Portugal	639
Singapore	326
Uruguay	295

Source: WHO (2004).

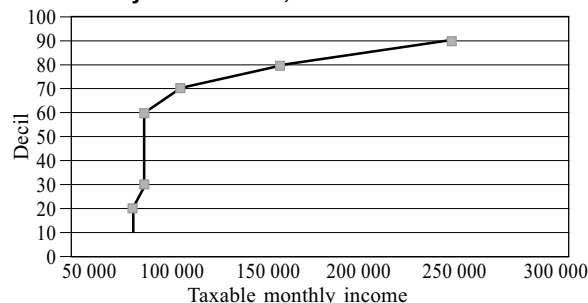
For example, the public sector covers a very high proportion of older adults (92%), this being the most vulnerable group in Chile and indeed in most Latin American countries. This is an instance of what has been called sociodemographic vulnerability, i.e., “a syndrome combining potentially adverse sociodemographic events (risks), incapacity to respond to the materialization of those risks, and inability to adapt actively to the new situation generated by that materialization” (ECLAC, 2002).

Where health is concerned, the vulnerability of older adults derives from the increasing need for health services with age, a lack of active social security to provide them with adequate incomes, and the weaknesses of public and private infrastructure when it comes to coping with differentiated demand. These are urgent challenges for the region in the immediate future.

The financial proof of this vulnerability (incapacity to respond) can be found in the incomes of the country’s pensioners (retirees) in 2003. The pensions curve in figure 1 shows that 60% of them receive incomes of less than 81,457 pesos a month.

FIGURE 1

Chile: Monthly pensioner incomes, by income band, 2003



Source: Angulo and Urriola, 2004.

TABLE 3

**Chile: Age and sex distribution of the population,
by insurance type, 2001**

Age group	National Health Fund (FONASA)			Subscribers to private health subscribers insurance institutions (Isapres)		
	Men	Women	FONASA total	Men	Women	Isapre total
0 - 4	450 725	436 096	886 821	135 343	126 862	262 205
5 - 19	1 515 551	1 434 176	2 949 727	411 002	392 716	803 718
20 - 44	1 623 376	1 984 338	3 607 714	636 280	625 645	1 261 925
45 - 64	813 634	988 553	1 802 187	244 436	258 016	502 452
65 and over	370 204	539 711	909 915	37 206	43 282	80 488
<i>Total</i>	<i>4 773 490</i>	<i>5 382 874</i>	<i>10 156 364</i>	<i>1 464 267</i>	<i>1 446 521</i>	<i>2 910 788</i>

Source: FONASA Subdepartamento de Estudios.

To sum up, the State is mainly required to cover those at highest risk: older adults, women of childbearing age, and those with chronic illnesses.

From the general perspective of a mixed (public/private) health system like Chile's, it might be concluded that the existence of private-sector provision has led to: i) greater competition, both because of the tendency for health-care charges to even out between the public and private insurers⁵ and because the public sector has been forced to modernize, something that is reflected in rising approval ratings for public-sector provision in surveys; ii) a 30% increase in the voluntary contributions made by subscribers to private insurance policies on top of their compulsory contributions (table 1), enabling the quality of plans to be improved for those with "normal" risk levels; and iii) an improvement in the country's general health infrastructure.

The criticisms made of this mixed system are also telling, however: it is charged with i) increasing the level of inequity, because the public sector takes in the poorest, most vulnerable and most "expensive" individuals, which means it is neither limiting the "skimming" carried out by private insurers nor using pooled inter-institutional solidarity funds to provide compensatory financing; ii) displaying, as is recognized, a degree of arbitrariness in the costs of individual plans, since information asymmetries make it very difficult to choose properly between health plans when there are thousands of options available; iii) creating superfluous and costly marketing competition

⁵ The public insurance agency acts as a regulator in this respect, particularly where the cost of consultations is concerned, since the different types of provision have fixed levels of coverage set annually in advance.

that drives up private-sector costs;⁶ and iv) making it hard or impossible to optimize overall health planning, since there is the element of uncertainty represented by those who may move from one subsystem to the other.

Lastly, the public and private sectors differ in the way they cover spending on drugs (other than those included in Plan AUGE). Whereas the private-sector insurers' plans never include medicines, the public insurer does cover them in the case of primary care for category A and B FONASA users, i.e., the indigent and those earning up to one minimum wage.⁷ Of total spending on medicines, in fact, about 22% comes from the public sector and the rest is private spending. According to regional estimates (table 4), drug spending in Chile is below the regional average, although it represents about 16% of total health spending.

More generally, accepting that out-of-pocket spending is detrimental to equity, it should be noted that about 10% of the population in Chile does not appear in the health insurance coverage figures, while in Latin America the percentage of people without cover is put at 25% (Titelman and Uthoff, 2000).

Reducing out-of-pocket spending is also a goal of the current reforms. To do this, it will be necessary to increase coverage and exert better control over the way medicines are administered, particularly where the use of generic and alternative drugs is concerned. In Chile, generic drugs account for 41% of

⁶ In 2003, per capita administration costs were 1,559 pesos in FONASA and 39,970 pesos in the Isapres, i.e., 26 times as high.

⁷ Often, however, surgeries do not have enough drugs available and users have to buy them for themselves in private-sector pharmacies.

TABLE 4

Ten countries and one region of Latin America: Drug spending and consumption (2003)

Country	Total spending (millions of dollars)	2001 population (thousands)	Per capita consumption (units)
Argentina	3 656	37 487	9
Brazil	4 939	172 891	7
Chile	513 ^a	15 402	11
Colombia	915	43 070	7
Ecuador	426	12 880	9
Mexico	6 605	100 373	10
Peru	335	26 090	2
Dominican Republic	252	8 624	4
Uruguay	262	3 361	15
Venezuela (Bolivarian Republic of)	1 775	24 632	14
Central America	654	55 658	2
<i>Total</i>	<i>20 332</i>	<i>500 468</i>	<i>7</i>

Source: IMS Health (undated).

^a This figure does not match that of table 1. We believe that the difference is essentially due to the fact that this table does not include public drugs spending.

consumption in unit terms, and for just 8% of total drugs spending (IMS, 2004).

Reforms, however, have tended to increase copayments (included in out-of-pocket expenditure) with a view to reducing “moral hazard”. No-one has yet shown convincingly, however, how high copayments can go before they lead to exclusion.

It has been argued that where there is no guarantee of universal access to health services, rules are needed to mitigate the disadvantages of those who have no certainty of receiving prompt treatment because they have no resources to spare. What this amounts to is a suggestion that copayments be reduced, at least for the worse-off. Here, the dichotomy of “Isapres for the rich and FONASA for the poor” (Sapelli and Torche, 1997), besides its somewhat pejorative connotations, does convey the fact that solidarity and equity are peculiar to the public sector, although the equity (as will be seen) is incomplete, i.e., it is segmented by type of service. The findings of a recent study (Van Doorslaer and Masseria, 2004) carried out at the Organisation for Economic Co-operation and Development (OECD) bear out the claim just quoted.

1. Income levels and the demand for services

Analyses of demand always differentiate demand for services by household income levels (Mahieu, 2000; Titelman, 1999). To this end, the population is grouped

by income quintiles⁸ to ascertain whether there are significant differences by stratum in health service demand.

Table 5 suggests a number of conclusions. First, in Chile the block of services constituted by primary care (check-ups and general consultations) and emergency care has achieved a level of coverage such that there is no discrimination in access by income quintile. This is not the case, though, with the second block of services: specialist consultations, dental care, laboratory tests and imaging services (X-rays and ultrasound).

When the quintile averages are compared, it transpires that lower-income households actually receive more services in the first block, so that the percentage deviation from the mean in the demand for these services is higher in the low-income quintiles. This indicates that these strata face no restrictions on access to such services; indeed, the question arises as to whether the effect known as “moral hazard” (the tendency for services to be used wastefully when they are cheap or free) does not arise in this situation.⁹

⁸ This grouping has been carried out directly by the Ministry of Planning (MIDEPLAN) in its database, using only autonomous household incomes.

⁹ See Sapelli and Vial (2001) for a discussion of the Chilean situation.

In the second block of services, on the other hand, those without resources (in particular, those in FONASA categories A and B) either have to face excessively long waiting lists or times for medical attention or else pay all or part of the cost themselves if they wish to be treated promptly. As soon as any payment is required, there is a striking reduction in demand from the first two income quintiles, presumably because they cannot afford the cost of prompt treatment and so refrain from using services (table 5).

Proportionately, types of provision at which the public service excels in terms of efficacy, coverage and timeliness are used more by lower-income sectors than by higher-income ones. One hypothesis that should be considered here, of course, is that people in these sectors over-react to possible illnesses. There is a good deal of evidence that demand for emergency treatment is often driven more by individual perceptions than by the existence of what might be clinically understood as an emergency, and that a substantial proportion of such treatment could have been provided in a normal primary care setting.

Nonetheless, it has been estimated (Ipinza, 2004) that in 2002 the staffs of health-care professionals at municipally-run primary care establishments (public system) were 50% under strength, which would account for the “flight” of patients at that level. This is compounded by the saturation of treatment facilities, as revealed by the fact that 24 treatment centres have more than 40,000 people registered with them (Ministerio de Salud, 2002b). Together, these two situations help to account for the overloading of the country’s emergency services.

In the case of dental care, laboratory tests and imaging, differences in demand by income quintile appear to be due to low-income sectors having to go

TABLE 5

Chile: Deviation of demand from the mean, by provision type, in the bottom two income quintiles and the top two quintiles (Percentages)

Provision type	Low-income 40%	High-income 40%
Preventive health check-up	12.9	-17.4
General consultation	5.3	-7.7
Emergency consultation	17.7	-33.4
Specialist consultation	-25.7	16.6
Dental care	-28.6	18.3
Laboratory tests	-11.8	8.6
X-rays or ultrasound	-25.2	10.6

Source: Prepared by the author using data from the National Socio-economic Survey (Encuesta de Caracterización Socioeconómica Nacional (CASEN)), 2000.

without these services because they simply cannot afford them.

Where specialist consultations are concerned, on the other hand, more information is needed before any conclusions can be ventured, since there is also evidence that groups with full medical coverage make use of such consultations without professional referral. The “filter” of referral, which is applied in various countries, has proved effective at holding down unnecessary spending on this type of provision.¹⁰

The information given in table 5, then, shows horizontal inequity in Chile, i.e., the extent to which people with the same need for health services have different utilization rates. This inequity is plain to see in the specialist consultations, dental care and imaging block, but it is reduced by public action, as the following section explains.

¹⁰ The health reform operating in France since January 2005 makes it more expensive for people to go to specialists if they do not have a referral from the primary care level.

III

Public programmes to reduce health-care inequity

This section looks at three special FONASA programmes that positively target their beneficiary income groups. These are the programmes known as Préstamos Médicos (Medical Loans), Seguro Catastrófico (Catastrophe Insurance) and Programa Adulto Mayor (Older Adult Programme), whose equity goals have since been adopted by Plan AUGE (analysed in section IV below).

1. Medical Loans

Medical Loans, also known as “health loans”, are part of the sphere of action of the National Health Plan. They are provided by FONASA to low-income beneficiaries to finance all or part of the amount they are required to pay for health services received from the public-sector provider or from private-sector providers.

Health loans are very important, since they are extraordinary in nature and may be granted to deal with situations where lives are at risk. They can cover:

- The whole of the copayment for services that qualify as emergency treatment or for medicines provided in the specialist surgeries of public establishments
- Up to 42.5% of the total level 1 value of medical care resulting in a programme of treatment or acquisition of orthoses
- Acquisition of prostheses (optical lenses and hearing aids, for example)
- Hospitalization (one night minimum)
- Psychiatric and radiotherapy treatments
- 100% financing for patients undergoing dialysis (this category, now part of Plan AUGE, accounted for the bulk of this type of financing until 2002)
- Surgical operations included in the “Su Cuenta Conocida” (“Know Your Bill”) system of Diagnosis-Linked Payment (Pago Asociado a Diagnóstico (PAD))¹¹

¹¹ Diagnosis-Linked Payment (PAD) is a payment mechanism used by FONASA in Chile. It is an arrangement between the insurer and the provider whereby payment is made for a fixed sum covering a

The baskets of services covered by this method (all subsequently included in Plan AUGE) are:

- PAD Cataracts basket
- PAD Childbirth basket
- PAD Gallstones basket
- PAD Prostatic Hyperplasia basket

Loans may be applied for by FONASA subscribers and their legal dependants (table 6).¹²

As table 6 shows, it is the lower-income groups that are the main recipients of these loans. Furthermore, according to the same source as was used for the table, pensioners and older adults receive 76% and 54%, respectively, of the funds allocated through this mechanism, which confirms that these loans play a compensating role conducive to greater equity.

The principle of gradualism that has been applied in the Chilean health reform is illustrated by the following: in 2003, the amount of PAD resources allocated to the PAD Cataracts and PAD Childbirth baskets fell, essentially because charges were cut and allowances increased for both of these. Then in July 2005, when Plan AUGE had institutionalized medical conditions, broadened coverage and established an enforceable and universal right to treatment for new health problems (see section IV below), these baskets were included in that Plan, so that exceptionality was eliminated as a mechanism for resolving situations of exclusion caused by lack of resources.

2. Catastrophe Insurance

In the mid-1990s the health authorities drew up a register of complex treatment, characterized as being of high cost, being provided by highly specialized professionals, requiring sophisticated and expensive technological support, and accounting for a large proportion of the total spending of public health

set of medical services so that a particular medical condition or diagnosis can be resolved in its entirety.

¹² Those qualifying as indigent (group A) are entitled to free care. Loans are for those who have some income, and are thus required to make a copayment.

TABLE 6

**Chile: Medical loans granted, by beneficiary
income band, 1999 to August 2004**

Income band (in pesos)	Number of loans	Total amount (millions of pesos)	Amount as % of total
0 - 50 000	8 172	8 129	6.6
50 000 - 75 000	24 953	25 920	21.2
75 000 - 100 000	32 616	47 401	38.6
100 000 - 150 000	32 309	19 519	15.9
150 000 - 200 000	20 381	7 447	6.1
200 000 - 250 000	12 510	4 433	3.6
250 000 - 300 000	7 402	3 019	2.5
Over 300 000	13 283	6 983	5.7
<i>Total</i>	<i>15 626</i>	<i>122 850</i>	<i>100</i>

Source: National Health Fund (FONASA) Departamento de Finanzas.

establishments (for which reason waiting lists had been rising sharply) (Jarpa, 2005).

With this information the authorities sought, first of all, to create a programme that would link health priorities to the payment mechanisms in use, with a view to reducing the disincentives to higher-cost treatment provision in the public services, such as the fear of being “marked down” for increasing hospital debt.

A resolution of the Ministry of Health and Treasury (Resolución Exenta 1885 of 28 November 1997) provided guarantees of free treatment for the first medical conditions to be covered by what was legally known at that time as Catastrophe Insurance (Seguro Catastrófico). Products or baskets of products benefiting from PAD financing were defined for this purpose, including medical services (bed/days, tests and procedures, surgery), frequency of use, unit prices and total cost. These baskets (groups of services) were compiled on the basis of expert opinion and reviews of clinical records, supported by Chilean and international studies.

Thus, as health services came to be reimbursed at actual prices for treating the medical conditions now termed catastrophic, they no longer had any reason to maintain long waiting lists. The beneficiaries of Catastrophe Insurance, meanwhile, began to receive 100% financial coverage, with no additional payments. In addition, what was later to become one of the core principles of the health reform began to become established: guaranteed treatment times, along with preferential attention as better information on user rights, a telephone assistance service and a gradually developing complaints system became available.

As table 7 shows, most of the diseases originally covered by Catastrophe Insurance were subsequently “universalized” in Plan AUGE.

AIDS was included among these diseases in 2001, and it too was then covered by Plan AUGE. In 2003, the bulk of the medical services¹³ provided consisted in palliative care (45,712), antineoplastic drugs from the National Antineoplastic Drugs Programme (Programa Nacional de Drogas Antineoplásicas) (11,328), complex cancer tests (8,300) and cervical cancer treatments (7,802). The largest spending items, on the other hand, were dialysis (10.25 billion pesos), heart surgery (9.854 billion pesos) and AIDS (8.83 billion pesos).

Between early 1999 and late 2004, about US\$ 350 million were spent on relieving the financial impact of medical conditions affecting over 200,000 people. In most cases, these costs could not have been met by them individually.

The risk of health problems being compounded by financial disaster has always been there, particularly for those who have private-sector insurance plans with restricted coverage. In fact, as FONASA brought new diseases into its Catastrophe Insurance (AIDS, for example), the Isapres were obliged to offer similar benefits to retain their customers.

Indeed, Catastrophe Insurance opened the way for a debate which culminated in the reform of financial guarantee coverage in Plan AUGE, when it was finally established that subscribers to FONASA and the Isapres would be subject to a maximum copayment of 20% for health problems covered by Plan AUGE, with the

¹³ The difference from table 7 is due to the fact that a given case/person may receive a number of medical services.

TABLE 7

Chile: Catastrophe Insurance, 1999-2004
(Number of cases)

Area	1999	2000	2001	2002	2003	2004 (projection)
Heart surgery ^a	2 730	2 933	3 377	4 267	7 745	9 710
Neurosurgery	1 787	1 952	2 257	3 355	6 052	10 210
Kidney transplant ^b	233	248	218	225	221	236
Liver transplant	24	27	27	26	26	36
Peritoneal dialysis ^b	45	55	61	64	72	91
Radiotherapy ^a	4 492	4 499	4 758	5 096	4 568	7 848
PNDA ^{a c}	104	82	103	956	944	1 172
Immunosuppressive drugs ^b	1 281	1 418	1 639	1 793	2 111	2 145
Scoliosis ^b	251	205	212	263	277	425
Cleft palate ^b	428	595	740	941	1 008	1 427
Major burns	196	271	218	218	212	221
Multiple trauma	88	87	86	82	52	68
Palliative care ^b	4 065	5 662	5 772	6 583	11 428	12 898
Haemodialysis ^b	63	802	823	1 229	1 779	2 549
Bone marrow transplant ^b	4	11	15	18	18	20
Breast cancer chemotherapy ^b	193	518	756	1 169	1 546	1 830
AIDS ^b	0	0	1 657	3 308	4 038	5 700
Cervical cancer chemotherapy ^b	0	0	0	626	469	602
Vitrectomy	0	0	0	740	818	858
Cystic fibrosis	0	0	0	225	280	292
Pre-invasive and invasive surgical treatment for cervical cancer ^b	0	0	0	0	7 902	8 104
<i>Total</i>	<i>15 984</i>	<i>19 365</i>	<i>22 719</i>	<i>31 184</i>	<i>51 566</i>	<i>66 442</i>

Source: National Health Fund (FONASA) Departamento de Comercialización.

^a As of 2005, part is in Plan AUGE and part remains in Catastrophe Insurance.

^b As of 2005, forms part of Plan AUGE.

^c Programa Nacional de Drogas Antineoplásicas (National Antineoplastic Drugs Programme).

additional safeguard of an annual upper limit not exceeding 17%, approximately, of the subscriber's annual income.

3. The Older Adult Programme

The goal of this programme is to improve older adults' quality of life by equipping them with orthotic and prosthetic aids to prevent their functional capabilities from declining, and to expand the coverage of treatment for the most common and costly medical conditions affecting this age group.

The need for special compensating programmes for older adults derives from the low pensioner coverage and benefit levels of the country's social security system, as figure 1 showed. Accordingly, since 2001 older adults have been entitled to free health care under the FONASA Institutional Treatment Method (Modalidad

de Atención Institucional (MAI)), irrespective of income. Those aged 65 and over are expected to make up 9% of the population by 2010, and on present trends the institutional supply of services for them is believed to be inadequate.

The diseases that cause most deaths among older adults are: ischaemic heart disease (i.e., diseases of the coronary arteries), cerebrovascular diseases, and pneumonia or serious lung and bronchial infections. All these are treated under the Older Adult Programme (table 8), which has about 100,000 beneficiaries annually (some 10% of the population in this age group).

The public health system also conducts prevention campaigns aimed at this group, the most important being the so-called "winter campaign". This campaign includes mass vaccination programmes; an expansion in the number of hospital

beds to receive the worst-affected patients who require hospitalization; the preparation of special treatment rooms in surgeries for acute respiratory infections and acute respiratory diseases; and special weekend opening of surgeries in areas where this is called for. The Golden Years Programme (Programa Años Dorados) also provides a food supplement to over-70s who are registered with a surgery in this programme and are up to date with their health and chronic disease check-ups.

All these special programmes and subprogrammes were created in response to needs that were made known by subscribers themselves and that they could not have met on their own, as far as can be judged, had exceptional financing not been made available. As universal provision of all or some services gradually becomes institutionalized under Plan AUGE, targeted compensatory programmes like the ones described will tend to be redefined or subsumed into a broader plan. Indeed, Plan AUGE was created to deal with problems that had been found over time to be of high priority and that were being addressed piecemeal by the programmes mentioned.

TABLE 8

Chile: Beneficiaries of the Older Adult Programme, 2002 and 2003

Older Adult Programme	2002 Number	2003 Number	% change
Lenses	58 550	59 462	1.6
Hearing aids	4 921	4 845	-1.5
Walking sticks	5 542	3 987	-28.1
Wheelchairs	2 265	1 807	-20.2
Walking frames	536	509	-5.0
Ulcer mattresses	1 382	1 123	-18.7
Ulcer cushions	361	313	-13.3
Dental Basket Type I	3 811	2 895	-24.0
Dental Basket Type II	9 694	8 452	-12.8
Other orthoses and prostheses	—	—	—
<i>Prostheses and orthoses subtotal</i>	<i>87 062</i>	<i>83 393</i>	<i>-4.2</i>
Cataracts	7 036	6 994	-0.6
Fitting of pacemaker	1 157	1 233	6.6
Full hip replacement	711	654	-8.0
Partial hip replacement	730	757	3.7
Femur neck fracture, osteosynthesis	1 042	1 207	15.8
Photocoagulation	1 865	1 969	5.6
<i>Catastrophic diseases subtotal</i>	<i>12 541</i>	<i>12 814</i>	<i>2.2</i>
Acute respiratory disease	1 677	1 677	0.0
<i>Overall total</i>	<i>101 280</i>	<i>97 884</i>	<i>-3.4</i>
Spending each year, in thousands of pesos	9 852 961	10 759 008	9.20

Source: National Health Fund (FONASA) Departamento de Comercialización, Subdepartamento de Intermediación.

IV

Plan AUGE (Universal Access with Explicit Guarantees)

1. Background

Plan AUGE, the centrepiece of health reform in Chile, was embodied in law 19966 of 3 September 2004 and came into force on 1 July 2005. This plan established explicit guarantees based on principles of clinical efficiency (resolving the most prevalent health problems), timeliness (treatment deadlines), quality (the use of protocols to standardize procedures) and equity (in financing and access).

As a number of studies have pointed out, health goals need to be compatible with the financial resources available; to establish these goals, furthermore, thought

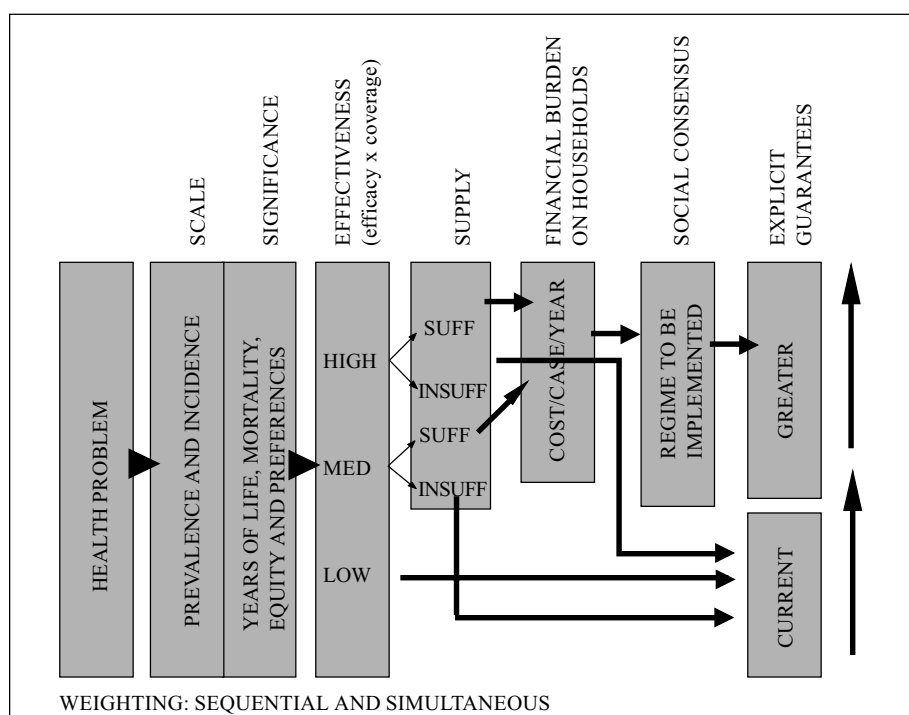
must be given to considerations of sustainability, efficiency, effectiveness and equity (BASYS/CEPS/CREDES/IGSS, 2004).

To ensure that Plan AUGE matched the resources available, a technical parameter was developed by means of a model that prioritized health problems in the context of the Plan, the idea being to provide a firm basis for decisions about inclusion and exclusion and also to guide implementation decisions.

The prioritization algorithm (figure 2) used criteria that are commonly employed to establish health priorities (Ministerio de Salud, 1999), and it represents the logic applied in the general design of Plan AUGE.

FIGURE 2

Chile: AUGE prioritization algorithm



Source: Ministerio de Salud (2002b).

Using criteria of scale (number of cases, adjusted for data quality), significance (years of life lost, mortality, equity and user preferences) and vulnerability (existence of effective treatment), a ranking of scores was constructed to establish health priorities.

The sequencing and structure of Plan AUGE show that it has four priority areas. The first is primary care in the National System of Health Services (Sistema Nacional de Servicios de Salud (SNSS)), which includes an All-round Family Care Model (Modelo de Atención Integral Familiar), with the services and activities that form part of the Family Health Plan (Plan de Salud Familiar). This covers preventive and curative care, delivered by a family health-care team with a family doctor; it also incorporates individual promotional activities, special programmes like mental health and cardiovascular health, preventive tests, general health programmes for children, adolescents, women and older adults, medical check-ups, consultations for acute illnesses, diagnostic tests, referrals to specialists and other activities such as home visits.

The second area is emergency treatment. Plan AUGE requires a review of every area of emergency care to

ensure there is a nationwide treatment system in place that can provide appropriate pre-hospital care, transportation, diagnostics, stabilization measures and emergency treatment to prevent loss of life and functional impairment.

The third area is the ranking of health problems by priority, taking into account their scale, significance, cost, equity gaps and the needs and preferences made known by users themselves, and the search for the treatment methods that will be most effective in resolving these problems in their entirety.

The fourth area is the use of the Personal Health Plan (Plan de Salud de las Personas) to relate the medical conditions included in Plan AUGE with all others, since the Personal Health Plan deals with all health problems not covered by the guaranteed treatment system.

Plan AUGE described the medical services and activities deemed necessary and effective from the point of view of all-round health care, identifying the population that would benefit from universal access, maximum waiting times, the use of standardized evidence-based procedures to assure quality, and the

amount of the copayment and/or deductible that would be considered acceptable in the light of the financial protection concept.

It also established certain conditions for access and related these to the guarantees (for example, people will not have access to emergency treatment in the relevant network for a health problem that is not clinically classified as an emergency; in this case treatment must be refused or the patient must be charged the full cost). Thus, it clearly set out people's obligations as well as their guaranteed benefits and enforceable rights.

It also identified priority tasks that needed to be performed in 2002 and 2003¹⁴ to arrive at more accurate estimates of demand and to develop technical instruments (including performance algorithms or treatment protocols), administrative tools and information and follow-up systems.

2. Review of health priorities

Even before Plan AUGE was approved, it was recognized that it would need to specify the scope of coverage for each medical condition (diagnosis, treatment and follow-up) as well as timescales and quality. The scope of coverage can be interpreted as an adjustment variable to ensure a harmonious relationship between the infrastructure capacity and financial resources available and the level of actual demand in each case.

When the baskets of services were designed and reviewed, account was taken of which services were necessary and appropriate to resolve the illness or health condition concerned in its entirety, and also of the services currently provided by FONASA under the Diagnosis-Linked Payment (PAD) system. For each medical condition, an estimate was made of the frequency of occurrence or number of cases expected. National rates of incidence and prevalence were used where available; otherwise, international rates were adapted on expert advice.

Once these specifications had been arrived at, an assumption was applied to determine expected demand (cases to be treated in one year). For serious, high-cost conditions such as cancer and severe trauma, it was assumed that 100% of cases would require treatment. It was also assumed that between 50% and 70% of chronic diseases, including cases where symptoms were more severe, would generate demand for treatment, and

that this percentage would increase over time as promotion and prevention programmes were introduced or strengthened.

For 35% of illnesses, prevalence or incidence rates were calculated using Chilean data. For another 33%, experts estimated needs and forecast demand on the basis of Chilean and international information, while for the remaining 32% expected demand was forecast from the demand met in the last few years.¹⁵ Recalculation will have to be carried out, chiefly to ascertain accurately the effect that the provision of explicit coverage and marginal price guarantees under Plan AUGE has had on demand, as these guarantees did not previously exist.

Differences in the reliability (coverage) of the initial information had a major effect on subsequent projections. Projections for HIV/AIDS, for example, were based on the demand met in the public sector, and the resulting underestimation meant that shortages of drugs for this disease emerged in mid-2004.

3. Rules to assure quality and timeliness of provision under Plan AUGE

One goal of Plan AUGE is universal access, so the relevant guarantee is that coverage will be available for 100% of the population. Where quality is concerned, the objective, from a technical standpoint, is to identify the set of attributes that will maximize the likelihood of treatment yielding the results desired, including greater user satisfaction, on the basis of current knowledge. The quality guarantee also covers the requirements that providers (establishments and individuals) have to meet to ensure the quality of the service they provide.

Measures to improve quality of care are manifold, as the national strategy described in the National Health Goals (Objetivos Sanitarios Nacionales) makes clear: they include the use of epidemiological methodology and information systems to enhance diagnostic and treatment capabilities, evidence-based medicine, procedures standardized by the health authority and accreditation systems.

Furthermore, in its "Construcción de la propuesta técnica del régimen de garantías en salud Año Base" (Ministerio de Salud, 2002b, Volume I), the Ministry

¹⁴ These were revised subsequently, as the concept of gradualism was introduced in the implementation of Plan AUGE as a whole.

¹⁵ To arrive at these conclusions, use was made of data compilations setting out information sources and the assumptions employed to estimate frequencies.

of Health laid down the following criteria for determining treatment access times for the different groups of problems:

- Perception of urgency or need
- Health problems where treatment delays would cause serious harm
- Health problems declared to be of high priority
- Priority prevention measures

The following access times were determined on the basis of the above:

Immediate treatment: Urgent health problems that pose a risk of death or severe and irremediable after-effects unless treated immediately.

Treatment within 24 or 48 hours: Consultations for acute illnesses. Prioritized health problems for which, as an intervention strategy, preventive or curative treatment is required at specific times and cannot be delayed (for example, care of newborn children, immunization schedule).

Treatment within 7 to 30 days:

- Consultations for non-acute illnesses
- Check-ups after therapy
- Consultations for chronic illnesses that are not in an acute stage
- Consultations with specialists and access to diagnostic procedures

- Evaluation of clinical studies
- Initiation of treatment when the waiting time does not prejudice the outcome

Treatment according to the resolution time that is necessary and practicable for each health problem as measured by:

- Maximum possible waiting time before symptoms worsen or complications or after-effects arise (e.g.: one to three months for elective surgery to deal with a non-acute medical condition currently included in the prompt treatment programme (programa de oportunidad de la atención (POA)): gallstones and prostatic hyperplasia)
- Maximum waiting time within which the therapy is still effective (heart surgery, correction of malformations, hernia of the nucleus pulposus, antiretroviral therapy for HIV/AIDS), depending on severity
- For preventive activities, maximum waiting time that does not affect attainment of the goal (e.g.: frequency of preventive health check-ups for adults)
- In the case of support for basic sense faculties, waiting time that does not affect people's development and functionality (e.g.: lenses, hearing aids, cataract surgery).

V

Financial equity, public-sector provision and payment methods

Once health-care needs have been determined, another important aspect has to be considered: the actual ability of the public sector to provide health services under the Institutional Treatment Method (MAI) with the available financial resources. Since unit costs are lower with the MAI than with the Free Choice Method (Modalidad de Libre Elección (MLE)), efforts could be made to discourage use of the latter, but it does not seem advisable to shift demand to highly congested public facilities. The Reform Commission (Comisión de Reforma) recommended that consideration be given to alternative ways of operating the MLE to boost efficiency and medical impact, such as per capita payments to private-sector providers with responsibility

for a given population or payments per medical condition resolved, and that subscribers be required to opt for one method or the other each year.

There is a long-standing and still unresolved debate about the best methods of payment. A number of studies have looked at the issue of which payment methods can best meet the needs of Plan AUGE in the public health system while remaining consistent with health policy and avoiding possible distortions in incentives.

Change has been faster, deeper and more effective in primary care (Bitrán, Giedion and Gómez, 2004) than in hospital care, which is an argument in favour of payments for services or groups of services provided. Conversely, the historical method of payment, which

is based on past spending unrelated to any specific population or predetermined level of service provision, does not seem to be effective, even though 60% of the Ministry of Health budget is still spent in this way.

The most common proposals are for: i) the adoption of payment mechanisms that link payment to output or results; ii) new mechanisms to make these results enforceable by FONASA; and iii) explicit specification of spending items for public-sector providers which have to be paid for out of a separate budget, or at rates higher than the set prices, for political,¹⁶ technical, legal or practical reasons.

Again, the specialist literature has concluded that the efficiency of payment methods varies depending on the level or degree of complexity of the medical conditions they are applied to. Consequently, there is now a greater inclination to use per capita payments for primary care and gradually extend this method to all types of provision currently paid for through special programmes, when enough epidemiological and financial information exists for this switch to be made. To put it another way, the per capita payment system seems to be easy to implement for the treatment of medical conditions that do not create many uncertainties, either because routine methods of resolving them are strictly prescribed or because they are of relatively low complexity. Nonetheless, payment can continue to be made under special programmes for provision of an exceptional nature.

With the benefit of experience, meanwhile, the health authorities in Chile have been bringing into the Assessed Treatment Programme (Programa de Prestaciones Valoradas (PPV)) a group of programmes of different kinds whose common aim is gradually to reduce the proportion of public health spending allocated on a historical basis. This group of programmes has enabled the best financing methods to be chosen for each situation. The association of payments with specific services (as with PADS) is attractive because it is easy to quantify, but it has been criticized by public service managers on the grounds that it usually fails to take account of the fixed infrastructure, equipment and maintenance costs that have to be met for medical care to be available when needed.

The most important lesson is that, ultimately, there is no one method of payment that is ideal in all circumstances, and there is thus no “cookery book” that

can be used to copy recipes applied in other contexts. The need for good performance in different areas (efficiency, quality, equity) is leading many countries to combine a variety of payment methods with a view to enhancing the favourable aspects of each and mitigating their adverse effects.

1. Copayments

The medical treatment guarantees are partly about making proper use of the funds available, so that copayments are a source of income for public services or the public insurer and represent a key issue in the reform. How effective the system of copayments is at raising more funds will depend on the willingness of individuals to pay for higher-quality services. This assumes that at least some of the resources thus raised go into improving the quality of care, for example by increasing the availability of drugs. In any event, copayments need to be low enough to leave access to care unaffected, but high enough to discourage unnecessary use of medical services.

Most empirical studies that have set out to measure the price-elasticity of health-care demand have found that demand does indeed fall when prices rise, but moderately (price-elasticity below one). This implies that a rise in copayments will mobilize private resources but will have only limited implications for freedom of manoeuvre in reallocating public subsidies, since usage levels among those who pay will vary only very moderately.

A study dealing with Peru (Valdivia, 2002) argues that “the price-elasticities of demand for health services in public establishments would appear to be greater among those of a higher socio-economic level. This being so, a policy of raising charges for better-off individuals in public facilities would result in that demand being displaced to private-sector alternatives, rather than to the medical facilities recovering some of their costs.”

As we have seen, a number of groups were already exempted from copayments before the reform laws were passed: users of primary care, older adults and people suffering from catastrophic illnesses. To prevent abuse of treatment services (moral hazard), however, it is normal practice for copayments to be required. Consequently, maximum copayments of 10% and 20% have been set for services provided to higher-income FONASA subscribers, while copayments of 20% apply to Isapre-provided services included in Plan AUGE. Following the logic laid down by the Executive,

¹⁶ This is a reference to geographical priorities set by the political authorities.

financial protection for health problems covered by Plan AUGE should maintain and/or increase benefits, since health problems have been selected with a view to relieving the burden of illness to the greatest possible extent.

In the case of financial protection too, however, consideration must be given to the cumulative effects that may arise from the simultaneous treatment of a number of problems in one illness or a number of people in the same family. Although maximum copayments have been set at levels that are low for most services, they can add up to large amounts and cause serious financial hardship. To prevent this, a maximum yearly limit has been set, calculated as a proportion of the user's annual income, so that those with higher incomes contribute more in absolute terms.

The law passed provides that the indigent and those without resources (groups A and B among FONASA beneficiaries) are to be treated free of charge. Everyone else (subscribing to Isapres or FONASA) will pay no more than 20% of their treatment costs, in accordance with the scale of charges established for medical conditions

covered by the explicit guarantees. Since this percentage may prove excessive in the case of high-cost illnesses, people will be entitled to 100% financing of copayments in excess of two monthly remunerations or thereabouts, or about 1.47 monthly remunerations in the case of group C FONASA subscribers. If there is more than one illness, annual payments may not exceed three monthly remunerations, approximately.

In view of all the above, the decision was taken to implement Plan AUGE gradually, the result being that treatment for 25 health conditions has been guaranteed since July 2005 (table 9). A further 32 will be incorporated over the coming years, until all 57 medical conditions originally identified in the Plan are covered.

2. Risk compensation funds

Risk compensation funds are vital for equity. In Chile, the insurers (FONASA and the Isapres) have to pay a universal premium for each subscriber and for each of their respective dependants into the Social Compensation Fund (Fondo de Compensación

TABLE 9

Chile: Plan AUGE, coverage in 2005

No.	Health problem	Age group
1	Terminal chronic kidney failure	All
2	Operable congenital cardiopathies	< 15
3	Cervical cancer	All
4	Pain relief for advanced cancer and palliative care	All
5	Severe heart attack	All
6	Type 1 diabetes mellitus	All
7	Type 2 diabetes mellitus	All
8	Breast cancer	> 15
9	Spinal dysraphias	All
10	Surgical treatment for scoliosis	< 25
11	Surgical treatment for cataracts	All
12	Full hip replacement for people with arthrosis of the hip entailing severe functional limitation	> 65
13	Cleft palate	All
14	Cancer	< 15
15	Schizophrenia	All
16	Testicular cancer	> 15
17	Lymphomas	> 15
18	Acquired immune deficiency syndrome HIV/AIDS	All
19	Acute lower respiratory infection, treated on an out-patient basis	< 5
20	Pneumonia acquired in the community, treated on an out-patient basis	> 65
21	Primary or essential arterial hypertension	> 15
22	Non-refractory epilepsy	< 15
23	General oral health for children	< 6
24	Disturbances in impulse generation and conduction requiring a pacemaker	> 15
25	Premature delivery. Prevention of premature delivery. Retinopathy in premature infants. Bronchopulmonary dysplasia in premature infants. Bilateral neurosensorial hypoacusia in premature infants	< 1 month

Source: Prepared by the author.

Solidario (FCS)). The contributions for beneficiaries qualifying as indigent are financed by a direct fiscal subsidy.

The main objective of the FCS is to reduce incentives for the “skimming”¹⁷ practised by the private insurers to hold down costs, as this undermines health-care solidarity. The idea is that the FCS should operate as a cost levelling system so that it makes no difference to these insurers, financially speaking, whether they cover higher-risk groups or not. The goal is that, once resources have been redistributed by risk, the actual revenues of the insurers should be the same irrespective of risk weightings.

For this, a universal premium has to be calculated and then adjusted for the risk weights, of which there may be many, although as a minimum they generally include sex and age. If the universal premium were

higher than a subscriber’s contribution (as with the indigent), the difference would be covered by a fiscal subsidy.

The compensation fund discussed in Chile (it has not been approved) is virtual, i.e., it operates through transfers of balances rather than of the contribution made by each operator in the year the Plan is expected to be operating in its entirety. Although there are different ways of constructing funds of this type, the method applied in Chile was first to arrive at a value for the average health risks of the population. People who are at higher risk, and thus more expensive, will be partially funded from resources paid in by lower-risk individuals, something that implies transfers of funds from insurers with lower-risk subscribers to those with more vulnerable ones. In this case, it is the insurance organizations, not individuals, that receive the funds.

VI

Conclusions

At the time of writing, it is premature to evaluate Plan AUGE and the changes being made to it to ensure that the measures taken are consistent with reality, but this kind of follow-up will need to be carried out and the results presented to the scientific and academic community and the general public.

Everything seems to show that there is no one “right” institutional solution, no single “winning” model that can be applied in all situations to resolve today’s health-care challenges. Here we have described the essential thrust of some partial programmes that existed in the Chilean public sector to improve access to health services for those who lacked the necessary resources, as they were explicitly targeted at these groups. The store of experience built up through these plans has been indispensable, too, to the realization of a scheme as ambitious as Plan AUGE in Chile.

For its part, Plan AUGE will provide a universal, enforceable right to treatment in the public and private health systems for 56 medical conditions, of which some are already covered and the rest will have been gradually included by 2007. This enforceability, combined with universal access, timeliness, quality criteria and financial protection, represents a qualitative leap in equity in the Chilean health system.

Public health spending has never recovered from the low levels of the 1980s and still averages just US\$ 139 annually per inhabitant, which means that the direct fiscal contribution has had to play a compensating role in recent years. This fiscal contribution reduces the initial inequity between public insurance and the private insurance schemes from a ratio of 1:4 to approximately 3:4.

¹⁷ See footnote 4.

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