

Health System Reform in Mexico 1

Comprehensive reform to improve health system performance in Mexico

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This is the first in a Series of six papers about health system reform in Mexico

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Despite having achieved an average life expectancy of 75 years, much the same as that of more developed countries, Mexico entered the 21st century with a health system marred by its failure to offer financial protection in health to more than half of its citizens; this was both a result and a cause of the social inequalities that have marked the development process in Mexico. Several structural limitations have hampered performance and limited the progress of the health system. Conscious that the lack of financial protection was the major bottleneck, Mexico has embarked on a structural reform to improve health system performance by establishing the System of Social Protection in Health (SSPH), which has introduced new financial rules and incentives. The main innovation of the reform has been the *Seguro Popular* (Popular Health Insurance), the insurance-based component of the SSPH, aimed at funding health care for all those families, most of them poor, who had been previously excluded from social health insurance. The reform has allowed for a substantial increase in public investment in health while realigning incentives towards better technical and interpersonal quality. This paper describes the main features and initial results of the Mexican reform effort, and derives lessons for other countries considering health-system transformations under similarly challenging circumstances.

All over the world, countries are innovating their health systems in an ongoing search for universal access, equity, quality, and fairness of financing. During the past 6 years, Mexico (figure 1) has moved forward in this direction. The current health-system reform is focused on the 50 million uninsured Mexicans who had been excluded from participating in social insurance schemes for more than 60 years. The reform established the System of Social Protection in Health (SSPH), which introduces new financial rules for public health and community-based services, as well as for personal health care. The latter is funded through the *Seguro Popular* (Popular Health Insurance), the subsidised insurance-based component of the SSPH that offers free access at the point of delivery to an explicit set of health-care interventions. By far, the major source of funding comes from federal taxes, with complementary contributions by states. Families also prepay a small premium through a progressive, means-tested sliding scale, so that the public subsidy is inversely proportional to family income. The poorest 20% of families are exempt from any contribution. The population that is eligible for enrolment includes all individuals who do not benefit from social security because they are self-employed, unemployed, or out of the work force. Most of them are poor and many live in female-headed households. Therefore, poverty and labour market status are no longer barriers to participating in public institutions for health insurance. The law establishing the new system was passed in April, 2003, and came into effect on January 1, 2004, with the goal of achieving universal health insurance coverage by 2010.

This paper, the first in the Series on the Mexican health-system reform, is designed to introduce the

reform's main features, thus providing evidence and background information for the analytical and empirical studies that follow. A broad overview of the rationale and results of the Mexican reform was provided previously.¹ Here, we now explain this experience in greater depth. We present a brief description of the Mexican health system, including the origin and organisation of its largest institutions, and describe the challenges that the Mexican health system was confronting before the reform. We present the ethical basis and vision behind the reform, and describe how three of the key functions of the health system have been modified by the reform: stewardship, financing, and service delivery. We summarise the progress made during the first 3 years of implementation and identify some of the future challenges. We end with a summary of the lessons learned from the reform process, which might be useful to other countries seeking to improve their health systems.

Background

The foundation of the modern Mexican national health system dates back to 1943 with the establishment of both the Ministry of Health (then the Ministry of Public Health and Assistance) and the Mexican Institute for Social Security (*Instituto Mexicano del Seguro Social*, IMSS). In 1959, the Institute of Social Security and Services for Civil Servants (*Instituto de Seguridad y Servicios Sociales de los Trabajadores del Estado*, ISSSTE) was created to cover public-sector employees and their families.²

Throughout this period, and up to 2003, the population not covered by social security, mainly the poor, was treated as a residual group with an unstable funding



Figure 1: Map of Mexico

source and an ill-defined benefit package. The uninsured population was able to access state and federally run health-service facilities in exchange for a user fee that, despite being means-tested and heavily subsidised, still contributed to the high proportion of out-of-pocket financing of health care. Shortages of medicines at these facilities were common as a result of budgetary limitations and frequently exposed this population to additional out-of-pocket payments. By contrast, health insurance in the social security schemes provides access to care that is free at the point of delivery and is funded through payroll contributions by the employer and the employee, with an additional federal allocation financed from general taxation. In parallel, there is a heterogeneous and poorly regulated group of private providers, many of whom lack accreditation. They served, and continue to serve, uninsured families who have some capacity to pay and the insured population who are dissatisfied with the quality of social security services.

Thus, since its inception, the Mexican health system was organised around a segmented model, which is predominant in Latin America, and marked by the separation of health-care rights between the insured in the salaried, formal sector of the economy and the uninsured. All population segments received their health

services by vertically integrated institutions, each of which was responsible for stewardship, financing, and service delivery only for that particular group (figure 2).²⁻⁵

As of 2000, before the reform, IMSS covered all private-sector salaried workers and their families, accounting for about 40% of the nearly 100 million inhabitants of Mexico. ISSSTE covered an additional 7%, and private insurance accounted for 3–4% of the population. Thus, about 50% of the population was left without access to any form of prepaid health insurance, including about 2.5 million families from the poorest segments of the population, who received only very basic community and preventive health interventions included in the poverty alleviation programme *Oportunidades*.¹

Overall, virtually the entire population had access to some health services, yet the number, quality, effectiveness, and associated degree of financial protection of interventions varied substantially across population groups and was particularly deficient for the poor.⁶

Challenges confronted by the reform

Like most middle-income countries, Mexico is undergoing inter-related processes of demographic and epidemiological transition. The fertility rate fell substantially from 6.8 livebirths per woman in 1960 to 2.1 in 2005.

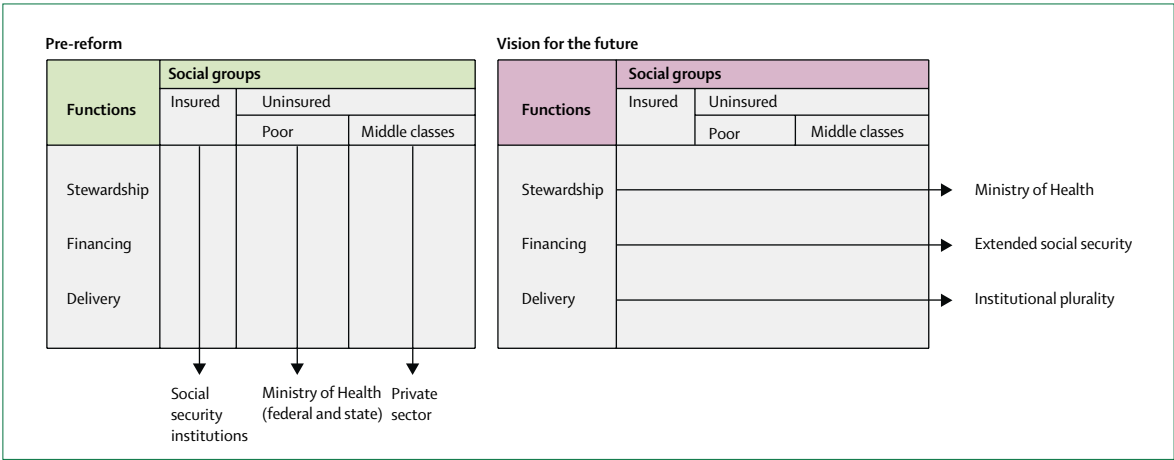


Figure 2: Reorganisation of the Mexican health system
Adapted from Frenk J and colleagues.³

During the same period, life expectancy increased from 57·5 to 75·4 years. As a result, the composition of the population has changed dramatically. Whereas the under-5 age group has decreased in absolute numbers since 1994, the growth of the population group aged 60 years or more is expected to increase at a rate of 4% per year in the next decade.^{7,8}

Although the epidemiological transition is well advanced, the process has been both complex and protracted: common infections, though rapidly decreasing, have not been fully controlled, while non-communicable diseases and injuries now represent the main causes of death and disability.^{1,9,10} Between 1950 and 2000, the proportion of deaths attributable to non-communicable diseases and injuries increased from 44% to 73% and is expected to reach 78% by 2025. By contrast, the proportion of deaths attributable to communicable disease decreased sharply from 50% in 1950 to 14% in 2000 and is expected to fall further to 10% by 2025.¹¹ As a consequence, the health system has been overwhelmed by the need to simultaneously confront, on the one hand, the communicable diseases and reproductive health problems that are associated with extreme poverty and, on the other hand, the rapid rise in the prevalence of costly, non-communicable ailments that affect the entire population.

In 2000–01, as part of the work derived from the current National Health Program, five financial imbalances were identified as the main constraints that prevented the health-care system from responding to the population health needs posed by the epidemiological challenge.¹¹ These imbalances relate to: (1) the low level of overall health spending; (2) the predominance of out-of-pocket spending; (3) the unfair allocation of public resources between the insured and the uninsured, and among states; (4) the inequitable contribution of states to finance health care, and (5) chronic underinvestments in health infrastructure.^{2,11,12}

First, overall spending was insufficient for a country with the level of development and complexity of health needs of Mexico. In 2000, the country was spending only 5·6% of its gross domestic product (GDP)—about US\$350 per head—on health care, which was well below the average level in Latin America (almost 7%). Second, despite being an inefficient and inequitable means of financing health, out-of-pocket spending constituted most of total health funding. As documented by Knaul and co-workers¹³ the proportion of the health system that is funded through out-of-pocket spending is higher than in many other countries with similar levels of economic development and substantially higher than in more developed countries. The third imbalance was the inequitable distribution of public funds among population groups and among states. Although the uninsured accounted for 55% of the population in 2002, they received 34% of public funding for health, which translates into an average level of public per-head spending 2·3 times higher for the insured than for the uninsured. Further, federal expenditure per head across the 32 states was five times higher in the state with the highest expenditure than in the one with the lowest. Differences in state per-head contributions to health care in the same year were even more dramatic, being 115 times higher in the state with the highest expenditure than in that with the lowest. Finally, investment in equipment and new facilities represented no more than 2% of total federal spending for the uninsured.^{11–15}

The reliance on out-of-pocket payments at the point of service placed families at a high risk of impoverishment, as discussed by Knaul and colleagues¹³ and Gakidou and co-workers.¹⁶ Indeed, analyses developed by the Mexican Health Foundation (*Fundación Mexicana para la Salud*, FUNSALUD) and the Ministry of Health showed that every year between 2 million and 4 million households—most of them poor and uninsured—suffered from catastrophic (defined as a proportion, usually 30%, of a

household's income net of food spending) and impoverishing health expenditures (that push household income below or further below a threshold, usually measured in terms of a poverty line).¹⁷

The origin of the evidence on these imbalances dates back to the mid-1990s and demonstrates the important contribution that has been made by local research institutions.^{13,18} This local capacity is the result of key investments that were made over two decades in consolidating and expanding the knowledge base. By use of several conceptual and methodological tools developed by academic and international organisations, and working with other national agencies such as the National Institute of Public Health (*Instituto Nacional de Salud Pública*), FUNSALUD was able to build a system of national health accounts. This policy-oriented analysis revealed the reliance on private, out-of-pocket spending to finance the health system. These findings were reinforced by the comparative assessment of national health systems, published as part of the World Health Report 2000, which identified substantial inequity in health finance in Mexico.¹⁹ This result prompted additional, detailed, country-level analysis by FUNSALUD and the Ministry of Health.^{11,15,17}

The bulk of evidence derived from these national and international analyses, alongside the increasing pressure of the changing health needs of the population and the limitations of the prevailing health system, confirmed the need to undertake a major reform. The essence of this reform was the creation of the SSPH and its health-care insurance component, the *Seguro Popular*.

The advocacy tools provided by the analytical work on health financing had a key role throughout the reform process. The use of evidence was reinforced by an explicit ethical framework. For example, by showing that the insured population was receiving far more public resources than the uninsured poor, it was possible to argue that the current system violated the democratic principle of equal rights for all citizens.

Ethical basis

Although the social right to health protection was formally recognised by the Mexican Constitution two decades ago, in practice not all individuals had been equally able to exercise this right.¹² As discussed above, half the population, by virtue of their occupational situation, enjoyed the protection of social insurance and thus faced fewer barriers to health care than the uninsured.

This type of occupational segregation is incompatible with the notion that access to health care is a human right, as stipulated in the UN Covenant for Economic, Social, and Cultural Rights. Whereas Mexico had made strides in the exercise of political and civil rights as a result of its democratisation process, it was clear that the next great challenge was to ameliorate social inequality by assuring the universal exercise of the right to health care. The term universal in this context has two meanings: covering everyone and doing so without discrimination of

any sort. This is especially important for groups that have been previously excluded from continued participation in the formal sector—eg, female-headed households and migrant workers. This was the over-riding ethical framework in which the reform was presented.

The vision behind the 2003 reform of the General Health Law was to reorganise the health system through the horizontal integration of three basic functions—stewardship, financing, and service delivery. This vision broke with the pre-reform situation that segmented the system vertically by population groups (figure 2). Instead, the reform was designed to reinforce the stewardship role of the Ministry of Health.

To date, the reform has made important steps in this direction. In terms of stewardship, the reform reinforces the role of the Ministry of Health, which includes monitoring, performance evaluation, and regulation of the entire health system. It also homogenises and makes universal the rights of citizens to public financing for health protection, and begins to empower consumers to have greater effect on the delivery of health services while at the same time strengthening the supply side of the health system. We next describe the way in which the Mexican reform has transformed these three critical functions of every health system.^{20,21}

Main components of the reform

Stewardship

The devolution and decentralisation of service delivery from the federal Ministry of Health to the states began in the mid-1980s and continued throughout the 1990s.³ This important step made it possible to focus the stewardship role of the Ministry of Health around coordination, regulation, monitoring, and evaluation. However, this process weakened the instruments that the Ministry of Health could effectively mobilise for steering the system and aligning incentives.

One of the key outcomes of the 2003 reform was to empower the stewardship role of the Ministry of Health by generating instruments to orient financial flows and link supply-side allocations to demand-side incentives. These instruments include explicit rules for financial transfers from the federal to the state level, priority setting through a package of essential services, and certification of health infrastructure. Budget increases associated with the reform are managed with these tools to realign incentives and thus correct many of the financial imbalances outlined above. Such instruments are discussed by González-Pier and colleagues⁹ and Lozano and co-workers.²²

The results of two decades of investment in generating evidence were key factors in strengthening the stewardship capacity of the Ministry of Health as well as to orient the reform. The consolidation of public organisations (eg, the National Institute of Public Health) and the creation of non-governmental agencies (eg, FUNSALUD) about 20 years before the reform

provided an institutional base from which to generate surveys, undertake analysis, and train policymakers.

The role of evidence in guiding policy was itself strengthened as part of the reform. For example, the reform mandated the creation of a comprehensive information system on families affiliated to the *Seguro Popular*. This system is operated by the Ministry of Health and is being used as a roster to identify the contribution level for every family, for assuring transparency in the allocation of resources, and as a management tool that provides information on service utilisation and outcomes.

The reform is also expanding the nature and scope of monitoring and evaluation. Benchmark reports have been published yearly since 2001, using indicators of performance at the systemic, state, institution, and hospital levels.^{14,23–26} The indicators use the most advanced techniques available coupled with data from in-depth surveys designed specifically for the Mexican health system. Reporting indicators at the state level will provide a reference point for the population on how well the system is doing and will put pressure on institutions to improve.

The reform itself is subject to a long-term, rigorous, external evaluation by use of an experimental design that will measure in detail the effects of the *Seguro Popular* on health conditions, effective coverage, health-system responsiveness, and financial protection. For this purpose, longitudinal surveys, designed specifically to measure the progress of the reform, have been underway since 2005. The first set of results will be released at the end of 2006. Gakidou and co-workers¹⁶ and Lozano and colleagues²² use these data and present results that are part of the evaluation process.

Substantive and instrumental projects and programmes aimed at improving coverage, equity, and quality are being aligned as part of the creation of the *Seguro Popular*. One example is the National Health Care Quality Campaign, launched in 2001 to improve technical quality and interpersonal responsiveness. This campaign includes defining patient rights and introduced a process for submitting both complaints and suggestions on how to improve services.

Historically, public-sector health agencies have operated as monopolies, with little consumer choice, responsiveness to consumer needs, or concern for quality. Further, few public or private facilities were subject to a formal accreditation process. Thus the campaign represents a break with the past. It is designed to address these problems by focusing on improving standards of quality in service delivery, while at the same time enhancing the capacity of citizens to demand accountability. The drive to improve quality includes an accreditation process, which is reinforced by the fact that only certified providers are able to participate in the *Seguro Popular*. Additionally, indicators have been developed and implemented to monitor quality. These indicators include waiting times

in hospitals and clinics, as well as distribution and dispensing of pharmaceuticals. Furthermore, arbitration commissions aimed at early containment of malpractice litigation have been established in most states.²⁷

Specific institutions within the health sector have also been strengthened to better perform their stewardship roles. In some cases, this strengthening meant defining new functions for existing entities; in others it implied developing new agencies. One of the most important examples is the General Health Council (*Consejo de Salubridad General*), a long-standing institution created in 1917 as the highest policymaking body in the health sector. Chaired by the Minister of Health, the Council includes the heads of all health-related public institutions in the country, leading experts in the health field, non-governmental organisations, professional associations, and the private sector. The Council is now responsible for a key element of the priority-setting process: the definition of diseases and thus the corresponding treatments and medications to be considered for coverage by the Fund for Protection against Catastrophic Expenses.

On the regulatory side, the Federal National Commission for Protection against Health Risks (*Comisión Federal para la Protección contra Riesgos Sanitarios*) was created in 2001. This regulatory agency, decentralised from the Ministry of Health, provides both an inter-institutional scope (within the health sector) and an inter-sectorial approach for better coordination. The Commission is in charge of regulating critical products and services—eg, pharmaceuticals and health technologies, occupational and environmental exposures, basic sanitation, food safety, and health-related advertisement. Of particular importance is the role of the Commission in the regulation and inspection of hospitals and clinics, since this agency has the mandate to close down providers who do not meet basic standards of quality.

Financing

The underlying logic of the reform is to separate funding of health-related public goods from personal health services (figure 3). This separation of funding is designed to shield public-health activities from being neglected or underfinanced during reform processes centred around demand-driven health-care financing.²⁸ Health-related public goods include stewardship functions (strategic planning, information, evaluation, research, and human-resource development) and community health services. The stewardship functions are financed through the regular budget of the Ministry of Health. The new Fund for Community Health Services is used exclusively to finance public-health activities provided by the federal and state governments.^{2,29}

Funding for personal health services is determined on the basis of an insurance rationale, whereby patients are protected against the financial uncertainty associated with illness. The *Seguro Popular* divides personal health

services into an essential package of primary and secondary-level interventions, which are provided in ambulatory settings and general hospitals, and a package of high-cost tertiary-level interventions financed through the Fund for Protection against Catastrophic Expenditures (*Fondo de Protección contra Gastos Catastróficos*, FPGC). The provision of the essential package of interventions has been decentralised at the state level, since these interventions are associated with low-risk, high-probability health events. By contrast, high-cost tertiary-care interventions require a fund that aggregates risk at the national level and regional or national units that offer the high-specialty services financed by the FPGC.^{2,9,29}

The *Seguro Popular* offers financial protection in health to those Mexicans not covered by other public insurance schemes. Its financial architecture is based on a tripartite structure of rights and responsibilities, which is much the same as the two major social insurance agencies, IMSS and ISSSTE (table 1). This structure provides for solidarity and co-responsibility between levels of government and families. The tripartite financial structure of the *Seguro Popular* includes contributions from three sources: the federal government, a co-responsible contributor, and the beneficiary.^{2,29}

The first component, the social contribution, is a fixed allocation per family, which is funded entirely by the federal government with periodic adjustments for inflation. The social contribution is based on the ethical principle of access to health care as a universal right and is therefore equal for all Mexican families. This contribution ensures equal allocation of federal resources and, consequently, solidarity among all population groups as federal funds come from general taxes.

The second element is the co-responsible contribution, which guarantees solidarity within each population group and redistribution among states. In IMSS this contribution comes from the employer and in ISSSTE from the government in its role as employer. In the case of the *Seguro Popular*, since there is no employer, co-responsibility is established between the federal and state governments to redress the huge differences in the level of development among states. The federal solidarity contribution is on average 1.5 times the social contribution, but is increased for poorer states at the expense of those that are wealthier. The state solidarity contribution is the same in all the states, set at half the federal social contribution, and the source of funding is state-level revenue.^{2,29}

The third component is the family contribution, which is progressive and redistributes family income. In the case of IMSS and ISSSTE, the employee contribution is deducted from the payroll. In the *Seguro Popular*, the amount of the contribution is determined on the basis of a sliding-scale subsidy on the principle that no family should have to contribute more than a fair share of its capacity to pay. To promote financial fairness, capacity to pay is defined in terms of disposable income, which in turn is defined as total household spending less spending

Type of health good	Health good	Financing fund
Public goods related to health	Stewardship Information, evaluation, research, human resource development	Regular budget of the Ministry of Health
	Community health services	Fund for community health services
Personal health services (<i>Seguro Popular</i>)	Essential health-care services (primary and secondary care)	Fund for personal health services
	Highly specialised tertiary care service associated with catastrophic expenditures	Fund for protection against catastrophic expenditure

Figure 3: Relation between types of goods and financing funds in the System of Social Protection in Health

on food. Families in the lowest two income deciles do not contribute financially, but affiliation is conditional on participating in health-promotion activities. For the other income deciles, the family contribution is a fixed, equal proportion of disposable income, with an upper limit of 5%. One nominal contribution is defined for all of the income deciles three to nine, and two levels of contribution were established for the tenth decile owing to wide variation in the uppermost part of the income distribution.

The financial scheme includes several earmarked funds. The largest is the FPGC, which is equal to 8% of the federal social contribution plus the federal and state solidarity contributions. An extra 2% is dedicated to infrastructure investments in poor communities. A reserve fund worth 1% of the total is designated to cover unexpected fluctuations in demand and temporally overdue payments from cross-state service utilisation. These three funds are managed at the federal level to assure adequate risk pooling. The remainder of the contributions is allocated to the states to finance the essential package of health services. The entire family contribution remains in the state in which it is gathered.

Insurance scheme	Contributions		
	Beneficiary	Co-responsible contributor	Federal government
IMSS (salaried employees in the private sector)	Employee	Private employer	Social contribution
ISSSTE (salaried employees in the public sector)	Employee	Public employer	Social contribution*
<i>Seguro Popular</i> (non-salaried workers, self-employed, and families outside the labour force)	Family	Solidarity contribution: split between state-level and federal governments	Social contribution

*In this case, the social contribution is not yet in place, since the required legislative changes are still being developed.

Table 1: Contributions to finance universal social protection in health

This funding model implies an important change in incentives for state governments and providers. Funding for the states is now made on the basis of a formula and this in turn is determined largely by the number of families affiliated to the *Seguro Popular* and is thus driven by demand. In the past, federally allocated state budgets in health were largely determined by historical inertia and the size of the health sector payroll. As a result of the reform, so-called bureaucratic budgeting, which is oriented to meet the demands of providers, is being gradually replaced by what has been called democratic budgeting, which guarantees that “money follows people”. The formula also includes a performance component and a progressivity component to gradually compensate for differences between states.²

Enrolment is voluntary, yet the reform includes incentives for expanding coverage. States have an incentive to affiliate the entire population, since their budgets are determined on the basis of an annual, per-family fee. The voluntary nature of the affiliation is a key component of the process, since it offers incentives for quality and efficiency: if states provide wasteful care, the money they receive will not be enough to meet the demand, but if quality is low, families will not re-affiliate.^{2,29}

Service delivery

Services for *Seguro Popular* affiliates are contracted mostly, but not exclusively, from public providers who are predominantly the 32 state ministries of health. Several initiatives have been developed to strengthen the supply of high-quality health services. Most important among them are three master plans for investment in infrastructure, medical equipment, and human resources.²⁹

In the case of infrastructure, the master plan was designed to provide a long-term framework for expanding the availability and capacity of health-care facilities. Before the reform, there was little incentive to invest in infrastructure and available financing was low. The reform counteracts this problem by increasing public investment over 7 years. This increase is aligned with affiliation, because states have the incentive to serve the

population affiliated to the *Seguro Popular*, since their budgets are tied to enrolment levels. Given that the initial stages of affiliation were focused on the poorest segments of the population, priorities in terms of capital investment relate to these families and are thus highly progressive. To maximise efficiency, funding for new facilities—clinics, health centres, secondary-care hospitals, and specialty tertiary-care hospitals—is determined on the basis of a needs assessment undertaken by the state in all locations. By 2006, 1792 new health units had been built, including four high-specialty regional hospitals in the least-developed region of the country, which includes Chiapas, Oaxaca, and Tabasco (figure 4).

A complement to the master plan for investment in infrastructure is the corresponding plan for investment in medical equipment, which was designed and implemented by the recently created National Centre for Excellence in Health Technology (*Centro Nacional de Excelencia Tecnológica en Salud*). This plan strengthens the maintenance procedures for medical equipment and rationalises the adoption of new technology through evidence-based assessment.

Finally, the master plan for investment in human resources is focused on developing the medical and nursing capabilities needed to meet the changing demands associated with the epidemiological transition and balance a medical labour market that showed problems of urban unemployment alongside shortages in rural areas.³⁰ This plan includes a thorough diagnosis of the supply of physicians, nurses, and other health workers in public institutions by state. On this basis, mid-term projections of supply are estimated and human-resource development recommendations are issued both for training institutions and public providers.

Together with the three master plans, other methods have been developed to improve service delivery. Among them is a set of health cards designed to facilitate early detection and prevention services for specific age groups and sexes. Emphasis has been placed on interventions related to the Millennium Development Goals, including newborn and child health.^{31,32} Important results have also been obtained in the prevention and management of HIV/AIDS. The health cards have been very useful in dealing with chronic non-communicable diseases and risk factors—eg, obesity, diabetes, hypertension and cancer. The programmes for early detection of cervical and breast cancer show encouraging results.¹⁶

The key tool that links the incentives on the supply and demand sides is the package of covered services. The essential package is legally mandated to include ambulatory care and hospitalisation for the basic specialties (internal medicine, general surgery, obstetrics and gynecology, paediatrics, and geriatrics). As of 2006, 249 interventions are included in the package of essential health-care interventions and 17 more are covered in the FPGC.



Figure 4: High-specialty facility in the city of Tuxtla Gutiérrez, Chiapas

The process of defining the package is dynamic. The law stipulates that the package must be progressively expanded and updated annually on the basis of changes in the epidemiological profile, technological developments, and the availability of resources, which means that benefit coverage expands over time not only as new technologies and money become available, but also as new diseases are identified. The covered services are analysed and chosen on the basis of evidence derived from cost-effectiveness analyses and also on ethical deliberations on social acceptability criteria. This approach is illustrated by González-Pier and colleagues⁹ and Lozano and co-workers.²²

Apart from serving as a priority-setting tool from the point of view of stewardship, the notion of a package of interventions is a means of empowering people by making entitlements explicit. It is also a key planning instrument for orienting providers and a blueprint for accreditation since it defines the health services that every provider should offer now and in the future. In other words, defining the package and linking it to the certification of providers generates the conditions for the system to actually deliver the specific interventions that evidence has demonstrated necessary to produce the maximum health gains for a given level of resources.

Advances and future challenges

The reform is producing positive results. The amount of public resources devoted to health has grown substantially; the number of insured families is expected to reach 5·1 million by the end of 2006, in line with the legal mandate to affiliate 14% of the uninsured population per year; and the set of health-care services to which every covered family is entitled has been greatly expanded.

Evolution of financial imbalances

Total health expenditure in Mexico as a percentage of GDP grew from 6·2% in 2002 to 6·5% in 2006 (table 2). In fact, between 2001 and 2006, the budget of the Ministry of Health increased 69% in real terms. Most of this increase is the direct consequence of the mobilisation of additional public resources tied to the reform. On this basis, public health expenditure is expected to continue to increase at a rate faster than private spending. Consequently, by 2010, the Mexican health system is expected to be, for the most part, publicly financed. This expectation is supported by results presented by Knaul and colleagues¹³ that show that catastrophic and impoverishing health expenditure incidents have fallen steadily since the economic crisis of 1994–96. Although part of this improvement is attributed to economic recovery and poverty alleviation through social programmes such as *Oportunidades*,¹ substantial descriptive evidence suggests that it is also associated with the expansion of the *Seguro Popular* and concomitant investments to strengthen service provision.

Indicator		2002	Advances
Level	Health expenditure as a percentage of GDP	6·2%	6·5% (2006*)
Source	Public-health expenditure as a percentage of total health expenditure	43·9%	46·4% (2006*)
Distribution	Number of times public per-head expenditure for insured population exceeds that for uninsured population†	2·3	2·0 (2006*)
	Ratio of federal per-head expenditure on health in the state with the highest figure to that in the lowest	5 to 1	4 to 1 (2004)
State contribution	Variability in the contribution of states to finance health care (variation coefficient)	1·14	1·11 (2004)
Allocation of funds	Ratio of expenditure on payroll to capital investment	59 to 1	7 to 1 (2006*)

*Estimates based on budget data. †Includes federal and state spending.

Table 2: Evolution of the financial imbalances that demanded a comprehensive reform in Mexico

The increase in public funding is also closing the gap in terms of per-head allocations between the population without social security (including *Seguro Popular* affiliates) and the population covered by social security agencies. In the period 2002–06, the ratio of per-head public expenditure between these two groups decreased from 2·3 to 2·0 and will continue to fall with the legislated expansion of the *Seguro Popular*.

Inequities in the distribution of public resources among states have also been reduced. During the reform period the difference in federal per-head allocations to the states fell from five times to four times between the state receiving the largest per-head allocation and the state receiving the lowest. In the same period, the uneven effort by states to contribute to health from their own resources also improved, as shown by the variation coefficient, which fell slightly from 1·14 to 1·11. Finally, the share of public funding allocated to investment in infrastructure also increased.

Coverage

The new financial scenario has made it possible to increase *Seguro Popular* coverage in two dimensions: horizontal and vertical. Horizontal expansion relates to the number of affiliated families, whereas vertical expansion refers to benefits covered (figure 5).⁹

Horizontal coverage is being expanded with criteria that promote equity and fairness, since affiliation started in the poorest groups of the population and is being gradually extended towards those with higher income. The law outlines the plan for horizontal coverage. By 2010, 100% of the currently uninsured population (12 million families) must be affiliated. Therefore, every year about 1·7 million additional families must be covered. Between 2001 and 2003, before the legal reform,

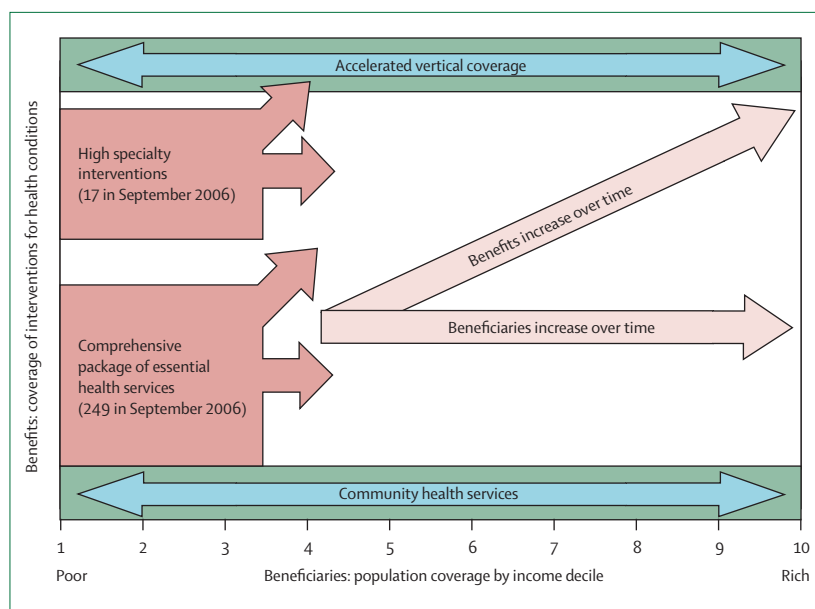


Figure 5: Horizontal and vertical coverage strategies in the System of Social Protection in Health

the *Seguro Popular* operated as a pilot programme enrolling 614 000 families. Since then, the expansion of coverage has proceeded according to schedule and, by September, 2006, 4 million families had been affiliated—the equivalent of almost 15 million people. Thus, the *Seguro Popular* is now the second largest health insurance scheme in the country. Most of the affiliated families are in the lowest two income deciles and therefore not required to pay a family contribution.

Geographic expansion has been a function of the moment when a state entered the new system, how rapidly each state was able to cover particular population groups, and the availability of additional funds. Since early 2005, all 32 Mexican states have been participants in the *Seguro Popular*. In terms of progressivity, in 2000 only 7% of families in the poorest quintile were insured (mainly through IMSS or ISSSTE). By 2004, this figure had increased to 37% as families from this group became insured through the *Seguro Popular*.^{1,26}

Vertical coverage is being extended on the basis of explicit intervention priorities, as described earlier. The services currently covered represent a substantial expansion since the reform began and have shown steady progress since 2003. Today the package of essential health-care interventions covers about 95% of all causes of hospital admissions. The FPGC, in addition to the 17 high-complexity interventions currently covered, also includes a special scheme of accelerated universal coverage for high-priority health conditions that were major causes of catastrophic expenditure by previously uninsured families, including comprehensive therapy for AIDS, treatment of childhood cancers, treatment of cervical cancer at all stages, and cataract extraction. Through the accelerated scheme, any

uninsured person requiring the covered services is eligible for immediate enrolment in the *Seguro Popular*. Interventions covered through both the gradual and accelerated schemes will continue to expand as resources grow in proportion to the expansion of affiliated families.

Future challenges

Although the reform has made progress, several challenges remain. First, additional public funding is required both to continue replacing out-of-pocket spending and to meet the costly demands associated with the epidemiological transition, especially for complex hospital-based interventions. This funding will begin to close the gap between Mexico and other countries in the Organisation for Economic Co-operation and Development and the Latin American region, which show a higher proportion of health expenditure financed from public money.⁶ Although some resources will be obtained by increasing efficiency as a result of the incentives built into the reform, the absolute amount and the share of GDP spent on health from public sources must increase for the health system to respond effectively to the demands of the population, reach universal health insurance coverage, and expand the number of interventions to which affiliated families are entitled. It will also be necessary to further improve the distribution of public resources among populations and states, and to guarantee sustained budgetary commitment by local authorities. A further financial challenge is to achieve the right balance between additional investments in health promotion and disease prevention, on the one hand, and personal curative health services, on the other.

In addition to increased funding, the prevailing institutional fragmentation still represents a challenge to promote a more equitable overall financing structure of the Mexican health system. In this light, further steps to promote the integration of public sources of financing across existing social protection schemes are necessary to ensure adequate risk pooling at the national level, especially for highly specialised tertiary care.

Increasing the client orientation and responsiveness of the health system is a third challenge, especially given the rising expectations of both patients and providers, generated by the process of democratisation of the country and by the reform itself. Citizens must begin to develop greater confidence in public services to be willing to make a contribution and re-affiliate to the *Seguro Popular*; this goal can be achieved only if the health system is able to effectively meet the health needs of the population. To accomplish this goal, several areas must continue to improve: technical quality of care, availability of drugs, choice of health-care provider, availability of care during the evenings and weekends, and waiting times for ambulatory and emergency care, as well as for elective interventions.

Another challenge is to develop a more competitive environment in the delivery network. Vested interests related to monopoly power in health-care provision within the public sector are likely to be threatened by the new law, which enhances patient choice. In the long run, however, this competitive environment will help to create the right balance between quality and efficiency.

Finally, one of the major challenges of the Mexican reform will be to expand the innovations adopted by the Ministry of Health to the social security agencies, including allowing an effective purchaser-provider split and increasing patient choice. In turn, recent innovations in efficient provider organisation and better management practices introduced by IMSS must be made available to the rest of the system. The harmonisation of funding rules and the adoption of similar quality standards in all public agencies could gradually break down the existing institutional barriers and open the doors to a more efficient system.

Lessons

The Mexican experience offers potentially relevant lessons to other countries considering health reform under similarly challenging scenarios. Most developing countries face the combination of a rapid epidemiological transition with an underfunded and overwhelmed health-care system that is unable to respond accordingly. In this context, designing and implementing comprehensive reform proposals on the basis of the three pillars of public policy—ethical, technical, and political—is necessary.^{18,33}

With respect to ethics, the Mexican reform is formulated and promoted on the basis of a set of explicit values and principles that are related to the idea that health care is not a commodity or a privilege, but a social right. The fulfilment of this right can improve the health conditions of the population, the human capital of individuals and households, and the poverty situation of the country. This reasoning is especially appealing given the democratisation process in many developing countries and economies in transition.³⁴

The technical pillar is the product of a long-term investment in institutional and human resource development, and the local use of global, knowledge-based goods that were adapted to the Mexican context. These goods include conceptual frameworks (eg, the WHO framework for health system performance), standardised methods (eg, household income and expenditure surveys), and analytical tools (eg, national health accounts). The investment in human resources over a period of two decades made it possible to adapt knowledge generated worldwide and to gather evidence in support of a major transformation of the health system. This evidence empowered Mexican policymakers in their discussions both with the Ministry of Finance and with the Congress, and guided the design, implementation, and evaluation of the reform.¹

The political pillar refers to the development of a consensus for achieving shared objectives. The Mexican reform benefited from the notion that health is an aspiration of all political forces and can thus generate broad agreements and help enhance social cohesion. The strong emphasis on democratic principles—transparency, accountability, and the empowerment of citizens—also helped to gather support and consolidate much-needed public participation in all issues related to health care. The early involvement of key stakeholders was essential once the necessary changes were acknowledged and policy options had been identified. Part of the political process included intensive nationwide campaigns aimed at raising consciousness and debate on the health reform. Conciliation was pursued between private and public actors, federal and local authorities, patient advocacy groups, trade unions, legislators, and policymakers, around a highly sensitive issue such as health. Finally, phase-in was organised with a gradual approach, which provided the time necessary to generate political acceptance and to develop a local supply response. The *Seguro Popular* has been implemented on the basis of prioritising population groups, states, and localities to provide the right balance of a rapid, perceivable, and progressive supply response that has focused on the poor. Further, the rollout of the *Seguro Popular* was undertaken with a selection of municipalities and states to serve the poorest, but also to do so without any political bias. As a result of substantial effort to increase awareness through evidence, the reform managed to be recognised as an objective shared by all parties and all regions, which greatly facilitated the annual negotiation with the Congress for the annual budget allocations necessary to meet affiliation targets.

Evidence, such as that put forward in this Series, was a crucial element both in developing the model—ie, the technical work—and in promoting legislation and funding—ie, the political work. It will continue to be an essential element in maintaining the momentum of the reform. In this way, the Mexican experience offers a conceptual and practical model that aims to attain the elusive goal of universal coverage, so that every person has an equal opportunity to exercise the right to high-quality health care, with social protection for all.

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All authors participated in the analysis, design, and overall review of this manuscript and all saw and approved the final version of the manuscript.

Conflict of interest statement

J Frenk, E González-Pier, O Gómez-Dantés, and M A Lezana work for the Mexican Ministry of Health and have participated in the development of the reform described in this paper. F M Knaul collaborates on an on-going basis with the Mexican Ministry of Health. As the spouse of the Minister of Health of Mexico, this work is undertaken on a volunteer basis. We declare that we have no other conflict of interest.

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