CATALYZING CHANGE

The System Reform Costs of Universal Health Coverage

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Frederic Courbet/Panos Pictures

Contents

Acknowledgments

We would like to thank McKinsey & Company, a global management consulting firm with deep expertise in health systems, for the preparation of this report.

Our special thanks are also extended to Rony Lenz (University of Santiago) for conducting much of the primary research for the case study on Chile, and to Mukesh Chawla (World Bank) for his extensive support with the case study on Turkey. Our thanks to Aydin Sabahattin (Turkish Ministry of Health); Enis Baris (World Health Organization); and Tuncay Teksoz (Pfizer) for their assistance with the case study on Turkey.

Our thanks to Sam Adjei and Dan Osei at the Center for Health and Social Services, Ghana, for undertaking the costing of reforms in Ghana; and to Nathaniel Otoo (National Health Insurance Authority, Ghana); Chris Atim (World Bank); and Philip Akanzinge (Ghana Health Service) for their assistance and guidance with the Ghana case study. Thanks to Sofi Bergkvist and her colleagues at the Access Health Initiative in India for doing the costing and interviews for the Aarogyasri Trust in Andhra Pradesh; François Diop (World Bank) for his assistance with the case study of Rwanda; and Laura Morlock (Johns Hopkins School of Public Health) for her assistance with the case study of Taiwan.

Reviewers of the report included Enis Baris (World Health Organization), Cristian Baeza (McKinsey), and Mukesh Chawla (World Bank). We are grateful for the guidance of Dan Kress (Bill and Melinda Gates Foundation); Richard Horton (*The Lancet*); David Evans (World Health Organization); Laura Morlock (Johns Hopkins School of Public Health); Michael Birt (Pacific Health Summit); Anne Mills and Dina Balabanova (London School of Hygiene and Tropical Medicine); Jesse Bump (Harvard University); Dai Hozumi (PATH initiative); Lord Darzi (Faculty of Medicine, Imperial College London); and Gina Lagomarsino and Robert Hecht (Results for Development Institute).

Our thanks to Rachel Christmas Derrick for her editorial assistance, and to Lily Dorment (The Rockefeller Foundation) for overseeing the production of this report.

Foreword

Every year health expenses create severe financial hardship for 150 million people and force 25 million households into poverty. This is due largely to the fact that more than three billion people—many of whom are found in the poorest half of the world's population—pay out of pocket for health services. They are forced to choose between impoverishing fees or foregoing needed services, leaving them at risk of falling into a downward spiral of sickness and poverty.

Yet, paradoxically, in most countries around the world, the total amount of domestic resources devoted to health is increasing at an historically unprecedented rate, in parallel with growing national economies. While large amounts of time and resources have been spent on improving the health of people in low- and middle-income countries, not enough work has been done to help strengthen their health systems and provide access for all to appropriate health services at an affordable cost.

Many countries are beginning to embrace universal health coverage (UHC)—defined by the World Health Organization (WHO) as "access to key promotive, preventive, curative and rehabilitative health interventions for all at an affordable cost, thereby achieving equity in access"—as a viable financing mechanism. Although models for UHC vary by country, governments are reorganizing national health systems to share health costs more equitably across the population and its life cycle, instead of concentrating the burden on the few who face catastrophic illness in any given year.

This timely report addresses a specific question: how much does it cost to shift a health system from being predominantly financed out of pocket toward one that is financed using schemes of universal coverage? Using examples from four countries that have made tremendous strides toward achieving universal coverage, the report puts an approximate price tag on these investments. The conclusions indicate that relatively small early investments can set countries on the path toward universal health coverage. This information should be useful to those involved in planning reform, as well as the development partners that support them.

For nearly a century now, the Rockefeller Foundation has been privileged to collaborate with leading experts and national and international organizations to tackle some of the world's most intransigent health problems. We are now working with those same partners to support the transformation of health systems toward universal health coverage, as a strategy for improving the health and financial wellbeing of the countries and individuals in our geographic areas of focus. I trust that this report will inform and therefore support the champions of health financing reform and their partners.

—Ariel Pablos-Méndez, MD
Managing Director, The Rockefeller Foundation

Executive Summary

A global movement for universal health coverage (UHC) is under way, as illustrated by an increasing number of nations working toward achieving UHC. Endorsed by the World Health Assembly through a resolution in 2005, UHC is defined as access for all to appropriate health services at an affordable cost.[1] Universal coverage is associated with better health and equity, as well as financial protection. The systemic resilience provided by universal coverage also contributes to poverty alleviation by reducing catastrophic health expenditures.[2]

This report aims to call health leaders' attention to the importance and enhanced feasibility of establishing the systems and institutions needed to pursue UHC. It also seeks to quantify the transition costs associated with reforming a health system away from one that relies on out-of-pocket payments and towards one in which health expenditures are more evenly distributed.

UHC is defined as access for all to appropriate health services at an affordable cost. Universal coverage is associated with better health and equity, as well as financial protection.

Although many countries would like to move towards UHC, the discussion is often derailed by questions about feasibility and cost. National governments, and the international institutions that support them, often assume that universal coverage is not affordable in the near term for lower-income countries. As lower-income countries grapple with quickly rising total health spending—the result of economic development—they face a fundamental choice. They can continue on the current path of increasingly inefficient and regressive health systems in which out-of-pocket spending for health accounts for up to 80 percent of total health expenditures—a scenario that sends 25 million families into poverty every year.[3] Or they can pool health financing through taxation, social protection or insurance mechanisms to cover large portions of the population.[4] A growing number of lower-income countries have successfully reorganized domestic health financing towards UHC,[5] but many more remain trapped in the out-of-pocket paradigm.

The findings described in this report suggest that the cost of transitioning towards universal health coverage may be lower than assumed. This applies both in the expansion phase and the subsequent deepening of coverage. The costing framework presented in this report, as well as the actual dollar amounts, would be useful as a guide both for national planners exploring health reform as well as for the international donors who support them.

The Journey and Costs of Health System Reform

Achieving universal coverage is a journey and cannot be achieved in a single leap. Making progress requires investment in the foundations of universality—the institutions, systems and processes that hold health systems together. Typically, countries undertake two stages of reform toward UHC.[6] In the first stage, governments set up the foundations for *broad* coverage—that is, coverage that includes a limited benefits package but that reaches a large proportion of the population (e.g., recent reforms in Ghana). In the second stage, usually undertaken by countries at the middle-income level, governments establish the structures and processes that enable them to *deepen* coverage so that citizens who are already covered with basic care receive a more robust package of services (e.g., recent reforms in Chile).

There are three major cost components of health system reform towards UHC:

- **Health-care delivery costs (i.e., expansion of health services)**
- **System reform and management capacity costs**
- **Social and political capital costs**

The fiscal costs of expanding the actual delivery of health care services to the population have dominated discussions of the transition to universal health coverage until now. This is logical, since delivery costs dwarf all other costs. Nevertheless, precisely because universal coverage is a journey, we affirm in this report that investment in system reform and management capacity—the foundations of universal systems—can facilitate progress and, therefore, provide a significant return from modest investments as compared to the service delivery costs.

This report does not focus on the cost of expanded health services, or the social and political processes necessary to achieve reasonable consensus for reform. Rather, using case studies from four countries or provinces that have taken different paths toward UHC—Andhra Pradesh (India), Ghana, Chile and Turkey—this report explores in depth the costs of the transition toward UHC. This includes expenditures such as the creation of regulatory institutions, legal reforms related to service standards, investment in information technology systems and continued work on developing precise protocols and co-payments.

Typically, countries undertake two stages of reform toward UHC. In the first stage, governments set up the foundations for broad coverage…In the second stage…governments establish the structures and processes that enable them to deepen coverage…

For each of the four geographical areas studied, system reform and management capacity costs from the bottom up were identified and examined, with the assistance of those individuals at the center of reform during the period being reviewed. The costs explored included:

Stewardship: The costs of designing the system and planning for its implementation, (which often requires legislation), as well as the costs of building regulatory and program management capacity to ensure that the system is successfully implemented.

Revenue collection mechanism: Costs such as government administration of tax revenues or proactive enrollment and collection of health insurance fees.

Risk pooling: The costs of the setup, fund management and risk equalization functions of the institutions, systems and processes where risk is pooled. This may happen at the national or district level, and often requires the establishment of new institutions outside of the ministry of health.

Purchasing: The costs of the institutions, systems and processes that are created for the purpose of buying health services. These costs may include ensuring minimum quality standards of providers, contracting with providers, monitoring performance and managing claims.

Key enablers: For instance, information technology (IT) systems, health IT cards that identify who is entitled to a particular benefit and who is not, and buildings and physical infrastructure. These costs include both one-time expenses (e.g., capital costs) and recurring ones (e.g., labor costs).

Small Investments, Big Returns

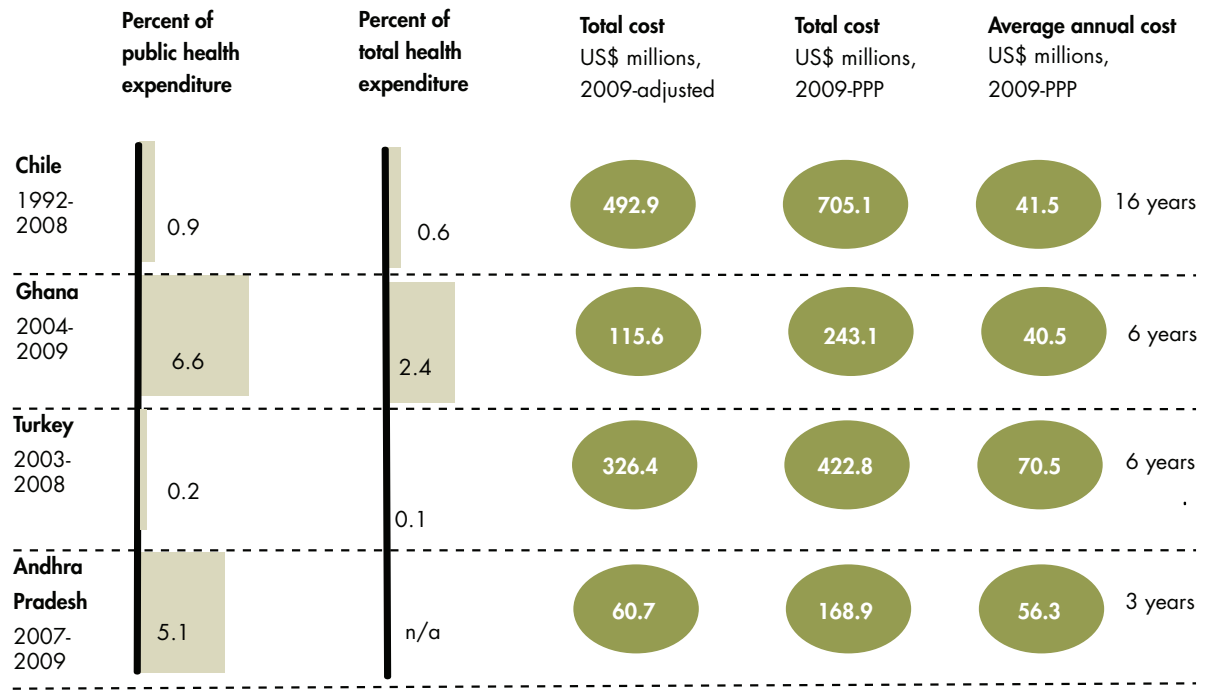
The results of the costing exercise outlined in this report demonstrate that relatively small investments can have a catalytic effect on health systems. Furthermore, in the course of our discussions with health-system leaders, we consistently heard the message that they wished they had devoted greater attention to these investments, precisely because of the influence these institutions hold over all other health system expenditures.

As indicated in **Figures 1a** and **1b** (next page), Ghana appears to have invested approximately 6.6 percent of its public health budget (or 2.4 percent of total health expenditure) over the six-year reform period to establish its system; the reform in Ghana has achieved a coverage of 45 to 70 percent of the population and was accompanied by a subsequent decline in out-of-pocket expenditure from 55 to 35 percent of total health spending.[7] For Andhra Pradesh, the investment was 5.1 percent of the public health expenditure over the three-year period of reform. During that time, coverage was extended from 10 percent to 85 percent of the population.[8]

In absolute terms, approximately $20 million per year reformed and built institutions and enabled systems for years to come. In both cases, public health expenditure started from a very low base: the absolute figures over the period of reform—$115.6 million in Ghana and $60.7 million in Andhra Pradesh—can be considered modest. Indeed, at purchasing power parity, they represent an annual investment of $40.5 million and $56.3 million, respectively, in establishing the systems and entities that constitute the foundation of universality.

Relatively small investments can have a catalytic effect on health systems…

Figure 1a: Costs of System Reform and Management Capacity

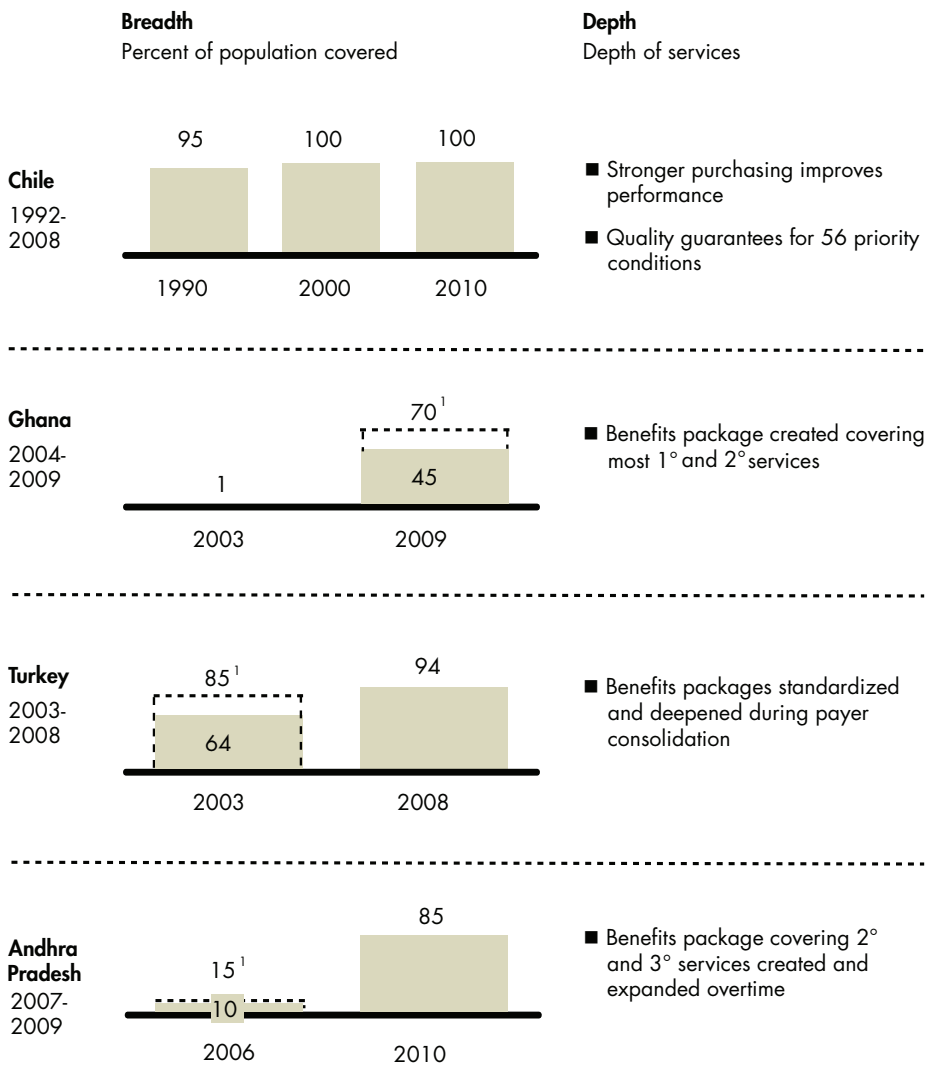


PPP—purchasing power parity

Universal health coverage is perhaps more feasible today than at any point in the past.

Recent reforms in Chile and Turkey have principally focused on deepening coverage for their populations. In both, the system reform and management capacity investment required was less than 1 percent of public expenditures on health, and just 0.1 percent to 0.6 percent of total health expenditures. The example of these two middle-income countries illustrates that deepening services to the population is a sound investment for countries at this stage of economic development.

Figure 1b: Breadth and Depth of Coverage Achieved by Reforms



1 Health insurance coverage rate estimates differ by source and are shown as ranges where available

Investing to Accelerate Progress

Many factors influence the speed and success with which countries can transition to UHC. Pressure from citizens, leadership from heads of state and the availability of a dedicated cadre of committed champions in the ministries of finance, health and labor all help determine when a country moves through reform. Once the decision has been made, countries have to grapple with implementation issues and may require technical assistance or other peer-to-peer support, such as that being offered by the new Joint Learning Network for Universal Health Coverage, which brings together health-financing practitioners from across the globe to share experiences and solve problems.[9]

Though resource constraints remain in many low- and middle-income countries, universal health coverage is perhaps more feasible today than at any point in the past. For some, economic development has raised the appetite and ability of emerging economies to pursue socially progressive goals; debt forgiveness has strengthened government balance sheets; government has greater institutional capacity and capability to meet the technical requirements for transition; and empirical evidence from those countries that have achieved universal coverage demonstrates that it is possible.

So how should countries pay for the transition to UHC? As suggested in this report, this additional expenditure will be only a fraction of the growing total spending in health (approximately 2.5 percent of total health expenditures over the period of reform) and will last only a limited period while the reforms are taking place. To the extent GDP is growing, fiscal space may be available for governments to cover the costs of institutional reform towards UHC. In fact, for many countries the fiscal and political hurdles to reorganize the health system may be lower when health spending amounts to 5 percent of their GDP than once it has reached 10 percent. Nonetheless, the additional cost of reform may be taxing for already-stretched public budgets and should not subtract from spending on basic health services.

The international community has a critical role in supporting country efforts. First, it can create awareness of the economic rationale for UHC and this historic opportunity to transform health systems in an effort to improve health and financial wellbeing. Second, agencies such as the World Health Organization, the World Bank, UNICEF and the International Labour Organization can offer policy guidance and technical assistance—the topic of the 2010 World Health Report, for example, is health systems financing for universal coverage.[10] Finally, the international development community can assist countries with the direct cost of reform from out-of-pocket expenditures to a new health financing platform of their choice.

This report shows that progress is desirable, possible and affordable; it is not, however, inevitable. National governments must invest in system reform and management capacity to pave the way for universal health coverage, and the international health community should support them—through open commitment, technical assistance, and financial support. Ten years ago, the World Health Report 2000 showed us how stewardship influences everything. Today, it is clear what investment it requires to reorganize domestic financing towards universal health coverage. These are smart investments; this is the time to pay the small price for progress.

National governments must invest in system reform and management capacity to pave the way for universal health coverage, and the international health community should support them

Espen Rasmussen/Panos Pictures

CHAPTER ONE

Where the World Stands Today: The Feasibility of Universal Health Coverage

For every individual and family, health comes first. It is precisely because of the importance of health that health system reforms provoke fierce debate over competing approaches, exposing the breadth of political, philosophical and practical differences involved in this transition.

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Universal coverage provokes controversy and debate precisely because it represents a new settlement reached between citizens and government and between individuals and their fellow citizens.

In the midst of these contests, it is possible to lose sight of common goals. There may be strong disagreements about the path to universal health coverage (UHC), but its attractiveness as a destination remains undiminished among many. The achievability of universal health coverage in all countries remains an open question, but national governments, the World Health Organization (WHO), the World Bank and leading health authorities such as *The Lancet* all agree on its validity as an objective of economic development and social progress.

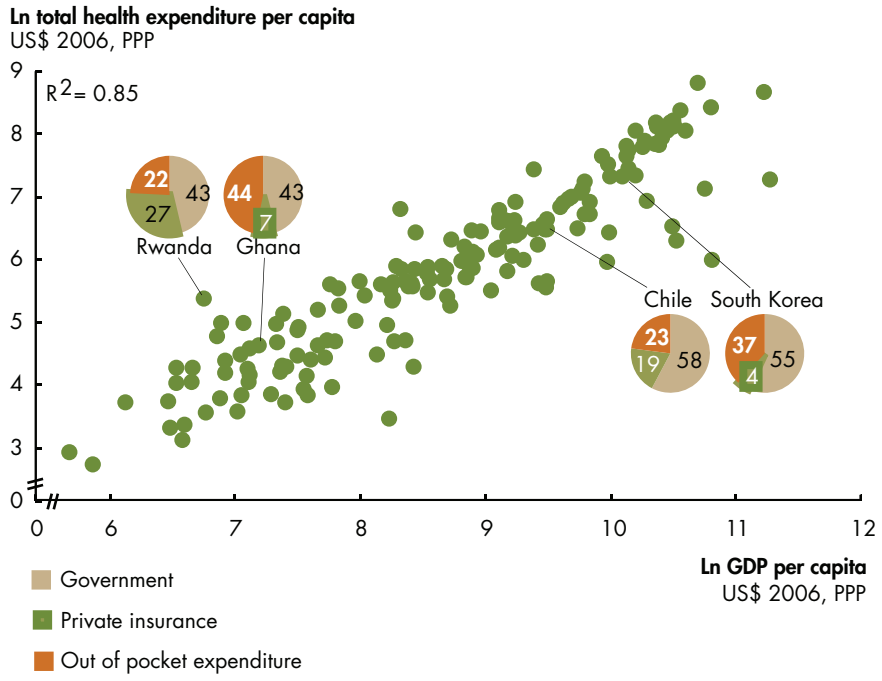
At its meeting in Geneva in 2005, the World Health Assembly (WHA) reaffirmed its commitment to universal health coverage, which it defined as "access to key promotive, preventive, curative and rehabilitative health interventions for all at an affordable cost, thereby achieving equity in access."[11] Implicit within this definition are the related objectives of financial protection (ensuring that health shocks do not lead to impoverishment) and equity (ensuring that household contributions are based on the ability to pay). So the reality of universal coverage is that both *breadth* (the amount of the population covered) and *depth* (the quality of the health benefits package provided by the system in terms of services provided) must be achieved.[12] [13] [14]

Since the WHA resolution in 2005, the world's most populous and powerful nations have made significant moves toward expanding health coverage. Premier Wen Jiaobao declared that the most important accomplishment of the Government of China in 2009 was its proposal for health care reform. At the start of the year, China's State Council had announced its plans, including a promise to provide $120 billion for universal access to primary medical care by 2011.[15] India continues to see innovation at a state and national level in health coverage—with a plurality of programs aimed at broadening coverage. The year 2010 saw the United States also pass sweeping health care reform legislation.

Universal coverage provokes controversy and debate precisely because it represents a new settlement reached between citizens and government and between individuals and their fellow citizens.[16] The two universal coverage reforms that gave rise to health system archetypes, that of Germany in 1883 and the United Kingdom in 1948, both emerged as the manifestation of a new social settlement. Under Chancellor Otto von Bismarck, Germany had unified and emerged victorious from a war with France. Writing in 1942, British reformer William Beveridge recognized that a second world war just two decades after the "war to end all wars" meant a fundamental change in the relationship between citizens and the state in Britain.

Today, as the world struggles to emerge from the financial crisis with capital markets cowed, rich countries laden with heavy debt burdens, and fresh confidence burgeoning in emerging economies, it is clear that the *zeitgeist* has fundamentally changed. Could this prompt new settlements and usher in an age of real progress toward UHC? At this point, it is impossible to be sure. The full effects that may appear obvious in years to come cannot be defined now. What is clear is that the global economic downturn has led to an ideological renaissance of notions of solidarity and social protection. There may not be a consensus on the legitimate bounds of government action, but public expectations have been raised, and the consequences are yet to play out fully.

Figure 2: Health Expenditure per Capita and GDP (with illustration of out-of-pocket spending)



Ln—natural logarithm; PPP—purchasing power parity

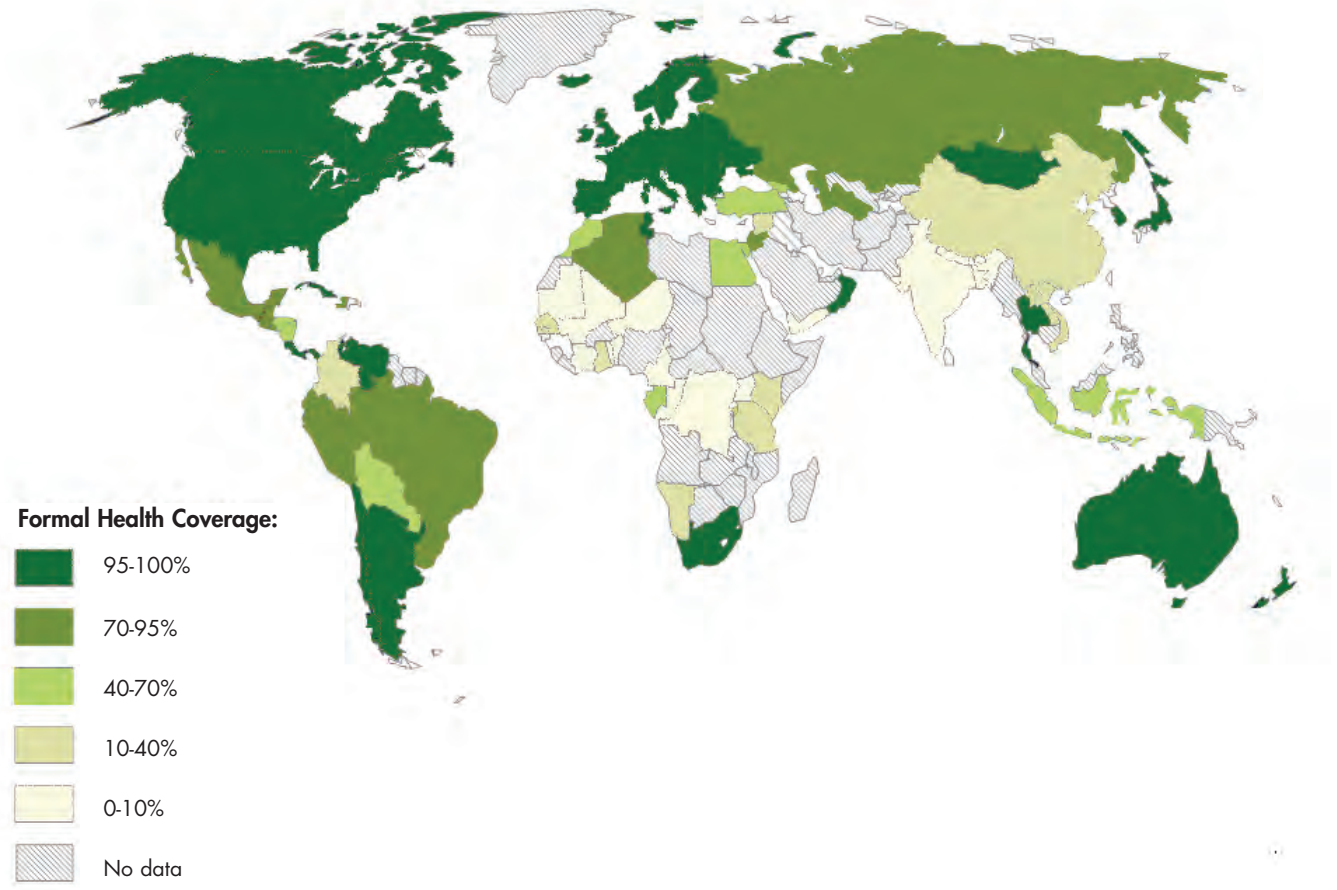
Source: WHOSIS; World Economic Outlook Database, International Monetary Fund

There are underlying structural shifts that improve the feasibility of universal coverage. According to current estimates, the world currently spends some $7 trillion annually on health.[17] As we can see in **Figure 2**, health expenditure per capita is strongly correlated with overall GDP per capita. As countries become more wealthy, they devote greater resources to health. The chart also shows how countries with relatively similar GDP per capita and health expenditure per capita have significantly different spending *mixes*. In particular, the level of out-of-pocket expenditures varies dramatically. Thus, as Figure 2 suggests, countries such as Ghana and Rwanda have similar GDP per capita and health expenditure per capita, yet Ghana has a significantly higher level of out-of-pocket spending in health compared with Rwanda.

Given the strong correlation, as countries face rising expenditures, they have a choice: they can aim to influence the mix of health expenditure (the proportions that are out-of-pocket rather than prepaid) through social protection or insurance mechanisms or not.

Countries with relatively similar GDP per capita and health expenditure per capita have significantly different spending mixes…

Figure 3: Global Formal Health Coverage



Note: International Labour Organization defined coverage as the population formally covered by social health protection (e.g., under legislation, without reference being made to effective access to health services, quality of services or other dimensions of coverage), explaining the depiction of the USA and South Africa

Source: Data compiled by the International Labour Organization, 2008, from multiple sources; mapping by the Results for Development Institute (R4D)

UHC is desirable because it improves health outcomes through greater access to health services and provides people with financial protection against the costs associated with illness.

The Desirability of Universal Health Coverage

Many countries have achieved universal health coverage and many others have set themselves that aspiration. A simple mapping of rates of formal health coverage is revealing. **Figure 3** shows the extent of coverage globally; coverage rates are high in Europe and North America, with substantial progress having been made in Latin America and parts of Asia. Africa, the Middle East and South Asia continue to face low levels of coverage.

UHC is desirable because it improves health outcomes through greater access to health services and provides people with financial protection against the costs associated with illness. Health shocks, through sickness, accidents or aging, remain leading causes of impoverishment of households in countries which lack adequate health coverage.[18] Where coverage rates are low or the depth of coverage is inadequate, payments for health care are made out of pocket. Increased spending on health care reduces income available for other purposes, can require a depletion of savings or assets or both, and may shift households below the poverty line. Universal coverage creates risk pools that provide households with financial protection.

By shifting to risk pooling, countries may be able to unlock consumer savings and provide a boost to domestic consumption, unleashing new economic growth.

To achieve these aims, health systems should be able to:

- **Direct resources toward appropriate services.** This means focusing on areas where the greatest health gain is seen for what is invested. Since universal health systems cover whole populations, they have a strong incentive to invest in cost-effective primary and secondary prevention. Not every preventative intervention is economical, but universal systems have a strong incentive to identify and implement those that are.

- **Capture scale economies.** Strategic purchasing of health services and procurement of pharmaceuticals, medical devices and consumables should be more efficient than sub-scale purchasing. Scale also means that management and administration costs are spread across a greater number of beneficiaries, keeping these costs low (on a per capita basis).

Some health system leaders have suggested that the fact of universality may indeed strengthen political will and public support for greater public investment in the health sector. Above all, it means the health sector can reap the fruits of general economic expansion, as it ensures that the mechanisms are in place to take the proceeds of growth and put them toward health investments. Having these systems and processes in place strengthens the hands of ministries of health when they ask for higher priority and seek a greater share of government spending.

Universal health coverage is not, however, a panacea. The fact of universality does not necessarily imply efficiency or effectiveness. Specific design choices—such as the level of competition or incentives for innovation—can have significant influence on system performance. There are also risks in the transition itself. Such large-scale change requires the expenditure of great stores of social and political capital. The transition must overcome vested interests in the status quo, and may be plagued by the ever-present risk of great plans but poor implementation.

The Feasibility of the Transition

As the World Health Assembly (WHA) definition of universal health coverage makes clear, UHC requires broad access to an appropriate package of care. In low- and some middle-income countries, the capacity of the health sector—both capital assets and human resources—is simply too low to achieve universal access to *essential* services immediately.[19] For most countries, therefore, universal coverage must be a *journey*. The experience of those countries we have profiled demonstrates that substantial progress can be accomplished relatively rapidly by investing in the proper institutional foundations.

The good news is that transitioning toward UHC is more feasible today than it was just 20 years ago. Many countries that were once considered "third world" are now emerging markets with greater national wealth. The economic success of parts of the Global South—most notably China—has transformed both the appetite and the ability to pursue socially progressive goals such as UHC. Furthermore, debt forgiveness has freed up government budgets so money is available for this purpose. According to the World Bank and International Monetary Fund, debt forgiveness has led to an increase in expenditures toward poverty reduction.[20]

Nevertheless, this should not obscure the fact that significant resource constraints still afflict health systems in low- and middle-income countries. The majority of such nations face this problem, most notably in the form of a lack of human resources available for health initiatives.[21] Many low-income countries remain severely challenged by communicable disease, and middle-income countries face a shifting disease burden toward costly chronic disease.[22]

Governments now have greater institutional capacity and capability to meet the technical requirements necessary for transition. Economic growth and donor-funded capacity-building programs have provided greater resources. Advances in technology are also spurring progress. Information technology (IT) systems, for example, improve the ability to implement reforms, help to drive down corruption, and thus ensure that resources dedicated to health care are actually spent on it. Indeed, some health system leaders have suggested that advances in IT and decreases in its cost have sped the implementation of UHC.

Empirical evidence from countries that have successfully made the transition—across the Americas, Asia and Europe—suggests that UHC is feasible. Economic development alone, however, is no guarantee that this goal can be achieved. Thailand, for example, has accomplished universal coverage, while some resource-rich countries in the Middle East have not. Indeed, feasibility and action may be related, but are not the same.

Financial concerns aside, another factor fueling UHC is international policy consensus in favor of this trend. National governments from Africa to Latin America to Asia have set UHC as their goal. International institutions—such as the World Health Organization (WHO), the World Bank, the International Labour Organization (ILO) and the International Monetary Fund (IMF)—support universal coverage as a policy objective.[23] Donors, including G8 countries and global foundations, are committed to helping countries achieve universal coverage.[24] Many leaders in the global health movement have rallied to the call of health coverage for all.[25]

Stronger government balance sheets, technological leaps and the power of the example of others, combined with what we have observed from case studies, might even suggest that the pace of universal health coverage reforms is accelerating.

Abbie Trayler-Smith/Panos Pictures

CHAPTER TWO

Framework for Planning the Transition

When planning the transition to universal health coverage (UHC), policymakers need to determine their overall strategy to achieve that goal—and to understand the costs associated with it.

G.M.B. Akash/Panos Pictures

Different countries…have pursued various strategies to achieve UHC in the face of different challenges…Lessons can be learned from both successes and failures…

Different countries, and provinces within countries, have pursued various strategies to achieve UHC in the face of different challenges. For those regions that have moved toward accomplishing universal coverage, the level of spending on health varies enormously, as do the system design choices and the sources of financing. Four geographical areas that illustrate some of these distinctive choices and challenges, along with the costs involved, are:

- **Andhra Pradesh, India**
- **Chile**
- **Ghana**
- **Turkey**

Four other locations whose transition to UHC can be more briefly examined are:

- **Rwanda**
- **South Korea**
- **Taiwan**
- **Thailand**

Lessons can be learned from both successes and failures, and so the selection of case study countries does *not* imply a specific endorsement of the paths nations took or the decisions they made. In all these cases, reform efforts have led to substantial changes—with varying degrees of success.

Stages of Health System Development

The set of countries and regions described above illustrates different system design choices, income levels and financing sources and mechanisms, as well as broad geographic variety. Case studies are also spread across the spectrum in terms of their stages of health system development. As Hsiao and Heller have noted,[26] these stages are typically linked to countries' income levels. This does not imply that progress is either uniform or linear, but that countries of similar income levels share challenges and their systems have common characteristics. Furthermore, as incomes change, so too does the disease burden and the way health systems adapt to address it. The stages of health system development are identified as:

- **Stage I: Low-Income Countries.** Communicable and infectious diseases are the leading cause of illness and death. Much of the population lacks access to basic sanitation. Per capita spending on health is low in absolute and relative terms. The lack of human resources for health services is a huge challenge. The private sector plays a significant role in provision. Out-of-pocket expenditures account for around half of all spending. The case studies from this stage include **Andhra Pradesh**, **Ghana**, **Rwanda** and **Thailand** at the beginning of its transition to UHC.

- **Stage II: Lower-Middle Income Countries.** Disease burden begins to shift toward chronic disease, though communicable and infectious diseases remain a significant challenge for much of the population. Per capita spending on health remains low in absolute and relative terms. The availability of human resources for health is improved, but is still a significant problem. For this stage, case studies include **Thailand** today and **Chile** and **Taiwan** in the initial phases of their transition.

- **Stage III: Upper-Middle-Income Countries.** The disease burden decisively shifts to chronic disease. Per capita spending on health ranges from "modest" to "high," depending on the design choices of the system. Specific issues exist in the distribution of health professionals, but overall, availability is less of a constraint. Financing and provision systems become more distinct. Case studies for this stage include **Turkey**, **Chile**, **South Korea** and **Taiwan** during the later phases of their transitions.

- **Stage IV: Advanced Economies.** The disease burden is dominated by chronic ailments. There are high levels of spending and a strong focus on cost containment, either leading to rapidly rising spending or rationing. The supply of health professionals is not a major issue. Financing and provision systems are typically split, and universal coverage is achieved. Case studies for advanced economies are not examined in this report.

Figure 4: Health Financing Revenue Collection Mechanisms

Type of Collection	Description	Example
GENERAL TAXATION/ OTHER GOVERNMENT REVENUES	■ Funding comes from the national budget, which consists of revenues mainly from general taxation	■ National Health Services (NHS)
PAYROLL-TAX	■ Contributions are made usually in the form of payroll taxes, which make the formal workforce eligible for health services	■ Social security organizations
RISK-RATED AND FLAT PREMIUMS	■ Contributions are paid according to individual health risks and usually rise with age	■ Voluntary or mandatory health insurance systems
PERSONAL SAVINGS (E.G., OUT-OF-POCKET)	■ Payments from own savings made at the point of service, alternatively personal savings are mandated to be eligible for coverage	■ Individual health provision, personal medical savings program

Source: WHO, World Bank, IMF, McKinsey

The experiences of the countries listed above illustrate that two unique dimensions of UHC—breadth and depth—make different requirements of their health systems, and have different costs associated with them. Countries typically pursue one of two general strategies to achieve basic UHC:

- **Broad then deep:** Extending a broad package of health services to much of the population, then deepening coverage to include a greater range of interventions at higher standards over time. Examples of this approach include **Andhra Pradesh**, **Chile**, **Ghana**, **Rwanda** and **Turkey**.

- **Deep then broad:** Targeting specific groups with a relatively deep package of services, then extending to broader groups step by step over time until universality is achieved. Examples of this approach include **South Korea**, **Taiwan** and **Thailand**.

The actual journey is not as linear as the description above may suggest. Instead, *general* strategies—either broadening or deepening—tend to dominate over specific periods of time. Accordingly, there are two phases of system reform and cost management under each strategy.

When countries pursue a path of "broad then deep," the first phase of broadening typically requires investment in the initial setup of the system. In Ghana, for example, this included the costs of creating the National Health Insurance Authority. In Andhra Pradesh, it entailed the creation of the Aarogyasri Trust, while in Turkey and in Chile, it required the initial creation of a ministry of health and a national health service. In the "broad then deep" scenario, the second phase of transition typically consists of creating a more sophisticated set of institutions, including payers and regulators, to raise provider performance and to thus deepen the package of services available to the population.

For those countries that pursue the "deep then broad" strategy, implementation progresses differently. Institutions and mechanisms are typically created over time for each population group that is covered, which can lead to extensive duplication. This characterizes the first period, which may last many decades, as was the case in Taiwan, South Korea and Thailand. Thailand subsequently undertook a second period of reform—distinct from incremental extension by group—that focused on consolidation to extend coverage to the remaining uninsured and to expand the size of the risk pool.

In most of the geographic regions that serve as case studies, the health system relies on multiple financing mechanisms. **Figure 4** illustrates the four core mechanisms that are used for revenue collection. Precisely because no single mechanism is likely to provide adequate financing, low- and middle-income countries appear to raise revenue through a mixture of these four approaches.

The Transition Costs of Universal Health Coverage: Three Pillars

Building on work from the World Health Report 2000 and other research in the field, it is possible to identify three pillars of UHC transition costs: health care delivery costs; system reform and management capacity costs; and social and political capital costs.

- **Key health care delivery costs:**
  Service provision costs. These encompass the capital costs of additional health care facilities such as clinics or hospitals, and the operational costs of increased utilization, such as labor and consumables.
  Resource generation costs. For many countries, achieving universal coverage would also require significant investment in human resources for health: educating and training health care professionals who range from community health workers to fully qualified doctors.

- **Key system reform and management capacity costs:**
  Stewardship costs. These are for both the system itself (e.g., the building of regulatory capacity) and the coordination of a reform program.
  Revenue collection mechanisms costs. These include the cost of building revenue collection mechanisms, and vary considerably according to system design choices.
  Risk-pooling costs. These include expenses for the institutions, systems and processes where risk is pooled and managed.
  Purchasing costs. These include the expenses of the institutions, systems and processes that are created for the purchasing of health services.
  Cost of enablers. Key enablers include information technology (IT) systems; these expenses include both one-time costs (e.g., capital costs) and recurring ones (e.g., labor costs).

- **Social and political capital costs:**
  Social capital costs. These are the expenses incurred by civil society, health care stakeholders and the general public in pursuing universal coverage.
  Political capital costs. This is what it costs political leaders to advance the universal health coverage agenda at the expense of competing political priorities and with the expectation of gleaning political dividends.

Achieving UHC requires investment in each of these three pillars. Health care delivery costs are by far the largest expense involved in this transition, dwarfing system reform and management costs as governments work to subsidize those who are covered by the system but are too poor to make their full contribution to overall costs.

It is important to note that investing in system reform and management capacity does not imply that the full cost of an expanded health care delivery system must be incurred immediately. Countries can progressively expand the proportion of the population that is covered, and the depth of that coverage, according to the resources that are available.

Furthermore, policymakers have suggested that the intrinsic importance of these system reform and management capacity costs has been underestimated. Many of these expenses are associated with stewardship, as they include the costs of establishing the principal institutions within a health system, notably payers and regulators.

The World Health Report of 2000 highlights the importance of stewardship, noting that it "affects everything" and has a "profound influence" on health systems' other primary functions (defined as service provision, resource generation and financing). Other research has also noted the importance of stewardship.[27] In short, these are the foundations of universality, and investment in these institutions enables progress.

Exploring the Foundational Pillar of UHC Reform: System Reform and Management Capacity Costs

Achieving universal health coverage is a system reform and management capacity issue in addition to being a challenge in terms of financing the expansion in health care delivery costs. In order to understand these costs, one must understand the component parts of the *system* itself—the institutions, mechanisms and processes that hold it together. The framework proposed here suggests that five core elements of cost are typically involved in universal health coverage systems. Each of the five elements is explored below (and summarized in **Figure 5**).

In establishing universal health coverage, **system stewardship** takes the leading role. This cost category includes essential tasks such as *system design*—the process of drawing up the technical design of the system and planning its implementation—as well as *program management* and *performance management* to ensure that it is successfully implemented. *Stakeholder management* is an important element here. Many UHC implementers report that they paid little attention to this early on in the process, especially in the beginning design phase, but came to realize its significance later.[28] Finally, where a market system of insurers exists, there may be the requirement for *market regulation* of private-sector participants for consumer protection.

Health systems require mechanisms to be in place for **revenue collection**, which is our second category of cost. This is essential to ensure that the health system has the necessary resources to deliver care. In this particular element, the costs vary considerably according to the design choices that are made. Different systems require very different revenue collection mechanisms. For example, systems that follow Britain's Beveridge model, such as that of Andhra Pradesh, finance the health system through general tax revenues. As a consequence, the only costs are those associated with *government administration*, and are therefore marginal. Systems that require proactive *enrollment and collection* of fees, such as the system created in Ghana, demand a distributed network of enrollment points and collection agents. These extend the revenue collection costs.

As health systems advance, they are able to constitute **risk pools**. The particular size of the group will vary, even in universal systems. In Ghana, for example, risk is

pooled at the district level, while at the national level, a central fund provides subsidies to the local districts. In Taiwan, as this nation established different payers for different population segments, risk was pooled at each of these segments. As these examples illustrate, there are three components to risk pooling: the initial *setup*, the ongoing *fund management* and any *risk equalization* functions (such as the rudimentary system created by Ghana).

In some respects, the essence of a system is for it to collect and redistribute resources to actors within it. Consequently, **purchasing** is an essential element, and its costs need to be evaluated. The first step in purchasing is defining which providers are included within the system and which are not. This can be described as *network management*. It typically requires the specification of minimum standards that providers must meet. It also requires understanding what costs are associated with *contracting* with providers—the process of defining what will be purchased, at what volume and for what price.

Once contracting has taken place, there is a requirement for the *monitoring* of performance by providers against the specification set within the contracts. In those systems that employ activity-based payment mechanisms, there is the cost associated with *claims management*—the process by which providers are reimbursed for their work. Finally, there is an initial *setup and administration* cost that is associated with the creation of purchasing institutions (known as payers).

Also vital are the key **enablers** of health system reforms. The first, and perhaps most important, is *information technology* (IT), as systems work on the basis of intelligible information, generating and demanding data in order to function efficiently and effectively. A second enabler is the use of *health cards* that allow a system where enrollment is optional to recognize who has made a contribution and is entitled to a benefit and who is not. The final elements in the enablers section are *buildings and estates*, which allow the institutions that are created to have adequate accommodation to function effectively.

Figure 5: Framework for System Reform and Management Capacity Costs

SYSTEM STEWARDSHIP	■ **System design:** Policy and technical investment required to define vision for system and overall implementation plan ■ **Program management:** Prime Minister's Office function to coordinate implementation of system reform vision ■ **Stakeholder management:** Cost of engagement and communications with stakeholders to ensure alignment behind transition ■ **Performance management:** Creation of a performance management function to manage relationships with elements of system ■ **Market regulation:** Set up costs of market regulator where private insurance is an element of the overall solution
REVENUE COLLECTION	■ **Enrollment/Collection networks:** Creation of distributed network of enrollment/collection agents to collect contributions ■ **Government administration:** Costs associated with implementation of new payroll or other taxes for financing health system
RISK POOLING	■ **Fund set up and administration:** Creation of a new institution to administer health system funds ■ **Fund Management:** Ongoing management of funds (e.g., auditing, accounting) ■ **Risk equalization:** Costs of a risk equalization design, analytics and processes
PURCHASING	■ **Network management:** Specifying minimum standards and determining which providers are included within network ■ **Contracting:** Cost of drawing up and negotiating contracts with health system providers ■ **Monitoring:** Creation of systems and processes to monitor provider performance ■ **Claims management:** Costs of defining claims management processes and regulations ■ **Set up and administration:** Administration costs of building new payer institution (where applicable)
ENABLERS	■ **Information technology:** Infrastructure costs to support insurance systems ■ **Health cards:** Issuing cards to contributors to determine who is eligible for benefits ■ **Buildings and infrastructure:** Investment costs of office facilities

Source: McKinsey

One critical element of cost is management capabilities on the **provider side**. These expenses may be specific to a single participant rather than specific to the *system* itself. It is certainly the case that a more sophisticated and demanding system places stronger requirements on the management of the provider side. This does not, however, imply that provider management is central to the actual system or its capacity to function.

It is not possible to create a framework that covers every component of all systems. The framework above is designed to address the main elements. For each system, there will likely be costs that are not in the framework, and not all costs identified by the framework will actually be incurred. Nevertheless, this should serve as a useful tool for policymakers as they seek to anticipate the system reform and management costs that they are likely to face as they transition to universal health coverage.

Chien-Chi Chang/Magnum Photos

CHAPTER THREE

Case Studies

An in-depth study explored the history and system reform and management capacity costs for four systems transitioning to universal health coverage (UHC): those of Andhra Pradesh (in India), Ghana, Chile and Turkey.

Zackary Canepari/Panos Pictures

The aim of this analysis was to understand the origins of reform, the ways in which it proceeded, the changes that were made to the systems involved and the outcomes that were achieved. A system reform and management capacity costing framework was used in studying the first four geographical regions. The description of costs, however, is only an estimate. Data was not collected systematically by countries, and has been reconstructed from the bottom up. These estimates were made using several methods, including in-depth discussions with leaders involved in health insurance reform in their respective countries, a literature review and analysis of health budgets over time (i.e., from ministries of health, payers, regulators, etc.). Leaders were selected based on level of involvement in reform, role of involvement in reform and willingness to participate in this study.

These estimates should give an *indication* of the scale of the costs involved. There is no claim to absolute precision, and some elements will undoubtedly have been missed. Nevertheless, as policymakers consider universal coverage reforms, and as donors reflect on the support they can offer, both will be able to do so with a sense of the significance and scale of system reform and management capacity costs.

Examinations of the histories (but not the costs) for a further four systems—Rwanda, South Korea, Taiwan and Thailand—are in the annex.

Case Study

HEALTH SYSTEM REFORMS IN ANDHRA PRADESH

2007–2009

Summary: Andhra Pradesh is an Indian state with a population of 82 million. In 2007, the state government established the Aarogyasri Community Health Insurance Scheme to cover all families living below the poverty line (about 80 percent of the population). Enrollment is automatic and the benefits package provides coverage for catastrophic secondary and tertiary conditions. Today about 85 percent of the state population has health coverage, increased from 10 to 15 percent in 2006. The cost of health system reform and management capacity was approximately $60.7 million over three years, or 5.1 percent of public health expenditures.

Context

Some 68 percent of the 82 million residents of the Indian state of Andhra Pradesh (AP) live in rural areas, reflecting the country's overall population. Despite rapid rates of economic growth over the past decade, more than 80 percent of the people in AP live below the poverty line.[29] (Andhra Pradesh uses a definition of poverty that enables a greater-than-average share of the population, more than 80 percent, to access services available to low-income people.) AP's economy ranks fourth among Indian states, with a gross domestic product (GDP) of approximately $66 billion.[30]

The country of India makes the largest contribution to the global disease burden, approximately 60 percent of which is from communicable diseases. In common with India as a whole, Andhra Pradesh faces considerable supply constraints: too few health professionals working in too few facilities. Andhra Pradesh possesses four government hospital beds per 10,000 people, and less than 20 primary health centers for every million people.[31] Nevertheless, Andhra Pradesh performs marginally better than average in India on key health indicators such as maternal mortality rates, under-five mortality rates and the percentage of underweight children. Under India's constitution, responsibility for health services resides with state governments.

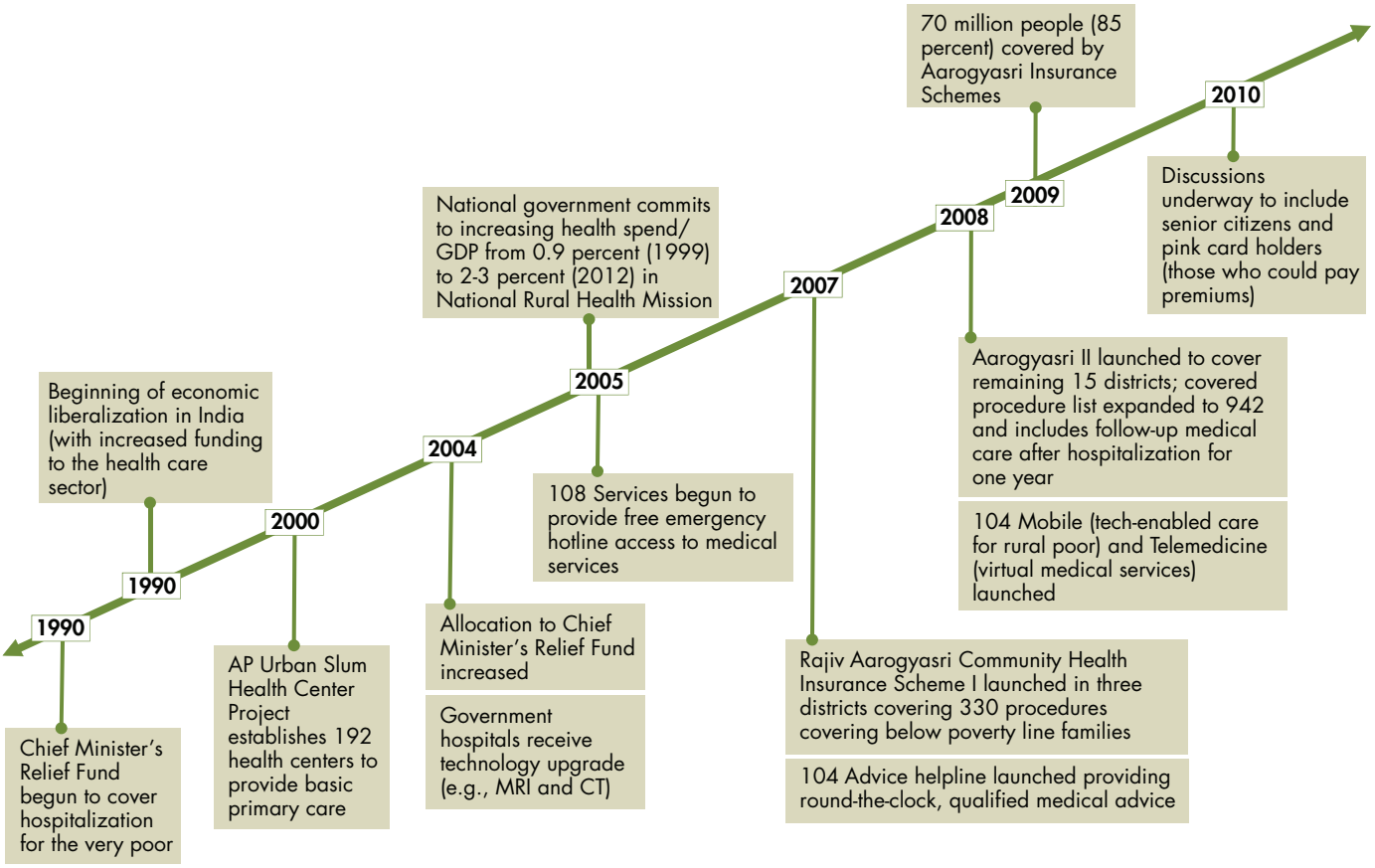
Reform Design and Implementation Process

In 2007, the state government of Andhra Pradesh embarked on a wide-ranging health reform effort by establishing the Aarogyasri Community Health Insurance Scheme. The reform had the goal of providing financial protection to the poor by lowering out-of-pocket payments and covering tertiary care. The new scheme was designed as a public-private partnership to leverage the expertise of private companies in areas in which the state was limited. Star Health was chosen as the private insurance partner to offer capabilities in claims processing, risk management and pricing.[32,33]

The details of the reform were proposed by several senior bureaucrats, some of whom went on to hold leadership positions in the new system (i.e., of the Aarogyasri Trust and Star Health). Other stakeholders involved in the initial discussions included physicians, hospital representatives, private insurance companies and local politicians. No legislation was required.[34] The design process proceeded without significant controversy due to the backing of the chief minister and the general sentiment that change of some type was necessary. Patients were supportive of free treatment, hospitals were willing to accept more patients and the pharmaceutical and medical device industries welcomed an increase in the use of drugs and consumables.

During the design process several questions did arise, including a) how the new government-administered and government-funded program would be monitored without a dedicated regulatory agency; b) how, if at all, a delay in provider reimbursement would affect provision; and c) how to specify the conditions covered under the program. None of these concerns proved to be a major obstacle to implementation. Difficulty in creating a

Figure 6: The Evolution of the Health System of Andhra Pradesh



Source: "Health Sector Reforms in Andhra Pradesh," Sudhakaram; "Andhra Pradesh Health Sector Reform: A Narrative Case Study," Results for Development Institute; "Health Sector Reforms in India," Indian Ministry of Health and Family Welfare, Mar 2007; "Health insurance for government staff soon," *The Hindu*; "Taking healthcare to the people"; inclusion.skoch.in; projects.dfid.gov.uk; Mohfw.nic.in

system to collect premiums led the government to choose to fund the program in its entirety.[35] Existing ID cards were used to identify beneficiaries instead of the government issuing new cards.[36]

In 2007, the Aarogyasri Community Health Insurance Scheme was piloted in three districts, initially covering 173, then 330, and finally more than 900 catastrophic care interventions for below-the-poverty-line families (known as Aarogyasri I). Claims expanded dramatically, from 1,000 per month during the first three months to 1,000 per week after six months. The following year, in 2008, the program scaled up to include the entire state (known as Aarogyasri II). The benefits package was expanded to cover 942 interventions, with a financial cap of $4,300 for services rendered to a family in any given year.

In the three years since its inception, approximately 85 percent of the population has been enrolled in the program—a dramatic broadening of *meaningful* health coverage—compared to the nominal coverage that existed previously. Prior to this year, estimate government officials in the state, 10 percent to 15 percent of the population had some form of health coverage, either through government-operated programs for civil servants or through the private sector.

The evolution of the health system of Andhra Pradesh is described in **Figure 6**.

Approximately 85 percent of the population has been enrolled in the program—a dramatic broadening of meaningful health coverage…

The Aarogyasri Scheme appears as a single program to patients, who have been enrolled over time as the program has expanded throughout the state.

Lessons Learned from Pilot Phase

Lessons from the pilot project informed the scale-up of the program, especially in operations, information technology and the organization of the trust.

- **Information technology.** As the number of beneficiaries and claims increased, the manual process of patient registration, claims filing and reimbursement became impossible to sustain. The implementation of sophisticated information technology systems was required for providers and for the overall Aarogyasri Scheme. The program provided computers and high-speed Internet for every network hospital and built computer kiosks in each of these facilities. Tata Consultancy Services was retained to build an information technology system that could meet the demands of the new program from beginning to end, managing patient registration, electronic medical records, claims and billing.[37] [38] [39]

- **Organization.** The state-wide scale-up required expanding the trust from nine people to an institution with more than 20 individual departments. This included a dedicated pharmacy to secure drugs at competitive prices. A Rajiv Aarogyasri Medical Coordinator (RAMCO) was appointed in each hospital to be a human link between the providers and the program. Some hospitals also created subunits of the program in their specialty departments.[40] [41]

- **Operations.** The Trust and Star Health studied the paths of patient cases to determine how to make the system more efficient, decrease costs and provide higher-quality care. From the pilot program, they gained an understanding of the cycles of hospital bed flow and its implications for how quickly patient information must be transmitted between facilities. The benefits package was refined to include precise definitions and treatment mechanisms, and procedure prices were adjusted as the number of patients and the volume of medical consumables being purchased both increased.[42]

Key Features of Reformed System

The reformed system has several noteworthy features:

- **Stewardship.** The government of Andhra Pradesh funds the Aarogyasri Scheme. The Department of Health, Family, and Medical Welfare is responsible for basic primary care services.

- **Payer structure.** The Aarogyasri Scheme appears as a single program to patients, who have been enrolled over time as the program has expanded throughout the state. Operationally, the program runs as two entities with similar but parallel claims and billing procedures.[43] [44] Aarogyasri I administers the higher-cost and higher-risk tertiary procedures for which Star Health, the trust's private insurer, covers the risk. Aarogyasri II administers the less expensive and more frequent secondary procedures. Here, the state of AP self-insures.

  Star Health leverages its administrative expertise across both parts of the program. Within Aarogyasri I, Star Health performs overall fraud and cost control. It also manages the information technology system and employs physicians to authorize procedures and approve claims. Within Aarogyasri II, physicians are trained to authorize procedures and approve claims by Star Health but are employed directly by the Trust.[45]

- **Enrollment.** Enrollment in the Aarogyasri Scheme is automatic for families living below the poverty line,[46] which in AP is less than 60,000 rupees (about US$1,300) per year in rural areas and less than 75,000 rupees (about US$1,600) per year in urban areas (the below-the-poverty-line definition in India as a whole is an annual income below 25,000 rupees or about US$540). In 2009, about 80 percent of AP's population lived below the poverty line, and by definition, they were all enrolled in the program.[47] Beneficiaries present their identification cards (already distributed to those living below the poverty line for public food distribution) to receive medical care.

- **Benefits package.** The benefits package includes 942 secondary and tertiary medical procedures, including cancer treatment, the provision of prostheses and organ surgeries (e.g., heart, lung, liver and brain). There is a defined list of excluded conditions, including hip and knee replacements, bone marrow transplants, heart and liver transplants and HIV/AIDS treatments.[48] Beneficiaries are also entitled to 121 follow-up procedures for one year after hospitalization.[49]

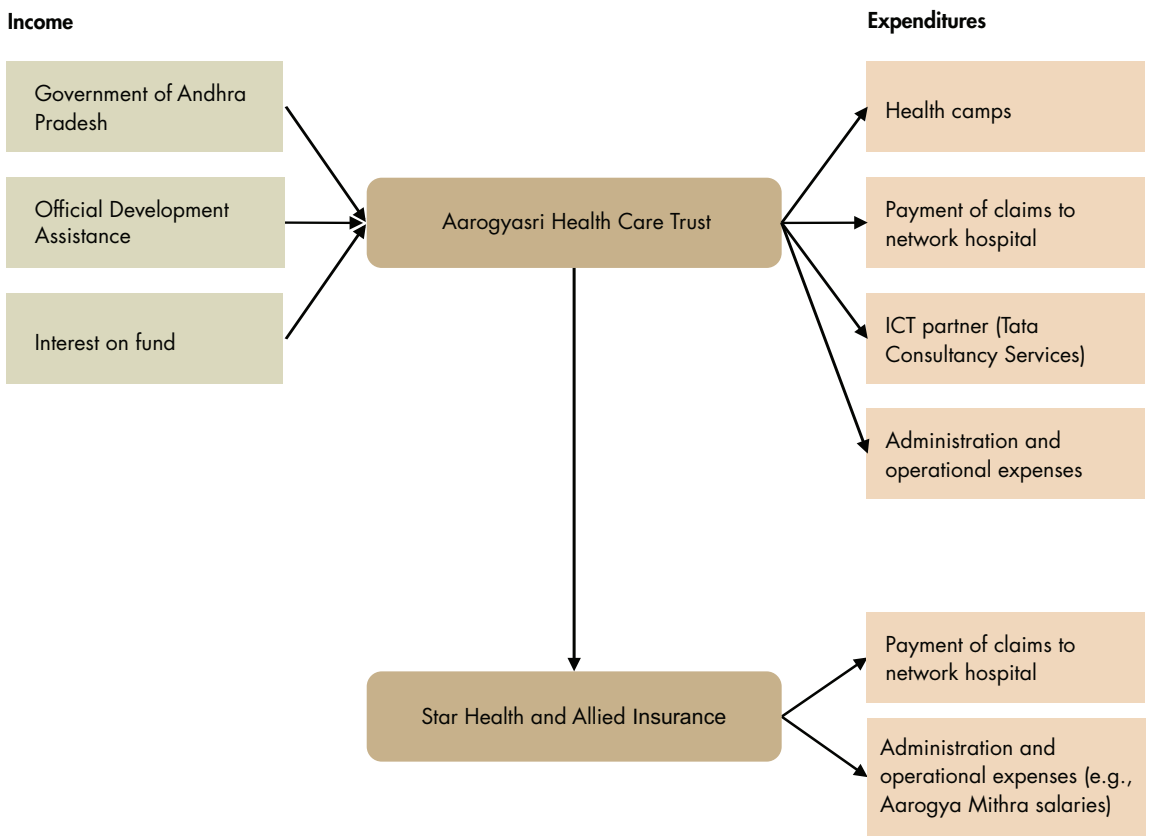
  Each family is allotted two lakh (about $4,300) per year in medical and surgical expenses. Forty-five percent of this expenditure goes directly to patient care; the unused balance is pooled to cover the cost of other patients exceeding their allotment. Thirty-five percent of the expenditure goes to incentivize the staff providing medical services to the beneficiaries (of that 35 percent, 75 percent is funneled to the surgical team, 10 percent to the investigative team, 10 percent to the nursing staff, and 5 percent to class IV staff and operating-room assistants). Twenty percent of the total expenditure is deducted by the Aarogyasri Trust for use in a common revolving fund.[50]

- **Provision.** The private sector plays a dominant role in the provision of health services. Today 72 percent of inpatient admissions and 85 percent of outpatient contacts are made in the private sector. Public provision is offered at multiple levels, according to the severity of the medical need. Subcenters provide primary care services including free drugs for basic conditions, and there is about one center for every 5,000 people. Primary Health Centers (PHC) provide integrated curative and preventive health services to rural populations. Each center has four to six beds and serves 20,000 to 30,000 people. Patients are referred from the PHCs to Community Health Centers (CHC) for secondary care. CHCs have about 30 beds and serve 80,000 to 120,000 people. From there, patients can be referred to district hospitals if necessary.[51]

  Patients who suspect they require secondary or tertiary medical services can access care through several means.[52] Most patients procure services through "health fairs" where patients are screened for conditions requiring hospitalization. Each hospital within the Aarogyasri network is required to hold at least four health camps per month. A total of approximately 1,000 health camps are held every month, and 5,000 to 6,000 people attend each camp.[53] [54] Alternatively, patients can be referred for hospital care through primary health centers, the chief minister's office or through AP's technology-enabled mobile health services, 104 Mobile and 108 Mobile.

The private sector plays a dominant role in the provision of health services. Today 72 percent of inpatient admissions and 85 percent of outpatient contacts are made in the private sector.

Figure 7: Financial Flows in the Andhra Pradesh Health System



Source: "eHealth India 2009 Award for Government/Policy Initiative of the Year" eHealth Awards; "MoHMFW and Aarogyasri Health Care Insurance Scheme: Norms for billing and guidelines for utilization amounts received by the government hospitals;" aarogyasri.org; "Andhra Pradesh CM for nationwide implementation;" thetribuneindia.com

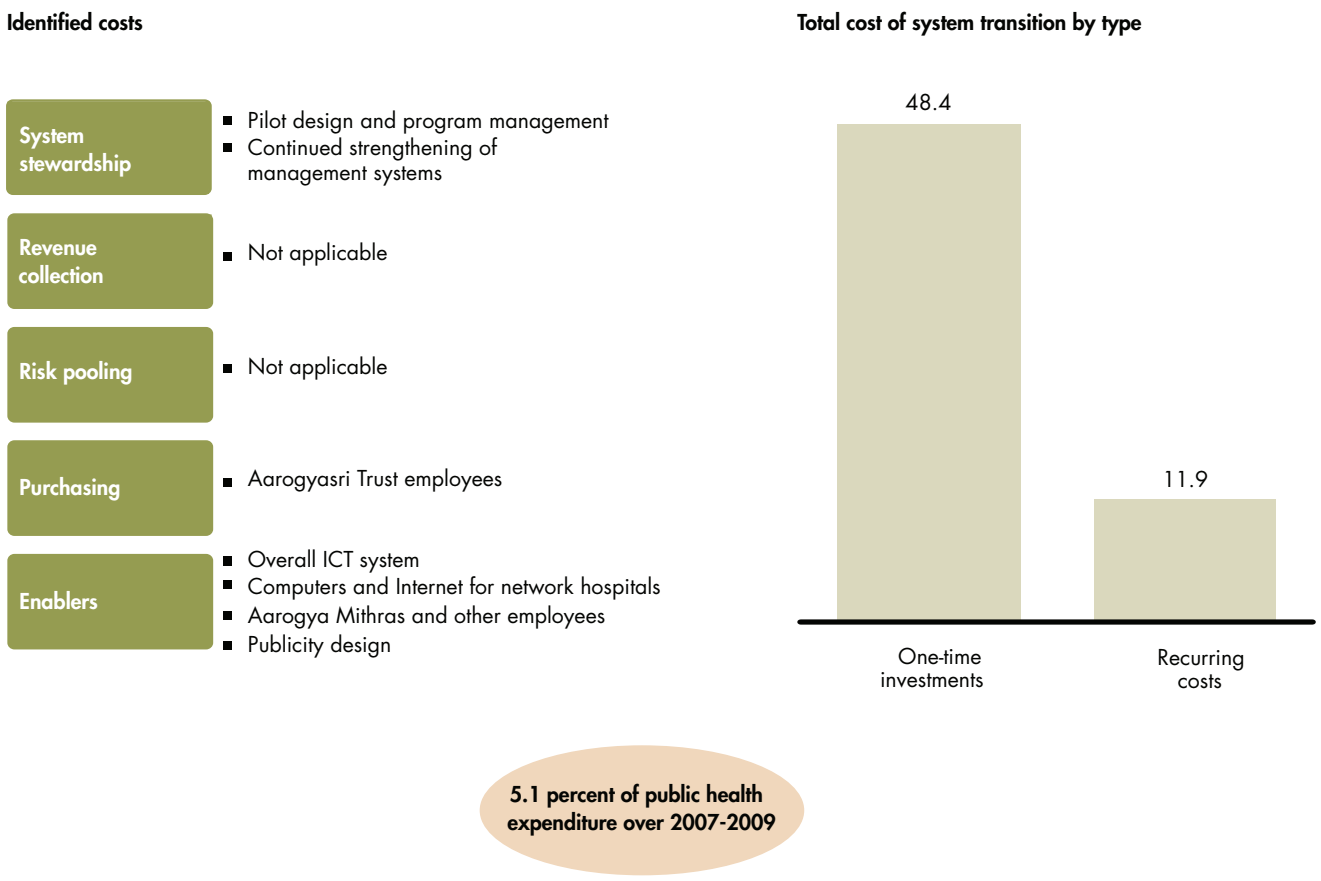
- **Aarogya Mithras.** Aarogya Mithras perform the functions of case workers and patient educators, and are stationed at primary health centers, in health camps and in hospitals. They act as the face of the Aarogyasri Scheme for patients and are responsible for many tasks, including publicizing the program and its health camps, guiding referred patients from primary health centers to hospitals. They also maintain the Aarogyasri help desks at each hospital, verifying the benefits and documentation of each patient, and facilitating the discharge of the patient.[55 56]

- **Enablers.** The Aarogyasri scheme relies on a sophisticated information technology system to record and track all aspects of its operations. This method, commissioned by the Aarogyasri Trust and built by Tata Consultancy Services, tracks patients and their electronic medical records, records hospital bed capacity and procedures and processes claims and reimbursements.[57 58] This system also limits corruption by placing strict protocols on every medical transaction.

  When a patient enters the hospital, his or her picture is taken and sent electronically, along with diagnostic information, to physicians who preauthorize the procedures necessary. Pictures are taken again during surgery, before and after suture removal and at discharge. Patients must confirm that the service was appropriately delivered before the hospital is reimbursed. Despite this system, instances of corruption exist, including falsified white identification cards and the performance of unnecessary procedures.[59]

- **Financing.** The state government of AP covers the entire cost of the Aarogyasri Scheme, receiving no direct funding from the government of India for this purpose.[60 61 62] The financial flow is shown in **Figure** 7.

Figure 8: The Cost of Transition in Andhra Pradesh
US$ millions, 2009-adjusted, 2007-09



System Reform and Management Capacity Costs

Best estimates from leaders involved in the design, pilot and scale-up of the Aarogyasri Scheme show that the cost of AP's health system reforms between 2007 and 2009 totaled $60.7 million, or 5.1 percent of public health expenditure in the state over that time period; this is shown in **Figure 8**.[63]

One-time costs of $48.8 million include pilot setup and operations in the first year, with operations encompassing human resources, publicity design, administration, basic information technology such as computers and fax machines, the purchase of computers and Internet services for each network hospital and support for overall sector management from the United Kingdom's Department for International Development (DFID).[64 65 66]

Accounting for the majority of recurring costs are the salaries of employees of the Aarogyasri Trust and Aarogya Mithras. Trust employees cost $1.8 million per year, while Aarogya Mithras run $2.1 million per year and other employees (e.g., the Rajiv Aarogyasri Medical Coordinator) cost $1 million. Administrative expenses involved in referring patients from primary health centers to hospitals total $100,000 over the period the program has been in place. Finally, there is a recurring information technology cost of $1 million per year.[67]

The breadth of health coverage in Andhra Pradesh has increased dramatically… growing from 10 to 15 percent in 2006 to approximately 85 percent today.

Impact of the Health System Reforms

- **Financing.** AP's state health budget has increased more than 100 percent since 2005-2006. This increase can be attributed partially to growth in spending on tertiary care and social protection seen in **Figure 9**.[68]

- **Breadth and depth of coverage.** The breadth of health coverage in Andhra Pradesh has increased dramatically since the introduction and scale-up of the Aarogyasri Scheme, growing from 10 to15 percent in 2006 to approximately 85 percent today; this can be seen in **Figure 10.**[69-73] During this time, the definition of being below the poverty line was changed to include more families, increasing from 25,000 to 60,000 rupees (US$540 to $1,300) per year.[74] Coverage is shallow, but provides some financial protection to families living below the poverty line. The program has recorded an increase in the utilization of the secondary and tertiary medical services it covers. For example, between the initiation of the program in 2007 and March 2009, 250,000 procedures had been performed, with 287,000 procedures performed between March 2009 and 2010 alone.[75]

Factors Contributing to Successful Reform

The driving force behind the reform was the Chief Minister, Dr. Y.S. Rajasekhara Reddy, a physician by training who, in his position, continued to see and treat patients. His tour of the state showed that poor health and inability to pay for treatment were among the biggest problems facing the population. Health system leaders in Andhra Pradesh repeatedly cite his vision as being critical to the system's success. The National Rural Health Mission, started in 2005, also showed that large-scale programs were possible.[76]

Furthermore, the health system reform was placed within a broader narrative of progressive social reform implemented by the state government. The design process included stakeholders from across the health system—both public and private—and beyond the health sector, too (e.g., senior officials from other government departments, such as rural development, were appointed to the board of the trust).

There were, however, a number of developments that enabled the reform to proceed as rapidly as it did. First, advances in information technology supported both enrollment and claims management from providers. The status of Hyderabad, Andhra Pradesh's capitol, as a technology hub meant that local talent could be drawn from to provide custom-made, integrated solutions for the entire system. Second, the government exploited private sector capabilities in the third-party administration of the system: claim processing, risk management and pricing. Third, rapid economic growth in Andhra Pradesh meant a stronger fiscal position for the state, enabling the program to be introduced.

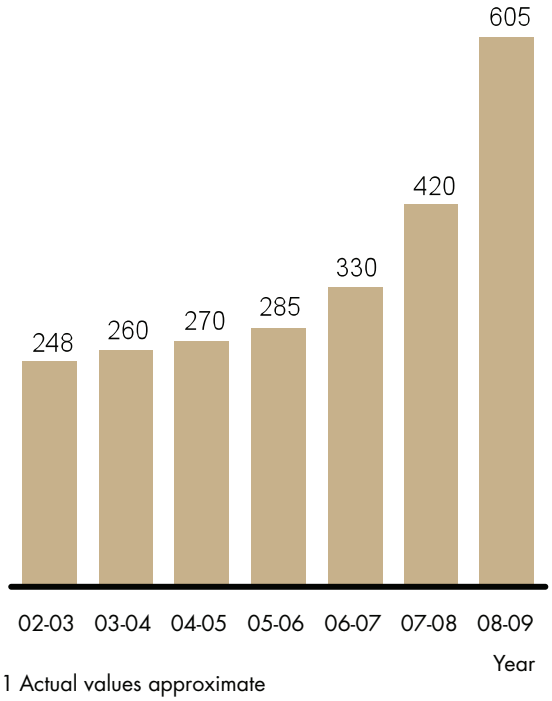
Where Next?

The state of AP has made significant progress toward universal health coverage, and the system will continue to evolve in the coming years. In the near term, the state will have to overcome financial pressure at the state level. The state's budget deficit is increasing, at $2.2 billion in 2008-2009, up from $1.7 billion in 2007-2008, while historically strong economic growth in the state has slowed since 2009.[77,78] The Aarogyasri Scheme must also address the uneven distribution of health camps, which require some families to travel more than 400 miles to a hospital.[79]

Leaders within the Aarogyasri Scheme describe potential future reforms, including decreasing the role of Star Health, increasing the depth of the benefits package and further tightening the payment mechanism to decrease costs. They are also considering expanding enrollment to government employees, formal sector workers and people whose government-issued pink ID cards entitle them to subsidized prices for staples.[80,81]

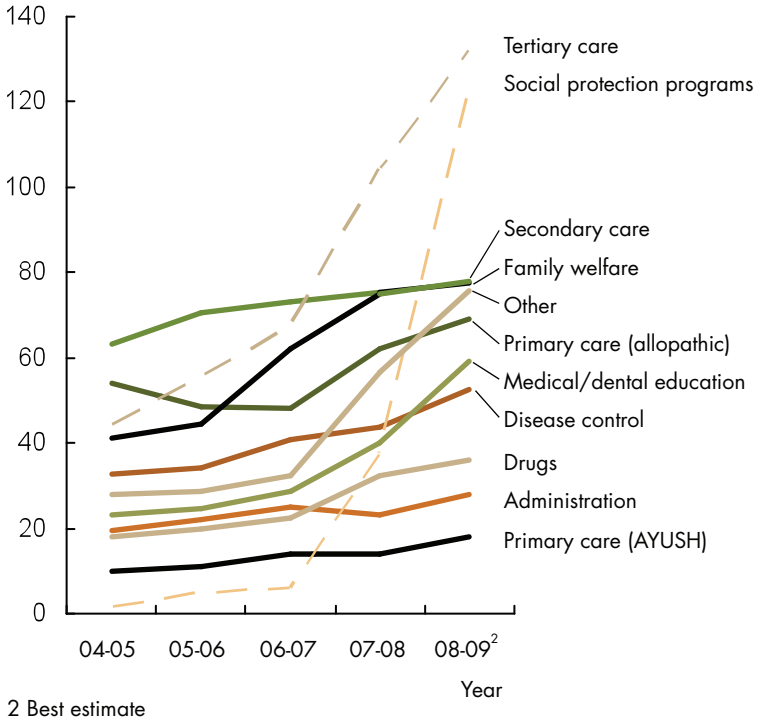
Figure 9: Financial Impact of Reforms in Andhra Pradesh

Expenditure of the Department of Health, Medical, and Family Welfare
Constant US$, millions[1]



1 Actual values approximate

Distribution expenditure of the Department of Health, Medical, and Family Welfare
Constant US$, millions

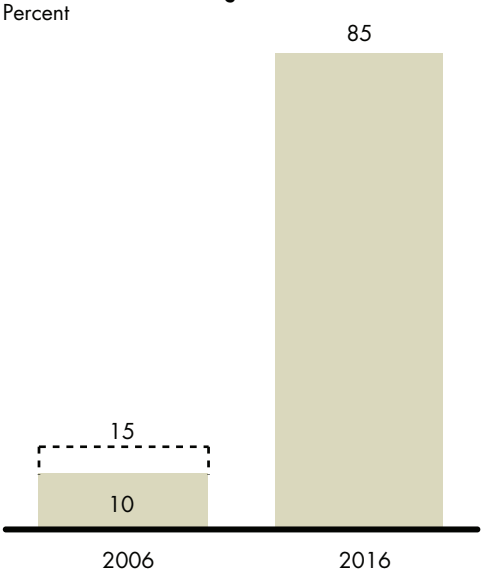


2 Best estimate

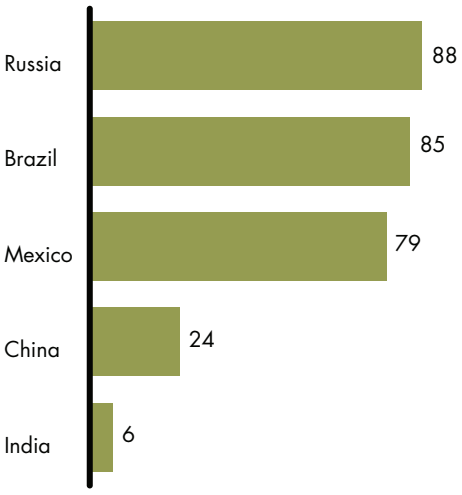
Source: Andhra Pradesh Health Sector Reforms: A Narrative Case Study. ACCESS Health Initiative; The Rockefeller Foundation—Initiative on the Role of the Private Sector in Health Systems in Developing Countries, 2009; McKinsey analysis

Figure 10: Impact on Coverage

Health insurance coverage rate in Andhra Pradesh
Percent



Health insurance coverage rate in peer countries
Percent, latest available over 2005-07



Source: aarogyasri.org; AP Department of Health, Family, and Medical Welfare; International Labour Organization, Social health protection: an ILO strategy toward universal access to health care, Social Security Department, August 2007; Andhra Pradesh Health Sector Reforms: A Narrative Case Study; ACCESS Health Initiative; The Rockefeller Foundation—Initiative on the Role of the Private Sector in Health Systems in Developing Countries, 2009

Ghana's journey toward universal health coverage has… taken Ghana from covering less than 1 percent of its population…to covering between 45 percent and 70 percent…

Case Study

HEALTH INSURANCE REFORMS IN GHANA

2004–2009

Summary: In 2003, Ghana passed the National Health Insurance Act, which established a system of community health insurance. Risk is pooled at a district level (there are 138 districts nationwide), with beneficiaries making annual contributions which vary by income. The benefits package is comprehensive considering the context of Ghana, covering all primary and secondary care, with a small number of specific exclusions. The main source of financing, however, is a 2.5 percent value-added tax that is dedicated to subsidizing the community insurance system.

The system was implemented in 2004; today, somewhere between 45 percent and 70 percent of the population is enrolled. Enrollment rates of the wealthiest quintile are roughly double those of the poorest. The jury is still out on how or whether Ghana will enroll its poorest citizens. Research indicates that Ghana spent $115.6 million on system reform and management capacity over the period from 2004 to 2009. This number is equivalent to 6.6 percent of public health expenditures, and 2.4 percent of total health expenditures.

Context

Ghana is a low-income country in West Africa with a population of approximately 24 million. Life expectancy is 59 years for men and 61 years for women, and the population is evenly split between rural and urban areas. Ghana's economy has been growing rapidly, and over the past 12 years, GDP has more than tripled, from $5 billion to $16 billion. The poverty rate has tumbled, too, from more than 50 percent in the 1990s to 28.5 percent in 2006.[82]

Ghana's ambitions for universal health coverage are constrained by the realities of available resources. Human resources for health are lower than the average in Sub-Saharan Africa[83], and less than half of what is recommended by the World Health Organization (WHO). Ghana has 11 health professionals per 10,000 people, while 23 is the minimum recommended for adequate capacity to meet health-related Millennium Development Goals (MDGs).[84]

The human capital constraints are mirrored by limited hospital bed capacity: Ghana has only nine hospital beds per 10,000 people.[85] The availability of medicines in Ghana is poor, and their cost is high. Between 2001 and 2007, common generic medicines were available only 17.9 percent of the time in the public sector and 44.6 percent of the time in the private sector. When available, medicines in Ghana cost 240 percent of benchmark prices in the public sector, and 380 percent of the benchmark in the private sector.[86]

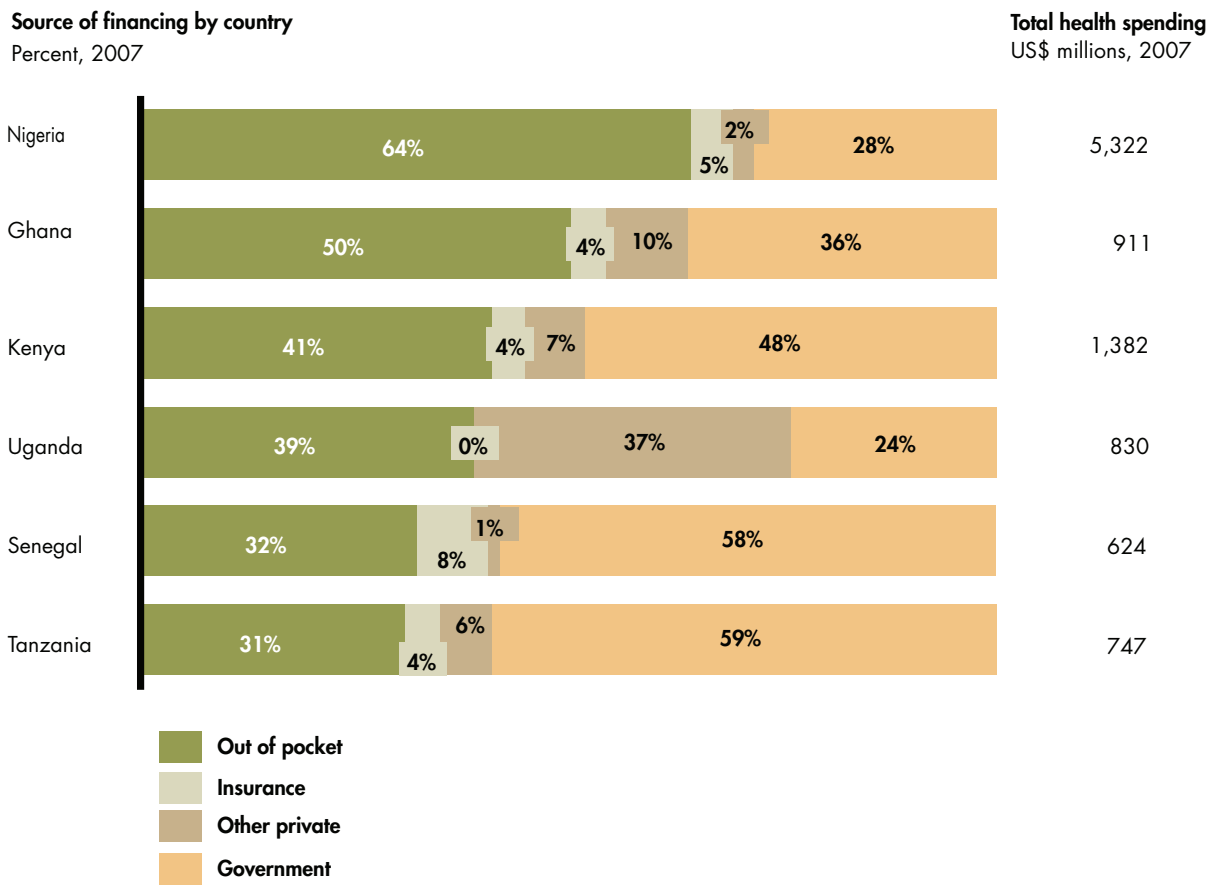
Total health expenditure accounted for 6 percent of Ghana's gross domestic product (GDP) in 2007.[87] Out-of-pocket spending accounted for about 50 percent of spending, and government for about 36 percent. Out-of-pocket spending as a proportion of total spending on health was higher than that of Ghana's peers. This can be seen more clearly in **Figure 11**.[88]

Ghana's Pre-reform Health System

Ghana's journey toward universal health coverage has lasted more than ten years and has taken Ghana from covering less than 1 percent of its population in 1999 (which it did through mutual health organization funds) to covering between 45 percent and 70 percent in 2009 (through a formalized system of district-level health insurance programs).[89 90 91 92]

Prior to the community health insurance reforms in 2004, 1 percent of Ghana's population had some form of health insurance. Most citizens made out-of-pocket payments for medical services. For most patients, this meant avoiding care unless it was absolutely necessary, and many were excluded altogether.

Figure 11: Ghana's Health Expenditure Compared to its Peers



Government programs provided care for children under five, adults over 70, expectant mothers and the disabled.[93 94 95]

Beginning in the mid-1990s, voluntary, community-led mutual health organizations began to form at a local level, pooling catastrophic risk for their members. By 2003, more than 250 of these local initiatives had been established,[96]on average covering 1,000 people each. Most mutual health organizations were funded by international donors or by premiums collected from their members, with little formal contribution from the government.[97 98 99]

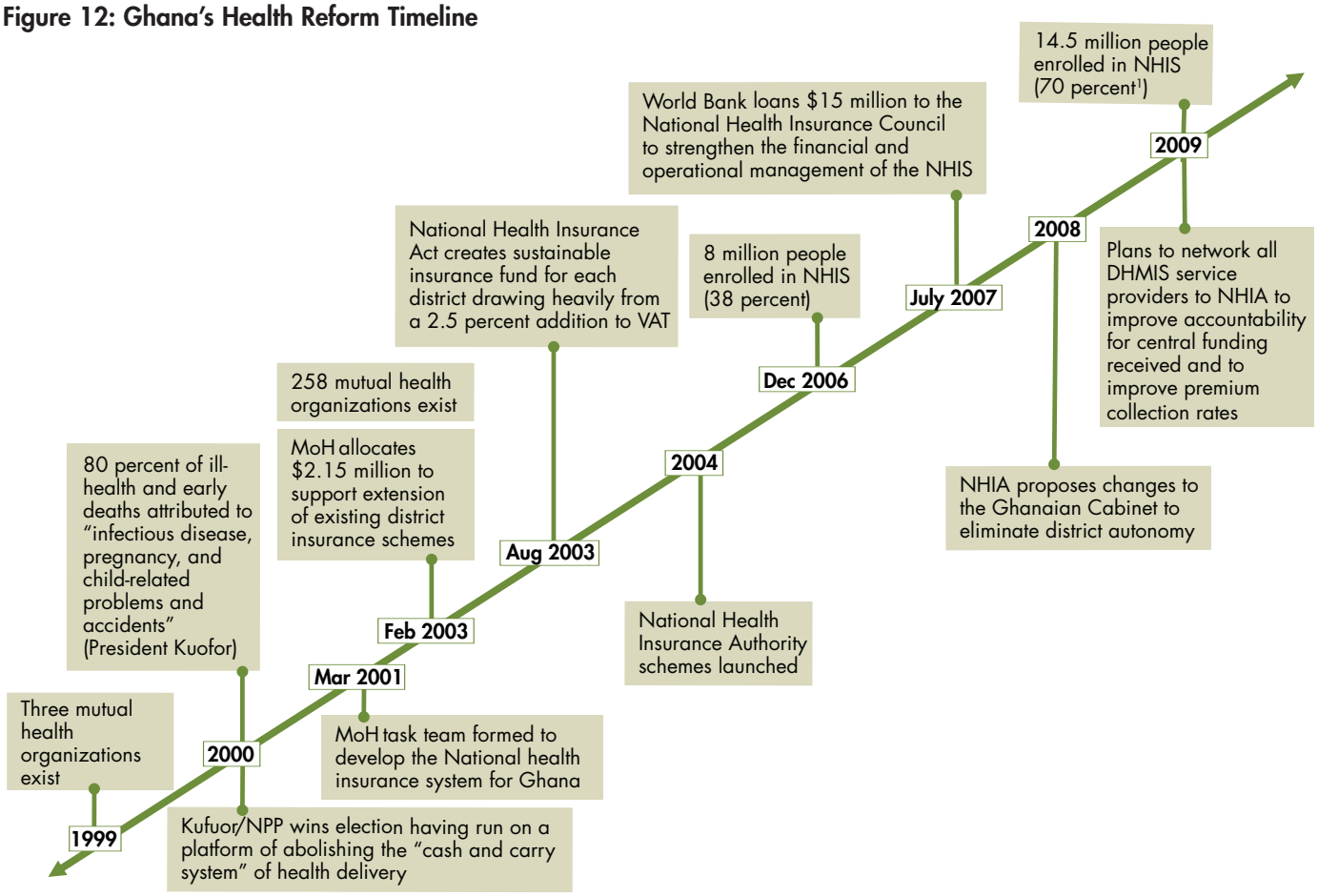
Financing was mixed, coming from public, private and voluntary sources. The ministry of health owned and operated public providers, while mutual health organizations paid public and private providers on a fee-for-service basis. The Christian Health Association of Ghana initially supplied most of the provision for the members of the mutual health organizations. Then, over time, the provider network expanded to include public facilities and other private providers.[100 101]

Reform Design and Implementation Process

Throughout the 1990s, there was a rising tide of discontent with the health system and its high user fees. The public and the media considered the system little more than "cash and carry."[102 103] National and local media increasingly carried stories of those denied access to care.[104]

[Before reforms] financing was mixed, coming from public, private and voluntary sources.

Figure 12: Ghana's Health Reform Timeline



1 NHIS reports 70 percent, but other sources and interviewees suggest closer to 45-60 percent

In the summer of 2003, the government introduced a bill to the final parliamentary session of the year, and the National Health Insurance Act was passed.

In the run-up to the national elections of 2000, health system reform exploded into the political debate. A journalist witnessed a student injured in a car crash, and wrote about how he was denied care at a public hospital for lack of means.[105] Health system reform promptly became "issue one" in the elections, with the New Patriotic Party (NPP) excoriating the government for the system's failures. NPP leader John Kufuor was sworn into office as president on January 7, 2001 with a firm mandate to abolish the "cash and carry" health system.[106 107]

In 2001, under the direction of President Kufuor, Ghana's Ministry of Health convened a technical committee to oversee the design of the new health system, with participants from across the health sector and political representatives. At a high level, key features of the system had been predetermined by political constraints: first, that the benefits package should be comprehensive and cover all but a small list of specific exclusions (e.g., cosmetic surgery); second, that payers and providers should be split, and that the new system's form should mirror the mutual health organizations that were perceived to be both popular and successful; and third, that additional financing would need to be directed toward the health sector.[108]

In the summer of 2003, the government introduced a bill to the final parliamentary session of the year, and the National Health Insurance Act was passed. The act put the design of the technical committee on a statutory footing.[109 110]

In 2004, Ghana launched its community health insurance scheme under the National Health Insurance Authority.

The reform timeline is shown in **Figure 12**.

Key Features of Reformed System

- **Stewardship.** Under the new system, stewardship functions are split between the Ministry of Health (responsible for setting health sector policy, coordinating donor contributions, and public health functions) and the National Health Insurance Council (responsible for monitoring all health insurance programs).[111] [112]

- **Payer structure.** Health coverage was made mandatory, with three payers through which citizens could obtain coverage: District Wide Mutual Health Insurance Schemes (DWMHIS); Private Commercial Health Insurance Schemes (PCHIS); and Private Mutual Health Insurance Schemes.[113] [114]

  The National Health Insurance Authority administers the largest of the three payers, the District Wide Mutual Health Insurance Scheme. This is structured into ten regional offices, which oversee 138 district programs across 145 districts.[115] Each district scheme is registered as a private company, covers a specific geography and is the level at which risk is pooled.[116] [117]

- **Enrollment and benefits package.** Formal sector workers are enrolled into the District Wide Mutual Health Insurance Scheme automatically, for which 2.5 percent of their salary is deducted through payroll taxes. Informal sector workers are enrolled after they pay premiums to their local health insurance committees, with premiums adjusted according to income. Members of the health insurance committees travel house to house to enroll families and describe payment options.

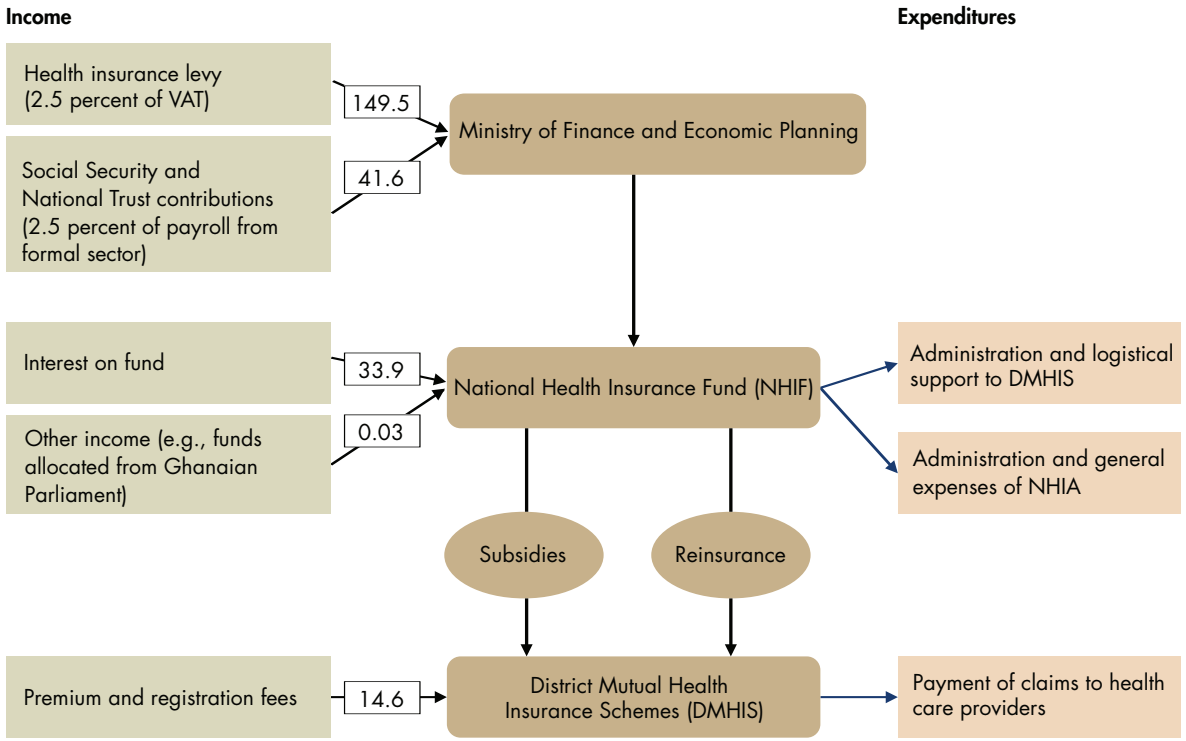
  Each adult resident is identified through his or her residential address and assigned a receipt booklet with 12 tokens. The resident uses these tokens to pay the annual insurance premiums in 12 installments at the program's offices or at local banks or pharmacies.[118] [119] Health insurance identification cards are issued six months after the first premium payment is received.[120] [121] People who are indigent or more than 70 years old—along with children under age 18 who have both parents enrolled—are exempt from paying premiums.[122]

- **Reimbursement mechanism.** Providers deliver care to patients and are reimbursed on an activity basis through the Ghana-DRG system. The current claims system is a manual one in which physicians note claims on a spreadsheet and present the spreadsheet to the local program. The program determines which claims are valid, and reimburses the physician for as much money as the district program can afford. The remaining balance must be taken to the national level to be reimbursed. This process is lengthy and inefficient. Currently, physicians experience an average of three to six months of delay in reimbursement.[123] [124] This payment mechanism is currently under review.[125]

- **Provision.** Provision in Ghana is monitored by the Ghana Health Service and Ghana Health Service Council.[126] [127] Patients attend community health planning services and head to sub-district health centers for their primary care. Referrals are required to visit a district hospital, tertiary center or public or private teaching hospital for secondary or tertiary care. The Christian Health Association of Ghana provides 42 percent of total health care services, and the private sector accounts for 35 percent.[128]

People who are indigent or more than 70 years old—along with children under age 18 who have both parents enrolled —are exempt from paying premiums.

Figure 13: Financial Flows in the Ghanaian Health System
US$ millions, 2009



- **Financing.** The District Wide Mutual Health Insurance Scheme receives funding from multiple financing levers based on the demographics of those it covers. This is illustrated in **Figure 13**. A 2.5 percent value-added tax (VAT) health insurance levy and contributions from the Social Security and National Trust (2.5 percent payroll tax for formal sector workers) are disbursed from the Ministry of Financing and Economic Planning to the National Health Insurance Fund (NHIF).[129] [130] [131] The NHIF also receives income from the interest on the fund itself and from allocations directly from the Ghanaian Parliament. At the district level, the programs receive premiums from informal sector workers and subsidies from the NHIF.[132]

System reform and management capacity costs

Best estimates from interviews and primary sources reveal that the cost of Ghana's health system reforms between 2004 and 2009 was $115.6 million, accounting for 6.6 percent of public health expenditure and 2.4 percent of total health expenditure over that period,[133] [134] as indicated in **Figure 14**.

System stewardship totaled $17.6 million, and included program management, stakeholder management, operational expenses for the National Health Insurance Authority (NHIA), consultants and technical support for the District Wide Mutual Health Insurance Scheme (DWMHIS), and a World Bank loan to the National Health Insurance Fund (NHIF) for strengthening the financial and operational management of the fund.[135] Purchasing and revenue collection cost $67.3 million and included registering district-level programs and administrative support.[136]

Finally, $30.7 million was spent by the government on identification cards, regional offices, DWMHIS offices, rent for NHIA headquarters and the setup and operations of the information technology program.[137]

Impact of Reforms

Ghana's health sector has been markedly transformed since the 2004 reforms.

- **Health coverage.** Estimates vary for the share of the population with health coverage. As shown in **Figure 15**, the National Health Insurance Scheme (NHIS) assessment is that 70 percent of the population is enrolled.[138] Other sources peg that number as falling between 45 percent and 61 percent of the population.[139] [140] [141] [142] The number of health insurance identification card holders was 45 percent in 2008.[143]

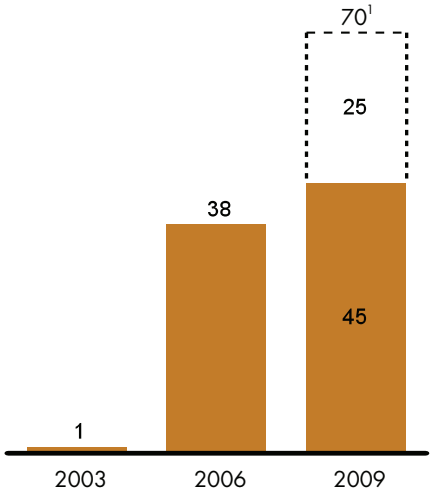
Figure 14: Cost of Health System Reform and Management Capacity in Ghana

Identified costs	Example components	Total cost over 2004-2009 US$ millions, 2009-adjusted
System stewardship	■ Consultants and design of DWMHIS ■ Stakeholder management ■ Program management ■ NHIA operational expenses	17.6
Purchasing, revenue collection and risk pooling	■ Creation of regional schemes ■ Registration of beneficiaries ■ Administrative support	67.3
Enablers	■ Identification cards ■ ICT platform setup and operations ■ Rent for NHIA and DWMHIS offices ■ NHIA headquarters/regional offices	30.7
		TOTAL: 115.6

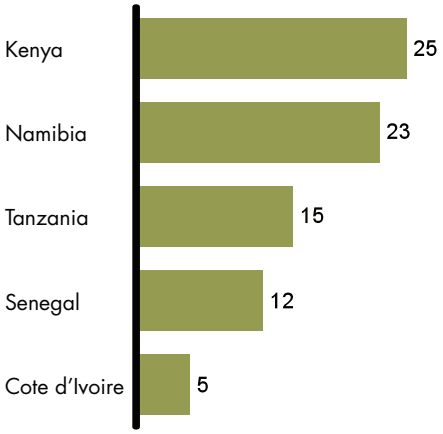
6.6 percent of public health expenditure
2.4 percent of total health expenditure

Figure 15: Impact on Coverage

Health insurance coverage rate in Ghana
Percent



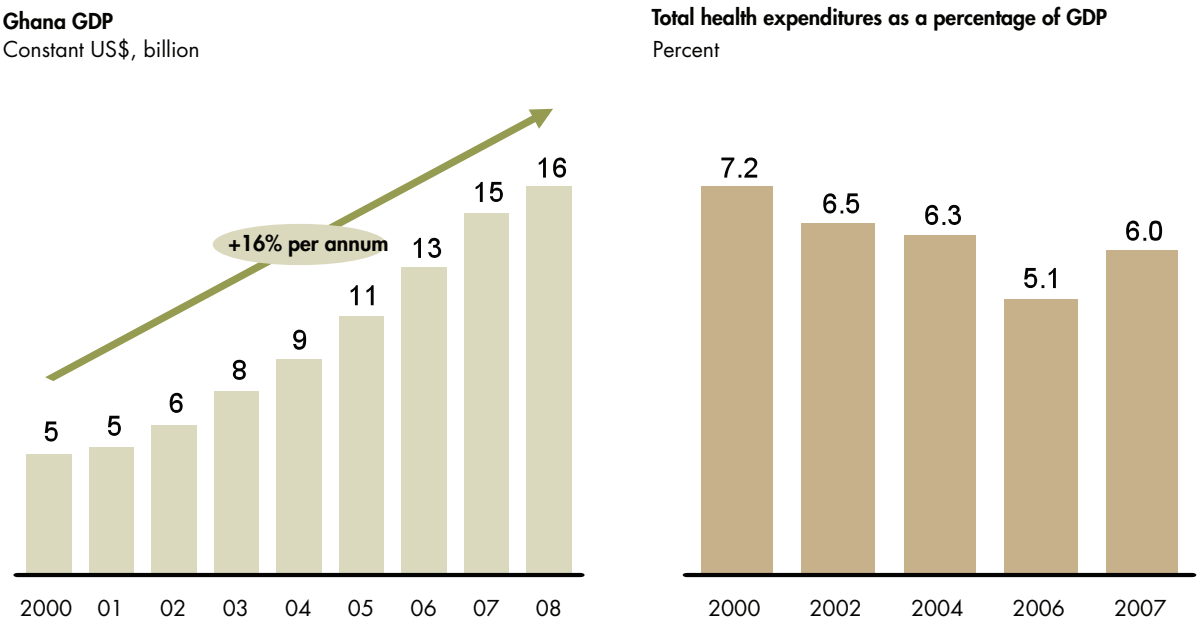
Health insurance coverage rate in select countries in Sub-Saharan Africa
Percent, latest available over 2005-07



1 National Health Insurance Scheme estimates coverage at 70 percent of the population, but interviewees and other sources suggest coverage is between 45-60 percent

Source: International Labour Organization, Social health protection: an ILO strategy towards universal access to health care, Social Security Department, August 2007; Results for Development, Joint Learning Workshop: Moving Toward Universal Health Coverage, Country Case Studies, 2010; Ghana Ministry of Health, Independent Review, Health Sector Programme of Work, April 2009; National Health Insurance Scheme, "The road to Ghana's Healthcare Financing," 2010; Interviews

Figure 16: Total Health Expenditure and GDP in Ghana



- **Utilization.** Service utilization has increased in line with the uptick of identification card holders. Births assisted by a medical professional have increased to 57 percent of births in 2008, up from 47 percent in 2003, and under-five mortality has dropped from 111 out of every 1,000 live births to 80 out of that figure over the same period of time.[144]

- **Health sector financing.** Total expenditure on health has remained fairly constant as a share of GDP (fluctuating between 6 percent and 7 percent) over the past decade.[145] This has been in the context of a rapidly expanding economy. As can be seen in **Figure 16**, Ghana's compounded annual growth rate over the past decade has been 16 percent.[146] It is noteworthy that the 2.5 percent VAT hypothecated to the health system does not appear to have been reflected in total health expenditure.[147] [148] The reasons for this are unclear. On a per capita basis, total health expenditure has increased from $19 in 2002 to $39 in 2007. Meanwhile, government spending has doubled, growing from $7 per person in 2002 to $14 person in 2007.[149]

- **Sources of financing.** The composition of Ghana's total health expenditure has changed significantly over the course of reform, with a significant decline in out-of-pocket expenditures. In 2004, just before the establishment of the National Health Insurance Authority, more than 50 percent of Ghana's total health expenditure was out of pocket. That percentage had dropped to less than 40 percent by 2007.[150]

Where Next?

Ghana's health system faces several challenges. First, inequality in access to coverage and health services remains a formidable obstacle to universal health coverage. Sixty-four percent of the wealthiest quintile is enrolled in the program, compared to 29 percent of the poorest quintile.[151] [152] Questions remain about how or whether more poor people will be enrolled.

A second challenge is an inadequate information technology system, which has the dual consequence of delaying claims reimbursement and enabling corruption within the system. The manual claims system causes prolonged delays in reimbursement,[153] [154] deterring physicians from providing the highest quality care. Further, physicians can choose the most expensive procedure and diagnosis-related group (DRG) for reimbursement regardless of actual diagnosis, and district-level programs have little accountability for how the funds received are spent.[155] [156]

Several issues are currently under debate that will determine Ghana's path forward. First, the government is considering consolidating the management of district-level programs into a national-level structure to foster higher transparency and greater accountability.[157] Second, the current World Bank project on financial and operating management within the fund has recently completed a technology needs assessment, the results of which will inform how a new IT system might be built.[158] Third, a potential move away from the Ghana-DRG system toward one of capitation is being considered, leaving economic management to individual health facilities to curb corruption and limit system-wide financial risk. Fourth, discussion is underway to exempt children under 18 years old from premiums payment even if both parents are not enrolled. Finally, authorities are also reconsidering the financial sustainability of the system, as it relies on a relatively fixed VAT for funding even as enrollment increases and the benefits packages get deeper.[159] [160]

Case Study

HEALTH SYSTEM REFORMS IN CHILE

1992–2008

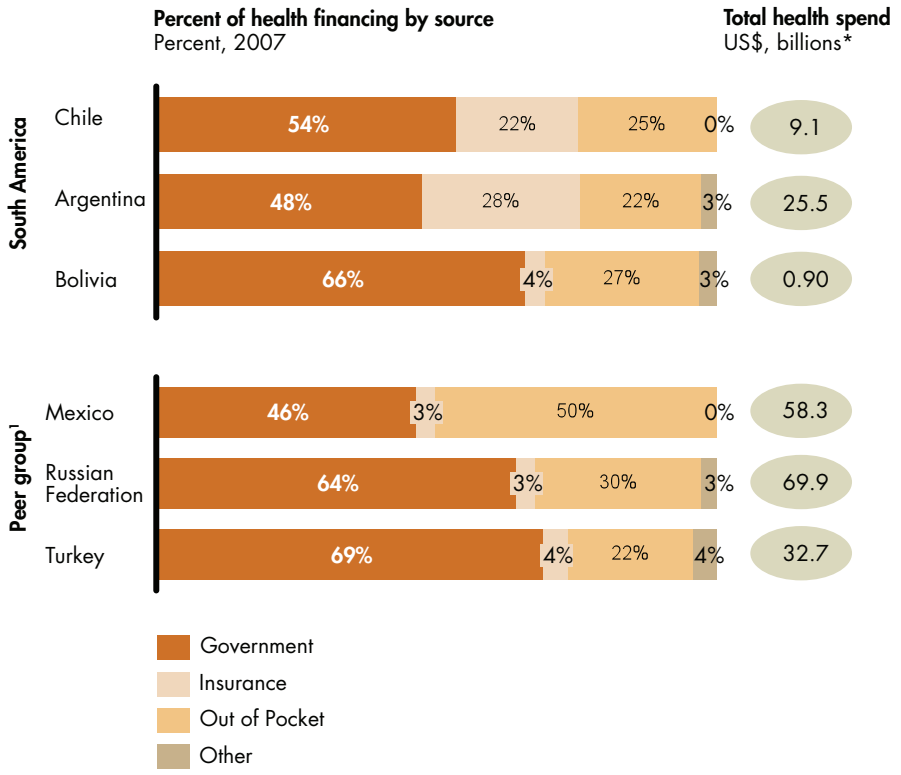
In 1952, Chile created its Ministry of Health, and through a network of public providers declared there would be formal health coverage for all. By 1975, the system had, in essence, achieved universality. Between 1979 and 1991, the public payer Fondo Nacional de Salud (FONASA) and a network of primary care providers were created. Since 1992, three waves of reform have served to deepen the benefits package available to Chileans.

The first wave, from 1992 to 1999, saw the restructuring and strengthening of the public payer, FONASA, to enhance its purchasing functions. This period also saw the creation of specific catastrophic coverage products for selected conditions in the public and private sectors. During the second wave, Chile's Health Reform Commission developed proposals to strengthen the system. The third wave of reform created explicit, enforceable guarantees on access and quality for 56 conditions that were defined as high priority. The system reform and management capacity costs of these reforms were $492.9 million, or 0.9 percent of public health expenditure and 0.6 percent of total health expenditure.

Context

Chile is a middle-income country in South America with a population of 16.6 million.[161] Life expectancy is 74 years for men and 81 years for women, and 88 percent of the population lives in urban areas.[162] Chile's economy has grown rapidly over the past 25 years. Gross domestic product (GDP) has increased nearly tenfold from $17 billion in 1985 to $169 billion in 2008.[163] The percent of the population living on less than $1 a day has dropped from 6.2 percent in 1990 to 1 percent in 2000.[164]

Figure 17: Chile's Health Financing Compared to Peers



* Average 2007 exchange rate from National Health Accounts
1 Peer countries selected based on similarities in GDP per capita

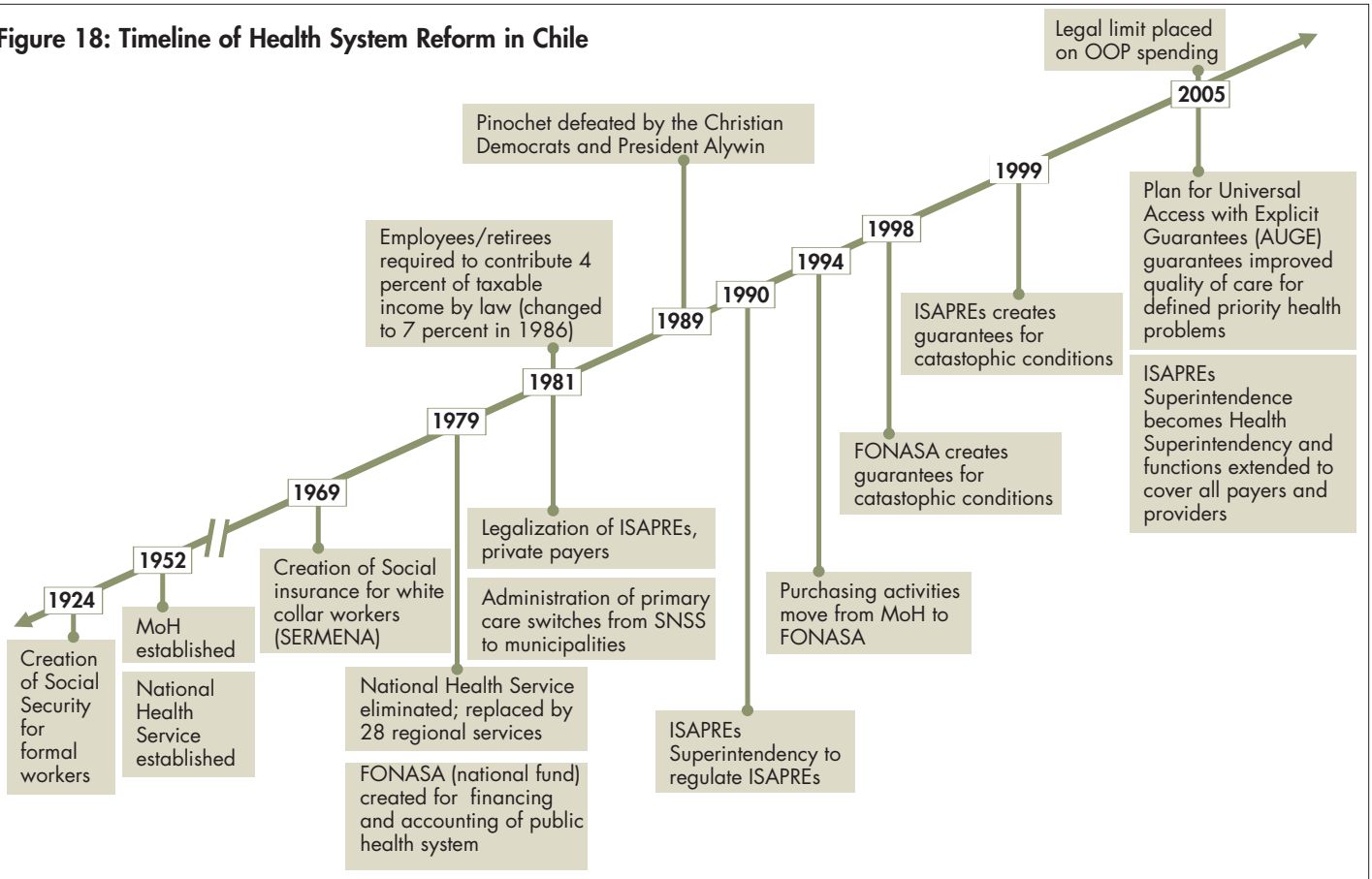
Source: WHO National Health Accounts

Chile has undergone an epidemiological transition and now has a disease burden profile dominated by non-communicable disease, similar to most developed countries.[165,166] Chile's performance on infant, child and maternal mortality indicators is dramatically better than that of its peers.[167]

As seen in **Figure 17**, total health expenditure was $9.1 billion (5.6 percent of GDP) in 2007. Of this, 54 percent was spent by the government, 22 percent was associated with insurance, and 25 percent was from patients' out-of-pocket spending, putting Chile in line with other South American countries and with its global peers with respect to sources of health financing.[168] Overseas development assistance for health was $4.9 million in 2007, the majority of which went toward HIV/AIDS programs.[169]

Chile's journey toward universal health coverage has spanned six decades and has occurred in several steps.

Figure 18: Timeline of Health System Reform in Chile



Source: "How health coverage is provided in Chile," Kevin Hagen; "The Chilean Health System: 20 Years of Reform," Annick Manuel, Salud Publica de Mexico; expert interviews; "Chile's Neoliberal Health Reform: An Assessment and a Critique," Jean-Pierre Unger, PLoS Medicine; "The Politics of the AUGE Health Reform in Chile," Bitran y Asociados; May 2008; interviews

Chile's Journey to Universal Health Coverage

Chile's journey toward universal health coverage has spanned six decades and has occurred in several steps. Each step has broadened coverage to a greater portion of the population and deepened the benefits package, taking Chile from minimal coverage in 1950 (achieved through social security funds) to 95 to 100 percent coverage in 2008 (achieved through a regulated system of public and private payers guaranteeing quality services).

This case study briefly describes the health system reforms between 1952 and 1991 and examines the period from 1992 to 2008 in depth. During this time, the health financing system was reformed and the benefits package was deepened. The reform timeline is shown in **Figure 18**.[170] [171] [172] [173]

Chile's Health System from 1952 to 1978

Chile's road to universal health coverage began in 1924 with the creation of social security for formal sector workers.[174] In 1952, the National Health Service (Servicio Nacional de Salud or SNS) was established to provide medical services and drugs free of charge to blue-collar workers and indigent people, who comprised about 60 percent of the population. In 1969, the National Medical Service for Employees (Servicio Médico para Empleados or SERMENA) was created for white-collar workers, who accounted for about 25 percent of the population. These institutions were funded via tax revenues, payroll contributions and out-of-pocket payments. An additional 5 percent of the population was covered by military health services and 10 percent by the private medical sector.[175] [176]

In the years before 1979 the public sector dominated provision, performing 90 percent of hospital services and more than 85 percent of outpatient treatments. The upper class largely paid out of pocket for private medical services, but the majority of blue-collar workers and poor residents had to visit public facilities where services were often slow except for those that addressed life-threatening conditions.[177]

Chile's Health System from 1979 to 1991

Chile's military dictatorship in the 1980s brought a period of significant change to the country's health system, with a strong ideological focus on expanding the role of the private sector. During this period, expenditure per member at FONASA, the public sector payer for people who were less well off, remained relatively flat—a development that some observers regarded as a deliberate attempt to run down public institutions for ideological reasons.[178]

- **Payer structure.** The payer system relied on the public and private sectors. In 1979, the public payer Fondo Nacional de Salud (FONASA) was created to cover the lower-income quintiles and retirees. FONASA had accounting functions, but was not responsible for setting prices or signing contracts with providers. These functions remained within the Ministry of Health.

  In 1981, legislation was passed to legalize and define the status of the existing private payers, Instituciones de Salud Previsionales (ISAPREs). ISAPREs provided coverage to the middle- and upper-income quintiles.[179]

- **Stewardship.** The Ministry of Health was responsible for health-sector policy, administering the national payer and coordinating the interaction of the institutions within the health sector. The ministry functioned as the purchaser within the public system, defining service requirements and setting prices.[180] With respect to public provision, the ministry supervised, monitored and evaluated the health programs and allocated the budget.

  In 1990, the government created the superintendency of ISAPREs to regulate coverage across the private sector and to determine which benefits could be excluded from coverage (and for how long).[181]

- **Enrollment.** All patients were identified using Chile's preexisting tax identification system. Patients could choose between insurance types (though for economic reasons, low-income and high-risk populations were compelled to choose FONASA) and were enrolled into either insurance option through a mandatory 7 percent payroll tax.[182 183] Patients enrolled in ISAPREs could choose to pay an additional premium to upgrade the baseline benefits package. Indigent people were exempt from all payments.[184]

- **Reimbursement mechanism.** Public providers were paid on a global budget basis by FONASA and the Ministry of Health. FONASA and ISAPREs purchased services from private providers through a fee-for-service system.[185 186]

- **Provision.** Provision, like the payer mechanism, was divided between the public and private sectors. In 1979, the National Health Service and SERMENA were combined into one entity, the Sistema Nacional de Servicios de Salud (SNSS). Secondary and tertiary health service delivery was decentralized into 26 regional health departments (the number of regional health services has since expanded to 28).[187] In 1981, primary care was decentralized from the SNSS to the country's 341 municipalities (now 353), and these were required to operate according to the direction of the ministry of health. The SNSS provided technical assistance to the municipalities. Referral from primary care was required to visit a SNSS hospital. Private provision was available at primary, secondary and tertiary levels of care.[188 189]

The major building blocks of the health system described above still exist today, but beginning in 1992, significant reforms were undertaken to deepen the services available to Chileans and to ensure sustainable financing.

Health System Reforms from 1992 to 2008

The health system reforms in Chile between 1992 and 2008 occurred in three waves, all serving to deepen the benefits package. The first wave (1992 to 1999) saw the restructuring of the public payer, FONASA, to enhance its purchasing function. This period also saw the creation of specific catastrophic coverage products for select conditions. The second wave (2000 to 2004) was a planning period marked by the Health Reform Commission, which developed proposals to strengthen the system. The third wave (2005 to 2008) created explicit, legally binding guarantees on access and quality for 56 high-priority health conditions.

First Wave of Reform (1992 to 1999): Restructuring FONASA and Creating Catastrophic Coverage

Three primary sparks ignited the beginning of health sector reform in Chile in the early 1990s. First, the return to democracy created a renewed sense of civic obligation, with citizens ready to restore public institutions.[190] Secondly, a number of persistent problems, including the poor quality of public sector health facilities, an inadequate availability of physicians, and low public-sector wages galvanized public support for reform.[191] In addition, a significant absence of performance transparency (e.g., problems pegging costs or quality) in the private sector caused concern to ISAPREs beneficiaries and those using private medical services.

Five activities were required to reform the health financing system and to develop the necessary functions within FONASA.[192]

- Restructuring FONASA to include specific collection, enrollment, purchasing, risk management and monitoring functions (begun in 1994)

- Decentralizing some parts of FONASA into five geographic areas (done from 1997 onwards)

- Upgrading the IT system (begun in 1994)
- Modifying the legal framework to reflect FONASA's new responsibilities (started in 1994)[193]
- Developing specific insurance plans to assure fast access to quality catastrophic services (done from 1998 onwards)[194]

The reforms were designed by officials at the ministry of health and FONASA, who were supported in these tasks by the World Bank. These were recognized as the objectives in a World Bank loan to Chile that covered the period 1992 to 1999.[195 196]

The main focus of the reform period was the redistribution of purchasing functions from the ministry of health to FONASA, and the strengthening of capabilities at FONASA to accomplish its new role as a proactive payer for services. These changes were codified into an updated legal framework for FONASA.[197 198]

In 1994, FONASA issued a request for proposals for the creation of a new system to cover collection, enrollment, monitoring and purchasing. The successful bidder began constructing the new system in January 1995, working with a cross-functional team of experts from the private sector and from FONASA. This team allowed the end users of the system to participate in the design.[199]

In 1998, FONASA began to develop specific plans to cover catastrophic accidents or illness (previously, all catastrophic coverage was achieved through public provision with no performance pressure). FONASA had the ambition to move to payment systems of the diagnosis-related group (DRG) type, and began by piloting a program in cardiac surgery. A prestigious academic clinician was enlisted to prepare the clinical protocols. Once agreement on these standards had been reached, FONASA began to set its service prices and billing procedures. Over time, this "Payment Associated with Diagnosis" (PAD) system has been extended to many more specialties.[200]

Health system reforms in the 1990s faced several challenges. As is normal in any reorganization, there were tensions. Tensions existed between the ministry of health and FONASA over the reassignment of purchasing functions to the latter. Second, some hospitals were challenged by the stringent, DRG-like payment system that imposed greater transparency and performance accountability on them.[201]

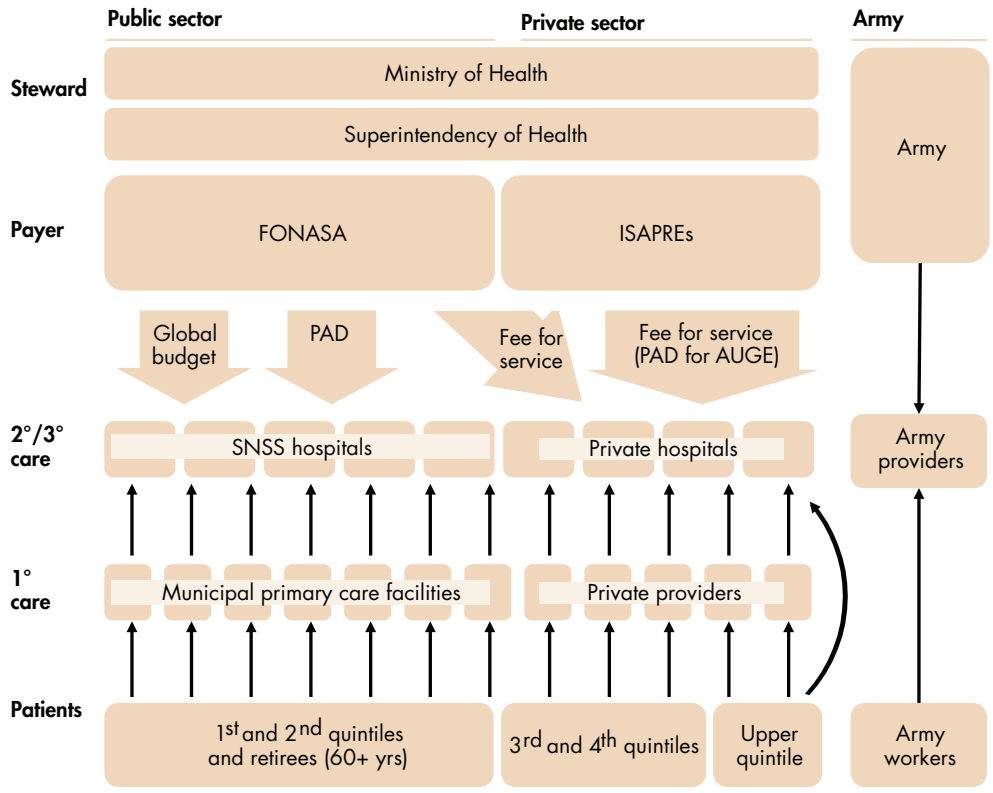
Second Wave of Reform (2000 to 2004): Planning for the Future

An inter-ministerial Health Reform Commission mandated by President Lagos was charged with determining the next steps for health system reform in Chile. The commission was led by Dr. Herman Sandoval and included representatives from the Medical Doctors Professional Association, health workers unions, private health providers, the Party for Democracy and the Socialist Party.[202 203]

The commission concluded that the three primary challenges it identified (an aging population, the cost escalation of health services and socioeconomic inequalities in health) could only be solved by a legislated, explicit guarantee to basic services across the public and private sectors.[204] This was a formalization and expansion of the catastrophic coverage instituted by FONASA and ISAPREs in 1998 and 1999.[205]

In addition, a National Health Poll (called the Encuesta Nacional de Calidad de Vida y Salud) was conducted to codify the major health problems facing the nation and to validate the conditions chosen for quality guarantees in the future.[206]The Ministry of Health was divided into two undersecretaries: the Undersecretary of Public Health and the Undersecretary of Health Networks.[207 208]

Figure 19: Reformed Chilean Health System Structure



Source: The Chilean Health System: 20 years of reforms, Annick Manuel, Salud Publica de México; Country health profile Chile, PAHO; Chile's Neoliberal Health Reform: An Assessment and a Critique, Jean-Pierre Unger, PLoS Medicine; Health care reform in Chile, Gabriel Bastias, CMAJ; Chile: Regime of Explicit Health Guarantees (Plan AUGE), worldbank.org; The Politics of the AUGE Health Reform in Chile, Bitran y Asociados, May 2008

Third Wave of Reform (2005 to 2008): Deepening the Benefits Package

There were two sparks for reform in Chile leading up to 2005. First, the reforms of the 1990s, including the establishment of catastrophic coverage, had proven that major health system reform was possible. Second, health reform had become a political issue with public commitment from the president and the public. President Lagos assumed personal responsibility for change, stating "One of the main tasks of my administration will be to carry out a deep health care reform, focused on the rights and guarantees of the people and a solidarity-based financial system." [209 210]

The Health Reform Commission work from 2000 to 2004 suggested the need for explicit and binding health-service guarantees.[211] In 2005, the Plan de Acceso Universal con Garantias Explicitas (AUGE) was passed, detailing clinical protocols, maximum wait times and maximum co-payments for 41 priority health conditions.[212 213 214] These conditions included catastrophic guarantees and drug-intensive conditions (e.g., diabetes, HIV/AIDS).

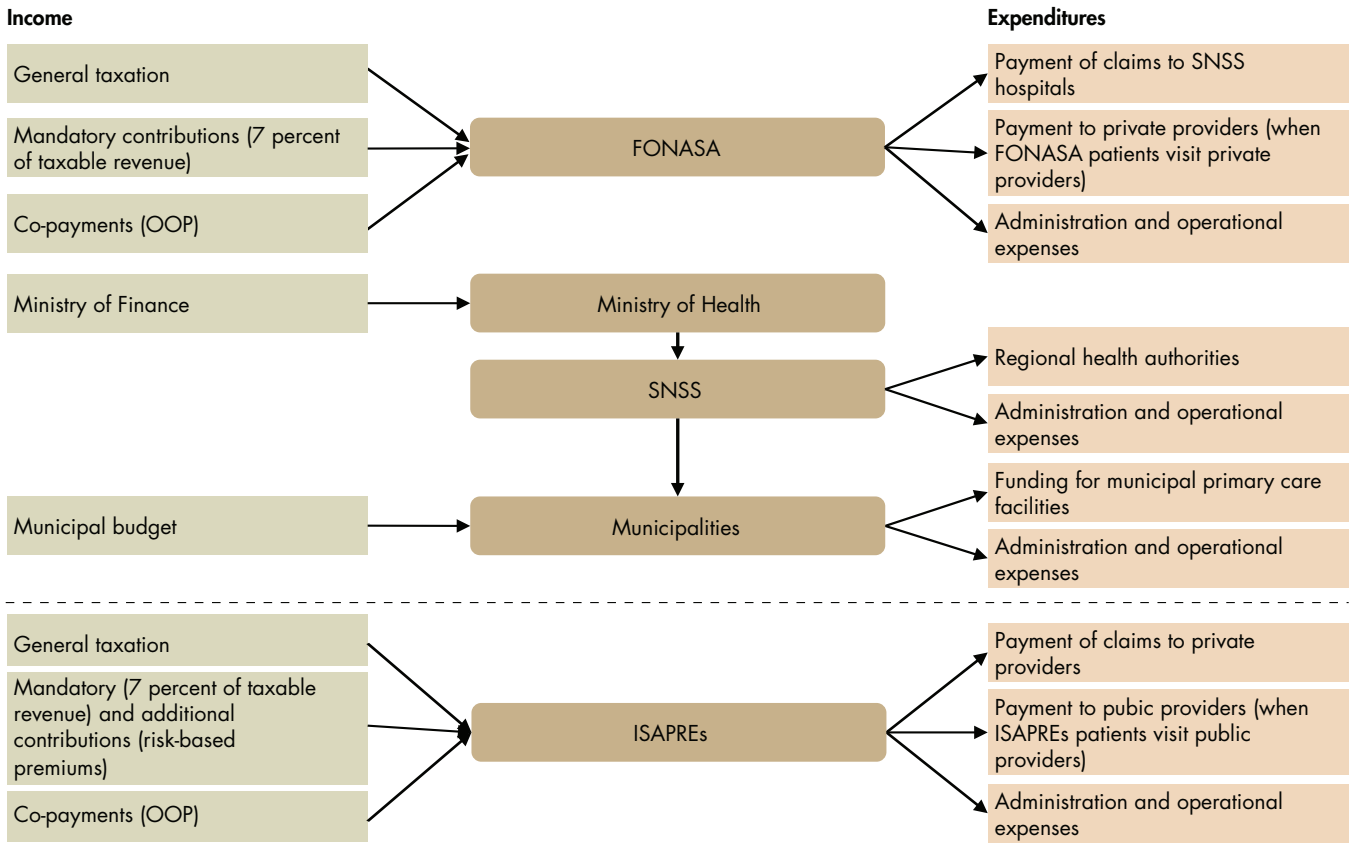
Since 2005, the list of guaranteed conditions has grown to 56. The 56 conditions range from chronic diseases (e.g., mental health conditions, diabetes, HIV/AIDS and epilepsy) to acute conditions (e.g., cancer, acute myocardial infarction and premature births).[215 216] For example, a diagnosis of hypertension must occur within 45 days of the first observation that blood pressure is greater than 140/90 mmHg. Treatment must begin within 24 hours of diagnosis, and the patient is entitled to see a specialist within 90 days of diagnosis. No co-payment is required.[217] PAD reimbursement is used in the public and private sectors for all AUGE conditions.[218]

The main challenge associated with the passing of the AUGE reform was how to finance the explicit guarantees that were common across private and public payers. There were discussions of cross-subsidization from ISAPREs to FONASA, but this never came to pass.[219] The law specifies that funding will come from the tobacco tax, customs revenues, the sale of the state's minority shares in public health companies and a temporary increase in consumer taxes from 18 percent to 19 percent.[220 221]

In 2005, the Superintendency of ISAPREs expanded to become the Superintendency of Health, encompassing not only the private payers but also FONASA.[222]

The reforms of the past 20 years have resulted in the health system and financing flow Chile relies on today; this can be seen in **Figure 19**.[223-228]

Figure 20: Financial Flows in the Chilean Health System



Source: The Chilean Health System: 20 years of reforms, Annick Manuel, Salud Publica de México; Chile: 20 años de esquemas liberales en protección social, UN Development Programme, 2003; The Politics of the AUGE Health Reform in Chile, Bitran y Asociados, May 2008

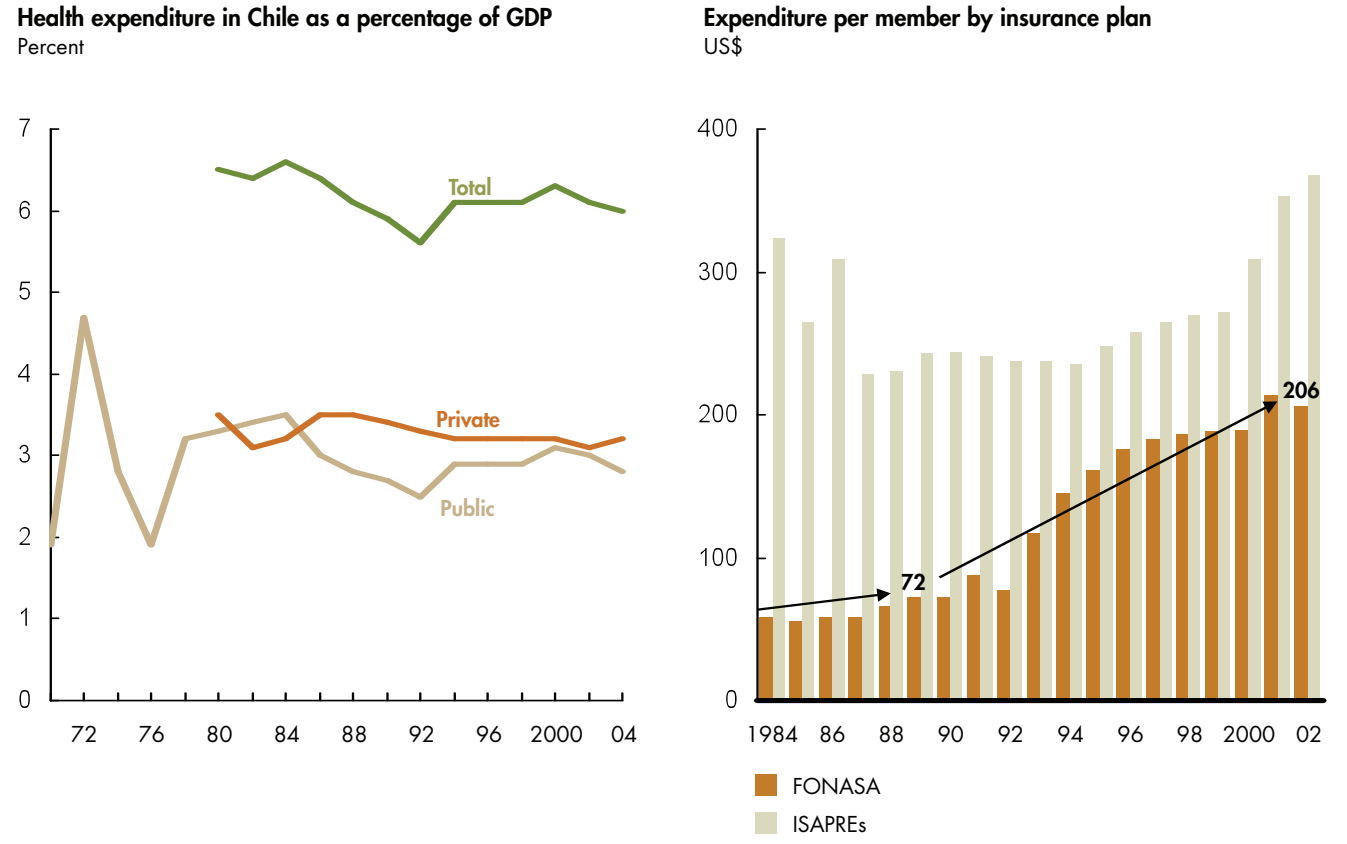
Impact of the Health System Reforms

The health system reforms have had significant impact in several specific areas:

- **Financing.** Over the period of reforms examined in this case study, total health expenditure increased from $2.5 billion in 1992 to $10.4 billion in 2008, maintaining a consistent relationship with GDP except during the financial crisis.[229] [230] Per capita spending on health more than doubled from $250 in 1995 to $547 in 2007. Out-of-pocket expenditure as a portion of total health spending has decreased slightly, from 29 percent in 1995 to 25 percent in 2007.[231]

The mix of public and private financing has shifted over time and reflects changing priorities within the health system. Between 1980 and 1992, public financing for health and total expenditure on health as percentages of GDP declined, while private spending remained constant. Public spending as a portion of total health expenditure decreased from 50 percent in 1980 to 40 percent in 1990. Following the return of democracy, public and total health expenditure began to increase.[232] [233] Expenditure per member in FONASA and ISAPREs follows the same trend as seen in **Figure 20**.[234]

Figure 21: Health Financing in Chile



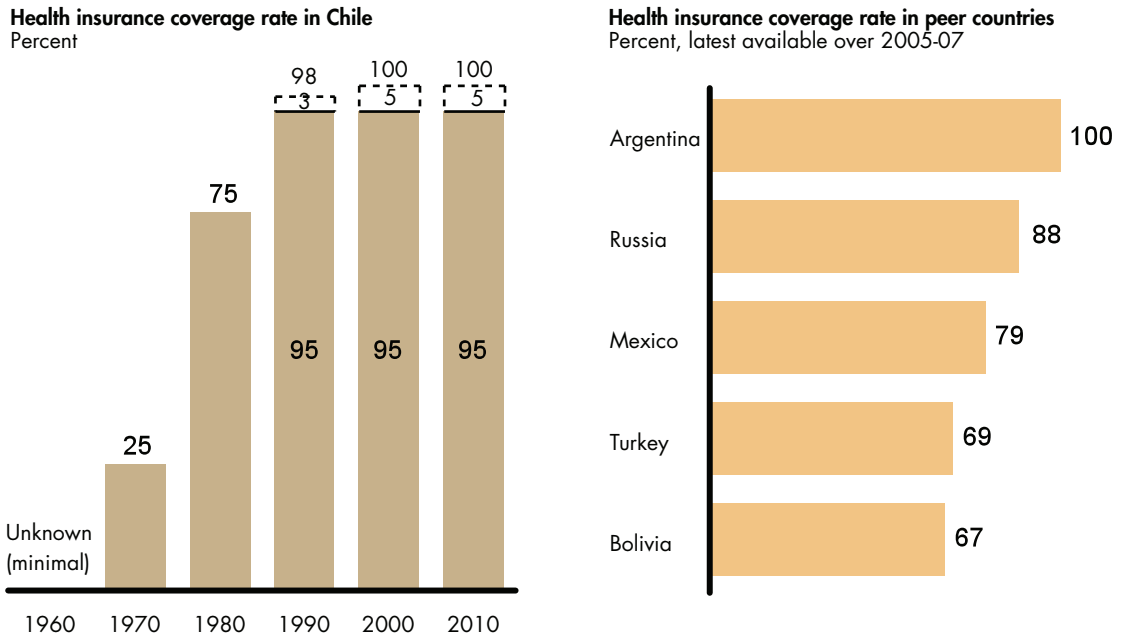
Source: Unger J-P, De Paepe P, Cantuarias GS, Herrera OA (2008) Chile's neoliberal health reform: An assessment and a critique. PLoS Med 5(4): e79; Barrientos and Lloyd-Sherlock, "Reforming health insurance in Argentina and Chile," *Health Policy and Planning*, 2000

- **Breadth and depth of coverage.** Chile has nearly achieved universal health care with respect to breadth of coverage. Prior to the creation of SERMENA in 1969, social security was the main source of coverage. By 1998, 95 to 98 percent of the population was covered by either FONASA, ISAPREs, or the military as seen in **Figure 21**.[235] [236] The reforms of the past 20 years have served to deepen the benefits package and ensure quality services, though challenges remain in enforcing the AUGE guarantees. In an inspection of public hospitals in 2009, 10 out of 16 hospitals did not meet the guarantees for the conditions examined.[237]

As of November 2009, 92 percent of Chileans thought the AUGE plan was equal to or better than the pre-2005 health system, and 79 percent of those who had directly benefited from the AUGE plan were satisfied. Among the most important variables cited as reasons for this satisfaction were protection (47.1 percent), defined protocols and quality (18.6 percent), clarity of information (12.6 percent) and access to treatment (12.2 percent).[238]

The mix of public and private financing has shifted over time and reflects changing priorities within the health system.

Figure 22: Impact on Coverage



Note: Health insurance coverage rate estimates differ by source and are shown as ranges where available

Source: Barrientos and Lloyd-Sherlock, "Reforming health insurance in Argentina and Chile," *Health Policy and Planning*, 2000

- **Health outcomes.** Chile has seen a dramatic improvement in key health indicators since the 1950s, coinciding with its increasing wealth and its advancements in health system reform as seen in **Figure 22**. Infant mortality has dropped from 136 per 1,000 live births in 1950 to 9 per 1,000 live births in 2000, while life expectancy has increased by 20 years since 1960.[239]

System Reform and Management Capacity Costs

Best estimates reveal that the cost of Chile's health system reforms between 1992 and 2008 totaled $492.9 million (2009-adjusted), or 0.9 percent of public health expenditure and 0.6 percent of total health expenditure over the period as seen in **Figure 23**.

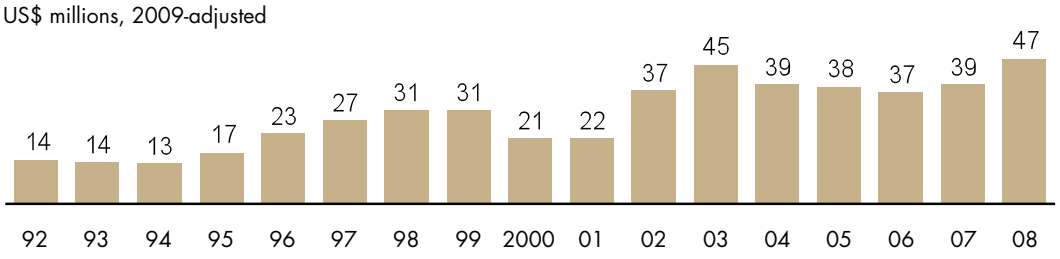
The system reform and management capacity costs can be examined in each period of reform previously described: health financing reform (from 1992 to 1999); the planning period (between 2000 and 2004); and the AUGE reform beginning in 2005. Across all periods, leaders estimate that $150,000 was spent per year on press and communications and $600,200 was spent per year on health economics and policy training.[240]

Between 1992 and 1999, the biggest cost components stemmed from restructuring the ministry of health and FONASA, creating IT systems to support the new financing program, and supporting provider-side training and IT. During this period, the World Bank devoted $66.1 million to these efforts as part of the larger Health Sector Reform Program, with funding going primarily to five health service areas.[241] [242] The FONASA administrative budget also increased significantly during this time incrementally by $96.4 million total over the period (rising from $16.1 million in 1992 to $32.8 million in 1999) above the 1990 baseline administrative spend.[243] During this period of reform, the cost of reform as a percent of public health expenditure varied from 0.7 percent to 1.2 percent.

In the planning period between 2000 and 2004, the Health Reform Commission cost $720,000 to operate annually, for a total of $3.6 million over the period.[244] FONASA's administrative budget increased by $156.4 million during this reform period.[245] The cost of reform as a percent of public health expenditure per year during this period varied between 0.6 percent and 1.2 percent.

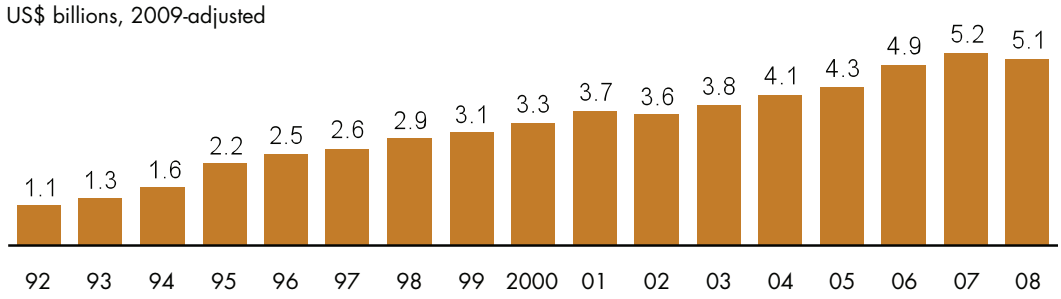
Figure 23: Costs of Reform in Chile

Cost of system reform and management capacity
US$ millions, 2009-adjusted



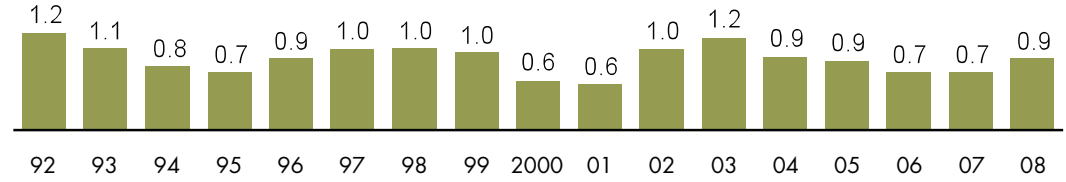
$492.9 million over reform period

Total public health expenditure (THE)
US$ billions, 2009-adjusted



0.6 percent THE over reform period

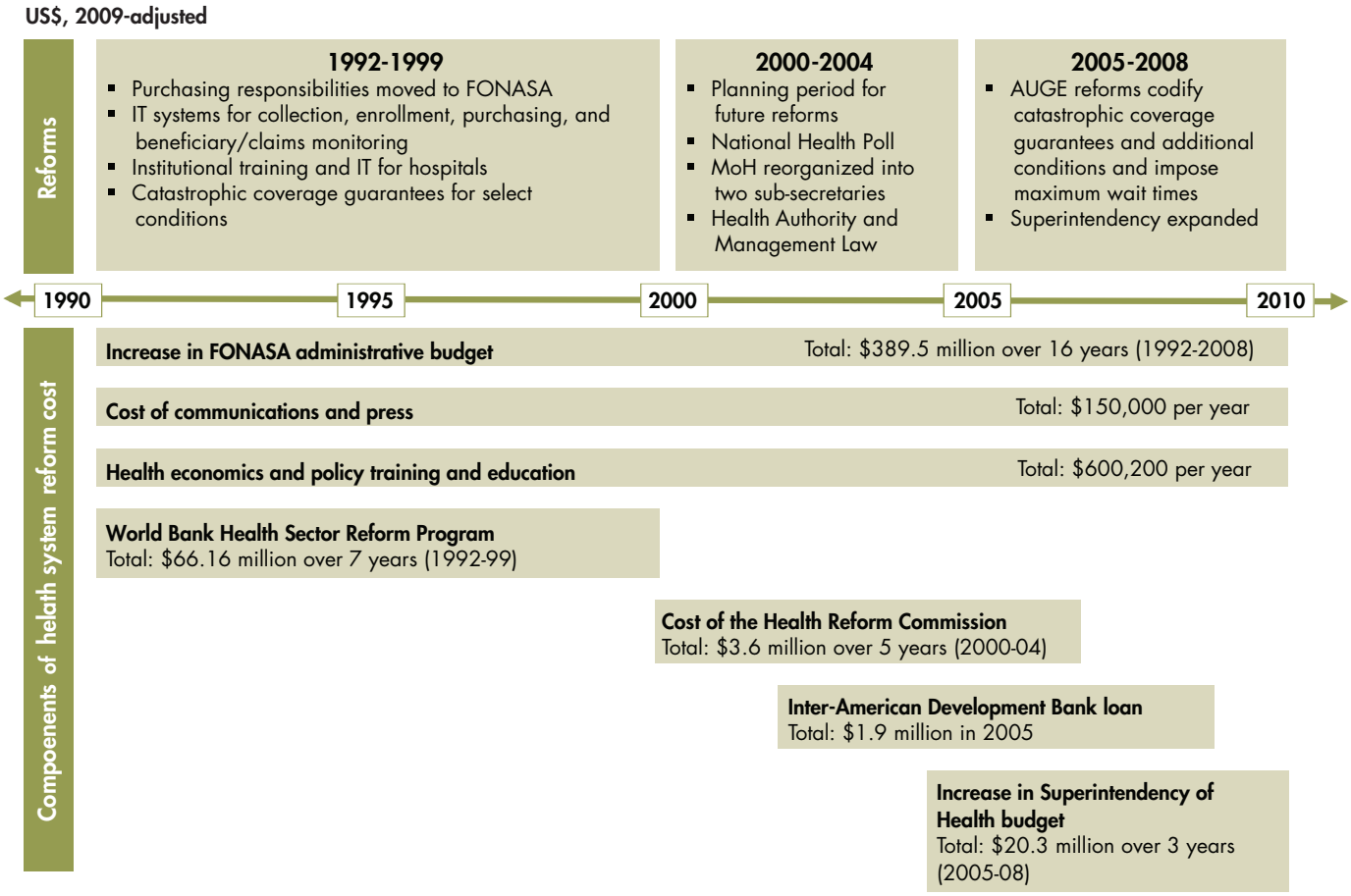
Cost of system reform and management capacity as percent public health expenditure (PHE)
Percent



0.9 percent PHE over reform period

Source: WHO National Health Accounts (http://www.who.int/nha/country/chl/en/); World Bank, "Staff Appraisal Report, Chile, Health Sector Reform Project," October 1992; Lenz, R. and de la Maza, M., "Financial Reform and Information Systems: The Chilean Experience of FONASA in the 90s, Information Systems of the Public Health Insurance," 1997; FONASA budgets 1995-2008, fonasa.cl; Superintendencia de Salud budgets 2005-2010, dipres.cl; "MIF approves $1.7 million to Chile to foster productivity and management tools in hospitals," Dec 2005, Inter-American Development Bank; Interviews

Figure 24: Chilean Health System Reform and Component Costs



Source: World Bank, "Staff Appraisal Report, Chile, Health Sector Reform Project," October 1992; Lenz, R. and de la Maza, M., "Financial Reform and Information Systems: The Chilean Experience of FONASA in the 90s, Information Systems of the Public Health Insurance," 1997; FONASA budgets 1995-2008, fonasa.cl; Superintendencia de Salud budgets 2005-2010, dipres.cl; Interviews

In the third period, falling between 2005 and 2008 and marked by the AUGE reforms, FONASA's administrative budget increased by $135.3 million in total.[246] Comparing the budget of the Superintendency of ISAPREs to the new Superintendency of Health shows an incremental cost of $34 million over five years.[247] [248] Finally, the Inter-American Development Bank loaned $1.9 million to the cause of fostering productivity and management tools in hospitals.[249] The cost components of reform are shown in **Figure 24**. The total cost of reform per year as a percent of public health expenditure varied between 0.7 percent and 0.9 percent.

Where Next?

Chile's health system has made great strides since its inception, but faces several challenges, including cost containment; managing hospital autonomy; enforcing the access and quality guarantees legislated in the AUGE reforms; and the continued implementation of the PAD system of reimbursement.

Case Study

DEEPENING COVERAGE THROUGH THE HEALTH TRANSFORMATION PROGRAM IN TURKEY

2003–2009

Summary: In 2003, the newly-elected government of Turkey launched the Health Transformation Program, which achieved sweeping aims: reforming the fragmented system from multiple parallel public payers to a single payer; increasing financing to the health sector; and extending patients' access to a deeper package of services.

Prior to 2003, 85 percent of the population was covered by a series of parallel public and private payers, with each of these covering defined population segments and operating its own infrastructure, purchasing practices, and accredited providers. By 2008 all former public payers were consolidated into the national payer Sosyal Güvenlik Kurumu (SGK), and all citizens were entitled to the same benefits package. In addition to system reforms, Turkey has invested heavily in primary medical care for its population.

Since 2000, impoverishment due to catastrophic health expenses has been cut in half, and patient satisfaction has risen from 40 percent to 67 percent. Nevertheless, Turkey faces considerable fiscal challenges. Cost escalation in both the public and private sectors left SGK with a deficit of $2.5 billion in 2008. Interviews indicate that Turkey may have spent $80 million to $440 million on system reform and management capacity from 2003 to 2009. That is the equivalent of 0.2 percent of public health expenditure and 0.1 percent of total health expenditure.

Context

Turkey is a middle-income country located at the intersection of Southeastern Europe and Southwestern Asia. It has a population of almost 74 million. Life expectancy at birth is 70 years for men and 74 years for women. The rural population comprises 31 percent of the total population, and 20 percent of the nation lives below the poverty line.

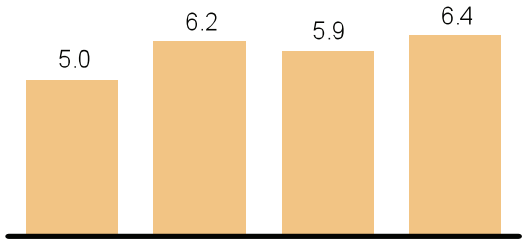
Turkey's disease burden is split by geography. Non-communicable diseases dominate overall, accounting for 79 percent of total deaths. Even so, communicable diseases, prenatal conditions and nutritional deficiencies present a noticeable burden in the Eastern regions of the country. Turkey has made sustained progress in improving its health outcomes over the past two decades, but the country still faces considerable challenges. Infant mortality has improved from 67 deaths per 1,000 live births in 1990 to 24 per 1,000 live births in 2006, though Turkey still lags behind its peers overall and there remains significant variability in health outcomes among different regions within the country.

Compared to other middle-income countries, Turkey has good availability of human resources for health services, though in this respect it lags behind other countries in the Organisation for Economic Co-operation and Development (OECD). The availability of health workers in Turkey is below the OECD average, with 1.6 practicing physicians and 3 practicing nurses per 1,000 lives (the OECD averages are 3 and 10, respectively). In 2006, 83 percent of births were attended by a skilled health professional, compared to 100 percent in Russia, Germany and Poland. The utilization of available acute care beds was 65 percent in 2006, compared to 82 percent in the UK and 77 percent in Poland.

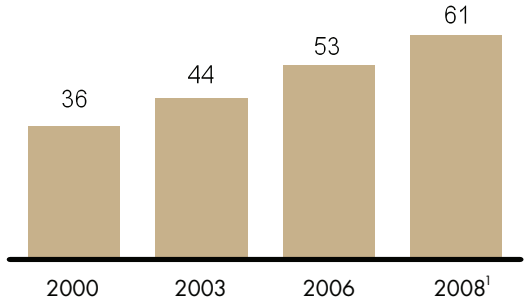
The economic crisis of 2001 brought the inadequacies of the existing system into sharp relief.

Figure 25: Total Health Expenditure in Turkey

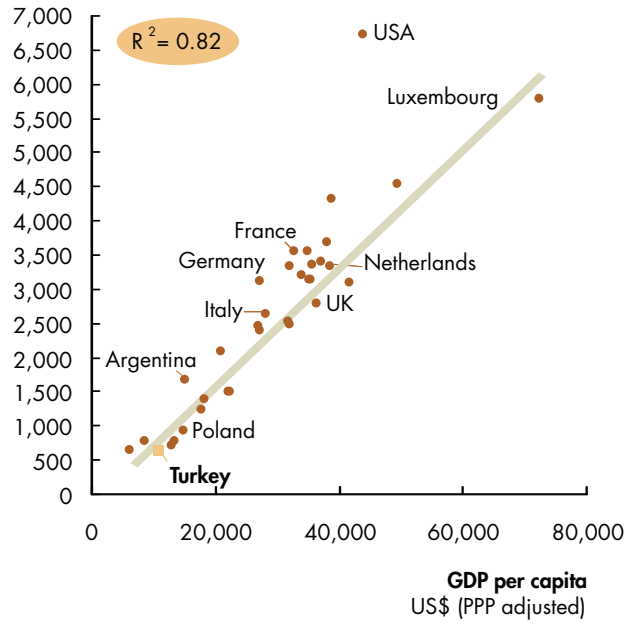
Total health expenditures as a percentage of GDP
Percent



Total health expenditures
Billion real Turkish lira, 2008 adjusted



Per capita total health expenditures in selected countries, as a function of GDP per capita
US$ (PPP adjusted), 2006



PPP—purchasing power parity

1 Based on the following hypotheses: (a) OOP expenditures stable at the 06 value of 19 percent of THE; (b) private financing excluding OOP growing at the 03-06 rate of 6 percent a year in real terms

Source: School of Public Health; TURKSTAT; Health at a Glance—Turkey, 2007; McKinsey analysis

Total health expenditure as a percent of GDP has increased from 4.9 percent in 2000 to 6.4 percent in 2008, and total health expenditure in absolute terms has nearly doubled from 36 billion Turkish liras (about US$25.5 billion) to 61 billion liras (US$43.2) over the same time period. This increase is in line with expectations of the correlation between GDP per capita and total health expenditure per capita as seen in **Figure 25**. Out-of-pocket expenditures accounted for 23 percent of total health spending in 2007, a value lower than that of most of Turkey's peers (in Poland, that number was 26 percent, while in Mexico it was 30 percent and in Russia it was 50 percent). Donor funding does not play a significant role in health financing, and consists mainly of European Union support for reproductive health programs.[250]

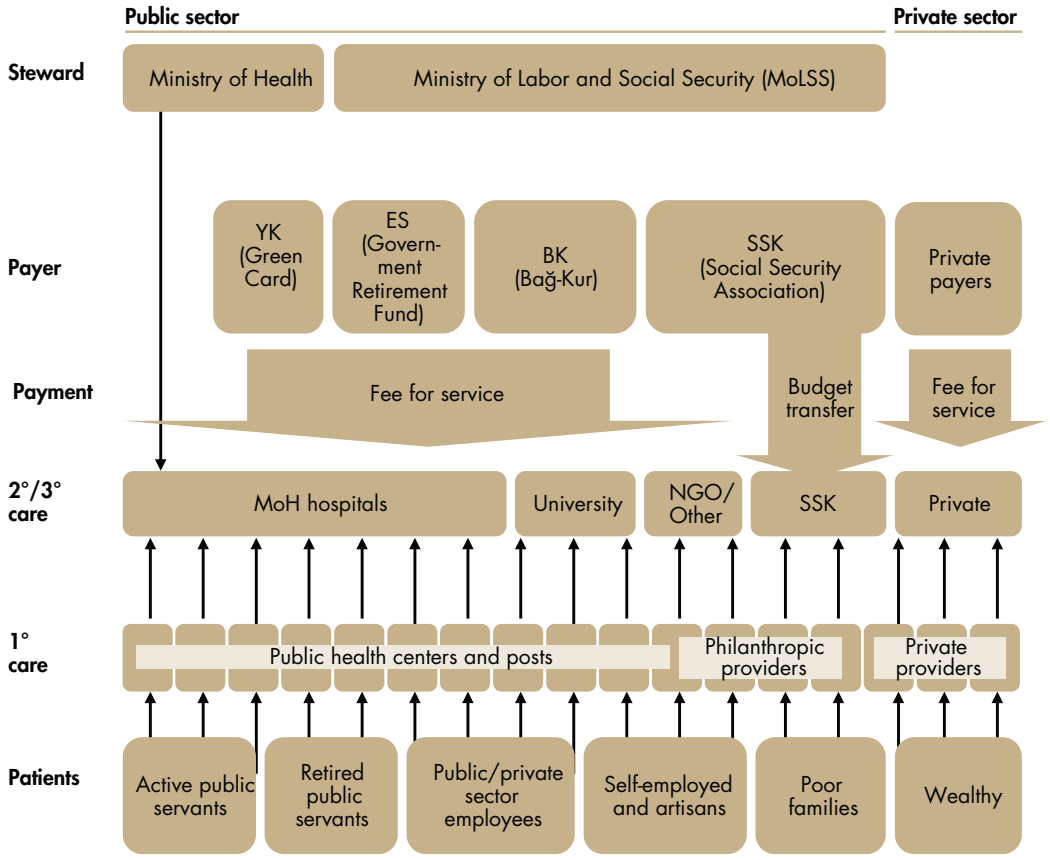
Key Features of Turkey's Prior System

- **Stewardship.** The Turkish Ministry of Health was responsible for health service delivery and health policy, as well as health insurance for the poor. The Ministry of Labor and Social Security administered the remaining public payers.

- **Payer structure.** Prior to 2003, the system consisted of a series of parallel payers each with its own governance, benefits package and purchasing standards. Each of the four public payers covered a different population segment and dependents, while private payers covered the wealthy. Of the four government schemes, the Sigortalar Kurumu (the Social Security Association or SSK) was the largest public insurer, covering white- and blue-collar workers, who made up 46 percent of the population. Emekli-Sandigi (the Government Retirement Fund or ES) provided coverage for retired public servants, and the Bağ-Kur (occupational pension fund) provided coverage for artisans and the self-employed. Together, the ES and Bağ-Kur covered 38 percent of the population. Yesilkart (the Green Card program or YK) covered inpatient services for families making less than a third of minimum wage.

- **Coverage.** In total, 64 percent to 85 percent of the population had some form of health insurance. However, the benefits package varied considerably by payer (e.g., Green Card services covered only catastrophic conditions).

Figure 26: Pre-2003 Turkish Health System



Source: OECD Reviews of Health Systems—Turkey, 2008; WHOSIS database; Health Transformation Program in Turkey—Progress report, August 2008; press clipping

The Health Transformation Program, therefore, was focused on deepening the package of services, as well as broadening coverage to those outside the existing system.

- **Reimbursement and payment mechanisms.** The Government Retirement Fund, Green Card program, Bağ-Kur and private payers all relied on fee-for-service models to purchase medical services, albeit with unique pricing and billing systems. The SSK funded its own hospitals via direct budget transfer.

- **Provision.** Secondary and tertiary care provision was dominated by the public sector, which administered 92 percent of all hospital beds. The ministry of health administered 60 percent of hospitals and multiple other public entities (universities, SSK). Meanwhile, government bodies ran their own facilities (e.g., the postal and rail services). Public hospitals were financed directly by the government. Private hospitals played a relatively small role, and were concentrated heavily in the large cities (such as Ankara, Istanbul and Izmir). These hospitals were primarily financed by patients, but the SSK and Bağ-Kur also had contracts with a targeted group that provided specialist care.

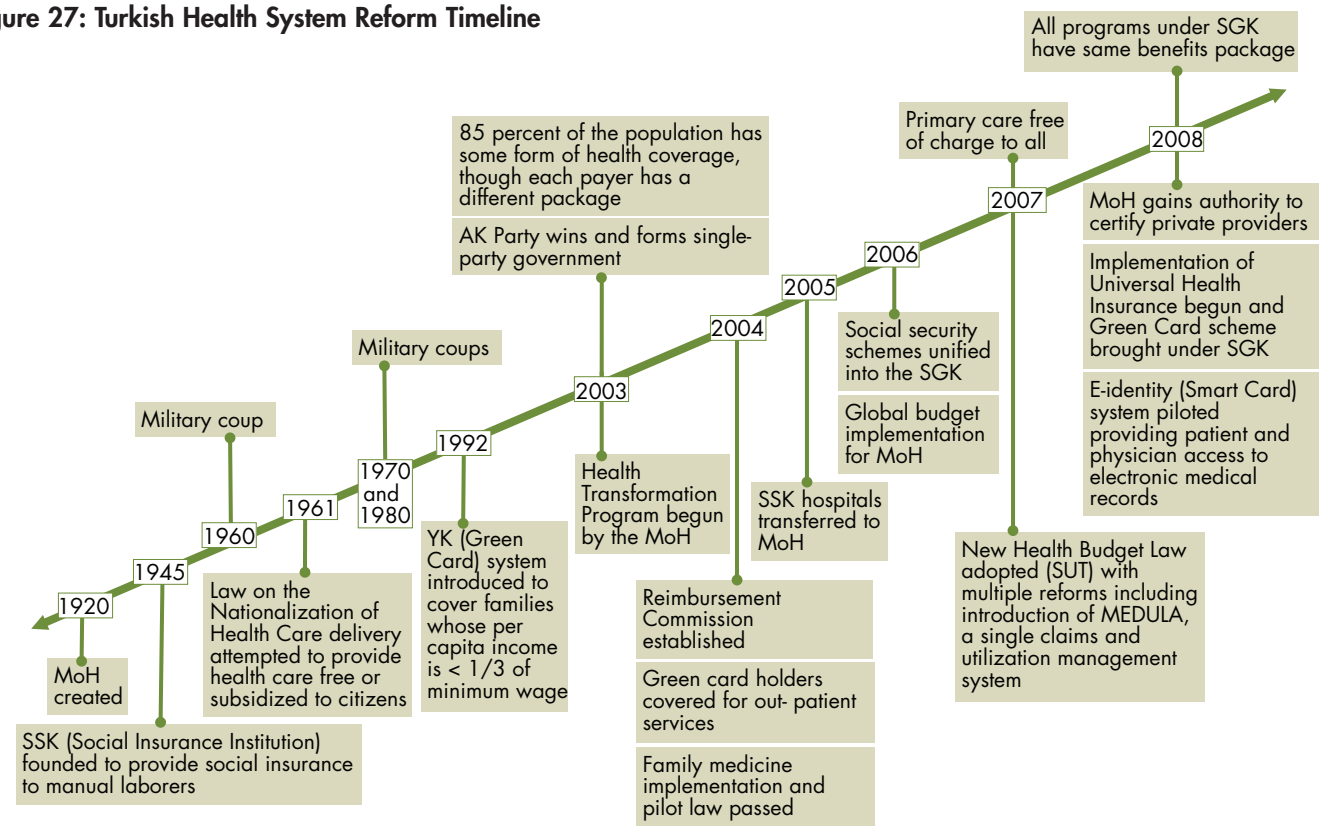
The major components of Turkey's previous system are illustrated in **Figure 26**.

Origins of Reform

The economic crisis of 2001 brought the inadequacies of the existing system into sharp relief. With rising unemployment, the risk of impoverishment due to catastrophic expenditures was more apparent. To many, the safety net of the state was not providing sufficient security. Anecdotal evidence of widespread dissatisfaction with the health system was confirmed by surveys that reported more than 60 percent of the population was dissatisfied with problems such as limited access for some, unequal benefits across programs and a low quality of services.

The elections of 2002 were decisive. The AK Party swept into power, ushering in Turkey's first single-party government since 1987. The party had stood on a platform of fundamental democratic and economic reform. In the health sector, that was realized as the Health Transformation Program, which was launched in 2003.

Figure 27: Turkish Health System Reform Timeline



Source: "Health Care Systems in Transition: Turkey," European Observatory on Health Care Systems, 2002; "The Ongoing Reform in Turkish Public Health Sector: Experiences and Future Prospects," Acar, C. Taylan, 2007; OECD Reviews of Health Systems—Turkey, 2008; "Health Transformation Program in Turkey—Progress Report," Turkish MoH, 2009

Turkey's health system had evolved over six decades, developing parallel systems for different population segments: from the civil service, to the army, to blue-collar workers, to the poor. In essence, the principal accomplishment had been a broadening of coverage to include around 64-85 percent of the population. Nevertheless, the benefits package varied considerably, with some receiving a significantly more generous package than others. This in itself presented a great political challenge. Some groups, such as civil servants, feared that reform would mean a leveling down rather than a leveling up in their cases. The evolution of the system is described in **Figure 27**.

Proposals for reform had been developed throughout the 1990s by senior officials within the Turkish government. By the time the AK Party was elected, much of the technical effort had been underway for a considerable period of time. The final reform proposals were developed by a small team of senior officials, academics and representatives from international institutions (e.g., World Bank), under the leadership of the newly appointed minister of health (himself an academic with deep knowledge of health policy). The proposals of the Health Transformation Program received strong political support from the prime minister.

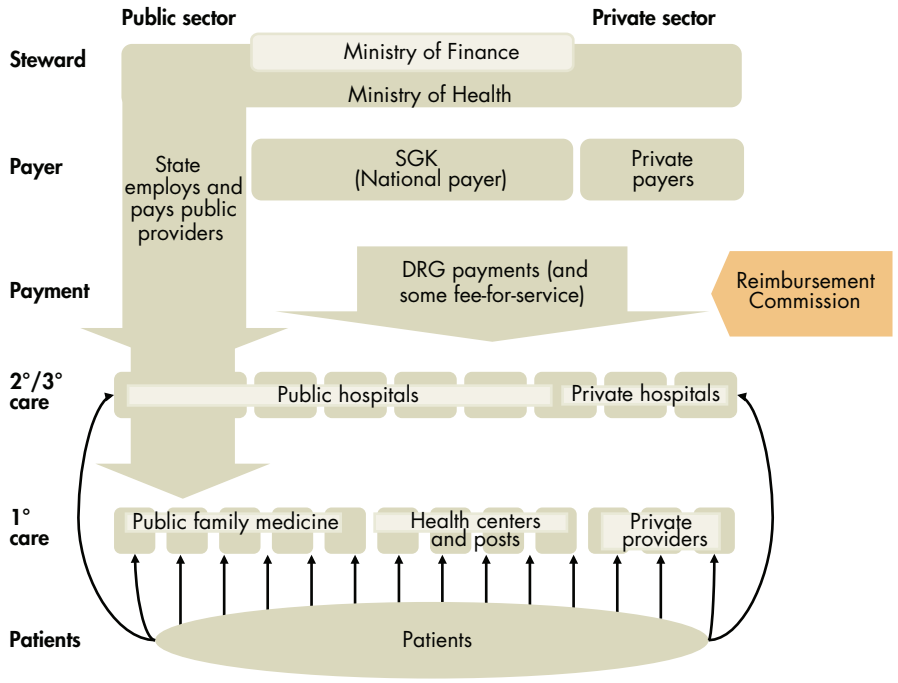
Indeed, throughout the design and initial implementation process, a small group of senior stakeholders from five government ministries (Turkey's prime minister's office and the ministries of health, finance, the treasury and labor and social security) met regularly to ensure cross-government alignment in the form of a steering committee. Furthermore, success was spurred by continuing stakeholder and political management along with a design process that was so broad it reached the government, academia, trade unions, the media and the public.

The reform process has demanded extensive legislative changes. Legal changes have been required for the integration of payers, the creation of the family medicine program, reimbursement and claims and system financing. The process has been a rollercoaster ride: major legislation on health insurance was thrown out by the constitutional court on the grounds of its inequity, forcing the government to return to the legislative drawing board. The legislative process of refining health reform continues to this day. The key features of Turkey's reformed health system are outlined in **Figure 28**.

The Key Features of Reformed System

- **Stewardship.** The ministry of health remains the system steward, responsible for the overall system design, and for arbitrating interactions between each part of the system. Today the ministry continues to retain a strong role in provision, managing public hospitals and the family medicine program through its

Figure 28: Reformed Turkish Health System Structure



Source: OECD Reviews of Health Systems—Turkey, 2008; WHOSIS database; Health Transformation Program in Turkey—Progress report, August 2008; press clipping; "General Overview of the Public Health Sector in Turkey in 2006," Policy Department Economic and Scientific Policy of the European Parliament; saglik.gov.tr

regional offices. Doctors in public providers remain salaried government employees of the ministry of health. The ministry of labor and social security has oversight of the national payer, SGK.

- **Payer structure.** Turkey has created a single-payer system. The Sosyal Güvenlik Kurumu (Social Security Institute or SGK) combined the SSK, Green Card program, Bağ-Kur and Government Retirement Fund into a single entity. According to interviews, this was the core purpose of the reform: to create a payer with monopoly purchasing power to raise productivity on the provider side and to use these efficiency gains to expand health care access.[251]

- **Enrollment and benefits package.** Enrollment in SGK is mandatory, except for those who elect to buy private insurance. All beneficiaries are entitled to the same comprehensive benefits package. The integration of benefits packages across population segments occurred in a stepwise fashion, with the first goal being to deepen all packages to the level of the Government Retirement Fund (which had the deepest package pre-reform), and the second goal being to add additional services to this deepened package.

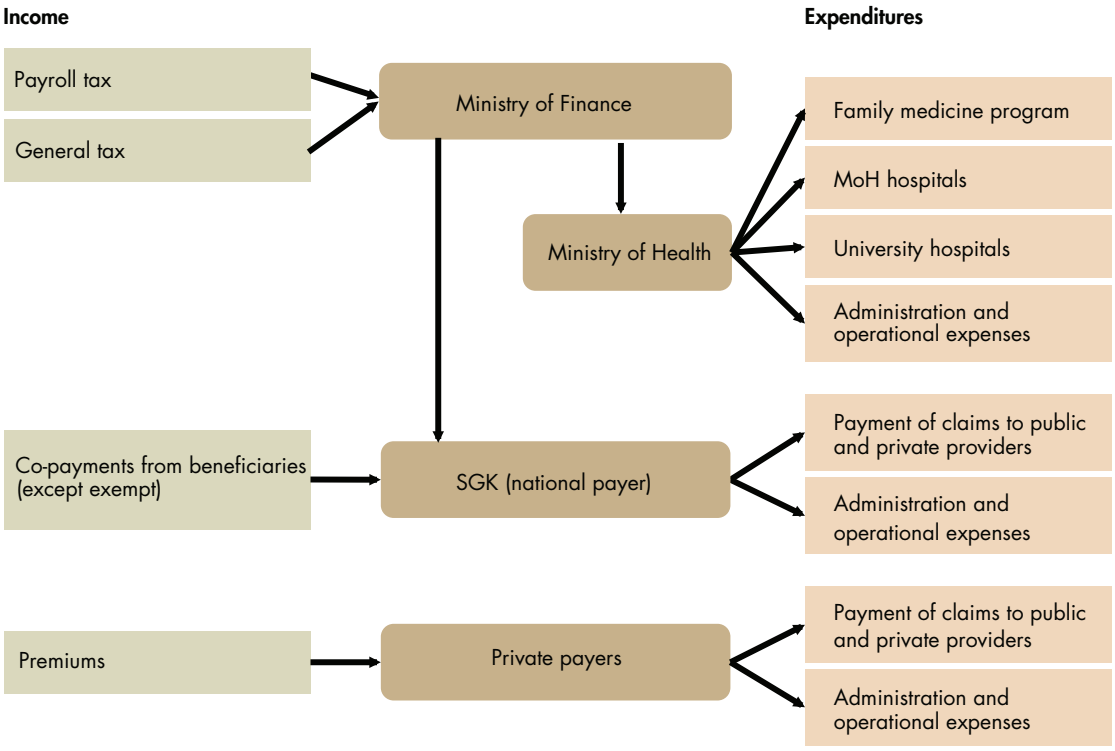
- **Reimbursement and payments.** A newly created Reimbursement Commission is responsible for setting prices and modulating the benefits package. Initially, few changes were made to the old, fragmented fee-for-service model. In 2003, a system of performance-based supplementary payment was piloted in some ministry of health hospitals; in 2004, this system was expanded nationwide. In 2007, the SGK created a bundled price for outpatient and inpatient services. Finally, a system of diagnosis-related groups (DRGs) modeled on those in Australia, was piloted. Implementation of DRGS is proceeding today in public and private hospitals.

- **Co-payments.** Co-payments vary by type of beneficiary and service type. For all, outpatient exam co-payments start at nothing for first-line health care and increase to as much as 10 Turkish lira (about US$6.70) for private hospital consultations. Active contributors, passive members and their dependents make no payment at the provider site. The sum of their expenses (10 percent and 20 percent of treatment tools and outpatient medications, for passive members and active contributors, respectively) is deducted directly from their salaries. After consultation, Green Card holders must pay 10 percent of the cost of treatment tools and outpatient medications at a pharmacy.

- **Provision.** Beneficiaries of SGK receive primary care from the publicly funded family medicine model piloted in 2004 and gradually expanded thereafter nationwide. Patients enroll with a family medicine provider, often in geographic proximity to their homes. Family medicine physicians are given monthly capitation payments based on the number of patients enrolled and based on their individual performances. Public health centers and posts supplement this system. There are not a sufficient number of family medicine physicians to cover all patients, so referrals from primary care to secondary and tertiary care are no longer required.

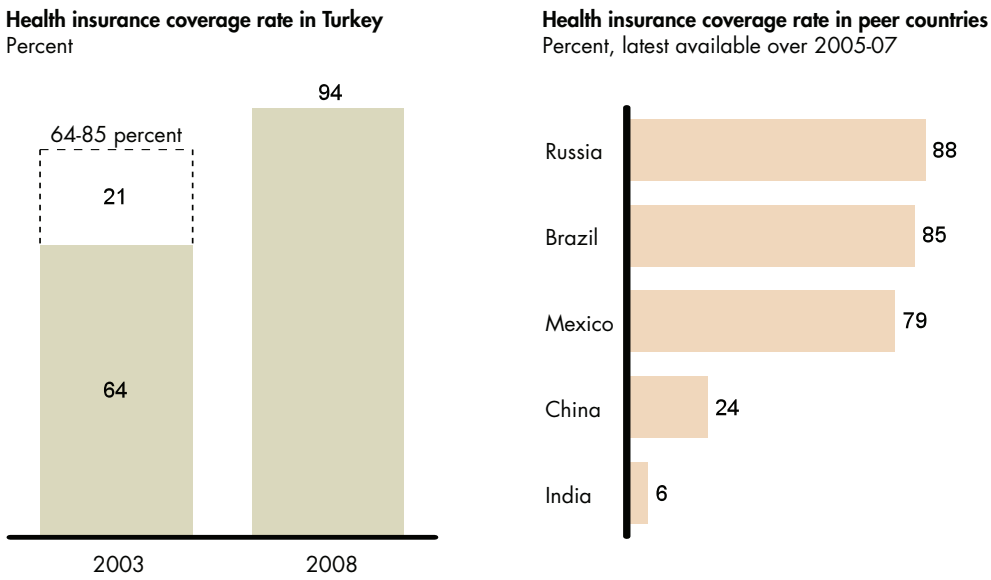
  Most inpatient care is still provided by public hospitals, though the number of private hospital beds has increased, climbing by 15 percent every year since 2004. The Health Transformation Program proposed integration of most public hospitals, allowing government entities and payers to release their provision and to facilitate hospital autonomy. Several smaller reforms have taken effect while the integration plan runs its course. Examples of reform include granting hospitals greater flexibility over funding and investment decisions and establishing a payment system for physicians that is partially based on performance.

Figure 29: Financial Flows in the Turkish Health System



Source: OECD Reviews of Health Systems—Turkey, 2008

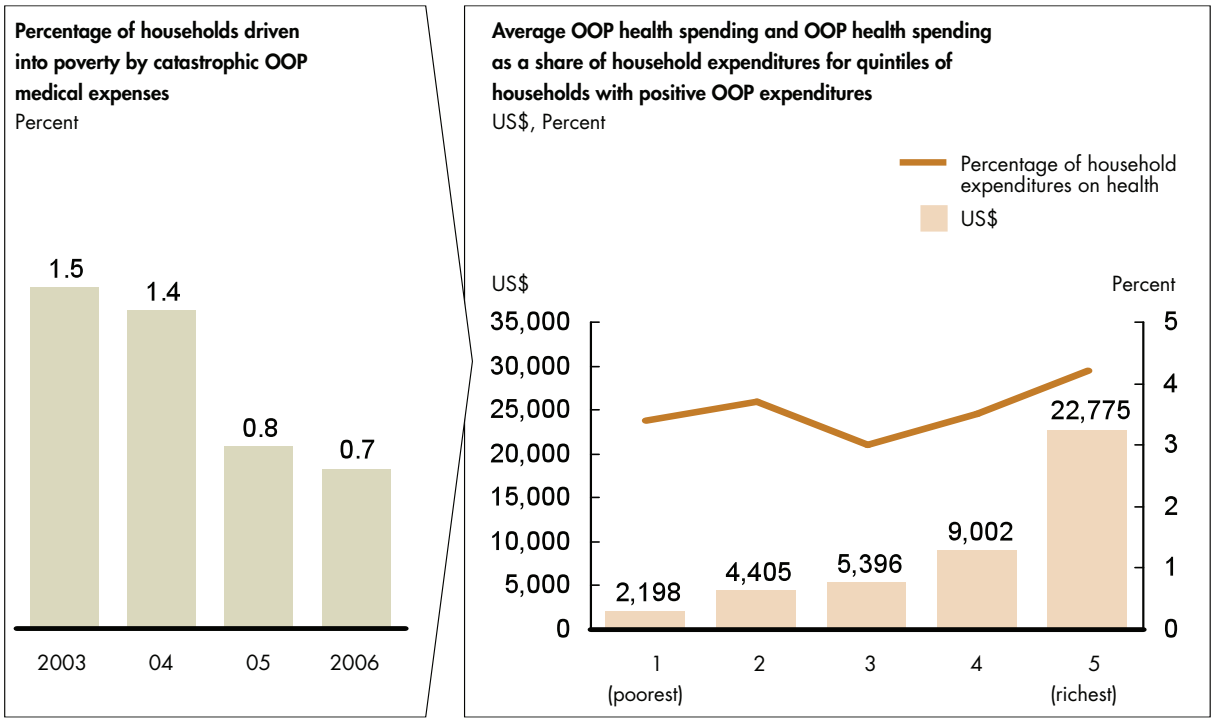
Figure 30: Impact on Coverage



Note: Health insurance coverage rate estimates differ by source and are shown as ranges where available

Source: Kisa A, Younis M. Financing Health Care for the Poor in Turkey: Is a Temporary Solution Becoming a Permanent Scheme? Public Health Reports, Nov-Dec 2006; International Labour Organization, Social health protection: an ILO strategy towards universal access to health care, Social Security Department, August 2007; OECD Reviews of Health Systems—Turkey, 2008; Tatar M et al., Informal Payments in the Health Sector: A Case Study from Turkey, *Health Affairs*, 2007

Figure 31: Financial Protection from Catastrophic Out-of-Pocket Expenses in Turkey



Source: OECD Review of Health Systems—Turkey, 2008; McKinsey

- **Enablers.** Turkey has developed an integrated information technology (IT) system and electronic identification cards to replace the unique systems of each of the pre-reform payers. The Medula system for integrated claims processing and utilization tracking was introduced in 2007. In February 2010, the government announced the planned introduction of an updated system that may be better able to provide integrated, real-time, self-serviced information. Smart Cards will replace existing identification cards and drivers' licenses, and will carry biometric data about the holder. Interviewees highlighted that the IT system had been an important way for the SGK and its predecessors to establish leverage over providers. What was initially described as an invoicing system was gradually expanded to include performance metrics.

- **Financing.** The Turkish health system is principally funded through payroll taxation, with a small contribution from co-payments as can be seen in **Figure 29**. Private payers collect premiums from their members. For SGK, contributions are set at 12.5 percent of taxable income, 7.5 percent of which comes from employers and 5 percent from beneficiaries. The government pays the contributions of disabled people, refugees, Olympic champions, veterans and children in social services. Poor people formerly covered by the Green Card program are exempt from premium payments on a means-tested basis, and the government covers their premiums.

Impact of the Health Transformation Program

One of the major impacts of the Health Transformation Program is that Turkey has seen an increase in the breadth of coverage, from 64 percent to 85 percent of the population covered in 2003 to 94 percent of the population covered in 2008.[252-256] See **Figure 30**.

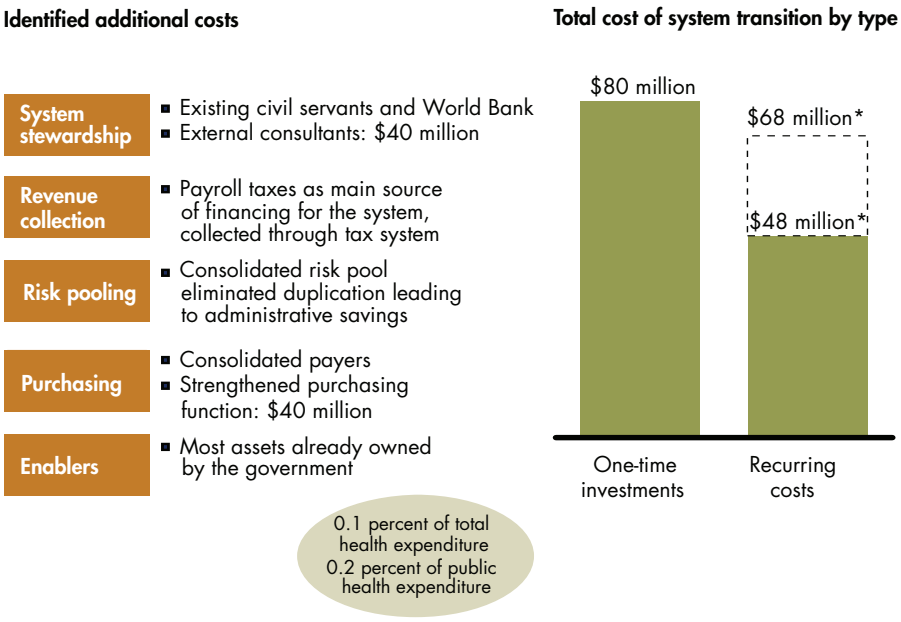
The positive impact of the Health Transformation Program (HTP) can be seen in all dimensions of health system performance. Between 2000 and 2008, access to health care services has increased and infant and maternal mortality rates have improved. Inpatient admissions per 100 people increased from 7.5 to 12.4, and outpatient contacts increased from 2.4 to 5.4. Infant mortality improved from more than 30 deaths per 1,000 live births to 20 deaths per 1,000 live births, and maternal mortality improved from 70 per 100,000 births to 19.5 per 100,000 live births.[257] Patient satisfaction has dramatically increased from 39.5 percent in 2000 to 66.5 percent in 2007.[258 259]

Total health expenditure as a percent of GDP has also increased from 4.9 percent in 2000 to 6.3 percent in 2008. Out-of-pocket expenditure on health decreased from 28 percent to 20 percent over this time period, and the number of households driven into poverty by out-of-pocket medical expenses was halved as seen in **Figure 31**.[260 261 262]

Turkey has seen an increase in the breadth of coverage, from 64 percent to 85 percent of the population covered in 2003 to 94 percent of the population covered in 2008.

Figure 32: Cost of the Transition in Turkey

US$, millions, 2003-2009



* Estimate from interviews applies to whole system, including provision

Source: Interviews

System Reform and Management Capacity Costs

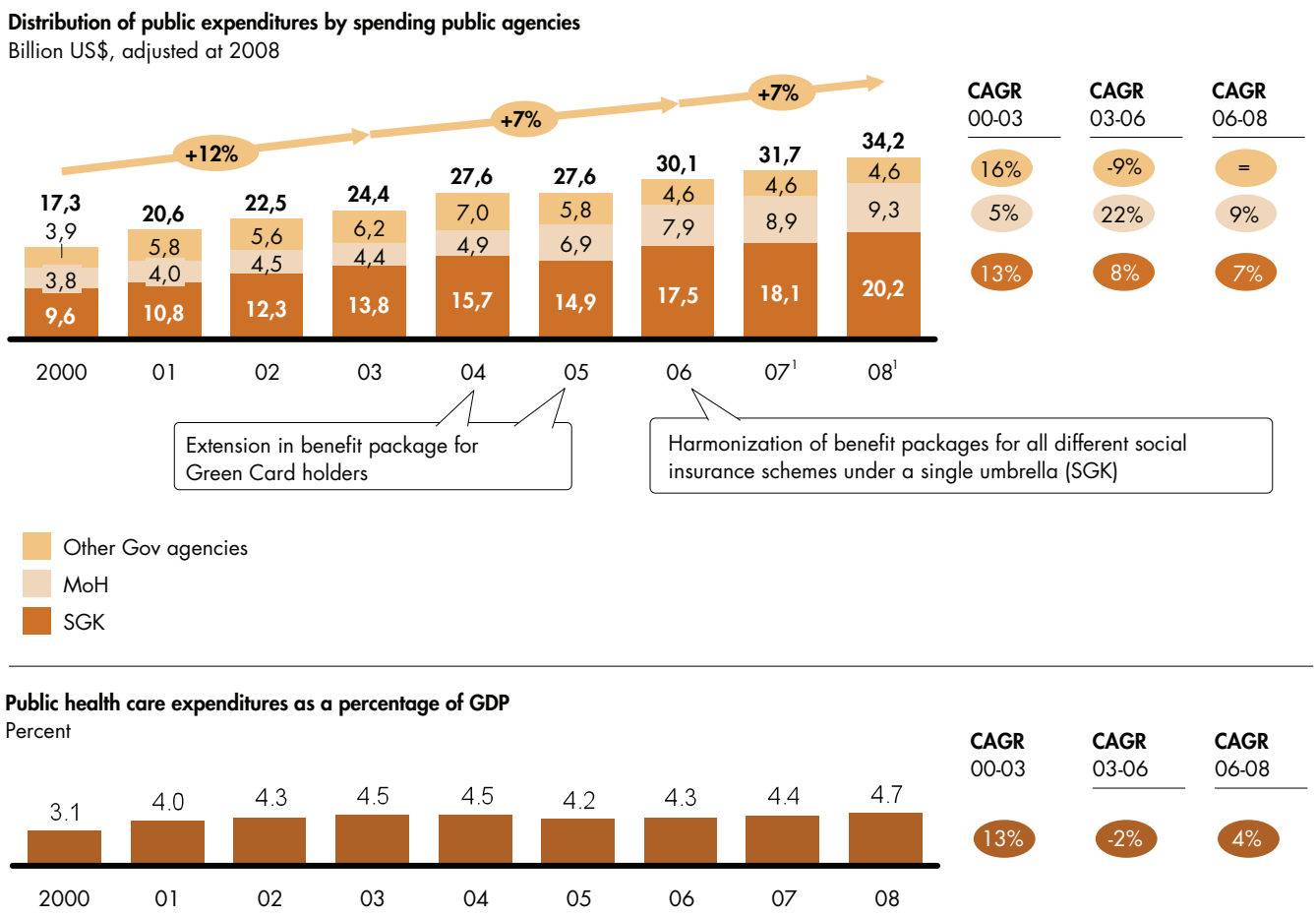
Turkey is a unique case when it comes to understanding system reform and management capacity costs. Turkey's reform efforts have focused on consolidating to a single payer with monopoly power, and thereby eliminating unnecessary duplication of transactions within the system. Turkey also possesses strong institutions, with large, powerful and capable government ministries. These two factors combined mean that administration costs have been kept low in the new system, and that unbundling the costs of the reform from existing costs is complex. Indeed, interviewees explained that this was never seen as a priority; it was a question of how to make optimal use of existing resources, rather than a need to allocate additional resources.

Specifically, as the four parallel public payers have been combined, duplication has been eliminated and existing employees have remained within the system. Interviewees explained that a small number of individuals with specific expertise were hired to supplement the ranks of existing civil servants. The other main source of cost was information technology (though even here, expenses were modest compared to the major investments in IT seen in other single-payer systems, such as England's National Health Service).

Best estimates from interviews and external sources are illustrated in **Figure 32**. In total, from 2003 to 2009, it was estimated that Turkey devoted an additional 0.2 percent of total health system expenditures to system reform and management capacity in order to accomplish the changes required in the Health Transformation Program. This is equivalent to $326.4 million, but the estimate applies across both payers and providers as well as central systems. One-time costs (specifically, the design of payment mechanisms, IT systems and external consultants) account for $80 million.

The incremental cost of system reform and building management capacity in Turkey was very small, primarily because existing institutions were so strong and reforms were focused on streamlining the pre-reform system.

Figure 33: Public Health Expenditure as a Share of Turkey's GDP



1 Based on the hypothesis that spending on health care of government agencies other than MoH and SGK remains constant between 2006 and 2008
CAGR—Compound Annual Growth Rate

Source: SGK, Government national account, "Health at a glance, Turkey 2007" by MoH, McKinsey analysis

Where Next?

Over the course of the reform period, Turkey saw a significant acceleration in fiscal expenditure toward the health sector, though total health expenditure as a share of GDP stayed relatively constant. This is illustrated in **Figure 33**.

Today, SGK faces significant financial challenges, with a substantial deficit.[263] [264] The recent economic crisis is expected to aggravate this trend. SGK offers a generous benefits package with inadequate demand management, and it possesses limited strategic purchasing capabilities. The Turkish government is obliged to finance the fiscal gap created by SGK to ensure financial self-sustainability, but SGK itself has few incentives for reaching financial equilibrium.[265]

Like many countries, Turkey faces the problem of an aging population. This drives up health care use, and shifts the disease burden toward chronic diseases that necessitate greater continuity of care, often at a higher cost. In addition, a higher reliance on more sophisticated technology may lead to a net increase in fixed costs within the system.[266]

Antonin Kratochvil/The Rockefeller Foundation

CHAPTER FOUR

Conclusions

The case studies presented in Chapter 3—as well as the histories of the health systems of Rwanda, South Korea, Taiwan and Thailand outlined in the annex—teach valuable lessons: invest in institutions early, note that the required investment can be relatively small and know what to look out for during the implementation process.

Antony Njuguna/The Rockefeller Foundation

In low-income countries with significant capacity and capability gaps, system reform and management capacity costs received greater attention, with mixed results.

Invest in Building Institutions Early

Leaders at the center of health reforms in case-study countries suggested that system reform and management capacity costs are sometimes overlooked, occasionally actively de-prioritized, or given insufficient resources and management attention. Technical capacity appeared to have a significant influence on the degree of focus on these costs. In middle-income countries where technical capacity and capability are greater, the focus on system reform and management capacity appeared to be lower. Here, there may have been a belief that officials in the ministry of health would make the necessary changes—and an expectation that they would do so successfully. In hindsight, reform leaders consistently expressed the wish that they had focused on institution-building earlier in the reform process, and paid more attention to implementation issues.

As a consequence of these dynamics, in both Chile and Turkey, reform has been an *iterative process*, with the functions and capabilities of the new payer organizations and regulators evolving over time. In Chile, the national payer, El Fondo Nacional de Salud (FONASA), gradually transformed its role from that of a "national accountant" principally charged with disbursing funds to providers to that of a proactive payer that sought to secure better provider performance and an enhanced patient experience. The scope and depth of the regulation of both FONASA and the private insurers (known as "ISAPREs") was extended from the 1990s through 2003.[267] [268] In Turkey, the consolidation of four separate payers dedicated to particular segments of the population into a single national payer (the Social Security Institution or SGK) evolved over five years, with joint oversight between the Ministry of Health and the Ministry of Labour and Social Security, initially building on existing benefits packages and reimbursement systems.[269] Today, funds still flow from the ministry of health directly to public providers. This might suggest a further stage of reform to come.

In low-income countries with significant capacity and capability gaps, system reform and management capacity costs received greater attention, with mixed results. In Ghana, leaders acknowledged that implementation challenges were not sufficiently considered at the right time, during the design phase, leading to greater difficulties down the line. Specifically, the design choice for risk pooling at a district level meant greater demand for already scarce capabilities. Furthermore, this may have been compounded by weak central control and accountability mechanisms, which led to the misappropriation of centrally provided funds.

The experience of Ghana contrasts strongly with that of the Indian state of Andhra Pradesh. The Aarogyasri Trust is focused on providing catastrophic protection to poor communities.[270] The challenges of implementation were factored into the design of Andhra Pradesh's system. There was an explicit decision *not* to collect revenues directly from beneficiaries, but rather to fund the system through taxation. The reason was that the transaction costs of demand-side financing would likely exceed the income it would generate. Nevertheless, a system of enrollment was developed because coverage is capped at $4,300 per beneficiary during the course of any given year.[271] Significant investment was made in interactive technology (IT) systems to ensure that spending would remain within this limit and that there would be strong accountability for expenditures.

Required Investment Is Relatively Small

Costing of the system reform and management capacity was undertaken in four of the eight systems profiled (Andhra Pradesh, Chile, Ghana and Turkey). Historically, system reform and management capacity costs have not been methodically collected or published, making it difficult to peg the costs of this aspect of the transition to UHC. This analysis reconstructs the costs from the bottom up, with the assistance of those at the center of reform during the

period examined. However, there may be gaps in this analysis, which seeks to provide national governments and donors with an *indication* of the costs and not a precise figure. In all cases, capital costs have been relatively modest. For this reason, the estimates here reflect full costs and not costs depreciated over a number of years. Note that systems transitioning to UHC are likely to incur these costs at the outset of the transition, and that all estimates here have been adjusted to 2009 constant dollars.

Figure 1 in the executive summary illustrates the findings from the costing of system reform and management capacity. Full details for each of the first four case studies can be found in Chapter 3.

To understand these costs, it is helpful to look at them through two lenses: the *strategy* and the *stage* of health-system development. Ghana and Andhra Pradesh are best examined side by side, since both are low income, both faced weak legacy systems and both have sought to broaden health coverage. Chile and Turkey also share similarities. Both countries are middle income and more advanced in their stage of health-system development. They have both principally been concerned with deepening the package of services available to their citizens and, accordingly, their reforms have been incremental from strong starting points.

For Ghana and Andhra Pradesh, health-system reform represented a significant discontinuity as health coverage was dramatically broadened. Ghana created its National Health Insurance Authority, and Andhra Pradesh established its Aarogyasri Health Care Trust. These two systems illustrate the initial setup costs of new systems: they were fundamentally different from those that preceded them (in both cases, very limited public provision from the ministry of health, supplemented by high out-of-pocket payments to private providers).

As a consequence, these costs include one-time investments in infrastructure to launch the system (e.g., investment in IT). Ghana appears to have invested approximately 6.6 percent of public health expenditures over the reform period to establish its system. For Andhra Pradesh, the figure is 5.1 percent. In both cases, public health expenditure started from a very low base. The absolute figures—$115.6 million in Ghana over six years and $60.7 million in Andhra Pradesh over three years—can be considered modest. Indeed, at purchasing power parity, they represent an annual investment of $40.5 million and $56.3 million in establishing the foundations of universality.

Where were Ghana's investments made? The largest component of system reform and management capacity costs here was for the creation of the purchasing function at a district level. Ghana's design choice led to the creation of more than 130 purchasing institutions, each requiring investment. These also account for much of the revenue collection costs, as each district bears responsibility for the enrollment of informal sector workers. The other main sources of costs were stewardship in the design and implementation of the program, and enablers such as information technology and identification cards.

For Andhra Pradesh, the largest components of system reform and management capacity costs were the information technology system and the workforce required to enroll and coordinate services to beneficiaries. Although parallel structures exist from the pilot and scale-up phases, the system can be characterized as a single, centralized payer. This means that Andhra Pradesh does not face the distributed costs seen in Ghana. Having been established in 2007, the Andhra Pradesh system has higher annual average costs than that of Ghana, in part because the initial outlays (e.g., for IT) have not been depreciated in the calculations in this analysis.

In Ghana and Andhra Pradesh, the investment of 5 to 6 percent of public health expenditures has laid the foundations for universality. The institutions, systems and processes in question have enabled coverage to be extended to 85 percent of the population of Andhra Pradesh, and 45 to 70 percent of the population of Ghana. But for donors, the concern is absolute investment costs rather than costs as a share of public health expenditures.

In Ghana and Andhra Pradesh, the investment of 5 to 6 percent of public health expenditures has laid the foundations for universality.

Implementation Lessons

The case studies examined reveal a number of features that each of the reform journeys have had in common:

1 Popular dissatisfaction is transposed through political leadership to positive action

Health system reform is typically prompted by popular *dissatisfaction* with the pre-reform situation. In many case studies examined—most notably Ghana, Andhra Pradesh, Taiwan and Turkey—health reform featured as a leading issue in election campaigns, and a priority for civil society leaders, prompting politicians to clearly and publicly support reform efforts, and granting incoming governments a strong mandate for reform. It is precisely through political leadership that popular dissatisfaction is transformed into positive action.

2 Active and open support from heads of government is essential for required political capital and intra-government alignment

Health reform typically requires commitment from the head of the government, not simply from an individual minister (such as that of health, finance or labor). This appears to be for three reasons. First, health system reform requires the expenditure of significant political capital, which only the head of government has in sufficient quantities. Second, the origins of reform are typically negative, reflecting dissatisfaction with the current state and meaning there is typically a lack of consensus around a positive plan. Third, as policymakers have suggested, only the head of government would be able to resolve tensions within the government on the right path forward. Building this *alignment* within government is thought to be a critical step. Specifically, since health-system reform often has significant fiscal implications, and since ministries of health are thought to over-emphasize provision rather than financing, key players in the case studies examined here believed that political leadership was essential for progress.

It is often said that in politics, timing is everything. When is it time for action? Political leaders may need to consider several questions: What is the level of economic development and urbanization? Are there favorable demographic conditions such as a low dependency ratio (the ratio of those who are not in the labor force compared to those who are)? Is there a sufficient degree of political openness, where the state is becoming accountable to its citizens and responsive to their needs for health care?

3 Reform efforts require a cadre of competent leaders to make change happen

Political and official leaders need to be capable and committed—and to have the prospect of retaining office for a sufficiently long period to oversee design *and* implementation. Leaders in Chile cited the catalytic effect of small grants from the Fulbright Program, the United States Agency for International Development (USAID) and the Rockefeller Foundation for leadership development and overseas study that created a corps of informed and experienced leaders who implemented the reforms. In 1999, a passionate and committed group of "rising stars" in Ghana's health system came together for a workshop on community health insurance. Five years later, many of the participants were leading the design and implementation of the reform program. Building a cadre of competent leaders appears to be an essential ingredient of success.

4 Pragmatism trumps ideology in successful implementation.

Pragmatism is the watchword of implementation. Repeatedly in the case studies examined, systems created new payer institutions, rather than repurposing existing institutions or developing the functions within the ministries of health, labor or finance. The purpose for this did not appear to be to accomplish a payer-provider split. Policymakers at the center of reform efforts suggested that it was instead for three other reasons. The first was ensuring that the organizations were focused on the task at hand. The second was ensuring a single point of accountability for the funds dedicated to the health system. The third was securing the best possible talent by wrestling free of central government restrictions on pay and hiring.

In both cases, investment has been approximately $20 million per annum. With health coverage extended to such a significant proportion of the population, this represents a very positive return on investment. It is a small price to pay for progress, and one that sits well within the grasp of both countries and the donors that support them.

Like Ghana and Andhra Pradesh, higher-income Chile and Turkey both pursued a strategy that can be characterized as "broad then deep." In the case of both Chile and Turkey, it is helpful to examine the costs of the second part of the transition to UHC: the investment in system reform and management capacity required to deepen the package of services available to affected populations. In both cases, many of the institutions, systems and processes were already well-established before this transition began.

Both Chile and Turkey are middle-income countries. Accordingly, the size of their health sectors—and the scale of public expenditures for health—are significantly larger than those for either Ghana or Andhra Pradesh. Accordingly, with relatively large funding, and with costs that are incremental, it is no surprise that the overall costs as a share of public expenditures are low. In Chile, the best estimate is that transitioning to UHC consumed 0.9 percent of public health expenditures. In Turkey, the best estimate is 0.2 percent of public expenditures. Both Chile and Turkey benefit from support from donors such as the World Bank (which gave Chile a $66.1million loan that had a catalytic effect on reforms). The experiences of Chile and Turkey suggest that dedicating a relatively small portion of health system spending toward system reform and management capacity is a wise investment for middle-income countries to make, and that donors have important contributions to offer to this process.

The Path Ahead

Health system reform toward universal health coverage requires courage and commitment. It can be a technically tough—and perhaps even politically treacherous—journey to undertake. Yet it is difficult precisely because it is important, representing a new settlement between citizens and their governments. It has long been established that access to health services improves societies' welfare. It makes an economic contribution for all; it diminishes impoverishment; and it alleviates suffering. In short, it is *desirable*.

In all the cases examined, there was an overwhelming belief that the situation had improved substantially. Current arrangements were deemed preferable to those that preceded them, despite significant and serious challenges that still remained. These case studies demonstrate that making substantial progress toward universal health coverage is *possible*.

The goal of universal coverage may be noble, but wanting to achieve it is not enough. Making universal coverage a reality demands investment in system reform and management capacity. Careful data collection along the way is also critical to aid future analysis and planning.

As the case studies in this report demonstrate, relatively small investments can have a catalytic effect. These investments are *affordable* because they are small, and *important* because they are transformative. Coverage does not have to be extended to the whole population immediately. Systems don't change in a single step, but instead make journeys to universal coverage.

So, *progress* toward universal health coverage is desirable, possible and affordable. That is why the international community should support reform efforts—through open commitment, technical assistance and funding. Only through this global effort can we move ourselves and each other toward better health, more productive lives and stronger economies in a world that is far more interdependent than ever before.

Relatively small investments can have catalytic effect… these investments are affordable because they are small and important because they are transformative.

Annex

Case Study

HEALTH SYSTEM REFORMS IN RWANDA

1999–2005

Summary: Rwanda piloted community-based health insurance in three districts beginning in 1999 and by the end of 2005 had scaled up the system nationwide. The impact of this reform has been substantial with respect to the depth of coverage and also with regard to the breadth of coverage, which has increased from 1 percent of the population in 2000 to 90 percent of the population in 2009. During the same period, maternal and under-five mortality have also improved dramatically.

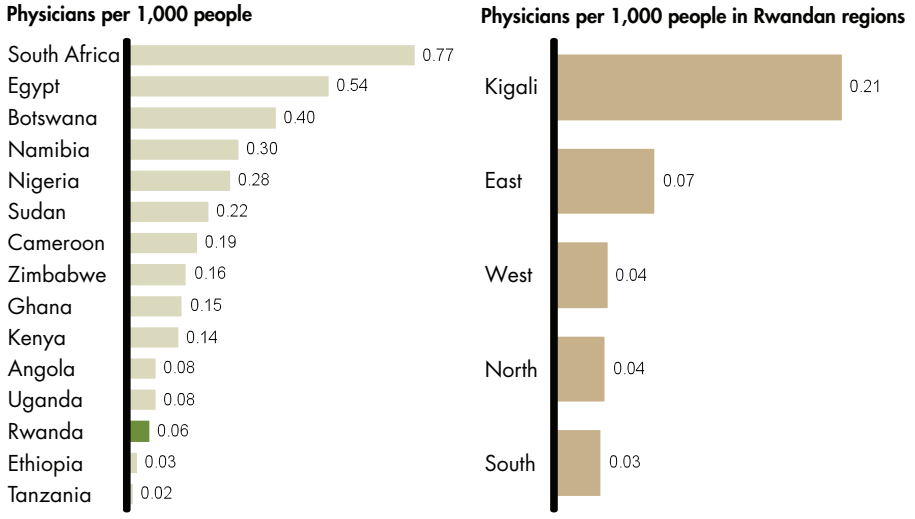
Country Profile

Rwanda is a low-income, landlocked country in Central Africa recovering from a catastrophic genocide that took place in 1994. It has a population of 10.4 million, 80 percent of whom live in rural areas. Life expectancy is 55 years for men and 58 years for women. Over the past 15 years, Rwanda has made significant progress toward restoring its economy to pre-1994 status. The gross domestic product (GDP) today is $4.5 billion.[272]

- **Disease burden and interventions.** Rwanda suffers from a high burden of communicable disease and has one of the world's highest disease burdens overall. Rwanda lost 597 disability-adjusted life years (DALYs) per 1,000 lives in 2004, more than double the world average and higher than nearly all of its Sub-Saharan African peers. Infant mortality, under-five mortality and maternal mortality have all improved since 1995,[273] but remain higher than the Millennium Development Goal (MDG) targets.[274]

- **Health system input factors.** Rwanda has one of the lowest numbers of physicians per capita in Africa, a problem further aggravated by the country's regional disparities (e.g., difference in number of physicians per capita by region). See **Figure 34**.[275] [276] [277] The same trend holds true for all types of health professionals, of whom Rwanda has less than half the number recommended by the World Health Organization (WHO).[278] A growing number of community health workers provide basic care and education. The lack of human resources for health is exacerbated by poor access, with only 52 percent of births attended by a health professional.[279]

Figure 34: Distribution of Physicians in Rwanda and Other African Countries



Source: World Bank Report, World Health Report 2006

The Evolution of Rwanda's Health System (See Figure 35)

Rwanda's health system prior to 1999

- **Coverage and access to care.** Prior to health system reform, less than 1 percent of Rwandans had coverage.[280] Government officials were insured by the Rwandaise Health Care Insurance, and the Genocide Survivors' Support Fund covered medical services for the neediest victims. The military, private insurance and several community-based health insurance programs covered a very small portion of the population.[281]

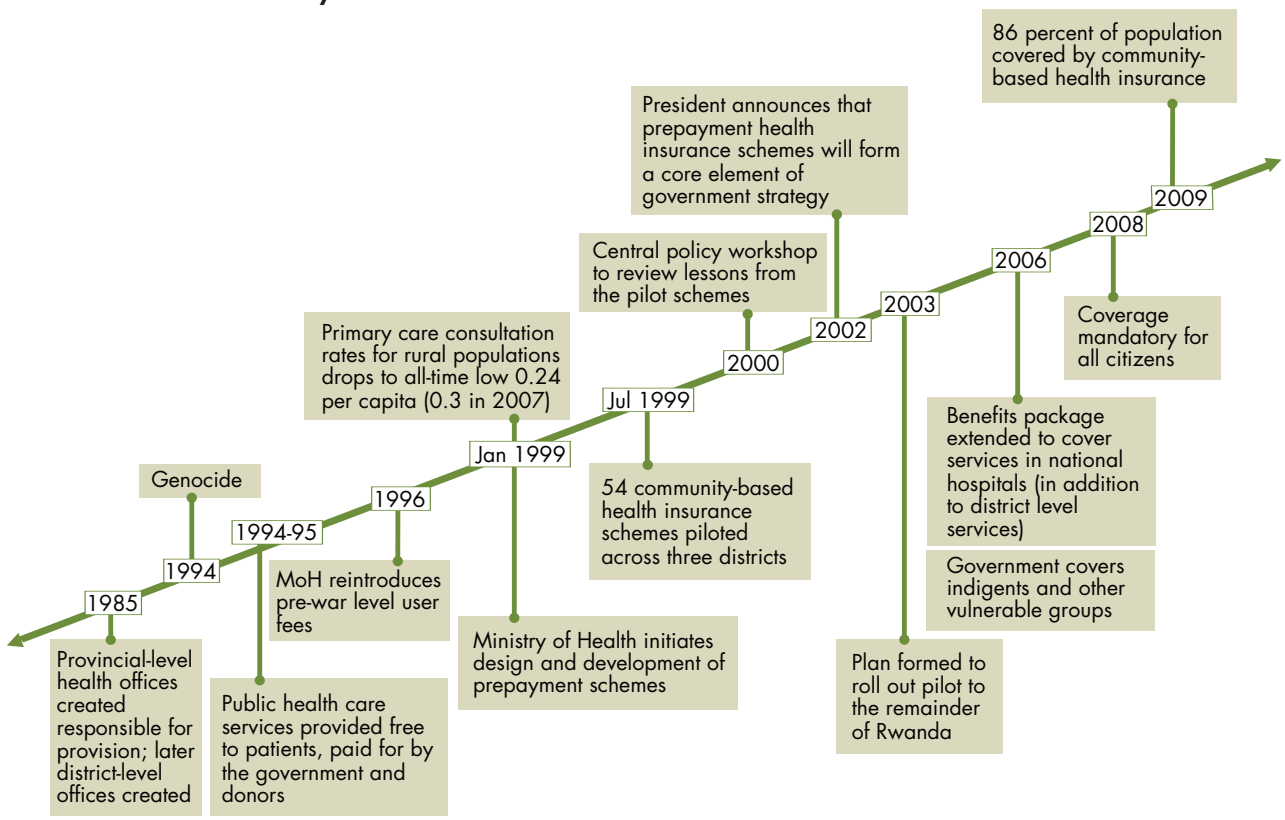
- **Provision.** The public and private sectors split provision, with nongovernmental organizations (NGOs) and other outside organizations playing a large role. Most patients were required to pay out of pocket at the point of care, forcing many to forego care altogether. In January 1999, the primary care consultation rates were at an all-time low of 0.24 visits per capita per year in the rural population.[282] [283]

The pilot phase of reform

- **Design.** In response to plummeting health service utilization, the ministry of health decided to develop and pilot other options for health financing and provider payment. The Directorate of Health Care within the ministry created a steering committee composed of representatives from the central and regional levels and external partners to oversee the development and implementation of the pilots.[284] [285] [286]

- **Pilot setup.** Between January and July 1999, the ministry of health initiated 54 community-based health insurance (CBHI) programs across three districts.[287] Each plan was required to partner with a specific health center to test provider payment mechanisms. Two districts chose to have provider payment managed jointly by the population and the providers, and the other chose to have it managed solely by the

Figure 35: Timeline of Health System Reform in Rwanda



Source: Interviews; Schneider, P., and Diop, F., "Community-Based Health Insurance in Rwanda," from Health Financing for Poor People: Resource Mobilization and Risk Sharing; Schneider, P., Diop, F., and Bucyana, S., "Development and Implementation of Prepayment Schemes in Rwanda," Partnerships for Health Reform, 2000; Rwandan Ministry of Health Annual Report 2008; "Mutual Health Insurance Policy in Rwanda," Rwanda Ministry of Health, Dec. 2004; Musango, L., et al., "Rwanda's health system and sickness insurance schemes," International Social Security Review, 2006

population. By July 1999, each health center had signed contracts with the respective CBHIs, and the district populations began to enroll.[288 289 290]

- **Program stewardship.** Each program was managed by its members, who elected a five-person executive committee.[291] Each of the three districts had a District Federation of Prepayment Schemes that set overall district policy. All programs were subject to standardized bylaws and a prepayment contract between the programs and the providers. Extensive training for providers and personnel occurred regularly.[292 293]

- **Revenue collection and enrollment.** Families paid about $4.30 to enroll, and were entitled to benefits after a one-month waiting period. Members paid a co-payment of $0.17 per episode of care. After one year of operation, 88,000 individuals had enrolled, about eight percent of the total population across the three districts.[294 295]

- **Benefits package.** The programs covered a basic health center package that included all services and drugs provided by the contracted health center. The package also covered ambulance transport to a district hospital and a limited package of services at the hospital.[296]

- **Purchasing.** Each program reimbursed the associated health center by capitation payment. District hospitals were paid on a per episode basis by the District Federation of Prepayment Schemes, which received 5 percent to 10 percent of each program's monthly disbursement.

Scaling Up the Community-Based Health Insurance (CBHI) Programs

- **Lessons learned from the pilot.** The Ministry of Health and its partners conducted a rigorous evaluation of the pilot phase and held a workshop in 2000 to discuss how lessons learned could be applied during the scale-up. Primary recommendations included adapting and enlarging the benefits package, developing fee-for-service reimbursement for hospitals, and strengthening organizational and financial management in health facilities.[297]

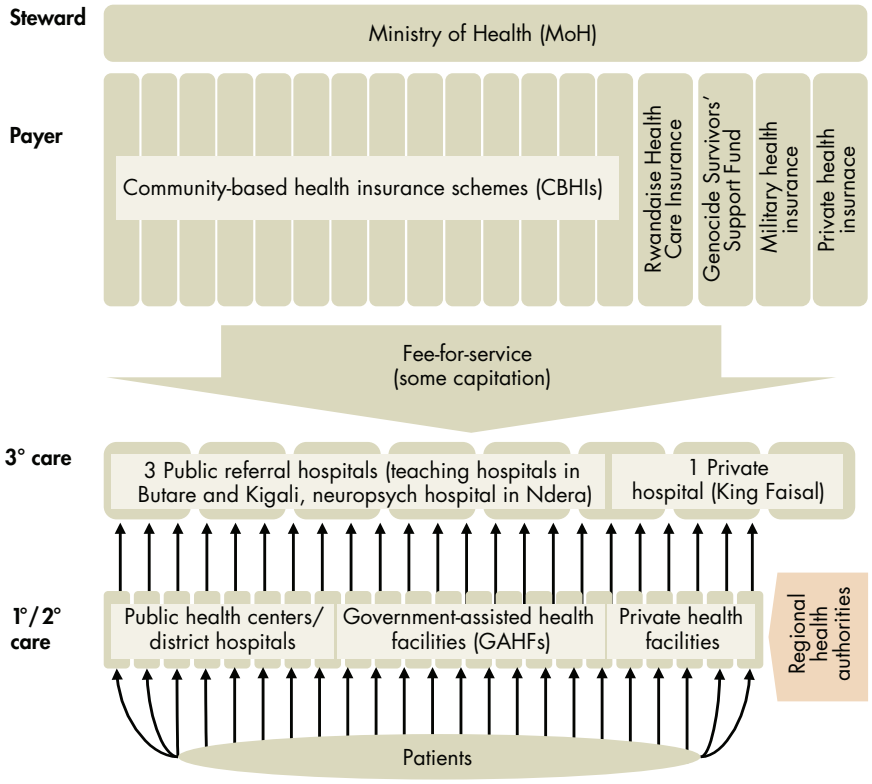
- **Scale-up.** By 2002, pressure was mounting to extend the pilot nationwide, and President Paul Kagame announced the CBHIs as a core element of the government agenda. Rwanda's Ministry of Health, Ministry of Local Affairs and external partners created a strategy for scale-up and began to build the technical capacity required (e.g., country-level systems, communications, training materials and instructors, etc.). Less than three years later, CBHI infrastructure covered the entire country.[298]

Reform design and implementation in Rwanda have relied on significant technical and budgetary support from donors, including the governments of the United States, Switzerland, Belgium, Germany and Norway, as well as the WHO, the International Labour Organization (ILO) and the Global Fund, amongst others.[299]

Key features of Rwanda's reformed health system (See Figure 36)

- **Payer structure and purchasing.** Today about 85 percent of Rwandans are covered by a CBHI. An additional five percent are covered by private insurers, the military, the government or the Genocide Survivors' Support Fund. Most CBHIs and other insurers purchase services from providers using a fee-for-service method, though some CBHIs still use a capitated system.[300 301]

Figure 36: Reformed Rwandan Health System Structure



Source: Interviews; Schneider, P., and Diop, F., "Community-Based Health Insurance in Rwanda," from Health Financing for Poor People: Resource Mobilization and Risk Sharing; Schneider, P., Diop, F., and Bucyana, S., "Development and Implementation of Prepayment Schemes in Rwanda," Partnerships for Health Reform, 2000; Rwandan Ministry of Health Annual Report 2008; "Mutual Health Insurance Policy in Rwanda," Rwanda Ministry of Health, Dec. 2004; Musango, L., et al., "Rwanda's health system and sickness insurance schemes," International Social Security Review, 2006

- **Revenue collection and enrollment.** Enrollment remains contingent upon premium payments at the family level. Premiums vary from program to program and range between $4.30 and $19.90. Co-payment also varies between $0.17 and $0.16 per disease episode or between 5 percent and 25 percent of the real cost of care. The government covers the cost of premiums and co-payments for indigents and other vulnerable groups.[302 303]

- **Benefits package.** The benefits package comprises two parts: the Minimum Package of Activities (MPA) and the Complementary Package of Activities (CPA). The MPA covers all services and drugs provided at the health centers, including pre- and post-natal care, vaccinations, family planning, minor surgical operations, and essential and generic drugs. The CPA covers a limited number of services at the district hospitals, including the cost of hospitalization, caesarian operations minor and major surgical operations, medical imaging and all diseases afflicting children up to five years old. As of 2006, the CPA benefits package was extended to cover select services in national hospitals.[304 305]

- **Provision.** Primary and secondary care is delivered through public health centers and district hospitals, government-assisted health facilities and private health

facilities. Government-assisted health facilities, which account for about 40 percent of primary and secondary care in Rwanda, are run by NGOs, religious groups and other third parties, but are partially funded by the government. Private health facilities are limited and mostly located in Kigali. Records indicate the number of private physicians there grew from 69 in 1999 to 405 in 2001. Twelve Regional Health Authorities administer district-level provision. Tertiary care is offered at four hospitals in Rwanda, three of them public and one private.[306 307 308 309]

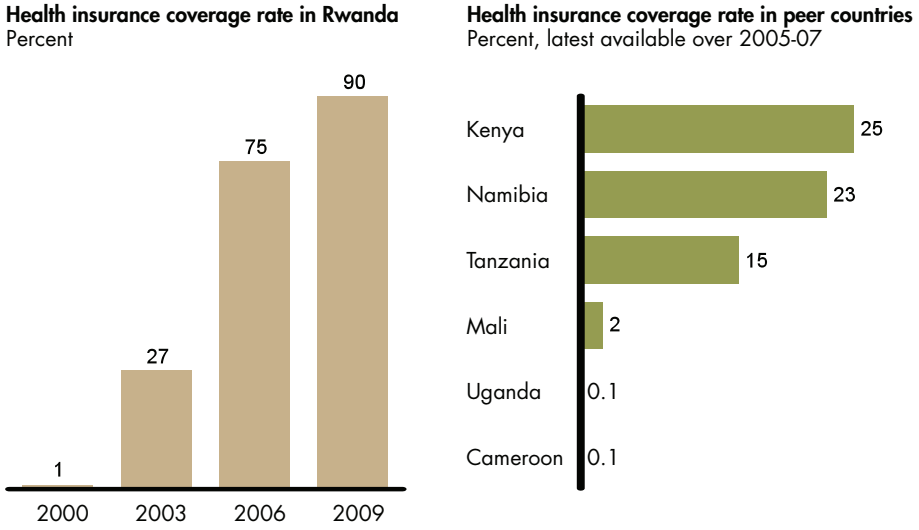
Impact of the Health System Reforms

- **Breadth of coverage.** Rwanda has seen dramatic growth in the breadth of its health coverage. It served less than 1 percent of its population in 2000, and more than 90 percent in 2009, as indicated in **Figure 37**.[310 311 312 313]

- **Out-of-pocket expenditures.** Rwanda has seen a decline and rebound in out-of-pocket expenditures, as illustrated in **Figure 38**.

- **Depth and quality of coverage.** Depth of coverage, utilization and key health indicators have improved since the introduction of the CBHIs, though it should be noted that outcomes are due to many changes in the health system and economy, and that the CBHIs are only one contributing factor. Beneficiaries of the programs have access to medical services for a solid set of primary and secondary conditions at the local, district and national level. Annual curative visits per capita among members of a CBHI are 1.2 to 1.6, while that figure is 0.2 for non-members, suggesting that coverage provides increased access to care.[314] Maternal mortality has nearly halved, down from 1,400 deaths per 100,000 live births in 2000 to 750 deaths per 100,000 live births in 2005. During the same period, under-five mortality has improved from 196 deaths per 1,000 live births to 112 deaths per 1,000 live births.[315 316]

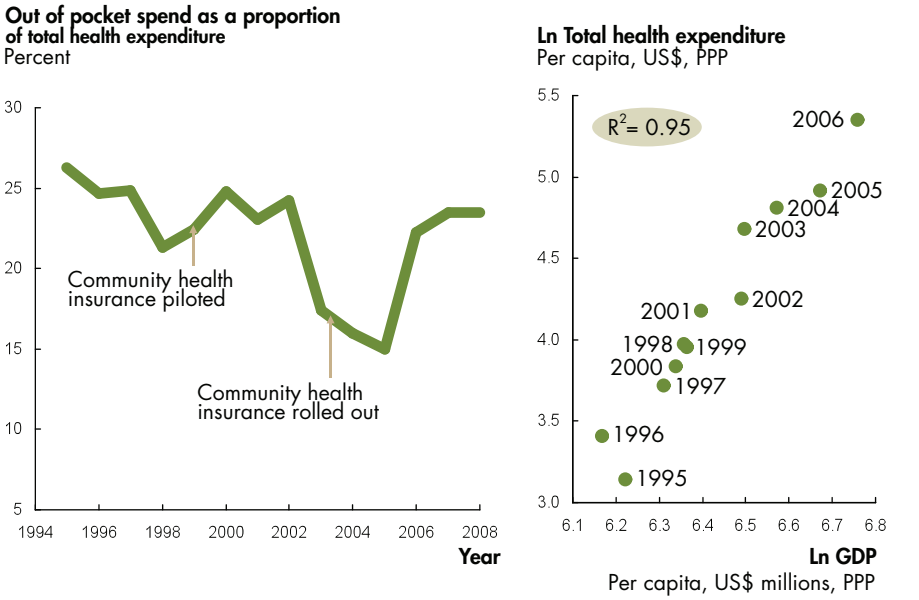
Figure 37: Impact on Coverage



Note: Health insurance coverage rate estimates differ by source and are shown as ranges where available

Source: Interviews; Schneider, P., and Diop, F., "Community-Based Health Insurance in Rwanda," from Health Financing for Poor People: Resource Mobilization and Risk Sharing; Schneider, P., Diop, F., and Bucyana, S., "Development and Implementation of Prepayment Schemes in Rwanda," Partnerships for Health Reform, 2000; Rwandan Ministry of Health Annual Report 2008; "Mutual Health Insurance Policy in Rwanda," Rwanda Ministry of Health, Dec. 2004; Musango, L., et al., "Rwanda's health system and sickness insurance schemes," International Social Security Review, 2006; interviews; ILO Social Health Protection Report, 2007

Figure 38: Out-of-Pocket Expenditures & Correlation of THE to GDP in Rwanda



THE—total health expenditure; Ln—natural logarithm; PPP—purchasing power parity

Source: International Monetary Fund, World Economic Outlook Database, October 2009; WHOSIS

Case Study

HEALTH SYSTEM REFORMS IN SOUTH KOREA

1997–2000

Summary: In 1997, South Korea replaced a fragmented payer landscape with a government-run, single-payer system. This reform deepened the benefits package and broadened coverage from 94 percent of the population then to 99 percent today. Since reforms began, out-of-pocket expenditure as a proportion of total health expenditure has decreased from 54.9 percent to 38.1 percent, while spending on social insurance has increased from 28.4 percent to 41.6 percent.

Country Profile

South Korea is a high-income country with a population of 48.6 million and a gross domestic product (GDP) of $929 billion. Life expectancy at birth is 79 years.[317] South Korea suffers from a burden of non-communicable disease. Cancer and cardiovascular disease are the leading causes of death.[318]

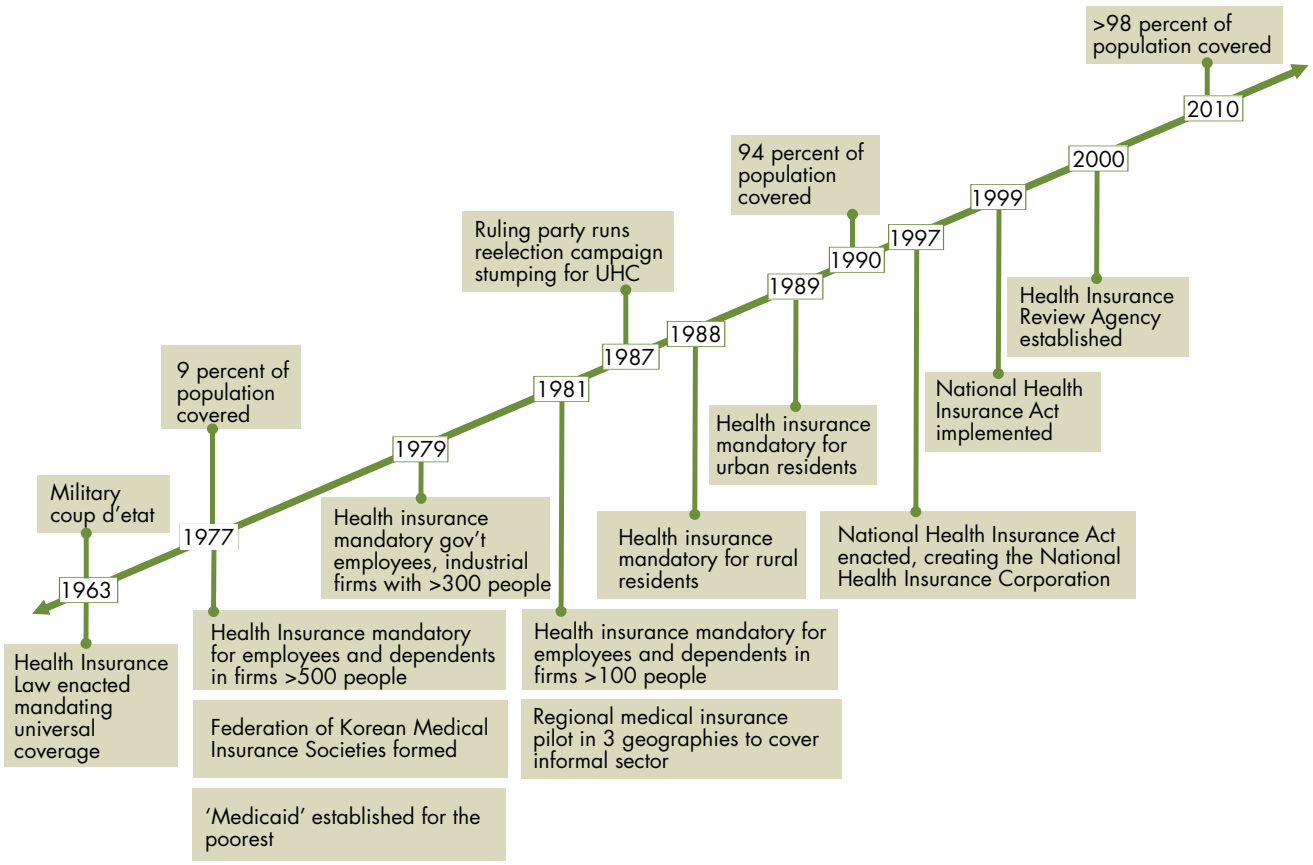
Overview of South Korea's Journey Toward Universal Health Coverage

South Korea's transition to universal health coverage began in 1963, when the Health Insurance Law was enacted, mandating universal coverage. Between 1963 and 1989, the breadth and depth of coverage increased in a step-wise manner by population segment. By 1990, 94 percent of the population was covered by more than 350 insurers. In 1997, the government created the National Health Insurance Corporation, consolidating the fragmented system, standardizing and deepening the benefits package, and broadening coverage to the remaining portion of the population. The evolution of the system is described in **Figure 39**.[319-324]

South Korea's health system prior to 1997

- **Stewardship.** The Ministry of Health and Welfare (MoHW) sets overall health sector policy and sets fee

Figure 39: Timeline of Health System Reform in South Korea



Source: Universal Health Care Coverage in Korea," Anderson, *Health Affairs*, 1989; "Health Care Reform in South Korea: Success or Failure?" Lee, Amer. J. Public Health, Jan 2003; "National Health Insurance Program in Korea 2001," National Health Insurance Corporation of the Republic of Korea, Aug 2001; "Thirty years of national health insurance in South Korea: lessons for achieving universal health care care coverage," Kwon, *Health Policy and Planning*, June 2008; "Payment system reform for health care providers in Korea," Kwon, *Health Policy and Planning*, 2003

schedules for providers. The government also funds or subsidizes most insurers.[325 326 327]

- **Payer structure and coverage.** The Federation of Korean Medical Insurance Societies administers all insurers (more than 350) and processes all claims. Private insurers cover 90 percent of the population, and the government directly insures a portion of those not covered privately. Each insurer covers a well-defined population segment based on workplace and geography. Beneficiaries have no choice of insurer. The benefits packages are largely consistent across insurers, but provide relatively limited coverage.[328 329 330]

- **Reimbursement and payment mechanisms.** Providers were reimbursed on a fee-for-service basis. Prices are set by the MoHW, and claims are processed by the Federation of Korean Medical Insurance. Beneficiaries pay premiums and co-payments.[331 332 333]

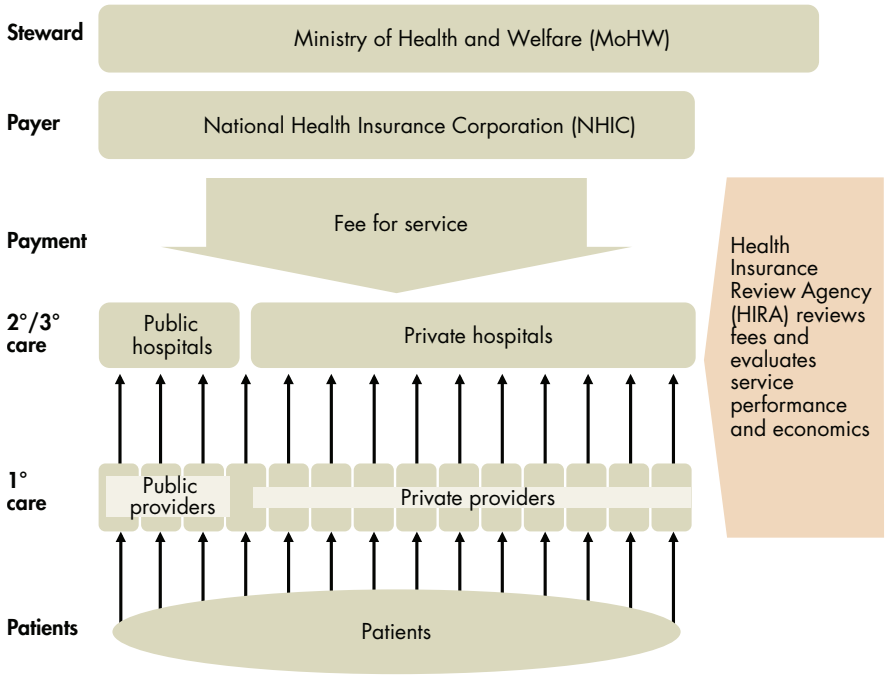
- **Provision.** Private physicians and hospitals provide the majority of care. Patients have access to all providers, though rural residents must visit a primary care physician before being referred to a hospital.[334 335]

Key Features of South Korea's Reformed Health System (See Figure 40)

- **Stewardship.** The MoHW sets overall health sector policy and the overall budget, including the reimbursement ceiling for the system. The ministry also monitors the National Health Insurance Corporation (NHIC) and Health Insurance Review Agency (HIRA).[336]

- **Payer structure and benefits package.** The NHIC is a not-for-profit, single payer covering more than 98 percent of the population. The benefits package is comprehensive, including almost all inpatient and outpatient services, dental care, traditional medicine, prescription drugs and preventive services.[337]

Figure 40: Reformed South Korean Health System Structure

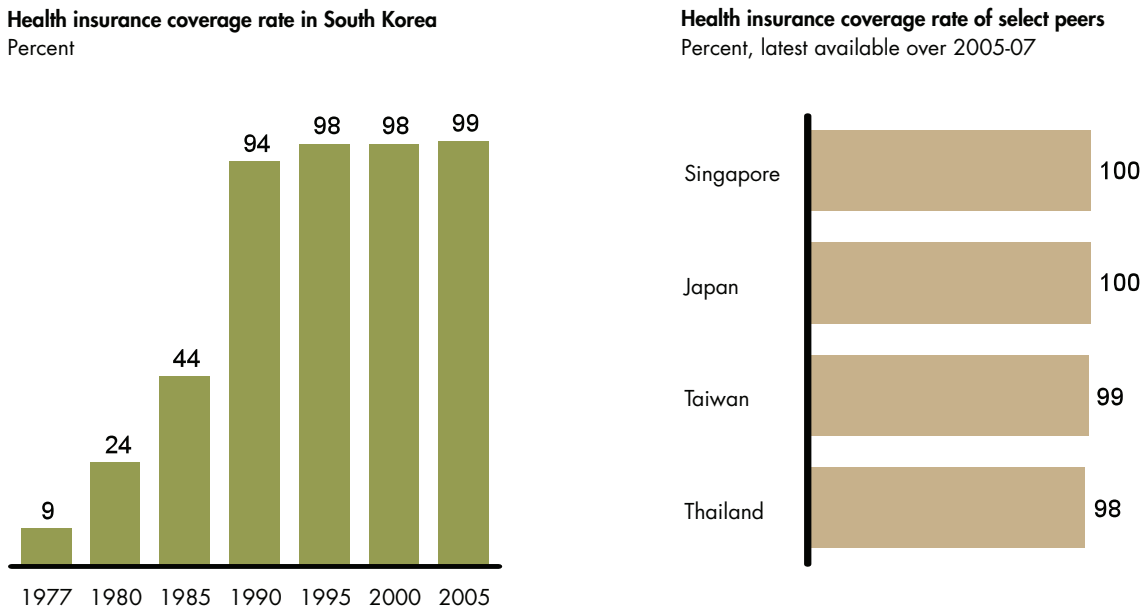


Source: Universal Health Care Coverage in Korea," Anderson, *Health Affairs*, 1989; "Health Care Reform in South Korea: Success or Failure?" Lee, Amer. J. Public Health, Jan 2003; "National Health Insurance Program in Korea 2001," National Health Insurance Corporation of the Republic of Korea, Aug 2001; "Thirty years of national health insurance in South Korea: lessons for achieving universal health care coverage," Kwon, Health Policy and Planning, June 2008; "Payment system reform for health care providers in Korea," Kwon, Health Policy and Planning, 2003

- **Payment mechanisms.** Providers are reimbursed through a fee-for-service mechanism, though moving to a diagnosis-related group (DRG) system is currently under consideration. The HIRA is responsible for medical fee review and evaluating performance and economy of provision.[338]

- **Provision.** More than 90 percent of all health services in South Korea are provided by private facilities. More than 80 percent of physicians are specialists, compared to 50 percent or less in other high-income nations. Referrals are required from a primary care physician to receive secondary and tertiary care.[339 340]

Figure 41: Impact on Coverage



Source: International Labour Organization, Social health protection: an International Labour Organization strategy towards universal access to health care, Social Security Department, August 2007; Kwon, S. Thirty years of national health insurance in South Korea: lessons for achieving universal health care coverage. Health Policy and Planning 2009;24:63–71

South Korea has seen a long decline in out-of-pocket expenditures…

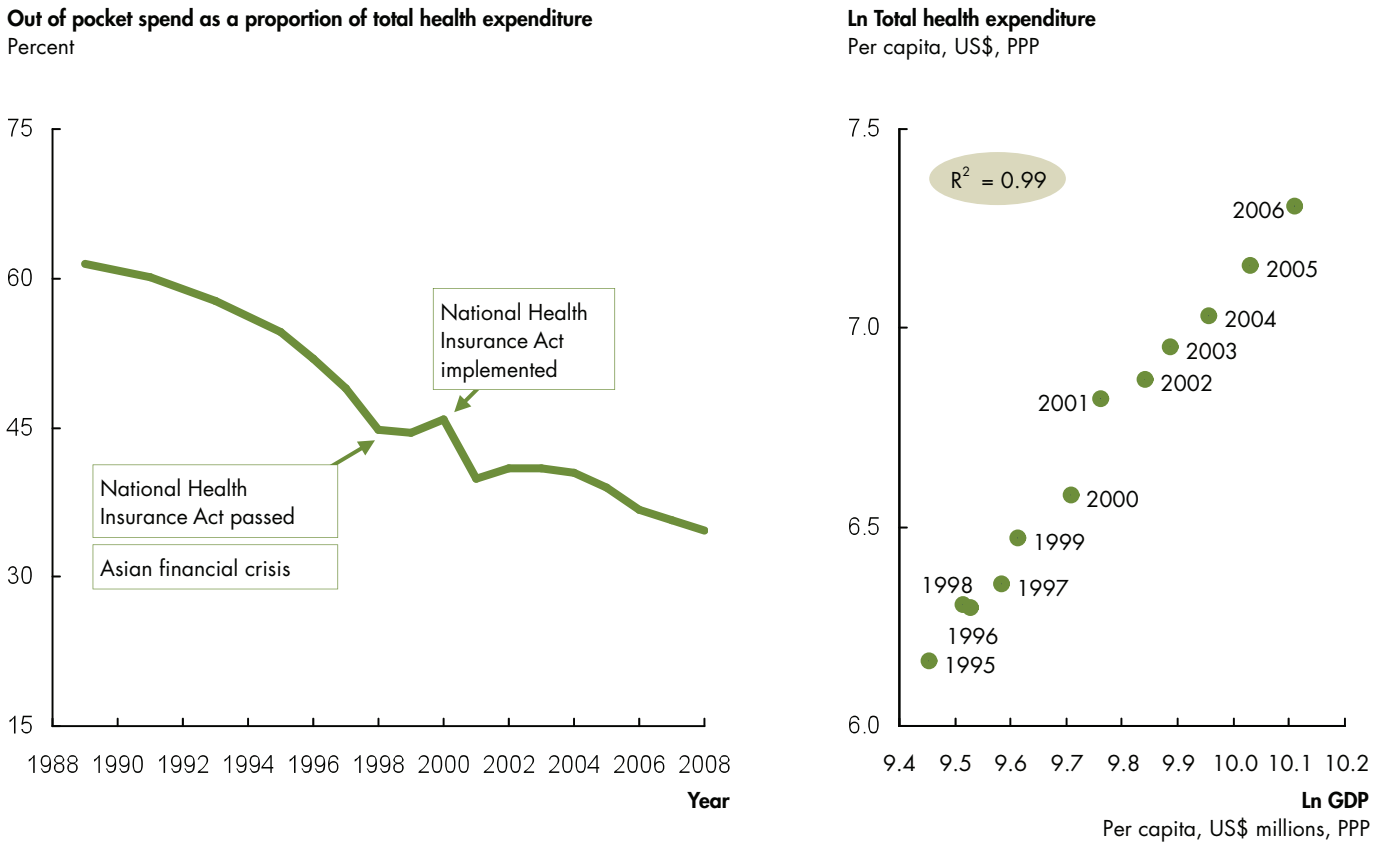
Impact of the health system reforms

- **Breadth of coverage.** South Korea has seen an increase in the breadth of coverage from less than 9 percent in 1977, to nearly 94 percent in 1990, to 99 percent in 2005, as illustrated in **Figure 41**.[341 342]

- **Out-of-pocket expenditures.** South Korea has seen a long decline in out-of-pocket expenditures, as illustrated in **Figure 42**.

- **Depth of coverage.** The standardized, comprehensive benefits package offered by the NHIC is significantly deeper than many of the benefits packages that existed before 1997.[343 344] Over the past 20 years, South Korea's health infrastructure has grown tremendously, utilization has increased and health outcomes have improved. The number of physicians per capita has doubled from 8 in 1989 to 16 in 2004, and the number of physician visits per capita has increased from 6 to 11 over the same period. Infant mortality has improved from 12 deaths per 1,000 live births in 1989 to 4 deaths per 1,000 live births in 2005.[345 346]

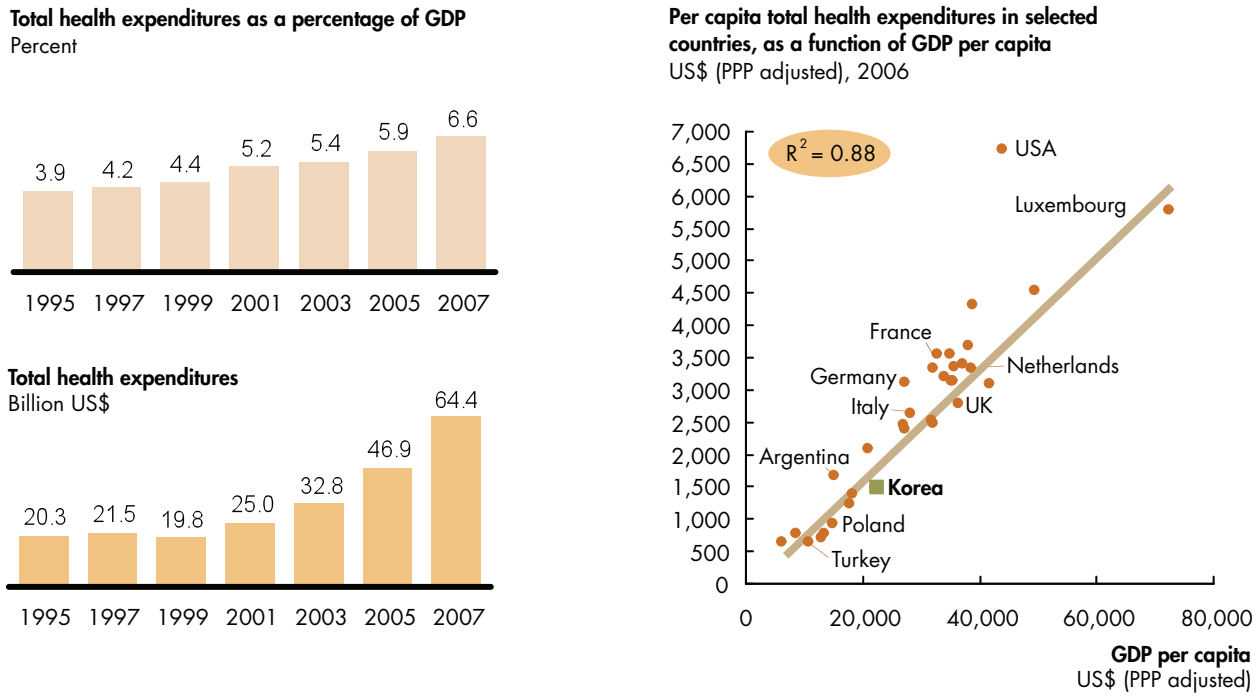
Figure 42: Out-of-Pocket Expenditures and Correlation of Total Health Expenditure to GDP in South Korea



PPP—purchasing power parity

Source: International Monetary Fund, World Economic Outlook Database, October 2009; WHOSIS

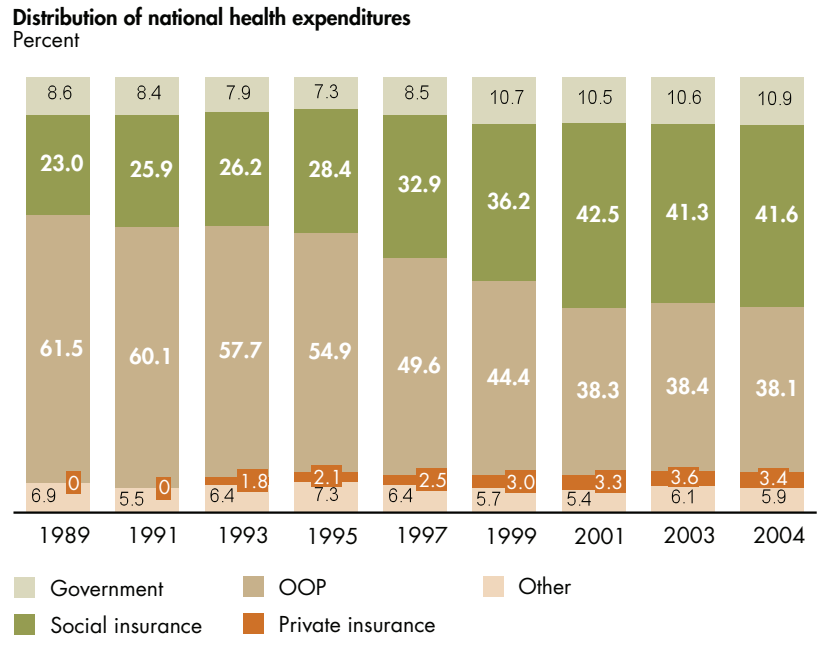
Figure 43: Change in Total Health Expenditure Over Time



PPP—purchasing power parity

Source: WHO National Health Accounts; OECD; McKinsey analysis

Figure 44: Breakdown of South Korea's Total Health Expenditure Over Time



Source: Kwon, S. Thirty years of national health insurance in South Korea: lessons for achieving universal health care coverage. Health Policy and Planning 2009;24:63–71

- **Financing.** Total health expenditure as a percent of GDP has increased from 4.2 percent in 1997 to 6.6 percent in 2007, in line with expectations based on GDP (see **Figure 43**).[347 348]

  Out-of-pocket expenditure as a proportion of total health expenditure decreased from 54.9 percent in 1995 to 38.1 percent in 2004. Spending on social insurance increased from 28.4 percent to 41.6 percent during that time (see **Figure 44**)[349 350]

Case Study

HEALTH SYSTEM REFORMS IN TAIWAN

1995–2001

Summary: In 1995, Taiwan replaced a fragmented payer system with a government-run, single-payer one. This reform broadened coverage from 59 percent in 1995 to 99 percent today. All beneficiaries are entitled to a comprehensive benefits package, and patient satisfaction with the system has increased from 33 percent to 79 percent.

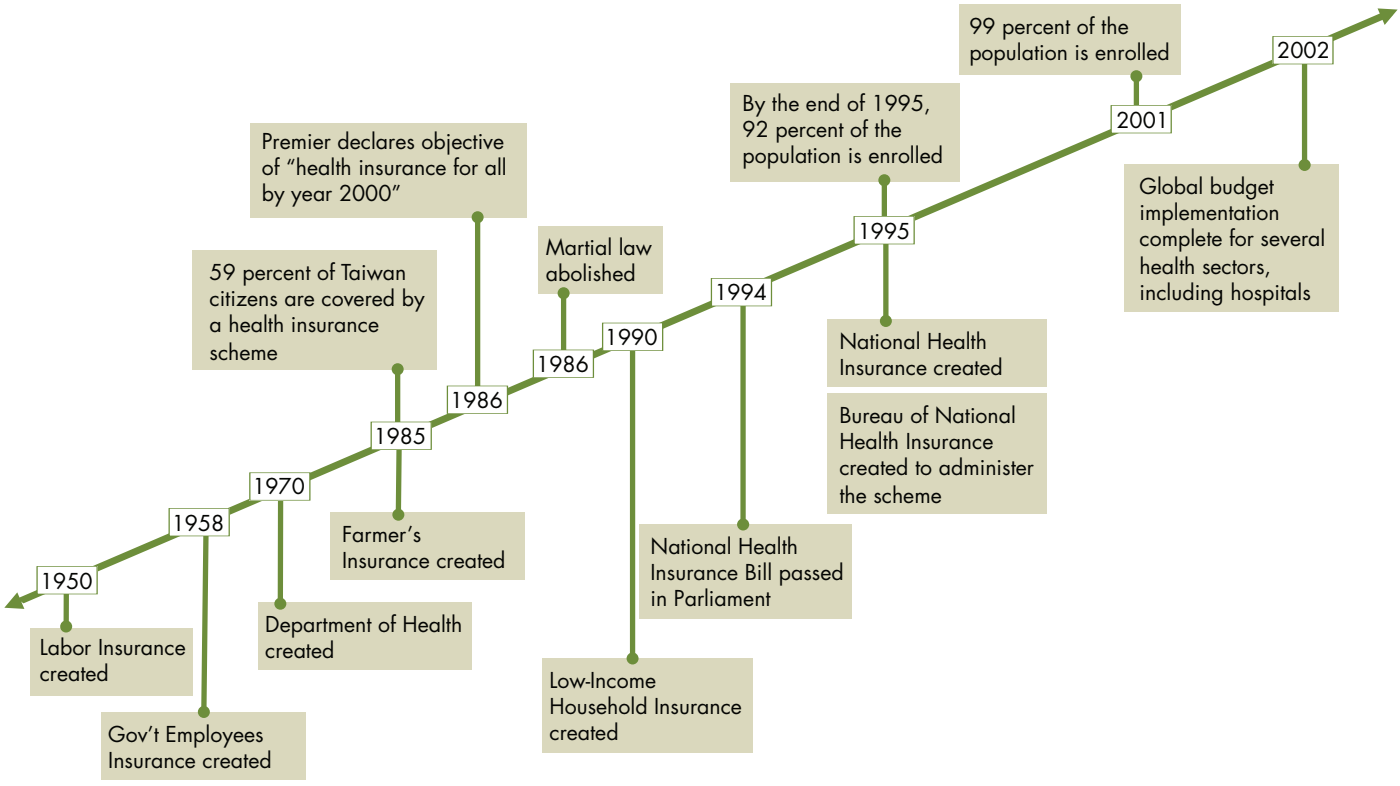
Country Profile

The island of Taiwan lies off the southeastern coast of China. It has a gross domestic product (GDP) of $698.6 billion, similar to the GDPs of Australia and Poland.[351] It has a population of 23.2 million, with 81 percent of residents living in urban areas. Life expectancy is 79 years. Taiwan suffers from a burden of non-communicable and chronic diseases. Cancer and cardiovascular disease are the leading causes of death. Total health expenditure accounts for 6.1 percent of GDP.[352]

Overview of Taiwan's Journey Toward Universal Health Coverage

Taiwan's transition to universal health coverage began in 1950 with the creation of Labor Insurance. The next 40 years saw a step-wise broadening and deepening of the benefits package, with multiple insurance programs established to cover specific population segments. By 1985, 59 percent of the population was covered. In 1995, the government created National Health Insurance to expand the breadth of coverage, improve quality and contain costs. By 2001, 99 percent of the population was enrolled and had access to care. The evolution of the system is described in **Figure 45**.[353-360]

Figure 45: Timeline of Health System Reform in Taiwan



Source: "National Health Insurance and Technology Adoption: Evidence from Taiwan," Shin-Yi Chou, et al, Contemporary Economic Policy, 2004; "Does Universal Health Insurance Make Health Care Unaffordable? Lessons from Taiwan," Jui-Fen Rachel Lu, et al., *Health Affairs*, 2003; "The healthcare system in Taiwan," Delon Wu, World Hospitals and Health Services; "Taiwan's New National Health Insurance Program: Genesis and Experience So Far," Tsung-Mei Cheng, *Health Affairs*, 2003; "Health Systems in East Asia: What Can Developing Countries Learn from Japan and the Asian Tigers?" Adam Wagstaff, World Bank, 2005; "National Health Insurance System," Taiwan Health Care Reform Foundation, thrf.org.tw; "Taiwan Takes Fast Track to Universal Health Care," T. R. Reid, Apr 2008, npr.org; "The Emerging Health Care Market in Taiwan: An Economic Analysis," Yanrui Qu, Asia Research Center, Apr 1999

Taiwan's Health System Prior to 1995

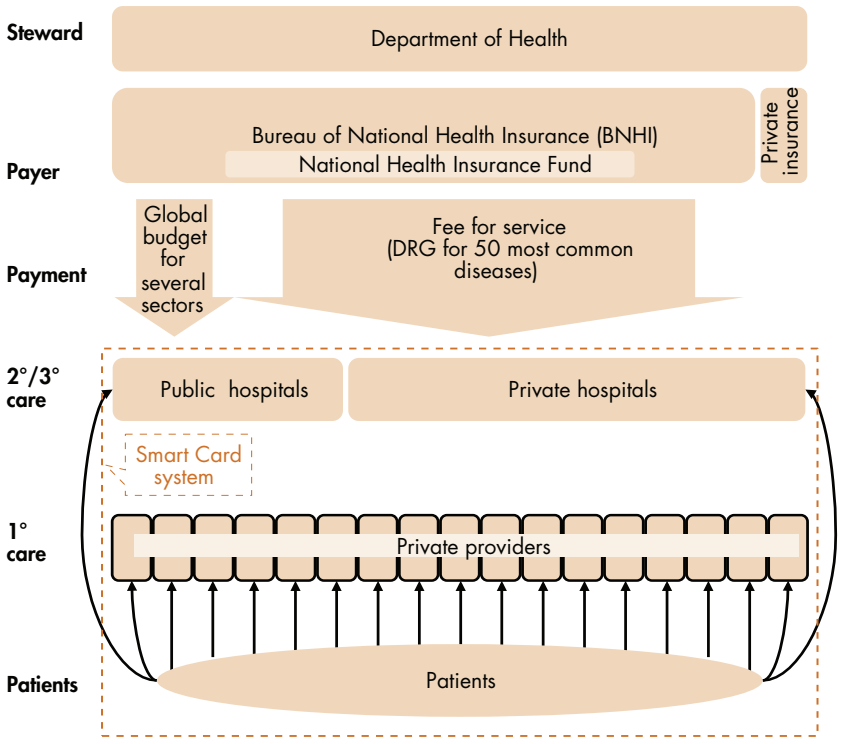
- **Stewardship.** The Department of Health sets overall sector policy and provides basic inputs to public hospitals.[361]

- **Payer structure and coverage.** Thirteen distinct insurance programs managed by different entities cover approximately 59 percent of the population (ten programs make up the majority of this coverage).[362 363 364] The four programs providing the majority of coverage are Labor Insurance, Low-Income Household Insurance, Farmer's Insurance and Government Employee Insurance.[365] Each has a unique benefits package, claims and billing process and set of prices. Private insurance is rare. Only Government Employee Insurance covers dependents, leaving 41 percent of the population uninsured. In 1992, more than 91 percent of children under 14 and more than 42 percent of elderly people were uninsured.[366 367]

- **Reimbursement and payment mechanisms.** Providers were reimbursed on a fee-for-service basis. Beneficiaries paid payroll-based premiums.[368]

- **Provision.** Primary care is provided primarily by private clinics and health facilities. Seventy percent of these organizations contract with the 13 health insurance programs. Secondary and tertiary care is split between public hospitals (which provide one-third of care) and private hospitals (which provide two-thirds of care, with 85 percent of private facilities contracting with the health insurance programs). Beneficiaries of the insurance programs must visit providers that are under contract by their insurance programs.[369 370]

Figure 46: Reformed Taiwanese Health System Structure



Source: "National Health Insurance and Technology Adoption: Evidence from Taiwan," Shin-Yi Chou, et al., Contemporary Economic Policy, 2004; "Does Universal Health Insurance Make Health Care Unaffordable? Lessons from Taiwan," Jui-Fen Rachel Lu, et al., *Health Affairs*, 2003; "The healthcare system in Taiwan," Delon Wu, World Hospitals and Health Services; "Taiwan's New National Health Insurance Program: Genesis and Experience So Far," Tsung-Mei Cheng, *Health Affairs*, 2003; "Health Systems in East Asia: What Can Developing Countries Learn from Japan and the Asian Tigers?" Adam Wagstaff, World Bank, 2005; "National Health Insurance System," Taiwan Health Care Reform Foundation, thrf.org.tw; "Taiwan Takes Fast Track to Universal Health Care," T. R. Reid, Apr 2008, npr.org; "The Emerging Health Care Market in Taiwan: An Economic Analysis," Yanrui Qu, Asia Research Center, Apr 1999

Key features of Taiwan's reformed health system (See Figure 46)

- **Stewardship.** Taiwan's Department of Health sets overall sector policy and oversees the Bureau of National Health Insurance (BNHI).[371 372]

- **Payer structure and coverage.** The National Health Insurance program is a government-run, mandatory insurance plan that provides coverage for 99 percent of the population. All citizens, their dependents, foreigners with resident permits and their dependents are covered. The scope of private insurance is very small.[373 374]

- **Benefits package.** The benefits package is comprehensive and includes inpatient services, outpatient services, dental services, traditional Chinese medicine, prescription drugs, diagnostics, treatment for mental illness, home health care and some preventive health services.[375 376]

- **Enrollment.** Beneficiaries pay premiums to enroll. Each premium is calculated based on taxable income, the beneficiary's number of dependents and the share of the contribution that must be made by the beneficiary (as opposed to the employer or the government, which also contribute). Between 1995

and 2002, the premium rate was 4.25 percent of taxable income; this rate increased to 4.55 percent in 2002 and to 5.17 percent in 2010.[377]

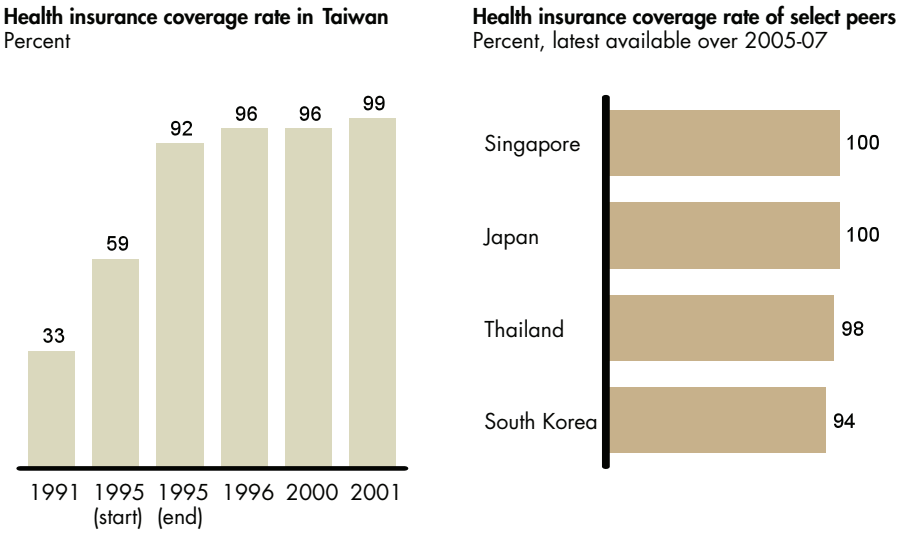
- **Payment mechanisms.** Providers are primarily paid via global budgets and fees for service.[378 379] For some conditions, a resource-based relative value scale is used, and diagnosis-related groups (DRGs) are phasing in.[380] Payment based on performance is being tested for physicians treating breast cancer therapy, diabetes, asthma and hypertension.[381] Global budgets apply to dental care, traditional Chinese medicine, clinics and hospitals.[382 383 384]

Co-payments are required for most medical services and vary by service type, location of care and whether the patient has a referral. Catastrophic diseases, child delivery, preventive health services and medical services in select geographies do not require co-payments. Low-income families, children under three years of age and veterans are exempt from making co-payments.[385-389]

- **Provision.** Taiwan has 1.6 physicians per 1,000 people and 6 hospital beds per 1,000 people. Nearly all primary care providers are private, and 90 percent of them contract with the BNHI. Secondary and tertiary care is split between public and private hospitals. Thirty percent to 35 percent of hospital beds and 15 percent of hospitals are public.[390 391] More than 98 percent of all hospitals contract with the BNHI.[392 393] No referrals are required to receive hospital medical services, and patients can visit any provider.[394 395]

- **Enablers.** Taiwan relies on a sophisticated information technology and smart card system to identify patients and track medical records. The smart cards store medical information related to prescriptions, diagnostics, routine treatments, catastrophic illnesses, organ donation and palliative care.[396 397 398 399]

Figure 47: Impact on Coverage



Source: International Labour Organization, Social health protection: an ILO strategy towards universal access to health care, Social Security Department, August 2007; Lu JR, Hsiao W. Does Universal Health Insurance Make Health Care Unaffordable? Lessons From Taiwan *Health Affairs* (2003), Vol 33 (3)

Impact of the Health System Reforms

- **Breadth of coverage.** Taiwan has seen an increase in its breadth of health insurance provision, covering 59 percent of the population in 1995 and 99 percent in 2001 (see **Figure** 47).[400 401 402]

- **Depth of coverage.** The National Health Insurance benefits package is comprehensive, replacing the distinct benefits packages provided by the previous system of fragmented payers.[403] The quality of services is reinforced by the introduction of DRGs and pay-for-performance reimbursement, and utilization has increased. A study conducted shortly after the introduction of National Health Insurance found that formerly uninsured beneficiaries had increased their outpatient visits to equal the number of visits made by those who were previously insured.[404] Patient satisfaction has increased from 33 percent to 79 percent.[405]

Case Study

HEALTH SYSTEM REFORMS IN THAILAND

2001–2004

Summary: Thailand introduced its Universal Coverage Scheme in 2001 to cover the informal sector, adding to a fragmented system of payers that previously only covered the formal sector. The impact of the reform can be seen in the breadth, depth and financing of coverage. Breadth of coverage increased from 70 percent of the population in 1995 to nearly 100 percent today.

The benefits package in the Universal Coverage Scheme is quite comprehensive, and beneficiaries are entitled to pay no more than 30 baht ($0.84) per medical visit. Total health expenditure as a percent of GDP has remained constant, but impoverishment due to payment for health services has decreased substantially, from 18.3 percent before 2001 to 8.0 percent in 2004.

Country Profile

Thailand is a lower-middle-income country with a population of 67.4 million. Life expectancy at birth is 69 years.[406] The country suffers from a split burden of communicable and non-communicable diseases. The top three causes of death are cardiovascular disease, cancer and HIV/AIDS.[407]

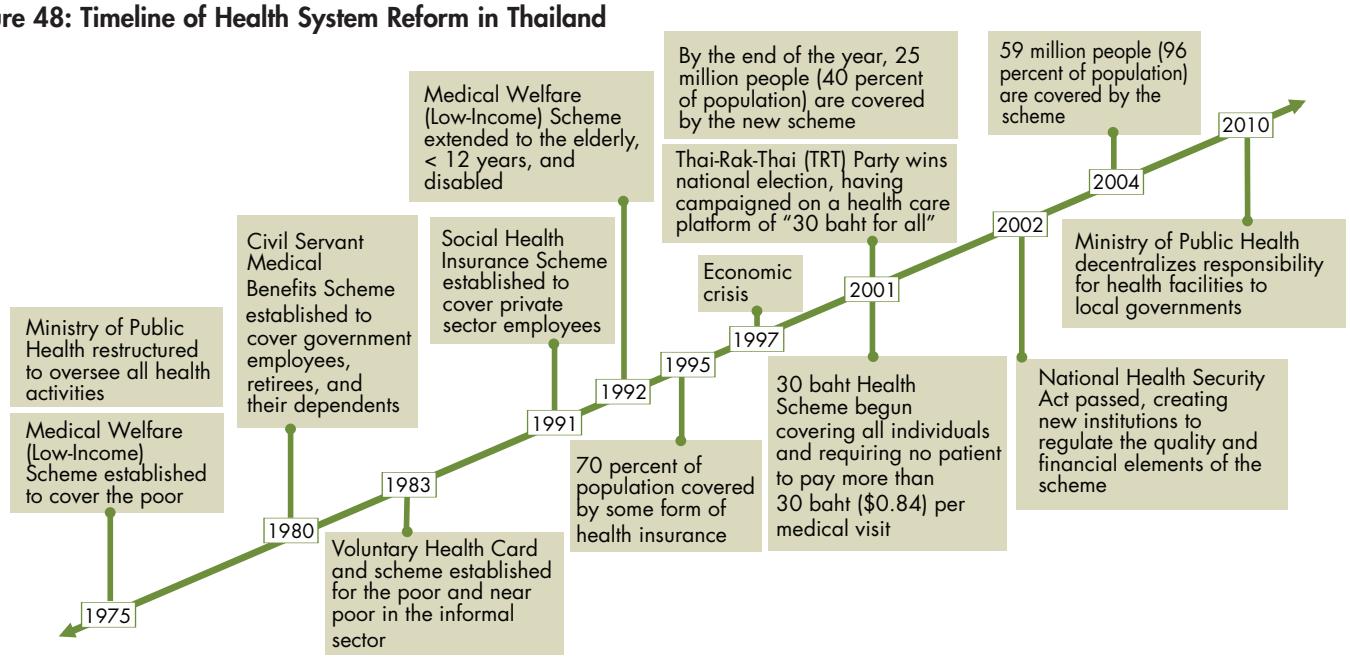
Overview of Thailand's Journey Toward Universal Health Coverage

Thailand's transition to universal health coverage began in 1975 with the creation of the Medical Welfare Scheme to cover the poor. Between 1975 and 1992, the Thai government established a series of health insurance programs for specific population segments. By 1995, 70 percent of the population was covered by some form of insurance. In 2001, the government established the Universal Coverage Scheme to cover the informal sector. Preexisting payers for the formal sector were not reformed. The evolution of the system is described in **Figure 48**.[408]

Thailand's health system prior to 2001

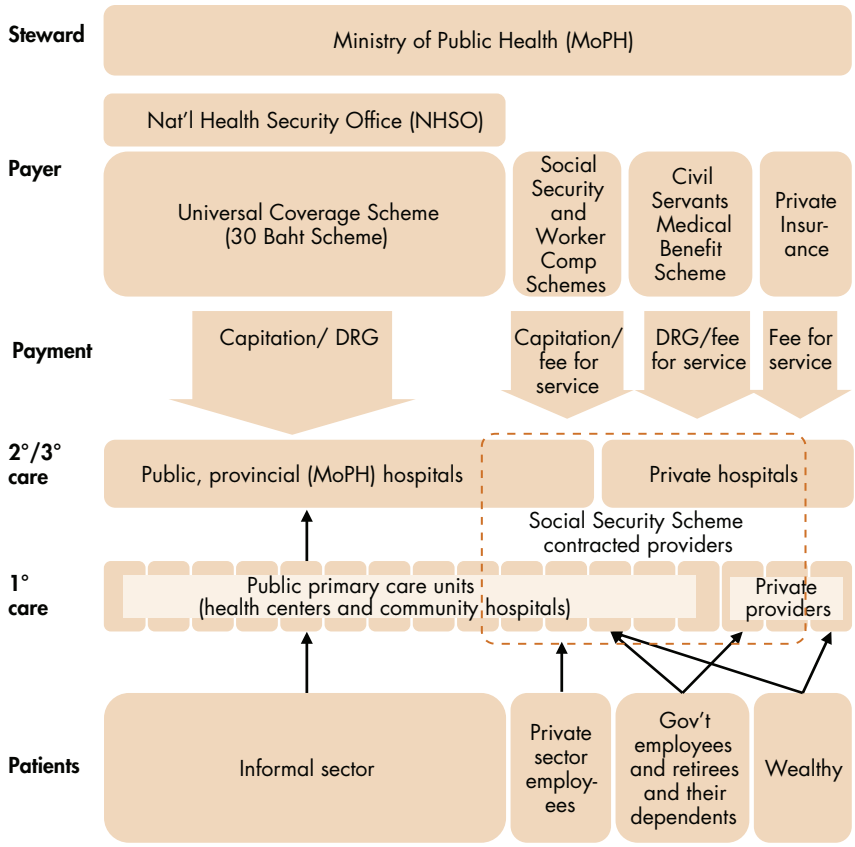
- **Stewardship.** The Ministry of Public Health (MoPH) was responsible for setting overall health sector policy and subsidizing the public health insurance programs. The ministry also provides basic inputs to public health facilities.[409-415]
- **Payer structure and coverage.** Seventy percent of the population was covered by some form of health insurance in 1995. The Medical Welfare Scheme for the poor was the largest program, covering 44 percent of the population. The Social Security Scheme, Workers Compensation Scheme, Civil Servants Medical Benefit Scheme and private insurers mainly covered the formal sector. Informal sector workers could join the Voluntary Health Card Scheme for about $14 per year. Payments for health services could be waived for the very poorest at the discretion of public health staff.[416-420]

Figure 48: Timeline of Health System Reform in Thailand



Source: "Thailand: Universal Health Care Coverage Through Pluralistic Approaches," ILO Subregional Office for East Asia; "Future prospects of voluntary health insurance in Thailand, Supakankunti, Health Policy and Planning, 2000; "Knowledge-based changes to health systems: the Thai experience in policy development," Tangcharoensathien et al., Bulletin of the WHO, Oct 2004; "Early Results from Thailand's 30 Baht Health Reform: Something to Smile About," Damrongplasit et al., *Health Affairs*, 2009; "The evolution of Thailand's health system after three crises, three adjustments, and three decades of growth," Nitayarumphong et al., IDRC; "Universal Coverage in the Land of Smiles: Lessons from Thailand's 30 Baht Health Reforms," Hughes, *Health Affairs*, 2007

Figure 49: Reformed Thai Health System Structure



Source: "Thailand: Universal Health Care Coverage Through Pluralistic Approaches," ILO Sub-regional Office for East Asia; "Future prospects of voluntary health insurance in Thailand, Supakankunti, Health Policy and Planning, 2000; "Knowledge-based changes to health systems: the Thai experience in policy development," Tangcharoensathien et al., Bulletin of the WHO, Oct 2004; "Early Results from Thailand's 30 Baht Health Reform: Something to Smile About," Damrongplasit et al., *Health Affairs*, 2009; "The evolution of Thailand's health system after three crises, three adjustments, and three decades of growth," Nitayarumphong et al., IDRC; "Universal Coverage in the Land of Smiles: Lessons from Thailand's 30 Baht Health Reforms," Hughes, *Health Affairs*, 2007

- **Reimbursement and payment mechanisms.** Each program had its own mode of provider reimbursement. The Voluntary Health Card Scheme, Civil Servants Medical Benefit Scheme and private insurers purchased services using a fee-for-service mechanism. The Social Security Scheme and Workers Compensation Scheme used capitation. Finally, the Medical Welfare Scheme paid hospitals based on a combination per-capita and diagnoses-related group (DRG) system, and provided a global budget for primary care to individual provinces.[421]

- **Provision.** For primary care, informal sector workers and low-income beneficiaries had to visit public primary care units. Private sector employees used providers contracted with the Social Security Scheme. All other beneficiaries could choose providers freely. Referrals to secondary and tertiary care were required for beneficiaries of the Medical Welfare and Voluntary Health Card Schemes.[422 423]

Key Features of Thailand's Reformed Health System (See Figure 49)

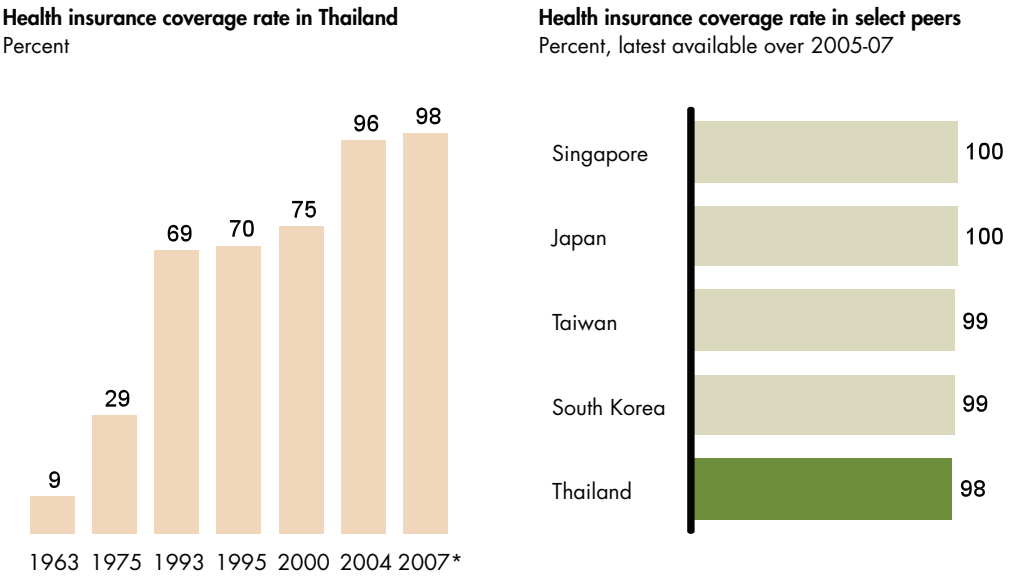
- **Stewardship.** The MoPH is responsible for setting overall health sector policy and continues to subsidize the public insurance programs. The ministry will transfer most public health facility duties to local governments by the end of 2010.[424]

- **Payer structure and benefits package.** Nearly 100 percent of the population is covered by some form of health insurance. The National Health Security Office administers the Universal Coverage Scheme and registers providers. The Universal Coverage Scheme covers about 45 million people, 67 percent of the population, and provides a fairly comprehensive benefits package. The 30 Baht Scheme within the Universal Coverage Scheme entitles each beneficiary to pay no more than 30 baht ($0.84) per medical visit, including drugs.[425 426 427]

- **Payment mechanisms.** The Universal Coverage Scheme uses capitation to purchase services from providers at all levels of care. Weighted DRGs are also used in some places. The Social Security Scheme uses capitation for non-work-related medical problems, while the Workers Compensation Scheme uses a fee-for-service mechanism for work-related medical needs. The Civil Servants Medical Benefit Scheme uses a combination of DRGs and fee-for-service payments, and private insurers continue to use the fee-for-service mechanism.[428 429]

- **Provision.** The MoPH provides almost 70 percent of all hospital services and beds in Thailand. Provincial and national hospitals are the only ones offering specialist medical services. Primary care units are the contracting unit for purchasing from the Universal Coverage Scheme. Each patient enrolled in the Universal Coverage Scheme must register with a public health unit in the local residential area

Figure 50: As coverage increases, Thailand's health insurance coverage rate is close to that of Asian peers



* Data from ILO report published in 2007; date for data not provided

Source: Hughes, D. & Leethongdee, S. 2007. Universal Coverage in the Land of Smiles: Lessons from Thailand's 30 Baht Health Reforms. *Health Affairs* 26(4):9.

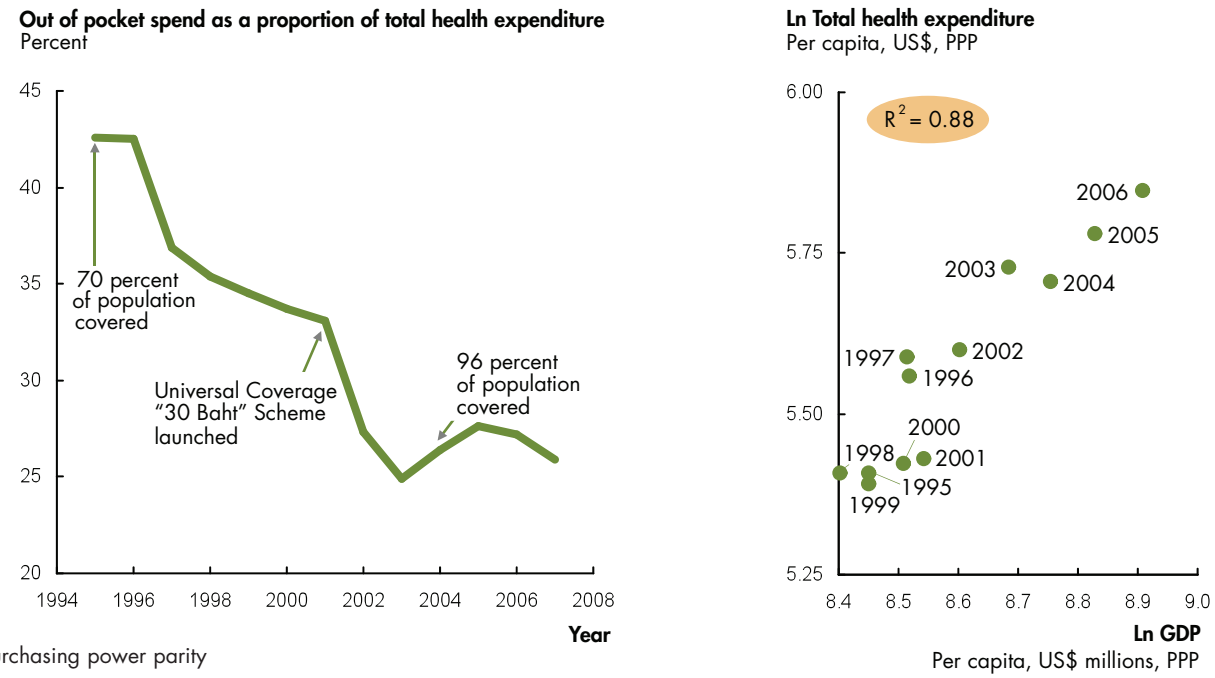
Impoverishment due to payment for health services has decreased substantially since the introduction of the Universal Coverage Scheme…

to be used as the primary point of care. Outside of the Universal Coverage Scheme, the popularity of private providers is growing among those who can afford them.[430 431]

Impact of the Health System Reforms (See Figure 50)

- **Breadth of coverage.** Thailand has seen an increase in its breadth of health coverage, from offering coverage to 70 percent of the population in 1995 to nearly 100 percent today.[432]
- **Out-of-pocket expenditures.** Thailand has seen a long-term decline in out-of-pocket expenditures, as illustrated in **Figure 51**.
- **Depth of coverage.** The depth of health coverage has increased substantially for the newly insured, and access to care has increased in that population. In 2001, the outpatient contact rate for the then-uninsured was 60.9 percent. By 2005, the outpatient contact rate had increased to 73.3 percent. Health outcomes have also improved: infant mortality has improved from 11 deaths per 1,000 live births in 2000 to 7 deaths per 1,000 live births in 2006, and under-five mortality has improved from 13 deaths in 1,000 to 8 deaths in 1,000 over the same period.
- **Financing.** Total health expenditure as a percent of GDP has remained fairly constant over the period of reform, but has tripled in absolute dollars. Out-of-pocket expenditure as a proportion of total health expenditure has decreased from 33.1 percent in 2001 to 25.9 percent in 2007, and government expenditure has increased from 51.3 percent to 58.8 percent over the same period (see **Figure 52**). Impoverishment due to payment for health services has decreased substantially since the introduction of the Universal Coverage Scheme, dropping from 18.3 percent before 2001 to 8.0 percent in 2004.

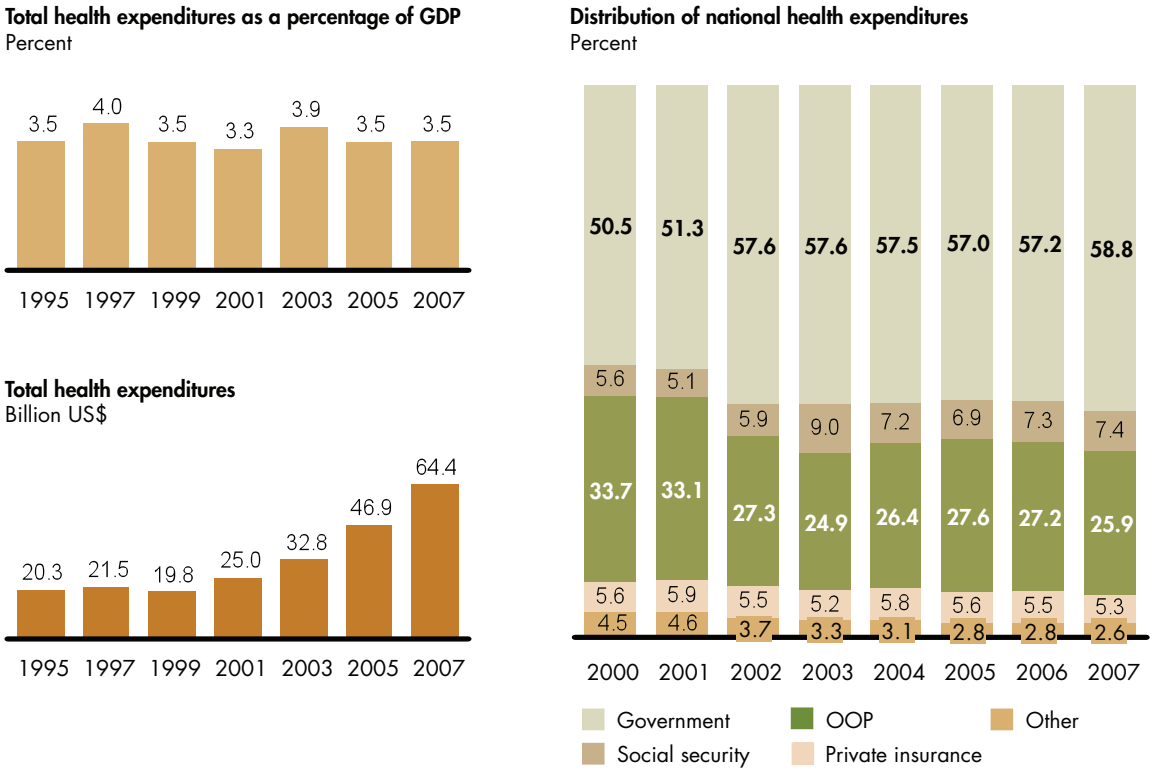
Figure 51: Out-of-Pocket Expenditures and Correlation of THE to GDP in Thailand



PPP—purchasing power parity

Source: International Monetary Fund, World Economic Outlook Database, October 2009; WHOSIS

Figure 52: Changes in Thailand's Health Financing Over Time



Source: WHO National Health Accounts; OECD; McKinsey analysis

Abbreviations

AK Party	Adalet ve Kalk›nma Party
AP	Andhra Pradesh
AUGE	Accesso Universal con Garantías Explicitas
BNHI	Bureau of National Health Insurance
CBHI	Community-Based Health Insurance
CHC	Community Health Center
CPA	Complementary Package of Activities
DALY	Disability Adjusted Life Year
DANIDA	Danish International Development Agency
DFID	United Kingdom Department for International Development
DRG	Diagnosis-Related Group
DWMHIS	District-Wide Mutual Health Insurance Scheme
ES	Emekli-Sandigi (Government Employee Retirement Fund)
FKMIS	Federation of Korean Medical Insurance Societies
FONASA	Fondo Nacional de Salud
GDP	Gross domestic product
G-DRG	Ghana-Diagnosis Related Group
HIRA	Health Insurance Review Agency
HIV/AIDS	Human immunodeficiency virus/acquired immunodeficiency syndrome
HTP	Health Transformation Program
ISAPRE	Institución de Salud Previsional
IT	Information technology
MDG	Millennium Development Goal
MHO	Mutual Health Organization
MoH	Ministry of Health
MoHW	Ministry of Health and Welfare
MoPH	Ministry of Public Health
MPA	Minimum Package of Activities
NGO	Nongovernmental Organization
NHIA	National Health Insurance Authority
NHIC	National Health Insurance Corporation
NHIF	National Health Insurance Fund
NHS	National Health Service
NPP	New Patriotic Party
OECD	Organisation for Economic Co-operation and Development
OOP	Out-of-pocket
PAD	Payment associated with diagnosis
PCHIS	Private Commercial Health Insurance Scheme
PHC	Primary Health Center
PMHIS	Private Mutual Health Insurance Scheme
SERMENA	Servicio Médico para Empleados
SGK	Sosyal Güvenlik Kurumu (Social Security Institution)
SNS	Servicio Nacional de Salud
SNSS	Sistema Nacional de Servicios de Salud
SSK	Sigortalar Kurumu (Social Security Association)
TW-DRG	Taiwan-Diagnosis Related Group
UK	United Kingdom
USAID	United States Agency for International Development
VAT	Value-added tax
WHO	World Health Organization
YK	Yesilkart (Green Card)

Endnotes

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