INTER-AMERICAN DEVELOPMENT BANK

HEALTH SERVICES IN LATIN AMERICA AND ASIA

Carlos Gerardo Molina
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INTER-AMERICAN INSTITUTE FOR SOCIAL DEVELOPMENT

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PREFACE

This publication is the first in a series on comparative best practices in social sector development in Latin America and the Caribbean and Asia undertaken by the Inter-American Institute for Social Development (INDES) and the Japan Program of the Inter-American Development Bank (IDB). INDES is both a training institute and a forum for knowledge exchange, and its main goal is to develop a critical mass of decision-makers and managers knowledgeable about the social development process, skillful in its execution, and committed to democratic, equitable, and sustainable social reform. The Japan Program was established by the IDB and the Government of Japan in 1999 to promote the exchange of knowledge and experience in development between Japan and the rest of Asia and Latin America and the Caribbean.

The publication brings together valuable experience related to the provision of health care as presented at the workshop "Comparative Health: The Experiences of Latin America and Asia," held in Tokyo and Sapporo, Japan from August 29 to September 1, 2000. The workshop was organized by INDES and the Japan Program with the collaboration of the IDB Office in Japan and financial support from the Government of Japan. The workshop brought together 15 distinguished researchers and health policy-makers from both regions, as well as representatives of the World Health Organization, the IDB, and the Asian Development Bank.

The objective of the workshop was to strengthen cooperation and technical exchange between the two regions in the area of health care. Indeed, both regions are facing similar challenges in their health care systems, including the need to improve access to and quality of health services for the poor; to promote the use of preventive health services aimed at breaking the traditional curative pattern that has characterized these services to date; to allow health care services, particularly for the poor, to respond to the new epidemiological profiles of the

population; to successfully face the new economics of health care; to respond better to the growing demand for health services, based on alternative and innovative forms of financing; and to create more flexible and dynamic organizations that are more in keeping with the new political and institutional contexts of the regions.

The cross-regional experiences presented here contribute to the promotion of more effective development of the health care systems in the countries of both regions. This contribution arises from the richness and diversity of actions undertaken in each country, often in response to similar problems. This points to the value of maintaining a permanent and open dialogue among researchers and policy-makers from the two regions.

Although some of the responses presented here are still evolving, this is nonetheless an opportune moment to learn from past experiences, mistakes made and successes achieved. These responses show significant complementarity as well as differences. They also offer clear indications of the ways of meeting distinct challenges in each region and show that there is no single formula. It is necessary to take socioeconomic context into consideration, but also to learn from various approaches that may be applied to a single problem.

In every case, it is necessary to frame health policy programs within a modern social development vision linked to economic development and institutional possibilities. INDES strives to move away from the technocratic vision of policy design to a more participatory approach in policy-making that takes into account contributions from a variety of stakeholders. In this approach, INDES proposes that design and implementation considerations should feed into each other so that policy-making becomes an interactive exercise.

It is my hope that the richness of the discussions at the workshop and the manner in which the topics were developed between the regions will serve as a starting point for further debate and intellectual exchange between health policy-makers in Latin America and Asia.

In closing, I would like to thank Carlos Gerardo Molina for his excellent work in coordinating the seminar and the publication, Hironobu Shibuya for identifying top quality Asian participants, and Tsuyoshi Takahashi and the staff of the IDB Office in Japan for their many contributions to the success of the seminar.

Nohra Rey de Marulanda
Director, INDES

アジアにおける保健サービス

はじめに

本書は、米州開発銀行の米州社会開発研究所（INDES）とジャパン・プログラムによる、東アジアと中南米カリブ間の社会セクター開発に関するベストプラクティスの比較研究を行わんとする、その第一歩の試みであります。INDESは研修機関並びに知識交換のフォーラムの場であり、社会開発プロセスに熟知し、マネージメント能力を有し、民主的で公正かつ持続的な社会改革に寄与できる専門家の育成を主な目的としています。また、日本政府と米州開発銀行によって1999年に設立されたジャパン・プログラムは、日本・その他アジア諸国と中南米・カリブ諸国との間の開発面での知識と経験の交換・共有を促すことを目的としています。

本書は、2000年8月29日から9月1日にかけて東京と札幌で催された「セミナー：保健に関する比較研究　（中南米とアジアの経験）」で発表された保健分野に関する貴重な経験をまとめたものです。本セミナーは、INDESとジャパン・プログラムが、米州開発銀行日本事務所並びに、日本政府の資金面でのサポートのもと、企画したものです。セミナーには15名の両地域からの研究者と保健制度の専門家、またWHO(世界保健機関)、米州開発銀行、アジア開発銀行の代表者が集まりました。

本セミナーは、保健分野での中南米とアジア両地域の協力と技術交流の強化を目指したものです。実際、両地域は類似する課題を種々抱えています。例えば、貧困層に対する保健サービスの量的・質的改善； 伝統的な治療の見直しと予防保健サービスの促進； 特に貧困層の間で深刻化する新たな感染症疾病に対する保健サービスの提供； 変わりゆく経済環境に対応しうる保健制度の確立； 革新的な資金供給による、保健サービスの需要増加への対応；新たな政治的・制度的背景の中でのより柔軟な組織の設立、などが挙げられます。

両地域にまたがる共通した経験は、両地域の国々における、より効果的な保健制度改革を促進する鍵となります。本書は、しばしば両地域にみられる問題の対策として、多様性かつ補足性の伴う活動の種々から生まれたものです。この見地から、二つの地域の研究及び政策立案に関わる者の間の永続的な対話の重要性が理解できます。

本書に紹介されている考え方等にはなお今後の論を待つ必要があるものもありますが、いずれにせよ、本書は過去の経験、失敗、成功例から学ぶ適切な機会を提供してくれるものと確信しております。これらの考え方は補完的なものであったり、相違を示したりしています。また、各地域における課題にどのように対応すべきか、そして単一の処方はないこということも明示しています。更には社会経済的背景を考慮に入れる必要性と同時に、一つの問題に対し複数のアプローチが存在することも示しています。

保健制度並びにその政策課題は近代的な社会開発のビジョンのなかで、経済発展と制度的可能性を考慮に入れ取り組まれる必要があります。事実、INDESは、テクノクラートによって組み立てられたこれまでの政策モデルより、種々の社会構成員の貢献を包

容した参加型政策決定アプローチを重要視していくよう試みています。

このようにINDESは、政策立案決定と実施がお互いに影響を与え合える相互作用的な政策立案過程を提案しようとしています。

本セミナーでの豊富な議論、そして各課題への取り組まれ方が、中南米とアジアの保健制度・政策に関わる専門家の更なる討議と知識交換に繋がることを心より願ってやみません。

最後に、本セミナーと出版物の企画調整を担って下さったカルロス・ヘラルド・モリナ氏、アジアからの質の高い参加者を募って下さった渋谷 弘延氏、そしてセミナーの成功に多大な貢献をして下さった高橋 毅氏をはじめとするIDB駐日事務所の方々に、心より御礼を申し上げます。

ノーラ・レイ・デ・マルランダ
INDES所長

INTRODUCTION

It is surprising that two apparently different regions—Asia and Latin America—are facing similar challenges in health care. Even more surprising is the diversity of responses adopted as well as their complementarity. The comparison of experiences provides valuable lessons and shows the steps some countries have already taken and that others are beginning to take, for example in setting up health insurance programs. These experiences reveal setbacks experienced and successes achieved, and the impact of recent changes in development models on health, thus revealing the persistent fragility of the health care systems of these regions. The comparison also shows the importance of the public sector and its institutions, which, while almost always needing to improve their efficiency, constitute the support and essential framework for the proposed changes that would otherwise be transient or would only benefit a few.

The reference to Asia includes all of East Asia, from which several of the selected experiences are drawn. Japan, clearly one of the most advanced countries in the world with respect to health care, is differentiated from average Asian behavior. It nevertheless serves as a point of reference and the Japanese model is presented at the end of this publication.

Among the health challenges facing Latin America and Asia are the need to improve access to and quality of health care for the poor; to successfully face the new regional economic contexts and the new and growing demands for health services; to find alternative and innovative forms of financing for health care systems; and to create more flexible and dynamic organizations in keeping with the new political and institutional contexts of both regions.

This publication includes some of the most interesting cases that were presented at the workshop "Comparative Health: The Experiences of Latin America and Asia," which was held in Japan from August 29 to September 1, 2000.

These descriptions and analyses address the following health care challenges: health reforms; health equity; preventive health; the organization of health systems; health financing; health regulation; health strategies in multilateral agencies; and the health system in Japan. The book has eight parts, each one emphasizing one of the topics indicated. Each part contains two chapters that include relevant national experiences from Latin America and Asia. Given the close relationship between topics, the parts are mutually complementary so that this publication offers a broad overview of the challenges, changes, and responses envisioned by the health care systems of both regions.

Part I contains an analysis of the economic and social contexts, the general state of health care, the challenges, and the framework of health care reforms in Latin America and Asia. In chapter one, Professor Sonia Fleury describes the development of three distinct health care models in Latin America—universal, dual, and pluralistic—and explains that this occurs in countries with growing democracies and limited public resources. These models offer different responses in financing, organization, and the manner of facing the traditional challenges of access to and coverage of health services, with the greatest deficiencies being observed in poor populations. Structurally different systems are being developed in which the state plays distinct roles that make it necessary to clarify the scope of decentralization and regulation, the basis of the new relationship between the public and private sectors. Notwithstanding progress in the extension of coverage in all the models, and therefore in the inclusion of their citizens, the offer of health care services turns out to be skewed, especially in dual models, where provision of services is linked to income. In such cases, the provision of health care services may increase rather than reduce segmentation of the population.

In chapter two, Dr. Aviva Ron points out that Asian economic development in recent decades has not always led to equally intense improvements in health care systems. Payment modalities and health care financing are at the root of the difficulties in accessing services. Improvements in health care will therefore only be realized when an integrated focus between poverty and health is achieved. Nevertheless, most of the reforms in the region have been aimed at privatization and cost recovery that have fortunately not been accompanied by a reduction in public financing, nor unfortunately by better use of these funds. As a result, the public-private balance has changed and sufficient consideration has not been given to the adverse effects of this change on the poor. Likewise, the quality of health care services has not been significantly improved. In general, because the reforms have largely

concentrated on financing, they have lacked integration that would ensure, for example, the coordination of organization (geared toward decentralization), management and financing. Health social security must be taken into account as a mechanism for broadening coverage, particularly for the poor, provided it is adequately designed.

Part II begins the analysis of equity and access of the poor to health services. This is one of the main health care problems in both regions, and it is analyzed from various perspectives. This part begins with an analysis of Bolivia's basic health insurance, followed by an examination of the effects of the changes in Vietnam's development model on equity in health care.

In chapter three, Dr. Fernando Lavadenz presents the recently created basic health insurance system of Bolivia, one of the countries with the lowest income levels in Latin America and with unsatisfactory results in health services provision. This insurance system is an expansion of basic maternal and infant insurance and constitutes one of the main components of the reform of the country's health sector. It aims to reduce high infant and maternal mortality through five basic strategies: to assign priority to management based on results; to guarantee equity in access to basic health; to undertake a gradual process toward the integration and universality of insurance; to promote the creation of consensus at the municipal level; and to create a system that will allow the poor to select the illnesses to be covered by insurance. Financing is public and is shared by the central government and the municipalities. To date, the system shows promising progress in coverage of the poor in the country.

In chapter four, Dr. Tran Trong Hai and Dr. Claudio Schuftan reveal the challenges facing the health care system in Vietnam, a country that, like Bolivia, has one of the lowest income levels, but that has enjoyed a sound health care system with wide coverage. In fact, the transition toward a more open market economy has involved movements that seem to contradict the achievement of equity in health care.

Part III analyzes two experiences that are pivotal to the strengthening of preventive health care, based on valuable experiences with vaccination in Latin America and an analysis of the case of Thailand. In chapter five, Dr. Salvador García Jiménez shows the successes achieved by Latin America, particularly Central America, in its vaccination programs that have eradicated some communicable diseases. The keys to the success of this program are the commitment of the health authorities, adequate provision of financial resources, effective social mobilization and community participation, and the creation of strategic alliances at all levels. The analysis leads one to ask how the

success of vaccination can be extended to curative health policy. Could it be that the public institutional apparatus and its organization respond better to actions limited in time and with well defined procedures, as in the case of vaccination? Could it be that visibility and the possibility of obtaining immediate results are necessary conditions for the success of health care interventions?

In chapter six, Dr. Charas Suwanwela argues for broadening the scope of preventive health care to address the growing spectrum of preventable diseases. He emphasizes the importance of incorporating new participants (that was one of the key factors of the success in Latin America), in particular involving community and civic organizations, while making it clear that the response to the requirements of preventive health care cannot be handed down exclusively from the central level. He indicates that the role of the state must focus on establishing rules and standards, regulating the private sector and quality control, and ensuring adequate financing of preventive measures. Financing must be an integral part of the plan and it must be designed flexibly so that it will be able to respond to the changing needs of the population.

Part IV focuses on changes in the organization of health systems. In particular, it shows that it is possible to promote basic health care services by starting with changes in the organization of the system and focusing on the decisive role of proper coordination and integration of services in the community.

In chapter seven, Dr. Adib Jatene explains the interesting measures that Brazil has adopted to achieve better basic health care for all. These measures are based on a trifold strategy: a unified health system, wide autonomy of the municipalities, and focus on primary health. The strategy is developed through the following three basic programs: 1) use of national (federal) resources for public health to prevent curative measures typical of Latin American systems from getting all the resources, a risk that may also be accelerated by recent reforms that focus attention on ensuring services; 2) promotion of primary care through community health agents, generally women intimately involved in the community; and 3) promotion of primary care through the family doctor program. The success of the last mentioned program depends on the composition of the team accompanying the doctor, on linkage with the agents, and on financing that offers adequate incentives, perhaps by being linked to the persons receiving attention. Dr. Jatene points out that the key to success is the direct link to the community.

In chapter eight, Dr. Xinhua Li describes the delivery of health services and the reforms taking place in China. Given the rural charac-

ter of that country (the rural sector accounts for some 70 percent of the population), health systems assign great importance to these areas. They pay equal attention to both traditional as well as western medicine, place great priority on preventive medicine, and use education to mobilize community resources for preventive health care. China has traditionally been successful in social mobilization and community participation in health activities. This is due to the solid organization and coordination of all the ministries and institutions involved, as well as to the role assigned to health education. The health cooperative scheme that operates in the rural areas and at the three levels of health care and the barefoot doctors scheme are key aspects of that success. Recently, however, costs have been increasing more rapidly than available resources, limiting public supply and translating into a rapid expansion of the private sector in a rather disorderly manner. At present, most employees do not have medical coverage. From the point of view of supply, the reforms are oriented toward converting hospitals into community health centers, and clinics into community health stations. Efforts are being made to focus more attention on prevention and promotion of primary health. Basic health insurance is just beginning.

Part V provides an analysis of the changes that have taken place in health financing in Colombia and the Philippines, two countries at the median stage of development. The studies reveal that the debate on resource allocation is one of the burning issues in the reform of health systems and one of the decisive factors in its results. The structural reforms begin to open the path for changes in financial allocation directly to the user, that is, based on demand, unlike traditional financing based on supply. That presupposes that the services to be covered will be specified along with their corresponding costs. Depending on the mechanism used to finance insurance (from public resources through payroll taxes, or directly by the private user, with or without crossing both systems), we arrive at very different models, such as those outlined by Professor Fleury in chapter one.

In chapter nine, Dr. Juan Luis Londoño analyzes health care reform in Colombia that has given rise to the so-called structured pluralism model, one of the most successful in the American region in terms of expansion of coverage. The chapter shows the importance of good technical design as well as the complexities involved in its execution, in particular the political difficulties inherent in a structural reform of the magnitude undertaken by Colombia. This reform shows the importance of the financial element: an initial increase in resources, in this case through a significant increase of payroll contributions, gives it a sound start. These contributions, together with

resources from the national budget, are the funds that, through per capita allocation, make it possible in theory to provide each Colombian with health insurance, one of the key elements of the reform. Participants in the formal economy finance their insurance with contributions. The package of services insured corresponds to a basic health basket, somewhat above that of those insured from public resources, and is not dependent on a person's income. Unlike other models, such as in Chile, it includes mechanisms that permit coordination of both systems. It is worth noting that in this reform the competition schemes, between providers and between insurers, are present as a mechanism to promote more efficient use of resources. The author argues that to achieve structural changes it is preferable to move swiftly and in depth rather than to proceed gradually at the risk of failing in small attempts.

The description of the Philippine model, presented by Dr. Juan M. Flavier in chapter ten, indicates that the country overinvests in hospital care that is not only inefficient but also inequitable in as much as these services are being disproportionately used by the nonpoor population. The Philippine health system has made organizational changes through decentralization and has succeeded in establishing integrated provision of primary health services; it has also focused on autonomy so that the same hospitals may obtain more resources from alternative sources. Public subsidies, directed to regional and local hospitals, represent 43 percent of the country's health budget; direct cost per user is 48 percent; and subsidies from social security represent 6 percent. Subsidies on demand, and thereby insurance, have become a critical issue although still incipient in practice.

Part VI deals with the main challenges governments face in the direction, coordination and especially regulation of their health systems. This is of particular importance because of the increasing participation of the private sector in the provision of health care.

In chapter eleven, Dr. Cecilia Acuña and Dr. José Pablo Gómez show how health sector regulation is being developed in Chile, one of the countries in Latin America at the vanguard in this matter. Regulation, understood as "a set of rules aimed at guaranteeing fair play between providers and consumers of health services," is one of the least developed functions in Latin America. This is very important because a major part of the success of the new systems proposed depends on it; and unless it is properly developed, the quality and quantity of health services provided to the insured by private systems cannot be guaranteed. Likewise, the deficiencies in this sector also affect the provision of health care to the poor since this must of necessity be assumed by the public

sector. Good regulation is therefore essential given the recent changes that place much importance on private health insurance companies.

In chapter twelve, Dr. Khalid Abdul Kadir analyzes the challenges facing the regulation of health services in Malaysia, where one of the continent's most intense urbanization and industrialization processes was recently observed. Consumers' expectations have changed and they now enjoy greater buying power. In the population's epidemiological profile, this is reflected in significant changes in demand for health care. The public health care delivery system, characterized by high efficiency, equity and integrated coverage of services, has decreased in relative importance due to the greater dynamism of the private sector that is responding adequately to the growing needs of the population, especially persons with more resources. This is having a marked effect on the role of the government and has created imbalances. As occurred in Chile's experience, regulation is at the height of the restructuring process and is enjoying varying results. Nevertheless, the apparent spirit of collaboration between the two sectors is promising.

Part VII presents the strategies and responses of the Inter-American Development Bank and the Asian Development Bank to the challenges involved in providing support to health care in both regions. This is an institutional as well as an experiential perspective arising from the daily exchanges of experiences with the countries. Therefore, joint strategic action and working points may foster the development of health care in these two regions.

In chapter thirteen, Dr. Roberto F. Iunes of the Inter-American Development Bank emphasizes the strategic role that financing health care has in the IDB as a crucial component of development. He analyzes major health problems in Latin America and the Caribbean, such as the lack of equity, high inefficiency and inadequate resource allocation that does not respond to needs—which is especially the case in the macroeconomic aspects of financing—and the institutional weakness of the sector. The study reveals the complexities faced by the region's traditional responses, which, while offering solutions to part of the problems, such as inefficiency, may be less successful in other areas. The chapter analyzes approaches to universal insurance, separation of financing from provision, autonomy of the provider, competition and regulation, and decentralization. It emphasizes the need to elaborate very carefully the design, scope, and implementation of the so-called solutions whose results are significantly affected by the context in which they are developed.

In chapter fourteen, Dr. Indu Bhushan analyzes the strategy of the Asian Development Bank in this sector. Health has been one of the

pivots of the Bank's development promotion. The Bank responds in its strategy to the key challenges identified: protection of the health of the poor and response to the new health needs—the latter as a result of epidemiological changes, demographic transition, and urbanization. Its strategy includes seven points largely coinciding with those developed in the preceding studies. Noteworthy among them are protection of the health of the poor through better access to services, greater focus of services on the poor, women and children, and fairer financing; mobilization of greater resources for public and primary health care; strengthening of the management capacity of the sector in search of better follow-up of results as an allocation mechanism; strengthening of control and evaluation of new technologies; and increasing collaboration between the public and private sectors.

Part VIII describes the main features of the health system in Japan. Although Japan has a very different and developed health system compared with the systems analyzed here, it is useful to make some comparisons. This part is based on the publication "Public Health in Japan, Health Service Systems," which was published in 1995 by the Japan Public Health Association, and presented by Dr. Hidesuke Kobayashi during the workshop.

These chapters, based on papers presented at the workshop, expose the reader to the wealth and diversity of the changes and recent experiences observed in health care in Latin America and Asia. In light of the difficulties that this presupposes, some aspects are worth mentioning. First is the importance given to health insurance as a mechanism for expanding health service coverage. That insurance, however, has distinct effects on the equity, efficiency and sustainability of services depending on the design adopted. In fact, this mechanism may offer incentives to efficiency when it succeeds in promoting competition and in achieving transparency in specifying and appraising the services insured. Nevertheless, it may also increase inequities, especially when benefits are linked to beneficiaries' income.

Insurance has been the mechanism used to provide health services to a privileged sector of the population with the capacity to pay, partly because it is a mechanism that allows sustained financing of health services and minimizes the risks of care for unforeseen illnesses, for both the user as well as the service providers. This mechanism was to be extended to the population linked to the formal economy that constitutes the social security subsystem and, given the structure of the economies, also constitutes a segment of privileged society. This is feasible because the behavior of this subsystem not only determines the results that the public subsystem will have, but also because it is

financed from a percentage of wages—that is, as a type of tax—that cannot be used for private expenditure. When the beneficiaries of this system act independently, that is, when each one receives benefits directly related to income, solidarity among participants of the subsystem is lost. Moreover, the possibility of transferring resources to the subsystem from public funds is eliminated. Insurance designed in this manner strengthens the services of those in the formal economy, particularly those with higher incomes. Furthermore, it weakens the possibility of providing adequate services to those who depend on public resources, namely the poor, because without these transfers the public subsystem loses one of its financing sources and therefore the possibility of offering better services. This may be the case in Chile and in a subsector in China.

Many of the chapters in this book, while analyzing insurance, insist that it must be of a social character (see the term social insurance mentioned by Dr. Ron), which we would define as one in which there is solidarity and benefits are not linked to income. To achieve this is no easy task, and when it is achieved, linkages must be maintained between public subsystems and social security, as in the case of the solidarity transfers suggested in Colombia's system.

Insurance may also be applied to the poor: although the user does not generate the value of the insurance directly from his labor, its value may be financed directly from public resources, a scheme that is now being implemented in Colombia. The scope of the basket of services covered by the insurance varies depending on public sector resources. It is therefore important that these resources be supported partially or totally by other sources, such as contributions from persons linked to the formal economy. Coverage may be basic services, such as the maternal and infant protection provided by Bolivia's insurance, or offer more complete service through limited plans.

The former are insufficient to meet the health needs of the population. Nevertheless, if this mechanism includes basic services, especially those most used by the poor, it will rapidly succeed in improving the health levels of the poor, improving the overall equity of the system. To ensure the relevance of these minimum packages, it is pivotal that there be some flexibility in their composition and a close link with the community, which best knows its own needs.

More complete limited plans may offer more integrated packages, but there will always be some services excluded, thus revealing their limitations. Practice has shown that integration does not exist in theoretical models of unlimited coverage, such as so-called universal models. However, their biggest problem is not the scope of the pack-

age of services, but rather whether the contracts with the insurers will be adequately fulfilled, and whether this mechanism generates healthy competition and therefore the desired efficiency.

In fact, the positive effects of insurance on efficiency, through greater competition between insurers and providers, depend on good follow-up of these contracts (that is the purview of regulation) as well as on the population having adequate information to make decisions. Both aspects—regulation and availability and use of information—are central elements of the design. They are mechanisms that promote efficiency and help to prevent bad selection (and therefore a negative effect on equity) in insurance plans. In this regard, the experiences of Chile and Thailand are pertinent because they show the difficulties inherent in regulation.

Another problem with insurance is that it requires adequate estimation of the composition and costs of the services involved. This is a difficult task but it represents an important step toward the promotion of efficiency. This is reflected in better control and attention to the medical technologies used and to forms of provider contracts, two of the main elements for modulating the efficiency of the system.

Insurance also faces another difficulty: it directly assigns resources to the user (assignment on demand), who is thereby better able to decide and choose. This is obviously positive. But resources no longer follow the traditional path of direct support to service providers. This change departs from inertial behavior patterns that force providers to ensure that they receive their resources, and therefore requires a management vision by providers, especially hospitals. This transition, corresponding to the shift of subsidies from the supply to the demand side, is not evident; it deals with the interests of service providers. It is therefore very risky, as can be seen in the Colombian case.

In other countries, in an effort to increase the coverage of health systems, and given the difficulties with insurance, traditional plans supporting supply have been maintained. The supply of services may be unlimited in theory, as in the case of Brazil, which has a unique health system in terms of the financing and organizational aspects. The problem of systems that base the expansion of their coverage on broadening the supply of services is that, in the first place, traditionally it is not easy to re-orient services toward those who need them most (the suppliers make decisions on what they need most) and second, more costly services remain in the hands of more informed users with better connections; these are rarely the poor, as is evident in the case of the Philippines. Nevertheless, interesting mechanisms within the supply

models promote more relevant services in keeping with needs. Family doctors and community agents in Brazil, for instance, manage to link the community to services (relevance) while ensuring adequate organization and allocation of resources and coverage for the most needy population.

At the same time, it must be pointed out that not everything can be left to social insurance or even supply mechanisms. Public and preventive health care require other channels that will ensure their permanence and financing (see the experiences of Central America, Brazil and Thailand) through specific and sustained allocations.

This is the beginning of the discussion outlined in these pages. The thread running through is the richness and the complementarity of the experiences presented. The reader is invited to examine the various experiences presented hereafter in the firm conviction that they will yield valuable lessons that will make possible more secure support for health care development in his/her country.

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序論

アジアと中南米のような一見大きく異なる両地域が保健分野では大変似通った課題に直面していることは驚きに値する。また、その対応措置の多様性とそれらの相互補完性はさらに驚きに値する。両地域の経験を比較することは間違いなく価値のある教訓をもたらす。例えば保険制度など、他国で着手しつつある道程をある国では既に経験していることがあり、その国の失敗と成功を映し出す経験は貴重な教材となる。近年転換を遂げた発展モデルは保健部門の重要性を示しているとともに、これらの地域での保健制度の恒常的な脆弱性を表している。地域比較はまた、公共部門とその組織性も重要性も示している。公共部門は、多くの場合効率性の向上を求められてはいるが、政策変更に不可欠な支援とより所を提供し、それ無しでは政策は一時的で一部の受益者に留まるものとなってしまう。

ここで「アジア」という場合、本著のいくつかの経験事例が存在する「東アジア」を指す。日本が世界の最長寿国であることからも分かるように、保健分野では同国が世界で最も進んでいる国のうちのひとつであることは明らかであり、平均的なアジアとは状況を異にする。しかし、日本の事例は参考となるため、この出版物の巻末にそのモデルを紹介する。

中南米とアジアが直面する保健の課題で特筆されるものとして、貧しい人々への保健サービスのアクセスとその質の向上、新しい地域経済環境の中で増加する新たな保健サービス需要に成功裏に対応すること、保健制度における代替的そして革新的な資金調達法を模索すること、両地域における新たな政治システムに則した柔軟性のあるダイナミックな組織を創造すること、が挙げられる。

この出版物では2000年8月29日―9月1日に日本で実施された「セミナー：保健に関する比較研究」で発表された両地域における最も興味深い経験を選択した。

これらの経験は保健分野の様々な課題を考察する材料を提供している。保健制度改革、保健の公正、予防保健、医療保健機関、医療融資、医療規制、国際機関の保健戦略、日本における保健制度がテーマとなる。本書ではこれらの各課題に焦点を当てた計8部を通じ両地域の経験を紹介する。各部は中南米とアジアの国々の経験を含む互いに補完的な二つの章で構成される。また、各課題が相互に深く関連しているため、各部も互いに補完的とすることにより、両地域の保健制度における課題、重点、変化、回答の全貌を提供する。

第1部では中南米とアジアでの社会経済の背景、保健の一般状況とその課題、そして保健改革の枠組を分析する。第1章では、ソニア・フレウリー講師が中南米諸国における民主主義の台頭と公的資金の限界の中で輪郭を表してきている三つの異なる保健モデル（普遍的、二重的、多重的）を明示した。これらのモデルは貧困層において最も遅れている資金調達、組織、保健サービスの適用範囲とアクセスなどの従来の課題

への対応策となるものである。現在では、公的部門と民間部門の新たな関係の基盤となる分権化と規制緩和の範囲を明確化するなど、政府が従来と異なる役割を担う構造的に異なる制度が生まれつつある。全てのモデルにおいて保健サービスの適用範囲については進展がみられ一般市民も恩恵を受けることとなるが、保健サービスの供給は特に二重的モデルを中心に不平等となっており、サービスの提供は受益者の所得水準に左右される結果となっている。このような場合、人口の分層化は保健サービスの提供により縮小されずに逆に拡大してしまう可能性がある。

第２章において、アビバ・ロン博士は近年のアジア経済の目覚しい発展は必ずしも保健制度に同様の目覚しい改善をもたらした訳ではないと主張する。保健サービスへのアクセスの難しさの根元には支払能力、より一般的には保健へのファイナンスの問題が潜む。よって保健の向上は貧困と保健を総合的に捕らえることによって初めて達することができる。しかし、多くの場合、同地域の改革は民営化と費用削減に向けられ、幸運にも保健分野への公的資金の削減を伴うものではなかったが、資金活用の効率性が向上した訳でもない。結果として、公的部門と民間部門のバランスは変化しこれが貧困層に及ぼす悪影響を十分に考慮しなかった。また保健サービスの質の向上にも十分な進展がみられなかった。一般的に、改革は資金調達面に集中していたために、例えば（地方分権のための）組織、行政、資金確保の相互作用を保障するような、統合性を欠いていた。社会健康保険は、それが正当に計画されれば、特に貧困層への保健サービスの提供範囲を拡大するための処方箋として奨められている。

第２部では貧困層の保健サービスへのアクセスとサービスの平等性を分析する。これは両地域の保健分野の重点課題のうちのひとつであり、他の部でも別の角度から分析する。この部ではボリビアにおける基礎健康保険の経験を分析するとともに、ベトナムの発展モデルの変容が保健の平等に及ぼす影響を観察する。

第３章でフェルナンド・ラバンデス博士は、中南米の中でも低所得国であり保健サービス提供の成果が芳しくないボリビアで最近創設された基礎健康保険制度を紹介する。この保険は基礎母子健康保険を拡張したものであり、この国の保健改革の中心的な構成要素となっている。高い母子死亡率を次の５つの基本的な方法によって削減する。１）成果によって行政の優先順位を決める、２）基本的な保健へのアクセスの平等を保障する、３）保険の普遍性と一貫性に向かって徐々に発展すること、４）市町村レベルでの同意形成を促す、５）貧しい人々が保険でカバーされる病気を選択できる制度を創ること。この保険への融資は中央政府と市町村の双方による公的融資である。今日までに、この国の貧困層のカバー率に大きな進展がみられている。

一方、第４章にて、トラン・トロング・ハイ博士とクラウディオ・シュフタン博士は保健制度を有するベトナムが直面する課題を挙げている。同国が経験しているより自由化された市場経済への移行は、それまでに達成してきた保健分野での平等性に逆行するような動きを意味した。

第３部では、中南米とタイにおける予防接種に関する貴重な経験をもとに、予防保健の強化に重要な二つの経験を分析する。第５章では、サルバドル・ガルシア・ヒメネ

ス博士が中南米の達成した成果を、特に中米の各種伝染病の根絶に貢献した予防接種プログラムをとりあげながら紹介する。このプログラムの成功の鍵は保健分野の政策実行者の強い意志、妥当な資金源の存在、効率的な社会運動と住民参加、そして、全てのレベルにおける戦略的な協力体制にある。分析の結果、医療政策に予防接種の成功例をどのように拡大適用できるかという質問が生じてくる。今回の予防接種の事例のように、時間的制限があり、かつ特定された手続きを踏む場合には、公的機関の方がよりうまく対処できるのであろうか。早急に結果を得る可能性というのは保健への政府の介入の成功に必要不可欠な条件となるのであろうか。

第6章で、タイのチャラス・スワンウェラ博士は予防保健を新しい視点から捕らえ、増加する予防可能な病気に対処できるように予防保健の適用範囲を拡大する必要性を説いている。中南米の成功の鍵となった特に住民と民間団体の参加など、保健分野に新しい参加者を取り込むことの重要性を指摘し、予防保健で求められている課題に対する答えは中央レベルのみからは得られないことを明確化している。政府の役割は変わる必要があり、政府の主な役割は、規則、基準の設定、民間部門の規制と品質管理、そして予防措置に適した融資を保障することに集中すべきであるとしている。融資はプログラムの一環として組み込まれるべきであり、その形態は市民の変わり行く要望に応じるべく柔軟なものである必要がある。

第 4 部では保健制度の形態の変化に焦点をあてている。特に制度の形態を変えることによって基本的な保健サービスをより確実に促進できるということ、そして住民との関係を重視したサービス提供が果たす重要な役割を指摘している。

第7章にて、アジブ・ジャテネ博士は国民の基本的な保健向上のためにブラジルで採択された興味深い措置を紹介している。この措置は、統一化された保健制度、市町村の強い自治権、プライマリーケアの重視という枠組みを持つ三段階戦略に基づいている。この戦略は三つの基本的なプログラムから成っている。1）国民の保健に対処するため（連邦）国家予算で国民一人あたりの保健予算を確保すること。これは中南米独自の医療システムが全ての予算を占領してしまうことを避けるための唯一のメカニズムである。サービスの提供を重視する昨今の改革でこの危険性はより加速化する可能性がある。2）保健に関する市民団体のプログラムを通じてプライマリーケアを促進すること。一般的に市民団体は地域住民に深く関わっている女性である場合が多い。3）ホームドクター計画を通じたプライマリーケアの促進。これを成功させるためには医師に付き添う少人数の明確な構成員から成るチームの存在が不可欠である。このチームは市民団体との付き合いもあり、また融資にあたってはたとえばケアを受ける住民に関係するような適切なインセンティブを与えることも重要である。ジャテネ博士は、住民との直接的な繋がりが成功の鍵であると強調している。

一方、シーフア・リー博士は中国での保健サービス提供の現状と同国で実施されている改革を紹介している。農村社会であるこの国（国民の約 70%は農村部門に所属）の保健制度は、農村を重要視しており、また東洋医療を西洋医療と同等に位置付けている。予防保健を最優先し、予防保健のために教育を通じて住民を動因している。中国では伝統的に保健活動における社会動因と住民参加に成功している。これは関係する

全ての省庁や組織の堅固な組織力と調整力によるが、同時に保健分野における教育の果たす役割にもよる。農村地域で三つのレベルを対象とする保健組合と農村医師（裸足ドクター）の制度は成功に結びついたもうひとつの要素であった。しかし最近、費用が可処分予算以上に急速に膨れ上がり、公的支出が制約されつつあるため、代わって民間部門が秩序無く急速に拡大している。現在では雇用者の大部分が医療保険を受けていないのが現状である。供給面でみると、この変化により、病院は市民保健センターへ、診療所は市民保健所へと変貌しつつある。保健サービスはより予防とプライマリーケアの促進に集中する方向にある。基礎健康保険はまだ発足初期の段階にある。

第５部では中進国であるコロンビアとフィリピンにおける医療融資の変化を分析する。この変化は同時に研究に値する構造的な改革をもたらした。資源の分配に関する論議は間違いなく保健制度改革における重大なテーマであり、結果を左右する決定要因である。この構造的変化は、従来のように供給からではなく、受益者に直接融資が届くような需要面からのアプローチへの新たな道を開き始めた。これは各々の費用の数値化によるサービスの明確化を意味する。保険に融資するために使われたメカニズム（所得税を通じた公的資金によるもの、または直接民間受益者によるもの、あるいは両制度が混ざり合ったもの）はフレウリー講師の論文で指摘されたとおり異なるモデルへと繋がる。

第９章にて、フアン・ルイス・ロンドニョ博士はコロンビアにおける保健改革を分析する。この保健改革は構造的多角的モデルと呼ばれ、保健サービスの適用範囲拡大において米州地域で最も高い成果を誇ったものである。本章では技術的な制度構築の重要性と例えばコロンビアに合う構造改革を実行するための政策の難しさなど、その実行の困難性を示している。統合的な特徴をもつこの改革は融資分野の重要性を指摘し、この場合には所得税から差し引かれる分担金の拡大によるが、一般的に初期における資金の拡大が着実な発足を可能にした。この分担金と政府予算の資金が各国民への割り当てを通じ理論的に一人一人のコロンビア人に健康保険が適用されるというのがこの改革の中心的な要素となっている。フォーマル経済にいる人々は保険金を分担金によって賄う。その保険サービスのパッケージは公的資金によって保障されている人々のものよりも若干上回る基本的な保健バスケットであり、所得によって左右されるものではない。チリなどの他のモデルとは異なり、このモデルでは両制度間の協調が可能となる。この改革では保健サービス供給者間と保険機関間の競争原理は資金のより効率的な活用を促進するメカニズムとして存在している。これは困難で制限のある競争であり、競争原理の構築が求められている。最後にこの著者が提案する構造改革の方法を挙げると面白いだろう。同氏によると改革は、徐々に実施し細かい失敗を繰り返すよりも、速く、かつ深く実施すべきである、としている。

第１０章でフアン・フラビエル博士が紹介したフィリピンのケースでは、同国は医療機関保健への投資に集中しすぎ、非効率であるだけでなく非貧困層によって不均衡にサービスが利用されているため不平等であると指摘する。フィリピンの保健制度の最大の変革は分権化を通じた組織的なものでありプライマリーケア供給の一貫性を植え付けようと試みたものである。また時には病院が様々なところから資金を獲得できるような自治権拡大をも模索したものであった。地域医療機関にあてられた公的補助金

は同国の保健予算の43%を、受益者への直接支出が48%、社会保険を通じた補助金が6%を占めている。需要面からの補助金提供あるいは保険制度の見直しが中心課題となりつつあるが、まだ実践には程遠い。

第６部では政府による保健制度の設定、実施、そして特に規制に関する大きな課題を扱う。これは保健サービスの供給における民間部門の参入が急増しているなかで重要な色彩を帯びてくる。

第１１章でセシリア・アクニャ博士とホセ・パブロ・ゴメス博士は、保健分野においては中南米諸国の中で最先端を行くチリで進展している保健部門の規制状況を紹介する。「保健サービスの受益者と供給者との間の正当な取り引きを保障するための取り決め」である規制は中南米で最も遅れている機能である。問題となるのは提案された新制度の成否は規制にかかっている点である。適切な規制の適用なしでは民間制度で確保されている国民の保健サービスの質と量を保障することができない。同様にこの分野に欠陥があると、貧困層への保健提供は必然的に公的部門が実施するため、貧困層の保健にも影響を与える。よって、保健サービスを実施する民間会社に重きを置く近年の傾向においては、適切な規制が不可欠である。

第１２章でカフリド・アブドゥール・カディル博士は、アジア大陸で近年最も都市化と産業化が進んでいるマレーシアにおける保健サービス規制の課題を分析する。同国の保健サービスは、現在ではより高い購買力を有する受益者の期待と、保健サービスの需要に大きな影響を与える流行病の現状に従って変化している。高い効率性と平等性と一貫性のあるサービス適用を誇る公的保健制度の重要度は、高所得者層を中心とした住民の高まる需要に適切に応えている民間部門の大きな躍進により、相対的に低下した。この傾向は政府の役割に少なからずの影響を与え、不均衡をもたらしている。チリの経験と同様に規制構築の過程の真っ只中にあり色々な結果を生み出している。しかし、官民両部門にみられる協力の精神には期待が持てる。

第７部では、米州開発銀行とアジア開発銀行の両地域における保健の課題について、その戦略と成果を紹介する。各国との日常的なやり取りから生まれた開発銀行としての経験に基づく視点が検討される。その結果、両地域の保健の発展に寄与する共同プロジェクトの戦略的な課題が浮上してくる。

第１３章で米州開発銀行（ＩＤＢ）のロベルト・イウネス博士は、発展のための重要な要素であるＩＤＢの保健への融資の戦略的な役割を強調する。また、平等性の欠如、非効率性（特に融資のミクロ経済学的な面で）、需要を反映しない資源の不適切な配分、保健分野の組織的な脆弱性など中南米カリブにおける保健の主な問題点を分析する。同氏の研究は効率性の欠如など一部の問題に対しては解決策を提示しているもののその他の分野ではあまり成功していない従来の中南米カリブ地域の処方箋を放棄している点で興味深い。本章では特に保険の普遍性、資金調達とサービス供給の分割、供給者の自主性、競争と規制、分権化などの分野で中南米カリブ地域の経験と成果を分析する。同分析では、現況を大きく調整する機能をもつ解決策の計画、適用範囲、実行は充分に慎重に行うべきだと説いている。

第１４章でインドゥ・ブサン博士はアジア開発銀行の保健戦略を分析する。保健分野は、同銀行の中心課題として位置づけられており、貧困層の保健及び都市化や人口の変化、流行病の変化などの結果生じる新たな保健需要への対策に応える開発促進の中心軸のひとつである。その戦略は、前章までに紹介した研究とほぼ内容が一致する７つの方針から成る。中でも特に目立つものとして、１）保健サービスへのアクセス向上、貧困層と女性と子供に焦点をあてたサービスの拡充、より平等な融資等による貧困層の保健の向上、２）各対策のフォローアップとして保健の均等配分を保障する役割を果たす保健分野の経営管理の強化、３）新たな技術の監督と評価の強化、４）官民両部門間の協力、等が挙げられる。

第 8 部では保健制度の主な特徴を紹介する。本研究で分析されたシステムと比べ、日本はより発達した保健制度を有するが、それらを比較することにも価値があると考えられる。この部は、1995 年に日本公衆衛生協会より出版され、本セミナーで小林秀資氏によって発表された「日本における公衆衛生：保健サービス制度」に基づく。

セミナーで発表された論文に基づくこれらの章は、近年保健分野において中南米とアジアでみられた多様性に富む変化と経験を読者に提供するものである。保健分野では様々な課題があるが、中でもいくつか特筆すべきものを取り上げる。まず最初に、保健サービスの適用範囲拡大メカニズムとしての保険の重要性が挙げられる。しかし保険は適用次第で、平等性、効率性、そしてサービスの持続性に異なる影響を与える。競争が促進され保険の適用における透明性が確保された場合には当然ながらこのメカニズムは効率性をもたらす。しかし、便益が受益者の所得に左右される場合には不平等が助長されることとなる。

保険は支払能力のある恵まれた住民に保健サービスを提供するためのメカニズムである。保険はサービス提供者と受益者の双方にとり、保健サービスの資金を持続的に調達し、予知できない病気のリスクを最少化させるメカニズムであるからである。この機能はやはり恵まれた住民といえる社会保険制度の一員でありフォーマル経済を構成する住民にも拡大適用されようとしている。これはこの機能が公的制度の限界を明確にし、(税金のように) 受益者の所得の割合による資金調達が個人あるいは民間保険として機能しているために実施が可能なのである。これらの受益者が独自に行動すると、つまり各自の所得に比例する形で便益を受けると、この制度の受益者の連帯感が無くなり、この制度に対し公的融資による資源配分を図る余地が無くなってしまう。このような保険はフォーマル経済にいる人々、特に高所得者層へのサービスを強化し、また、公的財源が移転されないために公的制度は財源の一部を失うことになり、公的融資に依存する貧しい人々へのサービス提供を弱めてしまう。これがチリの場合に当てはまり、また中国の一部でも現れてきている傾向である。そのために、経験発表の大部分は保険を分析し、保険には、便益が所得に左右されない連帯感のある社会保障的な要素（ロン博士の社会保険の概念を参照）が求められると主張している。しかしこれを達成する事は容易でない。そのためにはコロンビアの連帯移転制度にみられるような公的制度と社会保障の間の強い連帯が必要である。

貧困層への保険も適用は可能である。保険加入者は自分の収入から直接保険を購入するのではなく、公的財源の融資を直接受ける方法である。これはコロンビアにおいて適用され始めている。この制度の適用範囲は公的財源の機能に左右される。そのために、これら公的財源は、部分的にまたは全てが、フォーマル経済の人々からの分担金など、その他の民間資金源に支えられるものであることが重要である。適用される保険サービスは、ボリビアの保険のような母子保護などの基本的なサービスに限るもの、または制限はあるもののより充実したサービスを含むもの（コロンビア）が考えられる。

前者の健康保険は住民の保健ニーズを充分には満たさない。しかし、基礎サービスなど特に貧困層に最も利用されるものを含んでいれば、貧困層の健康レベルの向上に速い結果をもたらし、制度全体の平等性を向上させるだろう。このような必要最小限のパッケージの妥当性を保障するためには、その内容に柔軟性を持たせ、ニーズを一番良く把握している住民との強い関係を維持させる事が重要である（ボリビア）。

後者の健康保険は、より完全なパッケージを提供するが、常にカバーできないサービスがあることは免れない。しかし、普遍的理論と呼ばれるケースにみられるように、理論上サービスの提供範囲に制限の無いモデルでさえも、実践上では完全なサービスの提供は不可能であることが証明されている。より問題となるのは保険パッケージのサービス範囲ではなく、本当に保険機関との契約が適切に守られているか、またこのメカニズムが健全な競争を生み出し望ましい効率性を達成しているか、という点である。

実際、保険機関と保健サービス提供機関の競争激化を通じた効率性の成果は、規制の分野である契約の適切な遵守、そして住民の意思決定時の適切な情報確保という条件のもとで初めて達成される。規制と情報確保の両面とも健康保険を計画する際の重点となる。これらは効率性を促進するメカニズムであり、保険スキームの不利な（よって平等性にマイナス効果の）選択を防ぐ。この点に関しては、規制固有の問題を提示するチリとタイの経験がよくあてはまる。

保険のさらなる問題は関連するサービスの項目と費用の適切な見積もりが求められることである。これは難しい課題ではあるが、効率性の促進への重要な一歩となる。費用とサービスの見積もり額の明確性は、直接どのようにいくら支出するのか、という点に注意を払うことに繋がる。これは、使用される医療技術、そして医療機関との契約形態、という制度の効率性を調整する重要な２つの要素を適切に監視し注意することに反映してくる。

保険はまた異なる問題に直面している。保険制度のスキームでは予算が直接サービス受益者に配分され（需用への資源配分）、受益者はサービス選択の面で大いに得をする。この点は明らかにプラスである。しかしこの場合、医療機関への直接的な支援という従来の資源配分のルートを逸脱してしまう。この変化はこれまでの慣習を離れ、医療機関は公的資金確保を案じ、今日ではあまりみられない医療機関の経営的な視点が求

められてくる。この補助金の供給から需用への配分移行は、明らかには現われないが、医療機関の関心を無駄に刺激する。そのためコロンビアのケースにみられるような危険を伴う。

その他の国では、この保険制度適用の難しさの中で保健サービスの適用範囲を広めるために、従来通り供給側への支援を維持している。保健制度が資金調達と組織論の観点から特殊であるブラジルの場合のように、理論的にはサービスの提供は無制限に可能である。サービスの供給拡大によって適用範囲の拡大を図る制度の問題点は、伝統的によりニーズの高い人々にサービスを向けることが容易ではない事である（供給者は彼らにとって必要な意思決定を行う）。第二に、フィリピンのように、より高い費用を伴うサービスは、貧困層よりもむしろ、より情報にアクセスを持ちコネのある受益者の手に留まってしまうことである。しかしニーズに沿ったより恒常的なサービスを促進する供給モデルとして興味深い制度が存在する。例えばブラジルのホームドクターや住民組織は住民の保健サービスへのアクセスを強く促進させるとともに（恒常性）、適切な組織制度、資源の配分、そしてニーズの高い住民への適用範囲拡大を保障している。

一方、社会保障あるいは需用メカニズムを全く放棄すべきでは無い事も事実である。公的保健と予防保健は具体的で継続性のある補助金により、別途その恒常性と資金調達を確保するルートが必要である（中米、ブラジル、タイの経験を参照）。

本稿では本著で紹介される経験の豊かさと補完性が織り成す議論の口火を切らせて頂いた。本著が各国の保健の発展をより確実とするための一助となることを確信し、読者の方々を本著の異なる経験の議論に招待しつつ本稿を締め括る。

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PART I

Health Reforms

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Dual, Universal or Plural? Health Care Models and Issues in Latin America: Chile, Brazil and Colombia

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Chapter Two

Health Sector Development in Asia and the Pacific

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CHAPTER ONE

Dual, Universal or Plural? Health Care Models and Issues in Latin America: Chile, Brazil and Colombia

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During the past 20 years, Latin America has experienced a gradual process of institutional transformation in its education, health care, and social security sectors. The health sector reforms have pursued the same objective as health sector reforms in other regions of the world—that is, to increase efficiency while dealing with sharply rising demand and costs. In Latin America's case, however, the process is being carried out under especially complex and paradoxical circumstances: an enormous portion of the region's population has no regular source of health care and is not entitled to the benefits of what are actually some of the oldest and most deeply rooted social security systems in the world. The difficulty of this context is intensified by the increasing demand for access to health care services (since the region is experiencing an especially democratic period) even as Latin American governments are feeling ever-greater pressure to cut back on public-sector expenditures in order to stabilize their countries' economies.

Another element of complexity in this scenario has been the recent expansionist trend among private health care providers and insurance companies, mostly dependent on government incentives but not subject to government regulation. Efforts to adjust the economies of the region to a more competitive and more international market have deeply altered government's role in the industrial sector and in others areas as well, such as in the systems that deliver the services provided for by the countries' social policies. In accordance with this general movement, many efforts at health care reform have been launched across the region, all of which are facing the challenge of increasing the health sector's efficiency of management, its overall effectiveness, its equity in terms of the population's access to benefits, and its ability to satisfy the expanding health care needs of the population. The government authorities in the sector are having to cope with public expenditure shortfalls and an increase in participa-

tion by private health service providers. The tools of the ongoing reform processes include decentralization, privatization, competitiveness enhancement, and user empowerment.

The present study will analyze the ways in which the emergence of new social-policy models is changing the power structure of the Latin American countries' health sectors. It will describe in some detail the reforms' equity consequences and governance-related impact in several different countries of the region, highlighting the interplay between efficiency and social integration that is one of the key issues of democratic self-government in Latin America.

Historical Pattern of Development[1]

Despite the many differences among Latin American countries, the region showed a common pattern of social and economic development from the 1950s to the 1980s, characterized by a strong and active presence of the state, led by the import substitution model of industrialization. Concerning the political system, authority in the region is administered in an oligarchic way, combining mechanisms of patrimonialism, populism, and exclusion. We define as patrimonialism any kind of private appropriation of public goods by the elite; as populism, the exchange of privileges by means of workers' co-optation by the government; and as exclusion, the process of denying citizenship status and social rights to the poorest people. As a consequence, the region presents a strongly authoritarian political culture and the worst income distribution in the world. According to the IDB report[2] for 1999, a mere 5 percent of the population receives 25 percent of the national income and 10 percent of the population receives 40 percent of the national income, while the poorest 30 percent of the population receives only 7.5 percent.

During the second half of the century, there began an intense and varied process of urbanization in all the countries. But the period of rapid growth in the region from 1945 to 1973 did not lead to a notable improvement in income distribution, because of the nature of the institutions generated by the political, social, and economic structures.[3]

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[1] The English-speaking Caribbean countries have not been considered in the study because of their different pattern of development that has resulted in more extensive social protection systems.

[2] IADB 1998-99.

[3] Thorp 1999, chapter 2.

The socioeconomic modernization that occurred did not allow the formal labor market relationship to expand to the whole working class. On the contrary, the economic development of the period was characterized by the structural heterogeneity of the labor force's positioning within the productive process. As a consequence, half of the labor force of the region works within the informal market, which means, among other things, that half of the region's workers are excluded from the social security system.

Even so, there did begin to occur a narrowing of the vast income gap separating rich and poor in the region. Unfortunately, however, the economic crisis and inflationary process in the 1980s and the economic adjustment measures in the 1990s reversed this upward trend in income distribution. Consequently, the period's income gap again widened, and the improvements in distribution from before the debt crisis were obliterated.

From 1995 to 1998, Latin America's human development index score dropped from 0.823 to 0.737.[4] According to the UNDP, this regional score ranks somewhere between the score of the industrial countries and that of all developing countries. The figure varies within the region from 0.340 for Haiti to 0.889 for Chile. According to the World Bank, extreme poverty (having to survive on less than $1 a day) affects 15 percent of the total population, poverty (less than $2 a day) affects 36 percent, and "both the share and the numbers in poverty remain stubbornly stagnant, apparently immune to the growth in the 1990s, because of high levels of inequality."[5] Moreover, the Okinawa Summit G8 report states that "the poor are often the most severely affected by adverse shocks of macro and micro origin...and most Latin American and Caribbean countries do not have mechanisms to mitigate the impact of adverse shocks to the poor."[6]

This situation affects the quality of life of different groups in the regional population in different ways. By the late 1980s, overall life expectancy at birth in Latin America and the Caribbean was 70 years, an important increase over the 62-year life expectancy registered in 1975. Yet at the same time, the region was still losing nearly 233 disability-adjusted life years (DALYs) per thousand people each year, placing it halfway between the industrial and the developing countries. And infant mortality showed tremendous variation across the region, ranging from 9 to 68 per thousand live births.

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[4] UNDP 1995 and 1998.

[5] World Bank 2000-2001.

[6] IMF, WB, IADB, EBRD, ADB, and ADB 2000.

Table 1.1. Latin American Countries-Variation

Indicators	*Maximum*	*Minimum*
Economic, Social and Demographic		
Total Population (thousands)	164,000 (Brazil)	2,700 (Panama)
GNP (millions US$)	820,381 (Brazil)	1,971 (Nicaragua)
GNP Per Capita (thousands US$)	9,028 (Argentina)	375 (Haiti)
Life Expectancy Rate (years)	77.0 (Costa Rica)	54.0 (Haiti)
Global Fecundity Rate	4.9 (Guatemala)	1.6 (Cuba)
Infant Mortality Rate (per 1000)	68.0 (Haiti)	9.0 (Cuba)
Maternal Mortality Rate (per 100,000)	456.0 (Haiti)	2.4 (Cuba)
Literacy (%)	97.5 (Uruguay)	21.7 (Venezuela)
Access to Potable Water (% population)	100.0 (Costa Rica)	39.0 (Paraguay and Haiti)
Access to Sewerage (% population)	95.7 (Costa Rica)	14.8 (Paraguay)
Health Expenditure		
Total Health Expenditure (millions US$)	29,151 (Brazil)	65 (Haiti)
Health Expenditure (% GNP)	13.4 (Uruguay)	3.2 (Guatemala)
Health Expenditure Per Capita (US$)	564 (Uruguay)	9 (Haiti)
Public Expenditure (% Total Health Expenditure)	74.0 (Costa Rica)	32.0 (Dominican Rep.)
Resources and Services		
Doctors (per 1000 inhabitants)	5.5 (Cuba)	0.1 (Haiti)
Nurses (per 1000 inhabitants)	6.9 (Cuba)	0.1 (Paraguay and Haiti)
Health Coverage (%)	100.0 (Cuba, Costa Rica and Paraguay)	40.0 (Bolivia and Haiti)

In the early 1990s, annual per capita health expenditures in Latin America and the Caribbean averaged approximately US$122 (ranging from $9 to $564) and in total represented 6 percent of the regional GDP. Major differences can be observed across the region in terms of access to health services. For instance, average national hospitalization rates ranged from 2.3 percent to 14.2 percent of the population, and average national coverage levels ranged from 0.5 to 6.3 medical consultations per inhabitant per year. Such differences are found not only among the countries but within them as well, taking a disproportionate toll on the underprivileged rural and urban groups, indigenous groups, and other disadvantaged classes[7] (see Table 1.1).

Ironically, some of the world's oldest, most powerful, most complex, and most deeply institutionalized social security systems can be found in the region. Several Latin American countries are in fact considered social security pioneers, their systems having been established at the turn of the last century—namely, Argentina, Brazil, Chile, and Uruguay.[8]

The institutions of social protection were one of the most important channels relating populist leaders to the urban labor class, performing the significant function of mediating the support and legitimacy given by workers to the government in exchange for differential benefits given by government to the various labor sectors. Because of this bargaining orientation, the social security systems in the region were structured in a very fragmented way. Benefits were extended cumulatively to these same entitled workers, coverage was expanded as part of the political game of pressure and bargain, and the system's finances were founded totally upon salary-based taxes and contributions. Thus, social policies and social security systems in the region, wherever and whenever they existed, played an important role in the statecraft process but did not succeed in spreading a civic culture or in extending functional citizenship status to all sectors of the population equally.[9]

This process involved the main actors in the social policy arena—the technical bureaucracy, professional workers in social fields derived from the middle class, the urban labor force organized into unions, and traditional populist politicians. The design of the social protection system was rooted in the inner core of the political system.

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[7] PAHO/WHO 1995.

[8] Mesa-Lago 1978.

[9] To compare the development of social protection in the pioneer countries, see Fleury 1997.

The state played a major role in the industrialization process, combining industrial protectionism with the controlled political incorporation of urban workers' demands. This apparently strong government interventionism was weakened by the contradiction embodied in its cycle of commitments to both industrial managers and to workers at the same time and by the increasing intervention of the state in social and economic life to meet all the demands from both sides in combination with its inability to levy progressive taxes on the productive sectors.

The ever-growing complexity of the political structure, the government's inability to meet the expectations generated by this process, and the incitement of the contradictions between co-optation and control gradually lessened the state's possibilities of fulfilling emerging political and social demands throughout the course of the industrialization process. As a consequence, the expansion and maturation of the social security system in the region manifested itself as a crisis insoluble from within the inner circle of that system's original framework.

Within the common pattern of stratified social protection there exist huge differences among the countries in the region. Some of the countries spend almost 18 percent of their GNP on fulfilling social policies, but others spend no more than 8 percent. Social security coverage also varies from country to country, ranging from 20 percent to 90 percent of the population.

According to their public expenditures on social-policy fulfillment in the 1990s, the countries of the region can be grouped into three broad classes.[10] In the first group are the countries in which annual social public expenditure amounts to more than $400 per capita (Argentina, Brazil, Chile, Costa Rica, Mexico, Panama, and Uruguay). The second group is composed of those countries with annual social public expenditure per capita ranging from $200 to $400 (Colombia, Ecuador, Nicaragua, and Venezuela). The third group is composed of those countries with the lowest social public expenditure per capita, meaning less than $200 yearly (Bolivia, Dominican Republic, El Salvador, Guatemala, Honduras, Paraguay, and Peru).

In addition to the average annual per capita social public expenditure, we should also take into account the coverage pattern and the results in terms of certain key social indicators such as the degree of equality and the amount of inclusion in social benefits. Filgueira[11] identified three types of social-policy regimen in which stratification

[10] CEPAL/ECLAC 1998.

[11] Filgueira 1999.

was always present and the degree of exclusion varied greatly, from a "stratified universalism" (Argentina, Chile, and Uruguay), through a "dual regimen" (Brazil and Mexico), to a more "exclusive regimen" (Bolivia, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, and Nicaragua). Adding another group for the countries with "universal" systems without significant stratification, the cases of Costa Rica and Cuba can be viewed as exceptions to the usual stratification of social policies in the region. This prevalent pattern of social policies can be seen in the following characteristics of the region's health sectors:

- stratification and/or exclusion of certain population groups
- fragmentation of institutions (social security ministry and health ministry)
- narrow and fragile financial basis relying mainly on salary-based taxes and contributions
- highly concentrated network of health care services
- centralized and inefficient management
- orientation toward curative practices instead of toward collective preventive public health measures
- strong actors with vested interests represented in the political arena.

The demand for health care reform arose after it had become apparent that this widespread pattern was incompatible with the improvement of health care services' coverage, efficiency, and quality in the context of financial shortages and democratic regimes.

Context of the Reforms

The structural reforms implemented in the late 1970s and throughout the 1980s entailed the emergence of a new style of economic development based on private investment, exportation, consumption, and a reduction of the economic role of the state. In most countries of the region, such adjustments to the financial crisis led to increasingly regressive income distribution and to acute declines in real wages, thereby intensifying the existing economic inequality and greatly worsening the poverty situation.

Remarkably, however, these developments did not reverse the long-running positive trends achieved in many important social indicators, although the pace of social improvement has slowed down in regard to such categories as the coverage of educational systems, the

population's access to sewerage services and drinking water, the reduction in child mortality rates, and the rise in life expectancy. This overall continuity of positive social-indicator trends during a difficult period is attributable to the social services network installed in several countries during the period of economic expansion and to other sociodemographic characteristics associated with the accelerated pace of urbanization. For instance, fertility rates have been declining rapidly since the mid-1970s, lowering the rate of population growth in all countries of the region and discrediting the myth of overpopulation. The challenge now is to seize this opportunity for launching social programs to protect the young poor and to prevent future financial problems from arising in the region's social security systems.

Thoughtful attention and reflection must be given to the deep economic and social change the region has been undergoing in the last few decades, with its intense processes of urbanization and the aging of the population. Both features have altered the structure of demand for health services. Urban demand has become more dominant, and the new demographic situation has changed the regional epidemiological profile from the predominance of underdevelopment-related diseases to the expansion of the category of disease origins more typical of industrial societies (cardiovascular, chronic, accidents, and violence).

The economic power of the region's health sector is considerable. The sector employs around 5 percent of the countries' economically active population, and total health-related expenditures average 5.7 percent of GNP regionwide.[12] On the other hand, the world average per capita expenditure on health care is $323 annually, while the region averages only $121. And in the region, public-sector expenditures on health care average only 2.2 percent of GNP, or less than half of the worldwide average.[13]

With respect to the financing of health care, the 1980s decade has witnessed a reduction in public financing of health services and an increase in private health care expenditures by families, enterprises, and NGOs. This trend was reversed in the 1990s. The growth of participation by NGOs has been very significant, with health-related expenditures by the region's nongovernmentals totaling $6 billion during the 1980s. In the poorer countries, such participation has been similar to or even greater than that by local government. Economic adjustment precipitated a decline in the efficiency and effectiveness of public management of the health sector and in the public sector's provision of

[12] CEPAL/ECLAC 1994.
[13] World Bank 1993.

health care services in general, and it contributed to the emergence of a significant technological gap between public and private hospitals in terms of the services offered by each. Simultaneously, growth occurred in the supplying of health services by the private insurance sector, with a significant increase in recent years in terms of the latter's affiliations and number of hospital beds.

Underneath these shifting market dynamics, Latin America has been experiencing a great transformation of its very social fabric and institutional political framework. Beginning in the 1970s, the old pattern of relationship between society and the state (namely, the old corporative pact, from the early years of industrialization) was proving inadequate to the task of integrating the complex and pluralistic new network of political actors being created by the urbanization and industrialization processes. The region has experienced a vast change in its societal, governmental, and economic structure, with the traditional actors that had supported the old social pattern in the health care sector (among others) gradually losing their power and with the emerging new actors (private providers, private insurance companies, local governments, community organizations, multinational agencies, and the like) pushing vigorously for transformation of the region's systems of social protection.

The dynamic of reformation in all social policy systems in every country of the region responds in part to this pressure toward the transformation of the role of the state. A twofold movement is propelling reform in many sectors, including the health care sector, from the central to local level institutionally and politically and from the public to the private sphere in various other aspects. This phenomenon represents a general tendency guiding the process of reshaping the region's health sectors, but naturally there have emerged many different variations and possible arrangements in this reform strategy. Even though one can identify certain common trends and characteristics in these reforms, this process is not homogeneous, for the following reasons:

- The starting point of each of the various existent social policy systems is different in terms of coverage, expenditure, benefits, and main political actors and institutions involved.
- Reform's instruments generate stress and contradictions, so it is never a straightforward process. In addition, the reform coalition has to deal with real-world economic and political constraints and must adapt the original reform proposal to these conditions.
- Social policy is not only a technical and organizational arrangement but also a political option based on values supported by the

main actors in each society. In this sense, technical instruments and institutional trends are adopted and organized into different political models of social protection. There is not a unique and inexorable course for any given social reform.

Nevertheless, after taking into account the singularity of each case of health care reform in the region, it is possible to abstract some common features and tendency clusters that can be captured in an analytical model. In this sense, one can identify three different models for health care reforms in the region—namely, dual, universal, and plural. Each of the models we shall examine here was constructed on the basis of the concrete experience of one of three given Latin American countries, although the same or similar tendencies can also be found in other countries in the region. The consistence of the reforms implemented in Chile, Brazil, and Colombia allows these particular models to serve especially well as analytical models of regional tendencies in health care reform.

Chile's Dual Model

The Chilean health sector reform was launched in the early 1980s. At that time, the country found itself in a very difficult macroeconomic situation and was also under the reins of a dictatorship. The reform of Chile's health and social security systems was one of the measures taken to lower fiscal expenditures and increase internal savings in order to reduce the fiscal deficit and stimulate an expansion of the long-term rate of investment. Politically, it represented a break with the corporative pact model of society-state relationship in favor of a market-oriented policy.

The Chilean reform consisted of the transfer of public pension funds and health funds to private institutions created for that purpose, with the state retaining responsibility for the poorest portion of the population, which was unable to acquire private insurance in the market. Although liberal in origin, this model functions in part as a compulsory form of security regulated by government authorities. But the old tripartite mechanism for funding social protection is a thing of the past, and arranging for social protection is now the entire responsibility of the worker (at least, of those workers able to enroll in private insurance companies) or of the government (in providing preventive medical services for all and general health care services for the poor).

This reformation essentially did away with the old social security system established by populist governments and based on a logic of interdependence. The benefits acquired no longer depend on the political clout of the covered workers. The new parameter is productivity, in which priority is given to the protection of workers positioned in the most dynamic sectors of economy and therefore able to afford private health insurance. Meanwhile, workers in the most backward sectors and/or in the informal labor market remain the responsibility of public programs. Chile's health sector reform was structured around the following principles:

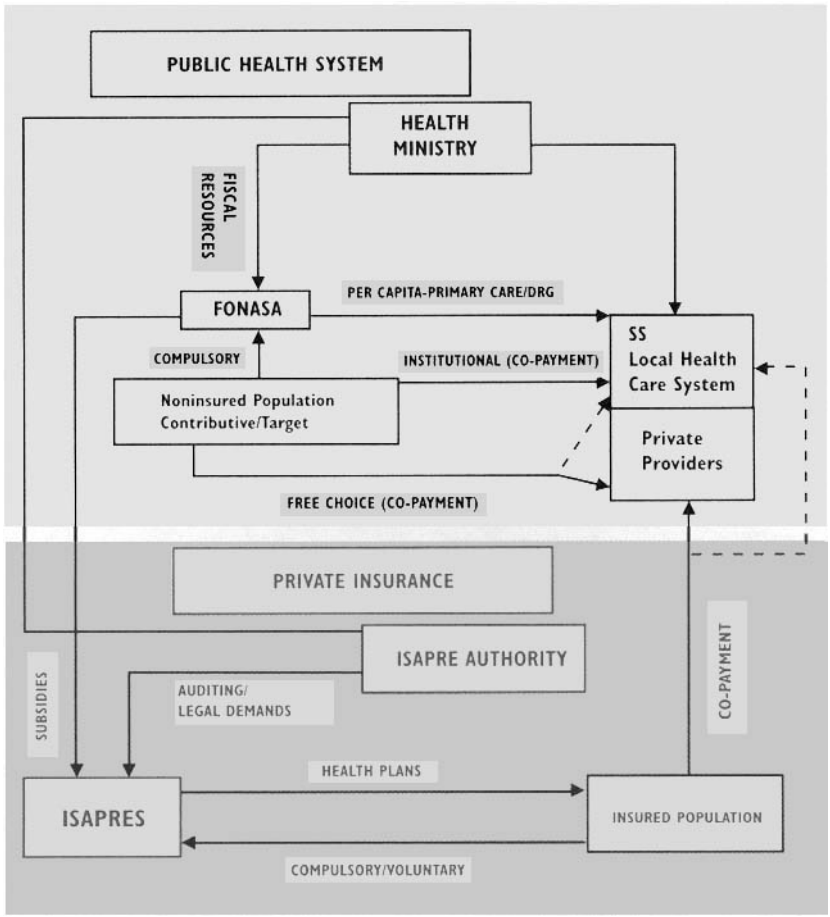
- subsidiary role of the state
- targeting of the poor
- free choice by consumers
- cost sharing
- separation of the functions of financing and delivery
- competition among insurance companies and providers.

The strategy of the reform included the creation of private health insurance (ISAPRES) and a mechanism for "opting out" of the public sector. The public insurance responsibility fell to FONASA, manager of the public health fund, and the public-sector network of care facilities was divided up into 27 zonal health services (SS). The most important funding and management features of the new health care system were the elimination of the compulsory employer contribution and the creation of a subsidy to support voluntary employer contributions to employees' private insurance. An important administrative mechanism was the deconcentration of publicly provided primary health care to the municipality level. The reform resulted in a dual health care system:

- a public system administered by the Health Ministry
- a private system represented by private-sector insurance companies (ISAPRES) and private care providers. Both systems function with their own private funding, financing, management, and delivery mechanisms.

In the public system, the Health Ministry is responsible for health care policy. The initial proposal was to give autonomy to the health care service delivery function implemented by the 27 zonal authorities and by the municipalities, but both still depend basically on Health Ministry policies and resources. The idea of attributing an autonomous insurance function to FONASA did not completely succeed,

Figure 1.1. The Chilean Health System



and so FONASA still simply manages the health sector's public funds and does not buy health care services. This result stems not only from FONASA's basic lack of autonomy but also from the incipient "free-choice" modality represented by those insurance payers who refused to opt for leaving the public system despite the high levels of co-payments required from them to motivate them to transfer from the public to the private system. In order to insure the indigent, FONASA receives fiscal resources from the Health Ministry budget. The indigent are eligible only for the "institutional modality" of care, meaning access to public health care services, without the right to free choice. Allocation of resources is made to the municipalities on a per capita

basis and to the public services on the basis of diagnosis-related groups (DRG).

The private insurance system is funded by public subsidies, by a compulsory withholding of 7 percent of insured parties' salaries, and by voluntary contributions to purchase a better plan. Delivery is provided by clinics and hospitals dispersed throughout the market. (ISAPRES chose to become pure third-party payers, and vertical integration did not occur until very recently.) The main trend is to have a list of providers selected by each insurance company, with the free-choice option increasingly restricted to the more expensive plans. The insured population is eligible for different health care plans, according to purchasing power.

The dual model is presented in Figure 1.1. The duality of the model is seen in the distinct agents' performance of each function in the private or in the public system and the relations and flows that exist among them. Making contributions to both systems at the same time is prohibited. Basically, each system has its own coverage, financial mechanisms, organizational structure, and delivery network, and both function as comprehensive, integral health care systems. Some interactions do occur between the two systems, in terms of the subsidiary role of the public system (there are government subsidies in favor of the private system) and by the continuing need to guarantee health care to all individuals refused by the private system. Regulation is also a bridge between public and private systems, since the ISAPRES authority is an agency of the Health Ministry.

The course of this dual system in Chile has not been free of problems, such as segmentation, inequality, and risk-averse selection. With access to health insurance being dependent upon individual risk-based private health insurance, the population was effectively segmented into different groups, each eligible for different benefits and services. This segmentation occurred between public and private users and then within both groups. The right to health care was thus regulated by the purchasing power of each individual, unless fiscal contributions from general taxation increased to compensate and support those unable to afford care. According to Baeza,[14] in 1990, ten years into the reform, there occurred a significant reduction in the fiscal contribution to the public health care sector. As a consequence, while annual per capita expenditure in the public sector was about $65 (58 percent of which consisted of payroll tax revenues), the average annual per capita expenditure in the ISAPRES sector was about $250 (90 percent of which

[14] Baeza 1998, p. 11.

consisted of payroll tax revenues and 10 percent consisted of government subsidies). In the past ten years, the democratic government invested heavily to strengthen the public health care sector and reduce the mentioned inequalities. In 1997, the annual per capita expenditure in the public sector was $221, as a consequence of the increase in funding and the decrease in the number of beneficiaries of the public system, while in the private sector, annual per capita expenditures were $341.[15]

Private insurance companies tended to establish the price of premiums on a selective basis. Since the private companies had no risk pool, the premium they charged the elderly and the ill was unaffordable for most people in these two groups, and the high level of cost sharing required for coverage of catastrophic diseases drove even more people toward the public health care system. The almost complete absence of a regulatory agency during the first ten years of the system allowed a significant degree of risk selection and cream skimming. In general, the highest-income groups and the young were covered by the private sector, and the poorest and the elderly were covered by the public sector, because the health market tended to exclude the poor and those with major risks, such as the aged and the chronically ill. The absence of cross-subsidies from the rich to the poor, stemming from the lack of regulation to constrain risk selection and cream skimming, placed the bulk of the responsibility and expense squarely on the shoulders of the public sector.

In order to get a clear notion of this policy effect, which stratifies social protection in accordance with a private economic agenda, let us look at some figures on expenditures. In 1991, private insurance covered only approximately 19 percent of Chile's population and yet accounted for 50 percent of the country's total health care expenditures (CEPAL/ECLAC 1994). The remaining 50 percent of total expenditures had to cover publicly provided preventive measures for all, as well as integral health care for the remaining 81 percent of the population. Currently, the private health care sector covers less than 30 percent of the population, largely the healthy and the young, while the public sector is responsible for the other 70 percent of the population, primarily the poor, the elderly, and the severely ill. These figures illustrate some of the drawbacks to the expansion of a purely profit-based market in health care.

The Chilean reform actually increased the degree of inequality of the social protection system, by assuming that social policies should

[15] Zuleta 1999, p. 38.

be formatted according to the previous segmentation existing in the economic sphere. Despite a huge effort to counterbalance market inequalities with social support policies, the tangible results are still not up to par with the social indicators existent before the reform. The Chilean experience has absolutely not liberated the public sector from the demand pressure for health care services, since the bulk of the population cannot afford private insurance.

Although in theory the dual model calls for consumers to decide between the public or private system, in reality the private system itself chooses its own beneficiaries and determines the possibilities of access and utilization, through its high premiums and lack of a risk pool to deal with "undesirable" (meaning no-profit) circumstances. The public system became the insurer of last resort ("free reinsurance") for everyone who could not afford private insurance. In this sense, one cannot speak of the dual system as a form of competition between the two. In this reform, the public system has always had a subsidiary role.

To carry out the responsibilities of the public system, the government launched corrective measures in three directions during the past decade, in order to accomplish the following:

- to increase the amount of fiscal resources invested in the public system
- to increase participation on institutional committees and enhance efficiency in the public system through financial and managerial instruments such as (1) resource allocation on a per capita basis to municipalities and on a diagnosis-related basis to SS units and (2) the signing of performance agreement contracts between the Health Ministry and the 27 zonal authorities
- to increase equity and efficiency of the private system through regulation.

Inefficiency and inequities in the private sector stem from the absence of earlier regulation, the existence of incentives from the public system, and the lack of competition in a highly concentrated market. Some 77 percent of total private-sector beneficiaries are affiliated with five institutions, and administrative costs on average accounted for more than 18 percent of total costs in 1997,[16] while administrative costs in the public sector were less than 1.8 percent for the same year. Nevertheless, a more rational distribution of resources and responsibilities has been hampered by consumer satisfaction with the private

[16] Zuleta p. 15 and Baeza p.17.

system and by insurance companies' resistance to the proposed new regulatory measures.[17]

Present tensions between private and public systems suggest two possible outcomes in the Chilean situation. In the first scenario, the public system would have become better able to regulate the private market, reducing subsidies, redistributing the burden of unprofitable coverage, and becoming more competitive. In the second possible scenario, the public system would have evolved into simply a public insurance buyer contracting health care services in the market for its beneficiaries. In this first scenario the dual system would have evolved into a more powerful public system, able to regulate the private insurance system and to compete for middle-class consumers. In the second scenario, the public system would function merely as insurance contractor for the poor.

Brazil's Universal Model

In Brazil, a strong social movement in the health field began in 1970, gathering professors, parliamentarians, bureaucrats, and users around the broader struggle for the democratization of the country. In civil society there gradually emerged an organized force—the "sanitary movement"—aiming at a radical transformation of the country's health care sector in order to unify the fragmented existing system, to decentralize health care delivery, and to introduce a democratic decision-making process.

Directed by the sanitary movement, the health sector reform had as its central objective the universalization of access to health care by means of the creation of a national unified public health system. Proposals were incorporated into the 1988 Constitution defining health care as a citizenship right and a state duty and requiring health services to be organized into a single, public, universal system of comprehensive care (SUS). The strategy was to build a decentralized and democratically managed system with the participation of organized society. The guiding principles and strategies of the health care reform were expressed in the Constitution as follows:

[17] Specifically, their resistance to the elimination of the subsidies and the creation of an individual fund with the extra monies, after deducting the price of the plan, to be used for cases of catastrophic illnesses.

- health care as a citizenship right, since health activities are of public relevance
- equal access for all citizens to all levels of health care
- health care as a component of the social welfare system
- single public authority in each level of the system, integrating the earlier social security health care network with the Health Ministry and combining all public providers into a single public system
- integrated (preventive and curative) and comprehensive health care provided by means of a hierarchical network of health care services
- social control and social participation in each level of a decentralized and zonal system, allowing greater financial and decision-making autonomy to the municipalities and local states in accordance with their capacity to implement the required principles and mechanisms of the reform.

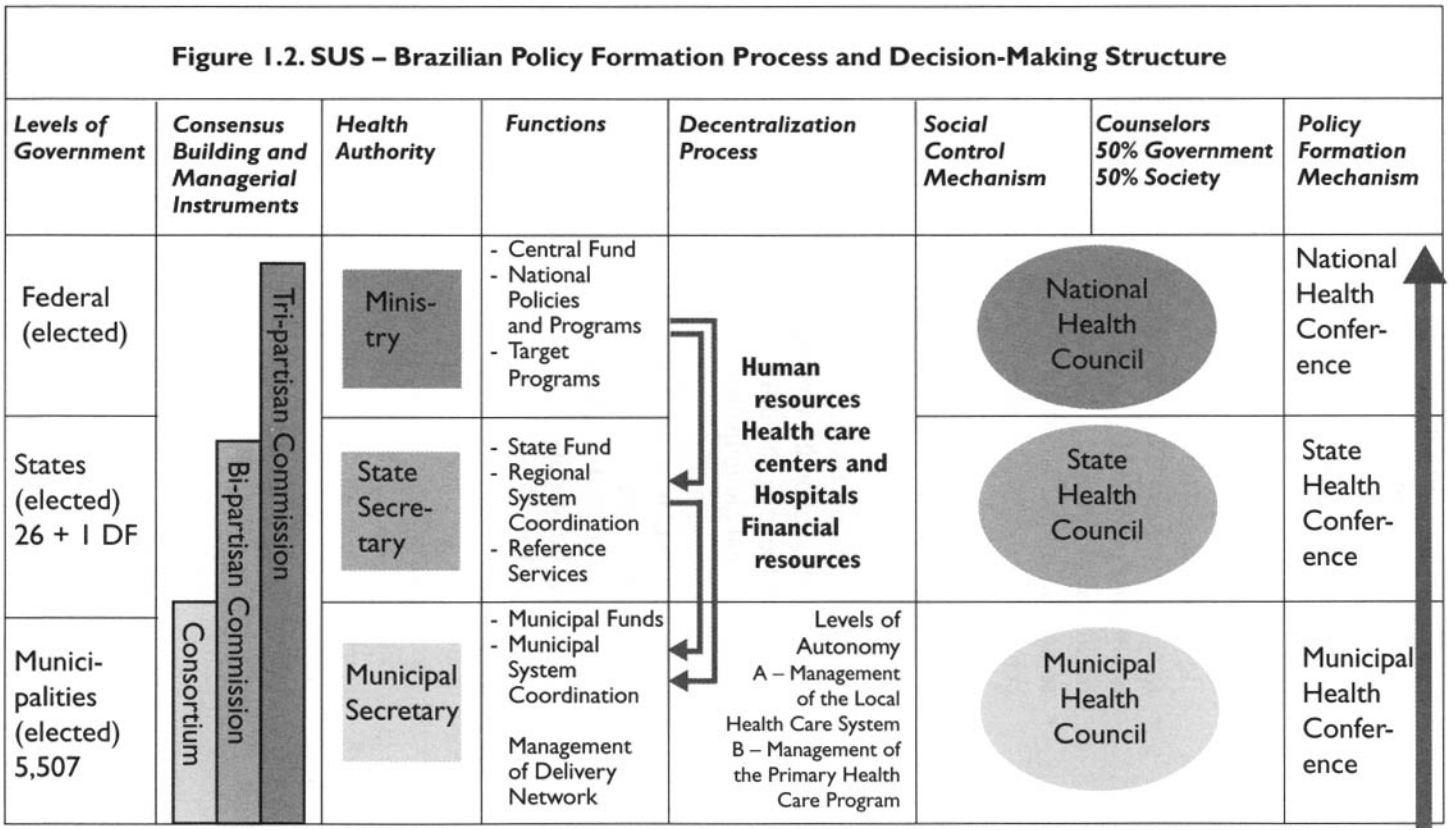
The new health care system's design represented an important change in the distribution of political power and responsibility between state and society and among the different spheres of government—national, local states, and municipalities. This new design is presented in Figure 1.2.

Each elected level of government has its own health authority that manages the health care system at that level, as well as its own health fund and health council. The central government is responsible for the overall design, uniformity, and coordination of the system, outlining the standards to be followed by the entire network and establishing the conditions and requirements for local states' and municipalities' participation in health care management.

The local health funds contain the resources allocated by the municipalities and local states for their respective health care systems, with the majority of these funds' resources coming from the national fund (tax revenues and contributions to social funds). During the past several decades, the federal government has in fact accounted for more than 70 percent of the total health-related expenditures of the public sector, although there has been increasing participation by the subnational levels.

A mechanism was established for consensus building and for resource management and allocation—namely, the intermanagerial partisan commission ("tripartisan" joining the national, the local state, and the municipal levels; and "bipartisan" linking the local state level and the municipal level). The allocation of resources from the national

Figure 1.2. SUS – Brazilian Policy Formation Process and Decision-Making Structure



fund to the local state funds and from the local state funds to the municipal funds is the result of negotiation in the respective intermanagerial commission. Similarly, some municipalities established a consortium mechanism, in order to arrange for the more efficient and unified use of services and resources within a network constituted on a basis of proximity and necessity.

The municipalities have priority in service planning, organization, and delivery within the local health care systems, and they are responsible for managing the health care facilities that operate at the primary and secondary levels of complexity. The local states manage the tertiary-level health care facilities, coordinate the zonal referral networks, implement complementary measures, and manage technical and financial cooperation with the municipalities.

The decentralization process was designed on a progressive basis, transferring facilities and human resources from the higher levels to the municipalities. The self-management of the municipal health care system, including its management of the financial resources transferred into it, is conditional upon that municipal system's fulfillment of certain requirements and standards. Otherwise, the local state becomes responsible for the resource management aspect, leaving the municipality to manage only the primary health care program.

The health council that exists at each level of the health care system is composed half-and-half of governmental representatives and of representatives of society at large (including health care service users, providers, and specialists). This mechanism permits participation and supervision by general society in the processes of health care policymaking, budgeting, and policy execution.

Another participatory mechanism consists of the regularly scheduled health care conferences held for the discussion of some predetermined issue, in order to adopt a related health sector agenda and guidelines for the upcoming period. These conferences are carried out from the municipality upward, progressively naming representatives to the respective national health care conference.

The main results of Brazil's health sector reform thus far have been the creation of a new legal framework for the sector, the implementation of the institutional changes needed to integrate social security's health network into the Health Ministry network, and the establishment of an increasingly decentralized system, with local levels expanding their technical capacity and assuming greater responsibilities in health care and resource management.

An increase in coverage for the poorest sectors of the Brazilian population has occurred as a consequence of the universalization

measures implemented through the decentralization of public-sector health care services. A remarkable enhancement of societal participation has taken place through the health councils established at each level of the decision-making process. And decentralization's success has also been made apparent in the large number of active new groups at the local and central political levels and in municipalities' increased participation in the management of the public health budget.

During its first two decades, however, the sanitary reform has been unable to change the status quo in terms of inputs and supply and the organization of services. As multinational corporations became the principal producers of medicines, hospital equipment, and the like, the government became unable to control the supply and cost of these inputs. As for the reorganization of health care services, not much has yet been accomplished. Certain curative medical assistance measures were actually reinforced at the expense of preventive actions because of the utilization of a diagnosis-related-grouping standard as a basis for the mechanism of fund transference to the municipalities. And because hospital beds for SUS users are provided predominantly (77 percent) through contracts with the private sector, the system's hospitals and human resources are still highly concentrated toward the relatively rich urban areas of the country.

The most crucial obstacle to the reform's compliance with the mandate of ensuring health care for all citizens has been the devastating reduction in public health expenditures as a result of the low priority given by the government to the health sector and because of the resultant absence of a regular source of funding for the health care system. In 1989, annual per capita expenditure on health was $81.43. By 1991 this amount had fallen to $54.33. Not until 1995 did it again reach the more reasonable level of $100.50.

As a consequence of the reduction of public expenditures on health, there took place a process of self-exclusion by service producers and users who, finding advantageous conditions in the private health care market, abandoned the public health care system. There occurred significant growth of private health insurance and private health care providers, and health care demand by the middle class flowed heavily toward that private sector. The expansion of participation by private insurance was actually encouraged by public incentives (tax deductions), not necessarily followed by public regulation. Meanwhile, there began to evolve a rather distorted version of the public system's original proposal, being implemented under dreadful conditions of operation and focusing primarily upon serving the poorer sectors of the population unable to attain access to private health insurance. Therefore,

despite the intention to create a single universal public system, the actual configuration of Brazil's health care system began to be characterized by the existence of two parallel streams (Figure 1.3).

One stream contains the unified health system (SUS) consisting of the following: (1) public providers, including hospitals and primary health care centers belonging to the federal, state, and municipal governments, and (2) private nonprofit and for-profit providers contracted by the public system. The SUS is now a peculiar mix composed of a unified public system and a public contracting system and based on the ideal of universal coverage—although it actually serves only 70 percent or so of the population, because of user self-exclusion and difficulties in access and utilization.

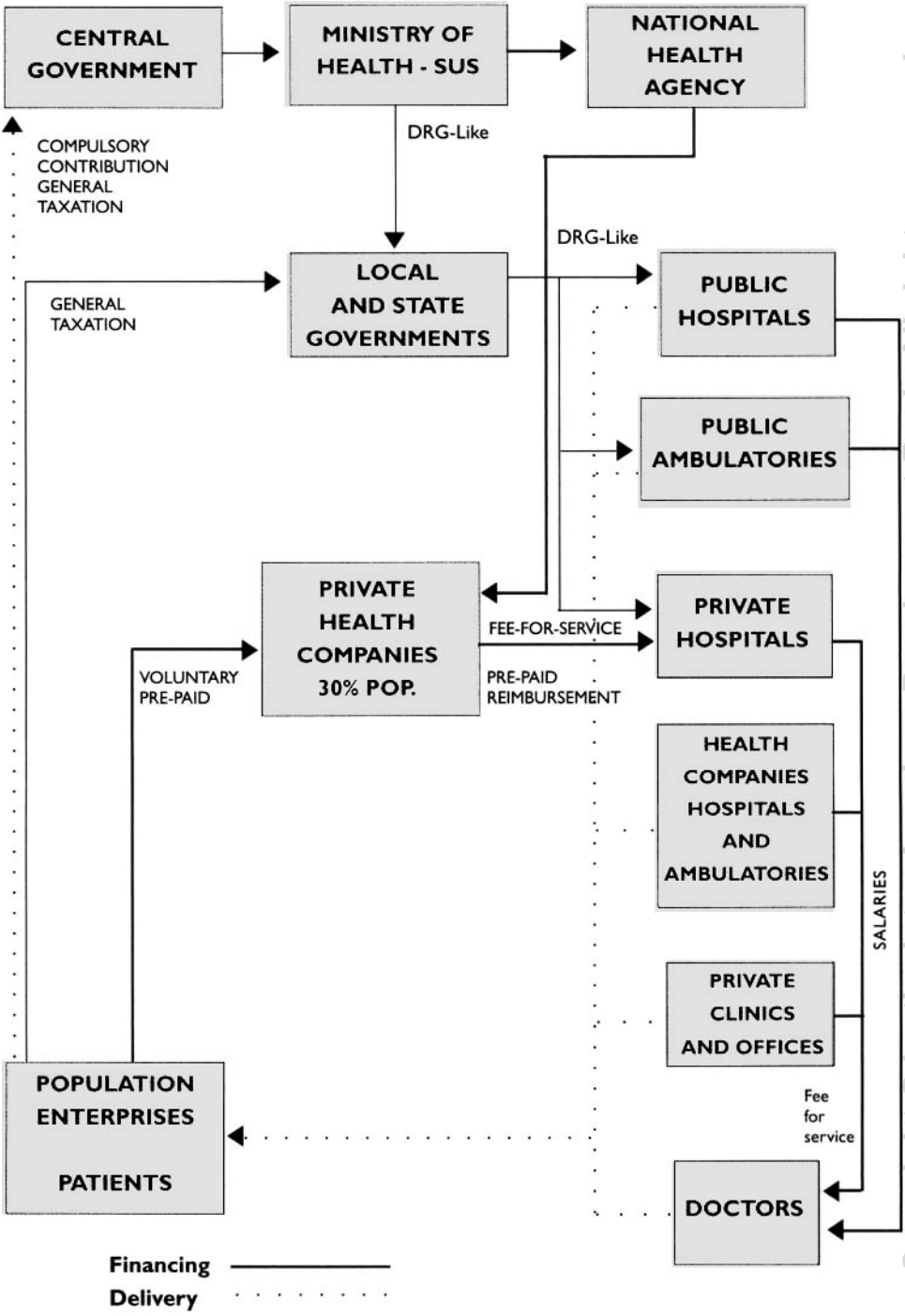
The other stream is represented by the private-sector market and consists largely of the following: (1) health care plans with voluntary affiliation, (2) prepaid health plans, and (3) insurance companies. No mechanism exists for opting out of the public system, and so people with private insurance (around 25 percent) tend to utilize the public system as a last resort, for emergencies, sophisticated treatments, and diseases not covered by their private health care plan. In this sense, the voluntary contracted subsystem can be viewed as supplemental to the public one.

In short, the Brazilian model has as its main feature the coexistence of two concomitant, and in some ways contradictory, processes within the health care sector: (1) universalization with public-system decentralization and (2) a boom in different modalities of private health insurance coverage. Improvement has occurred in access to and utilization of free and/or public health care services, but the quality and volume of such services are still restricted by suboptimal management and by the fragility of financial support. Meanwhile, there is growing stratification of users overall in accordance with their capacity to mobilize economic or political resources in order to attain access to private insurance coverage.

Recently, measures have been taken by the Health Ministry to overcome some of the main obstacles to the improvement of health care quality.

- An agency has been created to regulate and supervise the private voluntary health plan market and the private health insurance market, in order to ensure consumers the right to comprehensive coverage. In addition, regulations are being considered that would require payment from private health care plans for the medical services provided to private-plan users by SUS facilities, because in effect such

Figure 1.3. Brazilian National Health System- SUS



Source: Adapted from Lobato (2000).

SUS services have constituted an indirect government subsidy to those private plans.

- The production and dispensation of generic pharmaceuticals in public facilities and private pharmacies have been introduced in order to control the prices of essential drugs.
- Two strategic programs of primary health care have been launched within the SUS to increase coverage and improve efficiency by shifting the focus more toward preventive health care. The federal fund now transfers resources on a per capita basis to the municipalities in order to support the delivery of a basic package of primary care by (1) family health teams and (2) community health workers. This measure introduces some tensions in the decentralization process in the sense that it represents the retaking of a degree of decision-making power by the federal authority.
- A law is being approved that assigns a given minimal percentage of municipalities' and states' budgets over to the health care sector and links the federal health budget to the performance of the GNP.
- To improve system coordination, various managerial innovations have been developed, including municipal consortia, interstate clearinghouses for guaranteed referral to higher-complexity services, and intensive measures to prevent fraud. The results have had a great deal of positive effect on service efficiency and quality. Nevertheless, many problems persist as a result of suboptimal management of public facilities.

The next few years are expected to witness further improvements in the financial and managerial features of Brazil's unified health system, as well as enhanced regulation of the voluntary contracting subsystem. In this scenario, the parallel streams we described earlier will end up flowing together into a single reconsolidated national health care system, as a result of the strengthening of the Health Ministry's role and also because of the existence of financial constraints to further expansion of the private voluntary contracting subsystem. The public authority will need to improve the quality of health care services in the public subsystem and will also be exercising greater regulatory power over the voluntary contracting subsystem, even though multiple coverage will most likely continue to exist. A less probable scenario is the deterioration of the SUS and the creation of public mechanisms to ensure private-insurance access for the poor.

Colombia's Plural Model

The reform of the Colombian health care system began in the mid-1980s with a series of laws and regulations adopted as part of a broader process of government decentralization. Law 10 of 1990 provided a major incentive for decentralization by establishing the legal grounds for the municipalities to take charge of the first level of health care and for the provincial governments to take responsibility for the secondary and tertiary levels of care. This law provided for a certification process governing the granting of health care authority to the departments and municipalities once they fulfill certain basic requirements and are technically qualified for autonomy. The Constitution of 1991 assigned even broader powers to territorial entities (province and municipality), but thus far, health care decentralization has been implemented quite slowly.

In 1994, the central government embarked on an ambitious reform of the health sector in order to promote access for the entire population to efficient delivery of cost-effective health care. The reform's main guidelines are the following:

- universal coverage, to guarantee basic health care coverage within a social insurance system for every Colombian through progressive expansion of coverage
- solidarity, to enable every person, regardless of financial means, to have access to basic health services for a fair contribution, implemented by means of the subsidization of the low-income population by those of relatively higher income levels
- efficiency and quality, to improve the population's health status by reallocating resources to primary health care and by minimizing waste in service provision.

One of the strategies for reform implementation was the separation of the functions of modulation, financing, insurance, and delivery, each to be performed by a specific organization. Modulation and financing are considered as public responsibilities, and articulation and provision are regarded as market functions. The Health Ministry is responsible for modulating the system (design and regulation). The country's expanded social security organization is responsible for funding. Competing insurance companies are responsible for enrolling users and providers and for ensuring users' access to a set of such providers. Service delivery is implemented on a competitive basis through

public or private institutions. Another reform strategy was a shifting away from supply subsidies toward demand subsidies, such that the flow of money would follow the consumer's free choice regarding insurance and care provision (in this case from a list selected by the user's insurance plan).

A new structure was designed for transforming the national health system into a general social security system comprising a plural (public + private) health system. This transformation called for the construction of a social insurance system, headed by the national social security health board (CNSSS), to provide a package of basic services through a health plan covering the services defined by cost-effectiveness analysis as the best investments in health. Membership in these plans will fall into one of the following two regimes depending on the user's income level:

- A contributory regime (RC) or contributing membership for those who can afford it—namely, formal-sector workers (8 percent of salary from the employee and 4 percent from the employer) and wealthier self-employed workers (12 percent of income). The affiliation of informal-market workers was also facilitated by the acceptance of a basis of total household income. The health package of the RC is called POS.
- A subsidized regime (RS) or subsidized membership for the poor and lower-income population. The expansion of coverage in this case is progressive (linked to financial feasibility) and entitles the covered population to a basic package of services. This basic package is less comprehensive than that provided by the contributory regime but is supposed to become its equal within a few years. The health package of the RS is called POSS.

A national solidarity and guarantee fund (FOSyGA) was created. FOSyGA handles health insurance finances through four major subaccounts: (1) contributory regime fund, (2) subsidized regime fund, (3) health promotion fund, and (4) fund for catastrophic illness and traffic accidents. With respect to the contributory regime fund, FOSyGA conducts internal compensation among the contributions in order to ensure a similar per capita (risk-differentiated) amount for every enrolled individual. With respect to the subsidized regime fund, FOSyGA promotes solidarity by insuring the poor and does so with funds from different sources—namely, 1 percent from those who earn above four times the minimum wage and the same percentage *(paripassu)* from

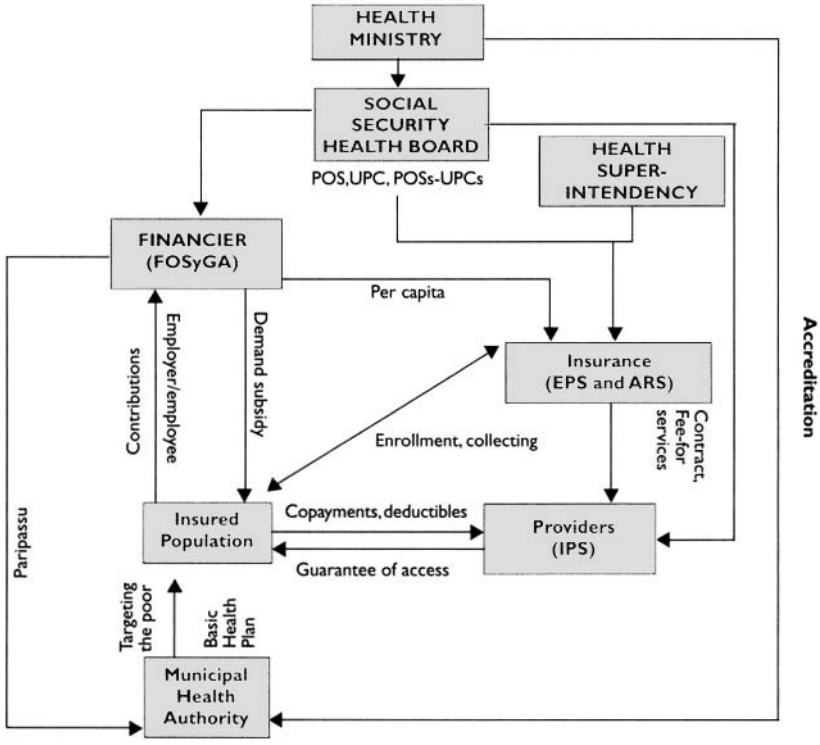
fiscal resources, specific taxes, and the like.[18] The health promotion account is funded by fiscal resources and taxes, and the resources are directed to the local governments responsible for public health measures. There is a reinsurance plan for catastrophic illness and traffic accident risk.

The breakup of the health insurance monopoly of the ISS—the former public insurance institution—was achieved by the introduction of the following: (1) a competitive market of insurance companies or health promotion entities (EPS) for the contributory regime and (2) a group of subsidized-system administrators (ARS) for the subsidized regime. The ISS was transformed into an EPS and kept the bulk of the enrollments. The subsidized regime comprises many different types of ARS, one of them being the ESS, or solidarity health enterprises—community enterprises organized after the reform. All of these insurance companies, whether EPS or ARS, enroll users, collect contributions from them, and notify FOSyGA of the user's enrollment in order to process the respective compensation (RC) or subsidy (RS). These insurance companies fulfill the function of articulation, organization, and management of care consumption, linking the covered individual to financier and to care provider. Insurance companies' essential function is risk management, guaranteeing the delivery of the health package to beneficiaries by means of a variety of service providers, either the insurance companies' own providers or providers from outside. Insurance companies also offer supplemental plans for those who can afford them.

Public hospitals were made into a special category of decentralized public entity, in order to compete in the health service delivery market; this represents a shift from a traditional budgetary approach to a demand-based reimbursement approach (although the public hospitals have continued to assist the noncovered population through a traditional supply-based budgetary subsidy). The municipal health authority was assigned the function of enrolling the poor in the subsidized regime and the responsibility for carrying out health promotion and disease prevention activities framed within a basic health plan un-

[18] The sources of financing for the subsidized system are as follows: (1) 15 percent of the share of the municipalities in the nation's current income; (2) the health and education transfer payments to the departments; (3) the income transfered by the national government to the departments; (4) resources from ECOSALLUD (gambling taxes, lotteries, etc.); (5) the voluntary contributions from municipalities and departments; (6) a share of the royalties from new oil wells; (7) Family Compensation Fund (CCF) contributions; (8) the social VAT; (9) the tax on firearms and munitions; and (10) the co-payments and deductibles of subscribers and dependents.

Figure 1.4. Colombian General Social Security System



der the general responsibility of the central government. A special agency (Supersalud) was created to act as the overall supervisory and regulatory entity. Social participation in the system is mediated through the creation of health committees, the introduction of ombudsmen, and community participation in social enterprises. The compulsory health plan has a list of essential pharmaceuticals that covers more than 70 percent of the drugs prescribed in public hospitals. The design of the new health system is presented in Figure 1.4.

The most important achievement of the Colombian health sector reform thus far has been the expansion of insurance coverage for the population. The old social security program covered only 20.6 percent of the population as of 1990, but by 1997, after the reform, social security had affiliated 52.8 percent of the population (35.6 percent by means of the contributory system and 17.2 percent through the subsidized system),[19] with the bulk of the increase occurring among the ru-

[19]See http://www.americas.health-sector-reform.org.

ral poor. Another important accomplishment of the reform has been to increase the ratio between total health expenditures and GDP: the financial resources allocated to the health sector rose from 2.57 percent of GDP in 1993 to 4.76 percent in 1996.

Nevertheless, the pace of both movements has been declining in recent years, as a consequence of the economic crisis and also as the result of the implementation and the design of the reform in the health system. Consequently, the goals of unifying the basic packages of the two regimes and of universalizing insurance coverage within a few years will take longer to achieve than originally projected.

Because of the economic crisis and certain new legal measures, there has occurred a relative slowdown in resource allocation to parts of the health sector, as in the case of the subsidized regime's *paripassu* funding arrangement. Another issue has been the initial overestimate of the numbers of potential enrollees from the informal labor sector. Despite the attractive conditions offered them, many informal-sector workers appeared to be uninterested in affiliating because of the required contribution of 12 percent of their income in some cases. Furthermore, the EPS has no incentive for these workers' enrollment because of the high cost of managing coverage for independents.

Additional issues have been the evasion of contributions and the underreporting of income. The EPS contribution collection mechanism has no incentive for correctly assessing enrollees' income levels, and EPS salespersons actually have stronger incentives to sell the supplemental plans.

Certain problems have also appeared in regard to the definition of the target groups under the different arrangements, with excessive numbers of poor people enrolled in the contributory regime and excessive numbers of nonpoor people enrolled in the subsidized regime.[20] This development points to the political use of the subsidized regime's resources, to beneficiaries' lack of awareness of their rights, and to the absence of effective mechanisms of societal oversight.

Many issues have also arisen because of hospitals' difficulties with their present two-pronged funding source methodology. Hospitals have had to deal with a combination of two very different payment approaches: (1) the new demand-based subsidy method for health care services provided by them to satisfy free-choice consumer demand by covered patients, combined with (2) some remnant of the old supply-based budgetary method of direct governmental budgeted payment to them for health care services provided by them to the uninsured poor.

[20] 1977 National Survey on the Quality of Life, National Department of Statistics.

Public and private hospitals are also suffering from the insurance delay in the transfer of resources to them for the services provided by them to users from the contributory regime and from the subsidized regime.

Many of the different problems that have arisen are admittedly the result of the way in which the reform has been implemented, but many of the problems have also stemmed from certain basic faults in the design of the model. For instance, the health system's financial basis is constrained by the narrow limits of the formal labor market, thereby limiting the expansion potential of health care insurance coverage for the population. Furthermore, there may be some error in the reform's basic underlying assumption that a health system is best managed as an insurance mechanism. The advantage of such an insurance-oriented approach is the existence of clearly defined benefits, legally guaranteed. But the organizing logic that structures an insurance system is financially oriented and in many ways counters the objectives and rationale of Colombia's new health system. Problems of overlapping and contradiction are inevitable when both an insurance authority and a health authority act simultaneously to steer a country's health care system. An insurance approach is centralized at the decision-making level and fragmented at the service delivery level and may therefore tend to favor an overall curative approach to health care, while the structure of a decentralized and participatory health care system such as Colombia's naturally tends to favor the preventive approach implemented through collective public health measures.[21]

The segmentation of the population in accordance with purchasing power is inherent to an insurance model and leads to the fragmentation of health-related institutions into different plans and packages. Doing away with the profit-making motive in health care service delivery would perhaps help decentralize health care service provider insitutions' availability throughout the country. The model of structured pluralism[22] has been facing tremendous difficulties in integrating the population into a comprehensive health insurance coverage program while at the same time trying to juggle and coordinate the activities of many different types of public and private health-related institutions. So for now, the originally projected scenario of universal health insurance providing the same rights and benefits for all, regardless of

[21] For instance, in Colombia the coverage in all types of immunizations declined between 1994 and 1999 (Health Ministry). Even considering the existence of other factors such as the presence of armed groups, the situation is seen as a consequence of the fragmentation of the health services delivery network.

[22] Londoño and Frenk 1995.

previous contribution, has been replaced by a less optimistic scenario in which the differentiation among health plans is likely to persist.

Conclusions

Since the 1970s, Latin America has been implementing many social reform projects, especially in regard to its health care and social security systems. These reform efforts have been part of the changing context brought about by the democratization of the region's political systems, the updating of its economic production models, and the redesigning of the state's role, all of which have served as means of addressing the fiscal crisis of the times and of creating the conditions necessary for positioning the regional economies more advantageously into the increasingly integrated and competitive worldwide production process. The reforms of the region's health care and social security systems are important aspects of this comprehensive government reform, which has radically transformed the earlier relationships between government and the countries' social and economic agents.

The present reforms have had to address the issues of low coverage, exclusion of the poorest, rising prices, inefficient management, institutional fragmentation, and poor quality of health services. The outcomes of the different reform processes have reflected a set of variables that are different in each country, including the following:

- the underlying values orienting the reform policy
- the existent institutional structure of health care services
- the identity of stakeholders in the health sector
- the nature of these different stakeholders' strategies to support or to oppose the reform measures
- the government's ability to implement actions.

Another crucial variable to explain the differences among proposals, contents, instruments, and supportive coalitions [23] seems to have been the timing of the health reform with respect to two main macro processes: (1) the economic crisis with the ensuing structural-adjustment policies and (2) the transition to more democratic regimes.

[23] For more details, see Fleury, Belmartino, and Baris 2000.

Despite the differences, however, some general trends can be pointed out in those processes, such as

- the decentralization of health care management
- the evolution of a pluralistic network of public and/or private providers
- the development of a complex web of relationships among financiers and providers.

Additionally, in most countries of the region trade unions are losing their earlier control over the social security system, since governments have introduced market mechanisms in order to increase provider competition. As a consequence, there have occurred tremendous changes blurring the traditional division between the Health Ministry health care system and the social security health care system. One possible outcome is the integration of both systems, generating a national health system. A second possibility is the creation of a private insurance system to replace traditional social insurance. A third possibility is the expansion of social health insurance by means of public insurance for the poor.

The expanding role of private providers and of private insurance companies is changing the entire power structure of the health care sector in the region. These changes have been occurring at the same time as the weakening of government bureaucracy, and thus a certain lack of experience and regulatory capacity can be observed in regard to the formation of the new health care market. Another important feature has been the difficulty of securing any additional stable source of public finances to help expand health care coverage. As a consequence, health care systems are still heavily dependent upon insured workers' compulsory or voluntary contributions.

The trend toward decentralization is common to all the countries in the region to one degree or another, and in many ways the prevalence of an insurance-based approach in the organization of the health care system contradicts the dynamic of the decentralized and participatory type of structure. In addition, there has always existed a certain tension between the curative and the preventive approaches to health care, made all the more manifest by the conflict between the insurance-based approach and zone-based participatory organization.

Health care reform could be an ideal mechanism for the consolidation of democracy in the region, because of the health sector's potential as an arena for the inclusion of the poor as beneficiaries of public policies and because of the sector's great capacity for empower-

ing citizens through a decentralized participatory decision-making process, creating conditions for increasing the quality and efficiency of public services within a new format of public management.

Through their different institutional arrangements—whether dual, universal, or plural—the three models of health sector reform analyzed in the present study are all seeking to resolve similar problems, to increase the sector's efficiency, and to guarantee universal access to health care services. Clearly, health care systems in the region are undergoing major changes with regard to their political constituencies and their organizational and financial modalities, and they are evolving toward a more pluralistic and competition-based configuration. Above all, the reforms are extending coverage to the poor and are therefore reducing the level of societal exclusion. Nonetheless, the stratification of users and benefits still persists within all of the reform processes and is even more pronounced than before within some of them.

Thus far, the reforms' overall result in the region seems to be a private health insurance market covering less than 30 percent of the population and a resource-poor public health sector with the responsibility to provide comprehensive health care coverage to the lower-income sectors of the population. The health care market still lacks regulation by the public sector even though this market benefits from public funding and/or from compulsory contributions to the social security system. A possible alternative might be the expansion of the base of the health insurance market beyond simple consideration of the purchasing power of the population, with the transformation of public assistance into public insurance for the poor.

In general terms, the new design of the region's health care systems is part of a process by which Latin American societies are assuming a new profile, with a more pluralistic and comprehensive system of social protection. But now, instead of outright denial of membership to some groups, there is a movement for stratifying the population in accordance with the purchasing power of each group. The outcome has essentially been the entitlement of each individual to health care rights and services to a degree determined by the income level of the population group to which that individual belongs.

So although citizenship is based ideally upon an egalitarian notion of rights, social protection in the region is still based upon social and institutional mechanisms of discrimination. Formerly, stratification was grounded in the collective action of the group. Stratification now and in the future is apparently going to be determined by individuals' capacity to contribute, whether directly or by means of

public subsidies, to their own benefit plan. In any case, if the situation continues unchanged, stratification, although in a new form, will continue to exist. Such a reform process may well succeed in modernizing the health care sector, but it will do so only at the cost of moving the region even farther away from the ideal of fairness.

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CHAPTER TWO

Health Sector Development in Asia and the Pacific

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The Asia and Pacific region, like most other regions of the world, is at a critical stage in its efforts to improve the health of its peoples. In the case of Asia and the Pacific, we are examining health sector development within a context of rapid overall economic and social evolution. During the past several decades, the region has experienced high annual economic growth rates and very significant industrial development, fueled by market reform. Some of our countries have already undergone a transition from the manufacture of basic goods to the use of advanced technology and are now investing in neighboring countries' capacity to manufacture the same basic goods. Yet we have not seen parallel development in the region's health sectors: health gains in most of our more advanced countries have still not reached full potential. Nor has there occurred a parallel transfer of health gains from one country of the region to another.

We accept the fact that health system models cannot really be transferred from one country to another in the same way that manufacturing and communications technology can be transferred. But at the national level, within each individual country, we would have expected that the overall national economic gains and the knowledge and skills required to bring about such economic growth would have had greater benefits than they have in fact had for the country's health care system and for the health status of the national population.

The assessment that we are indeed at a critical stage follows the realization and acceptance of several facts deriving from analyses of the region's health services systems and health sector development in general. The first fact is that even though we have at our disposal a wide range of effective diagnostic and treatment technologies, the population's overall access to these tools is still not optimal, for many different reasons. Second, we are hampered by the nature of the financing mechanisms that have evolved at national and household lev-

els to pay for health care. And third, there exist very significant inequalities in health status and care among different population sectors in our countries, linked largely to income level; we cannot expect significant overall gains in health unless we adopt an integrated approach to poverty reduction and health care.

The following sections cover these three complex issues and describe recent approaches to their resolution within the region, based on the understanding that an effective health system reform process and involvement in poverty reduction will entail the development of new capacities on the part of the region's health care systems. We shall also outline a few possible directions for the World Health Organization (WHO) in regard to the actions needed in order to address these major issues.

Constraints in the Population's Access to Health Care Systems

Constraints in access to health care are by no means limited to financial or economic factors. For instance, the geopolitical attributes of population dispersal in the region are an important consideration for health system development. Asia and the Pacific contain some of the most populous and some of the smallest nations in the world. We have countries with large land masses, and we have rapidly growing megacities in which infrastructure development lags behind population growth. We also have small island countries in which resource distribution and logistics cannot always follow rational planning principles for development of a balanced and equitable health care system. Some countries have combinations of all of these characteristics, so that we are faced with urban-rural imbalances as well as the complexities of getting adequate health services to the populations of remote islands or mountainous areas. We are constrained not only by the level of population access to the available technologies but also by the lack of knowledge and incentives for these technologies' appropriate use on the part of health workers at the various levels.

Meanwhile, we seem to have entered the 21st century with a host of new acute and long-term health conditions resulting from environmental changes, from motor vehicle accidents, and from the increased personal violence, substance abuse, and mental health problems stemming from people's response to the rapid social change occurring in this part of the world. We are clearly behind in terms of our experience with technologies—including preventive and rehabilitative as well as diagnostic and treatment components—to deal with these problems.

Although effective methods have already been integrated into the health systems of many countries and there has been increased attention to such problems, resources are still very limited in Asia and the Pacific.

The rapid aging of the population in Asia is also an urgent issue. Asia will have 58 percent of the world's elderly population by 2025, with around 700 million elderly persons. The majority will be women, most of whom will not have income replacement in old age, as they are not currently enrolled in conventional pension schemes. At present, around 75 percent of the elderly in Asia live with their children, but we can expect this proportion to drop significantly. The elderly will therefore need a broader range of social protection to cover their basic needs above and beyond health care. At this stage, it is difficult to define exactly what these needs will be, but we should envisage that assistance with housing, food and some level of personal care would be needed in the absence of adequate income. Indeed, the efficacy of modern health services will be reduced if these basic needs are not met. In developing health care for the elderly, we need to consider that there may be a double burden of disease—endemic infectious diseases as well as the chronic illnesses that become more prevalent with age. Maintaining respect for the elderly, which is inherent in Asian culture, should be a prime consideration in developing health care services for them. The solutions will need not only to consider functional and economic factors in defining such services but also to stress equity rather than charity as a prime goal.

The recent Asian economic crisis and the ensuing reduction in public-sector expenditures had a major negative impact on the delivery of health care and other social services in some countries in the region. The effects of this economic crisis were also felt in the transition countries, mainly because of the decrease in investment by the more developed countries. The immediate official response to the crisis in most cases was a reduction in the range and volume of personal health services previously provided free of charge—sometimes without adequate consideration of the real needs for essential services among vulnerable and economically disadvantaged population groups.

Structural shifts in the health sector had actually already been initiated somewhat earlier but were accelerated by the economic crisis. These shifts were mainly in the direction of privatization and cost recovery through charges to the users of public-sector health services, without necessarily considering the ability of user households to pay such fees. The alternative route of reducing public spending through the elimination of waste and inefficiencies in the public health care system was not always considered. These kinds of solu-

tions are generally given less attention, usually for fear of the political implications of reducing the number of workers in the public service, not only in the health care system but also in other areas in which overall levels of administration and efficiency lag behind those of the production sectors.

Over the past years, most countries in the region have begun a process of health care reform. Changes have occurred in several functions and subfunctions needed for the provision of health care. In the distribution of resources, for instance, emphasis has shifted away from hospital care to outpatient care, with more (but still inadequate) attention to preventive care and support functions. At the same time, attention to sustaining adequate primary health care at the community level has probably been neglected, particularly in the larger countries with the greatest demographic change.

In the organization and management of health systems, health reform processes have dealt mainly with the ownership and operation of health care delivery systems. Major shifts have included attempts to transfer ownership from government to nongovernment, in the contracting of delivery functions to private providers and in applying private-sector management styles. To a far lesser extent, there has been some effort to move from political to professional management.

In the broad area of government functions through ministries of health, attempts have been made to strengthen statutory functions, particularly through better planning processes and concern with having valid and reliable data. There is a move away from centrally planned operations more toward central policy formulation, planning, and monitoring and strengthened zonal, provincial, and district level operations. To do this, ministries of health have taken a far more serious approach to strengthening their health information systems. There has been more interest in the development of sensitive indicators for planning and in the disaggregation of data to show inequalities in health status and in access to care. The shift in concern has led to a trend in policy formulation away from the extensive use of health statistics more toward situation and trend analysis.

As these changes have been occurring in regard to planning, development, and ownership of health care facilities, other areas have been somewhat neglected, as has been the case with the area of the acquisition and maintenance of high-cost technology. The regulatory mechanisms to limit supply, which actually began in the United States in the 1970s, have not been adopted by most Asian countries, and thus, high-cost and highly sophisticated scanners can be purchased without approval of health planning authorities. Such equipment can be used

extensively to generate revenue rather than to meet real needs. The quality assurance programs to assess appropriate use of such technologies by public and private providers have been implemented in very few countries. The role that can be played in the function by third-party payors, or health insurance schemes, is only now being recognized.

At the level of lower-cost technology, the same lack of quality assurance programs has meant, for example, that inappropriate prescribing patterns have become the norm rather than the exception in several countries. The problems we now encounter in drug resistance by certain infectious agents are indeed attributable in part to the overuse of drugs, particularly antibiotics. Fortunately, there is now renewed interest in traditional medicine in all parts of the world. This interest, coupled with the current lack of public funds for health care, gives some basis for hoping that more appropriate use of drugs will result from some harmonization between modern and traditional medicine, as well as greater concern with the use of technology as an integral component in cost control.

Health workforce development is beginning to move away from the traditional basis of trainees' preference for a high-status profession more toward an emphasis on planned health workforce training focused on attending to the region's changing health care needs. As reflected by requests for WHO input, there has been growing interest in changing existing curricula and methods for training key health professionals, both at the undergraduate level and through their continuing education. The changes made thus far have not included components needed to deal with geriatrics, long-term disabilities, substance abuse, and various other important areas of current and future health concerns that must be covered in order to help prepare doctors to be better users of the technologies at their disposal. These areas of interest also include medical ethics, medical legislation, health behavior, and health economics.

A more serious shift in effort is required to deal with the development of career and remuneration methods to increase job retention, mainly in the public health sector. We have become used to hearing about shifts in health professionals from the public to the private sector within the same country but have done little to deal with the causes. A more recent problem is the international migration of health workers, particularly in and out of the Pacific Island countries. This mobility is occurring as part of a globalization process and should not be hampered by restrictions on the free movement of individuals; these are basic tenets of human rights. Nevertheless, the reasons for this mobility are not necessarily the pursuit of personal freedom, knowledge, and

status. They are more likely to come from acute needs for higher family income, even at the expense of family separation. Many countries have professional salary structures in the public health sector that offer very little hope of higher incomes in the short and long term. The loss of significant numbers of key health workers impacts directly on the core strategies of health sector development.

Changes, whether or not termed "health system reform," have occurred in almost every country, sometimes through a planned process but often as a result of political and economic changes that have speeded up reform without adequate preparation. In some countries, the reform process was driven by external partners without adequate understanding of all the factors involved in social-sector development in the country. For the most part, the reform processes were fragmented and limited to one or two components. As will be discussed later, the majority of countries in Asia have attempted to change health care financing methods, concentrating mainly on the source of funding. The major deficiencies in the reform process are probably the failure to establish social safety nets before imposing cost recovery through user charges in the public sector and the failure to develop regulatory and accreditation mechanisms prior to the growth of private and public services.

Clearly, we need a parallel and integrated approach in dealing with the different issues in health system reform, in conjunction with improved coordination among the various units of the ministry of health and with new partners. Reforms in health care financing, resource development, organization, and management need to go hand in hand with adherence to the principles of quality assurance. Gains in each area will benefit the whole, while failures in any single area can have a negative effect on other areas and can undermine the overall process of health system reform.

The Health Care Financing Mechanism as a Constraint

The affordability of health services is indeed another constraint to access, at the level of the individual household and at the level of collective funds earmarked for health care. The nature of the constraint derives not only from degree of affordability but also from the manner in which health care is financed. In the past, we tended to focus our efforts on determining the overall adequacy of the amount spent on health care. Today it is clear that we cannot determine a normative percentage of gross national product (GNP) to be spent on health. Some richer countries spend more on health per capita than the total per capita GNP in

other countries, and a considerable part of this spending may in fact go to nonmedical services that satisfy patient preferences in richer countries. In developing countries, we could probably say that most governments have underfunded health services and would face even more serious difficulties if external donors withdrew their support. Additional funds must be found, and it is the source of these funds that constitutes the first issue.

Government health authorities at national and zonal levels have difficulties in obtaining more money from government sources. Even when a good case can be made for investing more in health than in other competing social sectors, it is not realistic to expect rapid increases in general tax revenues to provide such funds. We therefore see shifts in the sources of financing from government to cost sharing with the population, from public to private sources, and from individual to pooled/shared-risk funds.

In this process, however, many countries have put more attention on cost recovery through user fees than on developing social health insurance to cover the majority of the population. It is already clear that user charges can create serious problems in the use of health care and can create excessive burdens on household expenditure at the time of illness when indeed income may be reduced. Furthermore, such user charges in developing countries usually do not really provide sufficient or stable revenues to the public health care providers, which are so much in need of the funds.

The body of evidence on the problems created by cost recovery through user charges contributed to the proposal that "fairness of financing" be considered a health system goal. This concept is included in the WHO framework for the assessment of health system performance presented in the *World Health Report 2000*. It takes into account the proportion of household expenditure for health care prepaid (through taxation or insurance) and the proportion paid out of pocket as a percentage of household funds available.

The main recommendation resulting from the assessment of fairness of financing in all WHO member states is that the development of social health insurance should be accelerated. In reality, universal coverage has been achieved in only a minority of the countries in Asia and the Pacific. Although social security mechanisms including health care benefits have been established in the majority of countries, most have been limited to salaried workers. In some cases, the category of salaried workers includes both public and private sectors, while in others, civil servants continue to receive care as a fringe benefit to their generally low salaries. In some instances, health insurance

benefits within the social security framework have covered dependents of the workers, while in other instances, coverage has been limited to the workers themselves.

More recently there have been positive experiences with community-based health care financing schemes for the informal sector or populations excluded from social security systems. But even as pilot projects are expanded and replicated, and without considering the implications and long-term viability of such schemes, the expansion of this coverage is still minimal. With all these combinations, we still have a situation in which the majority of the population is not covered by the existing social health insurance systems.

There are many factors affecting the extension of social health insurance coverage. A rather neglected factor is globalization. In countries with rapid economic development, such as we have experienced in the region, aggressive investment policies may take precedence over issues related to workers' rights, including safe working conditions. Both multinational and national investors, particularly those willing to establish export-oriented manufacturing enterprises, may be given a range of tax exemption privileges, including exemptions from existing national social security regulations.

Trade liberalization and modern communications have led to increased international movement of labor. Social protection, including health insurance, covers only a very small proportion of migrant workers today. Most migrant workers move in order to increase their incomes and do not consider social protection, including health care coverage, as a factor in the attractiveness of employment abroad. When migration is to a country with well-developed health insurance systems, non-national workers, particularly those coming from developing countries to domestic employment, may not benefit from the national regulations.

For all these reasons, only a minority of Asian and Pacific workers and their families currently benefit from access to health care through social insurance mechanisms. There is still reluctance in some countries to cover the self-employed and informal-sector workers and even to take on dependents of insured workers. New schemes claim that they do not have the capacity to extend coverage to the informal sector. Since such workers are generally not members of any organized labor associations, there has been little pressure to extend health insurance coverage to them.

If we look at the situation today, we are even likely to find that the volume of this previously insured working population has not grown and may even have shrunk. Some past lack of understanding of social

health insurance within the health sector probably contributed to the stagnation of the extent of coverage.

With better understanding of the links between social protection and poverty in the informal-sector populations, a consensus has developed over the last decade among governments, international development partners, and national mass organizations about the urgency of developing appropriate social health insurance systems for all population sectors. Yet only lately have several factors begun to stimulate more concrete action, beginning with the pressure to decrease public expenditure, with across-the-board implications for government activities. Several countries have embarked on streamlining their civil service and reducing fringe benefits for staff members and their dependents by shifting to contributory prepayment mechanisms for health care. This shift, which comes from initiatives outside rather than inside the national ministry of health of a country, may in fact be the first serious exposure of officials of this ministry to social health insurance.

The more recent initiatives to introduce national health insurance are coming largely from the government ministries that administer the public health care delivery systems owned and operated by government at national, zonal, and local levels. Faced with pressures to reduce public spending, governments are seeking ways to shift from the responsibility of directly financing health care, through the establishment of alternative financing mechanisms. Social health insurance may have been considered as the optimal mechanism right from the start of a health care financing reform process, but it is more likely the case that health insurance is given serious and then very urgent attention when it becomes clear that other cost recovery methods, such as user fees for health care at the time of use, either give very low yield or are politically unpopular and expensive to control.

Thus, pressure to introduce health insurance is now coming mainly from government ministries of health and not from labor organizations. In such situations, there may still exist some lack of understanding of the principles of social health insurance and of social security in general, and the development of health insurance may still be considered simply a rapidly implementable financing mechanism rather than what it truly is—a form of social protection.

Dealing with health care financing for the elderly will require additional attention, as this population group constitutes a "collection" of high-risk individuals. Many of these individuals may have neglected their health needs over decades and may have been excluded from social protection mechanisms. If we look at health-seek-

ing behavior among the elderly today, we find that many are beginning to use up their own savings and then use up family savings. Free care for the indigent elderly is becoming less of a given, and we already see growing numbers of people pushed below the poverty line in their old age.

The development of social health insurance clearly needs to be accelerated and to be put into the appropriate framework, one that would recognize the potential of health insurance as a means of social protection for those who can contribute, as well as the fact that some individuals and groups will not be able to contribute and will require social assistance. Indeed, social health insurance does have a great potential to improve the functioning of the health system. Prepayment imposes an obligation on the system to deliver the necessary services to which the insured are entitled through their regular contributions, at assured quality levels and at a cost that allows for a balance between revenues and expenditures without continually increasing contribution rates and without limiting benefits. The relationship among contributor, fund, and provider thereby constitutes an important asset in social health insurance. These aspects of health insurance are still not well enough understood in the region.

Health Inequalities and Poverty

A third fact in our assessment of the critical stage of health sector development is the recognition that we need to be more involved in poverty reduction. Poverty is strongly correlated with ill health. Those living in absolute poverty are five times more likely to die before reaching the age of 5 years and two and a half times more likely to die between the ages of 15 and 59 than those in higher income groups. In the same way, the positive health effects of increasing per capita income are well documented in development literature. Higher income is known to give greater access to goods and services that promote good health, such as better nutrition, safe water, sanitation services, and good-quality health services.

Recent evidence has been mounting that the causality may also run the other way: good health can promote higher income levels and greater economic growth. Research suggests that health status, as measured by life expectancy, is indeed a significant predictor of economic growth. A more recent realization in this region is that poverty is being worsened by the high and unpredictable burden of having to pay for health care out of pocket and at the time of illness. Health-seeking

behavior has been changing in the direction of avoiding or delaying having to use already-scarce household resources for health care. When charges cannot be avoided, payment for hospital care can force the sale of household assets, including the source of household income.

Tuberculosis is a disease that gives us much insight into the spectrum of issues in the link between poverty and illness. The Asia and Pacific region comprises several countries with the world's highest rates of tuberculosis morbidity and mortality—so high that the term "epidemic proportions" applies. Most of the individuals with the disease are in the lowest income groups and in their working years of their lives. Their reduced productivity due to illness, as well as the burden of the direct and indirect costs of care, is likely to push their families below the poverty line. Thus far, governments have been slow in reacting to the implications of high tuberculosis rates. The applicable health care programs for active-tuberculosis patients, such as the Directly Observed Treatment Short-Course (DOTS), are hampered by such usually overlooked factors as patients' poor nutritional status and their possible lack of cash for transportation and by the society's inability to eliminate or mitigate many of the risk factors for the spread of this disease.

Poverty reduction in the interest of attaining maximum health gains and sustainable economic development is not impossible to achieve but clearly will require additional effort. The World Health Organization has already taken steps to initiate such efforts in coordination with an expanded range of international and national partners. An initial step is to develop the relevant information for policymakers, taking into account the characteristics of low-income populations. We need to identify effective interventions for different populations rather than plan activities for the "poor" as one group of people. Some poor populations have always been poor in terms of land assets and income, and these are typically the rural poor. Today we have many more poor individuals living in large cities, in crowded urban environments that do not necessarily bring more income but typically present more environmental hazards and provide less of the family support found in rural communities. We also have the newly disadvantaged populations, which include those who have lost traditional safety nets in the process of economic transition or have lost the few assets they had through economic crisis. What this means is that the development of effective health programs must take into account the integration and coordination of relevant activities in other development sectors such as education, employment, and housing. Serious efforts to avoid and reduce poverty in Asia and the Pacific will require increasingly integrated health

sector interventions as contrasted with the more narrowly focused approach of conventional health service programs in the past.

Possible Directions for the Work of WHO in Asia and the Pacific

The prevailing trend among the world's development partners today is to adopt a sectorwide approach to development. Consensus exists that the health of the poor and disadvantaged populations should be protected through an underlying generalized orientation toward poverty reduction in the design of all sector efforts. This new integrated approach contrasts with past pressures or conditionalities that sometimes tended to push for health system reform as fragmented efforts to deal with various perceived health priorities in any given area of the country, in relatively uncoordinated fashion. A typical result was to have primary health care centers in some communities delivered in vastly improved buildings but without improved financing or health worker development. At the same time, new health service financing schemes were being developed in areas that did not have improved facilities to provide incentives for charges or prepayment.

In many of the countries of the region, we have seen simultaneous external cooperation tackling different priority areas in different parts of the country. Unfortunately, these synchronous efforts have sometimes pursued different political ideologies regarding the role of government at national as well as decentralized levels with regard to the organization, financing, and delivery of health care.

External cooperation, through the international lending agencies or donors, will continue to be needed in most countries in Asia and the Pacific, particularly if the broader approach to health sector development is pursued. The World Health Organization is a specialized United Nations health agency with a presence in all the developing countries of the region, and as such it can play an important role in the achievement of these countries' development goals. New priorities are needed for capacity building as well as for constituency development, so that governments and their populations can understand the broader health-related implications of concepts ranging from social safety nets to globalism and trade liberalization.

The World Health Organization plays a central role at the country, regional, and world level by coordinating development efforts, providing a forum for information exchange, and offering a neutral environment for the discussion of policy options. The development of regional strategies, allowing for informed adaptation of these strate-

gies at the country level, will benefit from work done in the same health areas in other parts of the world, through the current strengthening of collaboration and communications among all levels of WHO as one organization. The present workshop is a very concrete example of the potential benefits of the interchange of knowledge, experience, and opinions among development partners and country representatives. We look forward to the outcome of this meeting as a steppingstone in the process of real and sustainable health sector development.

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PART II

Toward Health Equity

Chapter Three

Basic Health Insurance in Bolivia: An Instrument to Increase Equity and Health Care Access for the Poor

Dr. Fernando Lavadenz M.

Chapter Four

Efficient Equity-Based Health Sector Reforms in Vietnam

Dr. Tran Trong Hai and Dr. Claudio Schuftan

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CHAPTER THREE

Basic Health Insurance in Bolivia: An Instrument to Increase Equity and Health Care Access for the Poor

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Ministry of Health and Social Insurance

Bolivia covers 1.1 million square kilometers and has more than 8 million inhabitants, predominantly urban. Within Latin America, it is the country that has best succeeded in reaching macroeconomic stability. For 15 years, Bolivia has maintained stable price levels, and since 1993 the inflation rate has remained in the one-digit range. This stability has been made possible through adequate fiscal discipline based on an increase in taxation and the restructuring of public spending. In addition, monetary stability has been sustained within a flexible exchange rate policy through a system of mini-devaluations administered by the Central Bank.

The public policies implemented since 1995 have not been restricted to stabilizing the economy but have been aimed also at developing first-generation structural reforms to lay the foundations for sustained economic growth. Measures such as the capitalization of public enterprises have resulted in a mean growth rate of more than 4 percent in the last decade. Meanwhile, decentralization and the new law on citizen participation have established an accelerated process of institutional strengthening and local development at the country's state and municipal levels.

But despite these good economic results and the development of first-generation structural reforms, Bolivia remains one of the region's poorest countries, with an annual per capita GDP of $1,076 (1998) and an average life expectancy of only 62 years (1999), one of the lowest in Latin America. Notwithstanding the country's relatively low unemployment rate (6 percent), the quality of most people's employment situations continues to be an important concern as well, with about 60 percent of the economically active population working in the informal sector.

The 1992 population and housing census showed that 70 percent of the Bolivian population was poor, with a poverty incidence of 95 percent in rural areas and 52 percent in urban areas, as measured by

the unsatisfied-basic-necessities method. The poverty line method, as applied to the results from the country's integrated housing survey, showed that on a yearly average, 53 percent of Bolivian households in urban areas found themselves below the poverty line in the years between 1989 and 1992—a percentage that recent estimates suggest had dropped to 48 percent by 1995. The 1994 human-development index ranked Bolivia as number 113 out of 174 countries.

This panorama shows Bolivia to be relatively backward in several social sectors as compared with the norm in other Latin American countries. The development of structural economic and governmental reforms appears not to have been sufficient, and it will be necessary to implement second-generation reforms to accelerate the changes required in order to reduce the gaps existing between Bolivia's health and education sectors and the health and education sectors of its neighbors.

With respect to the health sector, the country's infant and child mortality rates are high, as is the incidence of communicable diseases such as Chagas, malaria, and tuberculosis. According to the World Bank's 1998 demographic and health survey (DHS), Bolivia's child mortality rate (below five years of age) is 92 per thousand live births, and its infant mortality rate (below one year of age) is 67 per thousand live births. The majority of these deaths are from acute respiratory infections (ARI) and acute diarrheic diseases (ADD). In addition, the high level of perinatal deaths (below one month) is related to insufficient obstetric care (see Figure 3.1).

Recent estimates of maternal mortality in Bolivia show a rate of 230 per 100,000 live births, and WHO and UNICEF studies indicate that this rate can be significantly higher in high-risk municipalities. Part of the problem is attributable to the low proportion of deliveries attended in clinics or hospitals and/or by trained personnel: the 1998 DHS shows that only 53 percent of pregnant women in Bolivia receive any type of prenatal care at all and that the proportion of institutional deliveries is only 59 percent (see Figure 3.2).

The low usage level of health services for maternal care has to do primarily with barriers related to geography, economics, culture, and the nature of the health care services offered. The two latter categories of barrier are closely related to low demand by the indigenous Aymara and Quechua populations in rural areas, populations whose social-cultural behavior has shown only a slow increase in their demand for occidental-type health care.

Another problem with the figures on maternal mortality in Bolivia is related to the high overall fertility rate (despite the drop in fertility since 1994)—which, at 4.2 percent, is higher than the Latin

Figure 3.1. Causes of Infant Death

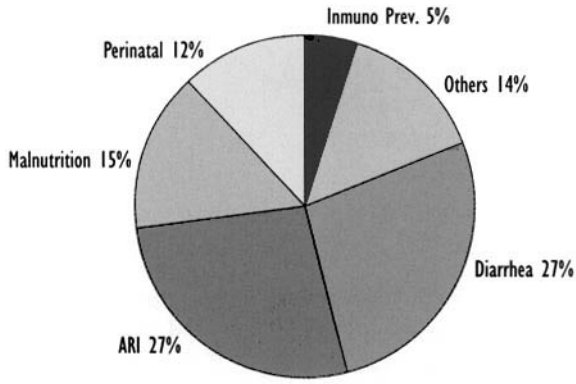
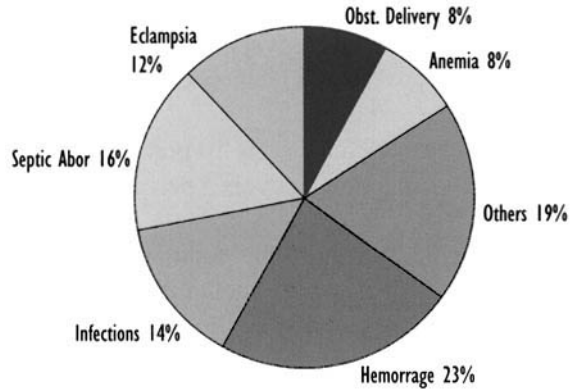


Figure 3.2. Causes of Maternal Death



American average. Most of the women who have no access to family planning turn to abortion at some time or another. In general, abortions are performed in a clandestine manner without the proper attention to hygiene or safety, and they are responsible for a third of the maternal deaths in the country.

Health Subsectors and Their Funding

As in many other Latin American countries, the health system in Bolivia is divided into the following subsectors:

Table 3.1. Total Health Experience

Provider	%
Public Sector	22.17
Social Insurance	41.70
Private Insurance	5.44
NGOs	3.91
Households	26.78
Total	100.00
GDP *(US$ Thousands)*	7,968,061
GDP Health *(%)*	4.68
GDP Social Ins. *(%)*	1.95

Source: Health Sector Funding and Expenditure Accounts.

- public subsector, which covers 35 percent of the population
- social security subsector, which covers 25 percent of the population
- NGO subsector, which covers 10 percent of the population
- private subsector, which covers 5 percent of the population.

The remaining 25 percent of the population is not covered by any health subsector at all and is fundamentally rural. This reality underscores once more the vulnerability of the poor population.

With respect to the structure of health sector funding and expenditures, a recent study by the Ministry of Health shows that in general, public-sector expenditure is lower than social security expenditure, even though public-sector expenditure covers a much greater population (see Table 3.1). Furthermore, household expenditure is too high and the share of private insurance is low. High household expenditures in health are a clear reflection of the users' low level of trust in the formal system.

Pharmaceuticals represent an important expenditure category in the health sector. In 1990, $32 million was spent on pharmaceuticals in Bolivia; by 1998, this expenditure had increased to $103 million, out of which $65 million was spent by households. Once more, the behavior of households shows the Bolivian population's lack of trust in the country's different existing health insurance systems.

Table 3.2. Principal Health Indicators by Income Quintiles

Indicator	*Lowest*	*Second*	*Middle*	*Fourth*	*Highest*
Institutional births	38.8	57.8	70.4	88.6	95.3
DPT3	36.2	41.8	46.0	63.7	70.0
ORT use	70.5	73.9	79.9	83.8	83.5

Source: DHS 98 Bolivia.

The Equity Question

Beyond national averages shown by health indicators and beyond macroeconomic variables related to health expenditures, a World Bank study based on information from its 1998 demographic and health survey divided various health indicators into income quintiles and demonstrated gaps existing between Bolivia's poor and its rich in terms of these indicators (see Table 3.2). With respect to the institutional delivery of babies (one of the principal indicators agreed upon with international cooperation agencies for purposes of evaluating the health situation of the country), a huge gap exists between the poorest and the richest income quintile, showing the degree of exclusion of the poorest population segments from health services, particularly as regards curative and institutional care by the formal health system. The same story repeats itself for DPT inoculations, but the gap is smaller and is created primarily by the insufficient coverage of the vaccine program across all quintiles, showing that preventive care dependent on national programs but operative at municipal levels can end up covering neither the poor nor the rich. The third health indicator, the use of oral rehydration therapy (ORT) to fight diarrhea, shows lesser gaps from one income quintile to the next, making the distance between the poor and the rich insignificant in this category; one of the main reasons for this gap reduction is Bolivia's intense experience of community participation in health promotion and health education for more than a decade, particularly in regard to primary health care.

The Health Sector's New Institutional Framework

The current government administration designed its official action program in a communal manner through its 1997 "national dialogue," which brought together representatives of diverse societal groups to define

the basic objectives of the country's 1997-2002 operational plan of action. This plan includes four cornerstones on which national development is built: equity, opportunity, dignity, and institutional viability.

The objective of the opportunity cornerstone is to stimulate economic growth through the improvement of the country's physical and production-related infrastructure within a framework of competition. The dignity cornerstone seeks to take Bolivia out of the narcotic-drugs circuit. The institutional cornerstone seeks to restore the credibility of government institutions through the guarantee of continuity and sustainability of official policies and the development of institutional capacity in the public sector and a new style of public management. The equity cornerstone is geared toward the fight against poverty through policies that will improve the population's access to health services, education, housing, and basic sanitation; the equity cornerstone also comprises policies that will improve the productivity of the poor through rural development and microcredits.

Bolivia's health sector reform is defined within this equity cornerstone. Health reform's three main antipoverty strategies are the following:

- reduction of the country's high rates of infant and maternal mortality, primarily through the use of basic health insurance (seguro básico de salud, or SBS) as the principal instrument
- prevention of the country's principal endemic diseases (Chagas, malaria, and tuberculosis) through the use of the "epidemiological shield" (escudo epidemiológico) as the main tool
- institutional strengthening and decentralization of the country's health system.

On another front, the current agreements between the international cooperation bodies and the Bolivian government are set within a new framework characterized by a strong orientation toward improvement of social conditions, coordination among programs, and results-conscious management. In the past, funding from multilateral and bilateral cooperation bodies was made conditional upon performance related to certain macroeconomic variables (low inflation rates, strict fiscal controls, exchange rate policies, and the like). Currently, however, many wide-ranging and specific initiatives—such as debt relief (HIPC I and II), the Paris Consultative Group, and IDB and World Bank social sector credits—include certain social criteria or social indicators that must be satisfied as a condition for access to resources or debt relief.

It is within this new framework that the country has decided to initiate a process of health reform as an official policy that calls for a focus on equity rather than on the market and is aimed at the extension of national programs of prevention to the whole population rather than just to specific groups.

Why a Health Sector Reform?

Several different factors make this an opportune moment to initiate a health reform process:

- Completion of the country's first-generation structural reforms (1985 - 1991): there now exists significant macroeconomic stability (less than 4.5 percent annual inflation and almost 4 percent annual growth, giving the country third-place ranking in growth among all the countries of Latin America), and there have occurred important structural reforms, including social security reforms, a law of government administrative decentralization, and a law of citizen participation (changes in financial allocations to the municipalities).
- Initiation of a long-term vision through the country's "national dialogue" entitled "consensus building for the new millennium": round tables on each one of the four earlier-described cornerstones were heavily attended by representatives from civil society and from the country's political parties. The round table on equity approved the principal components of the health reform process. Reforms were also promoted in relation to environmental regulation, the financial sector, the civil service, taxation, and the judicial system, as well as a second wave of reforms in health, education, and the anticorruption effort.
- Adoption of an antipoverty stance within the equity cornerstone: the equity cornerstone embodies an integrated vision based on a concept of human development that recognizes the interactions among all the different actors and sectors in the development process and in the functioning of the country's social system. The strategic alliance spearheaded by the government, with international cooperation, will seek to invest in new directions, to prioritize investment in social areas, and to focus on the poor. The equity cornerstone seeks to create a close linkage between health and development, both social and economic.
- Emergence of a proactive culture of efficiency, quality, and equity in health sector programs and services: the need exists for an intense reform in the organization of the Bolivian health system in order to create adequate conditions for improving the traditional epidemiological profiles of the country.

Bolivia is an important battleground in the international war on poverty and a pilot country for the HIPC I and II comprehensive development framework. The country's health reform is placing greater emphasis on results, while also streamlining procedures for inputs and processes and developing an equity-oriented approach based on the following:

- basic health insurance, administered by local governments
- the "epidemiological shield," administered by the national government (a strategic approach designed to decrease mortality rates, fight endemic diseases, and increase coverage, consisting of specific efforts to halt the transmission of Chagas, malaria, and tuberculosis and to strengthen the epidemiological vigilance system)
- decentralization, promoting the empowerment of local communities and the improvement of local management.

In summary, health sector reform in Bolivia is essentially a process of structural changes, political as well as administrative, promoting solidarity and universality in the population's access to health services, based on the premises of participation and decentralization that are associated with the concepts of equity, efficiency, and quality.

General Vision of Basic Health Insurance (SBS)

Bolivia's basic health insurance (SBS) is the centerpiece of the country's overall health reform process. The SBS gives priority to results-based management within the model of care. It promotes equity of access to basic health services, initiates a dynamic and gradual emphasis upon integral and universal health insurance, and evolves into an important mechanism of consensus building within the municipalities. The SBS is a system of self-selection of diseases of the poor, since the diseases covered by the insurance program are primarily diseases with greater incidence among the low-income groups, with the exception of some services (for instance, cesarean sections, certain other obstetric services, and the like) that, while not being specifically diseases of the poor, are more frequent among them and also present a high grade of self-selection. This SBS characteristic of self-selection of diseases common among the poor avoids subsidization of the rich within the public sector and the social security system. The SBS is a solidarity, publicly funded communal insurance system that gives the whole population

access to a basic package of cost-effective health services within a primary-care framework. It gives priority to health care for mothers and children, providing them with preventive, curative, and health-promoting services oriented toward the reduction of maternal and childhood mortality. Access to the SBS is a right guaranteed by the state and is free for all the inhabitants of the country within the bounds of the following 75 health care services:

- Care benefiting the child: all children below 5 years have the right to health care in the areas of care to the newborn, promotion of child nutrition and development, prevention of diseases through inoculation, and care during infectious diseases such as ADD, ARD, sepsis, and meningitis.
- Care benefiting women: all women have the right to health care in the areas of prenatal care, childbirth, postnatal care, prevention and treatment of complications of pregnancy, transport in case of obstetric emergencies, and information, education, and communication on family planning and clinic- or hospital-based childbirth.
- Care benefiting the population in general: the whole population of the country is entitled to diagnosis and treatment of tuberculosis, malaria, cholera, sexually transmitted diseases (with the exception of AIDS), family-planning services, and counseling.
- Care for isolated populations: in rural areas where there are no health centers, medical visits are arranged to include selected services of particular importance to isolated population groups.

Principal Characteristics of Basic Health Insurance

The conception of the SBS is closely linked to the new basic rules of the game created in Bolivia under the citizen participation law and the law on administrative decentralization and consolidated through the recently adopted integral law of municipalities. This legal framework provides for the work of the health sector to be carried out at two different levels of government and establishes the premises for the decentralization of the sector's services, with the municipality level serving as the fundamental territorial entity. These laws formalize citizen participation through the juridical recognition of the basic territorial community organization and the ordaining of each municipality's creation of a vigilance committee to oversee the administration of the tax-derived financial resources transferred to that municipality on the basis of its population size.

Both the composition and the operation of the SBS are defined within these new parameters. A new anatomy of health service management and structure for the country has been generated by the present decentralization process with its municipality-based citizen participation components. The SBS constitutes the very embryo of this new national health service physiology. Basic health insurance addresses the most important necessities defined by the country's epidemiological profile, in particular the health problems of mothers and children. In contrast to its predecessor—the national maternity and child health insurance (SNMN)—the SBS incorporates additional health services to attend to a broader range of the population's priority health problems. Its funding modality reflects the new way in which tax resources are distributed to the different municipalities of the country. The laws we mentioned earlier created a tax income distribution system on a per capita population-based formula, whereby the General Treasury of the Nation each day distributes 20 percent of that day's collected taxes into a special account for each corresponding municipality. This modality and the immediate accessibility of the funds to the municipality made it possible to design a special mechanism whereby in each municipality, also on a per capita basis, a portion of these funds is set apart for health services and is deposited automatically into a special account reserved for the SBS (the local compensatory health fund).

The innovation introduced by Bolivia's approach to basic health insurance, as compared with other similar experiences in Latin America, consists of this special funding modality, which is not centralized at the national level but decentralized to the municipal level—without simultaneously implying any "municipalization" of the health services themselves. The municipality also contributes an additional health fee for each of its citizens, based on 1992 census figures. This contribution is calculated from an estimate of the variable costs (essentially for pharmaceuticals, critical inputs, home visits, and emergency transport of obstetric patients) of a basic health care package designed around epidemiological considerations and a range of highly cost-effective services. Provision of certain undersupplied services is given an additional incentive: for instance, the real cost of childbirthing care during delivery is approximately 85 bolivianos, but the SBS reimburses 120 bolivianos, generating a clear incentive for providers to increase the availability of this service.

The SBS funding model combines the per capita contribution by the municipality with concurrent investment and funding from the prefecture, the national government, and international cooperation organizations. The cost of the human resources necessary for the func-

tioning of the SBS is covered by the prefectures, while the central government covers technical cooperation—delegated to the Health Districts—as well as the subsidization of critical inputs and pharmaceuticals, with significant contributions again by the international cooperation bodies. Contributions by the central government, through the Ministry of Health, grew significantly through the implementation of the resource allocation mechanism (MAR), a cofunding and compensation mechanism for municipalities that acts as the financial arm of the SBS. The package of health care services known as national maternity and child health insurance had been funded by 3.2 percent of the tax-derived investible resources transferred by the central government to the municipalities. Funding of the 75 health services included in the SBS package requires a municipal contribution twice as high, increasing the municipality's contribution to 6.4 percent of the investable transferred tax resources. For 1999, this represented a total contribution of more than $10 million by the municipalities, which could have reached $12 million had it not been for the low tax revenue level resulting from the country's economic recession.

Payment Mechanisms for Basic Health Insurance

The funding into the SBS is per capita and concurrent, while the payment by the SBS to providers takes place on a "fee-for-service" basis, with the municipality functioning as payor. The establishment of a set payment amount for each given health service is designed to facilitate, when necessary, the creation of price incentives to stimulate an increase in the availability of certain undersupplied services. It is designed also to increase human-resource productivity in the health sector and to encourage the use of idle or underutilized installed health service capacity. The payment of SBS fees to affiliated health centers for the patient care services provided by them is made with the resources deposited in the local compensatory health fund account administered by the municipal government.

Strategic Perspectives

Basic health insurance is Bolivia's principal instrument for achievement of the health sector objectives established within the framework of the national action plan's equity cornerstone (and defined under the arrangements with the Consultative Group and the HIPC Initiative as

well). In addition, it is the key component of Bolivia's health sector reform process. The SBS must not be viewed as merely a project or even as a high-priority program but instead as an overarching policy that seeks to actualize the principles of universality and equity of health care coverage and to translate into action the country's epidemiological and social priorities in its development of health services. The SBS is universal health insurance, the first of its kind in the history of the country—"a national system of universal health insurance that organizes, regulates, and funds with its own resources a package of essential and effective care offered by public health centers, social security centers, NGOs, health centers run by the Church, and others that voluntarily join through the signing of agreements." Its objectives include the following:

- to increase the coverage of health services (which on average include large unused capacity)
- to improve accessibility and progressivity of coverage
- to improve the quality of care
- to encourage respectful and humane treatment of the insured
- to reduce maternal and infant mortality
- to reduce the risk, duration, and severity of the illnesses that are the principal causes of morbidity and death in Bolivia
- to guarantee universal access to a basic package of preventive and curative care.

The funding modality of the SBS is not based on users' salary condition, their participation in the labor market, or the presumption of the existence of the patriarchal family or a family salary—unlike many of the region's social security programs. The funding mechanism for SBS is based on an approach somewhat similar to that of national health insurance in Great Britain, wherein the needed money is obtained from state tax resources, subject to conventional budgetary dynamics. The resources of each of Bolivia's local compensatory health funds, however, are not subject to conventional budgetary dynamics, do not depend on quarterly transfers, and are of a liquid and cumulative character, even when they are not spent within a determined budgetary period.

Under the SBS, the municipality pays providers the fees for the covered health care services given to all citizens who live in its territorial jurisdiction, independently of their salary status, income, age, gender, and ethnicity. By uncoupling the SBS fee from individual responsibility, coverage becomes a right guaranteed by the state—in this case, by the municipal government, with an additional contribution

from the central government. The SBS contributes greatly to the fulfillment of all citizens' constitutional health coverage right in a nonregressive (albeit still only partial) way, through the 75 covered services constituting the SBS health care package.

Furthermore, by creating conditions and means for citizen participation in its operation and administration, the SBS encourages citizens' exercise of their civil, social, and political rights. In this way, the SBS contributes to the strengthening of citizenship and democracy.

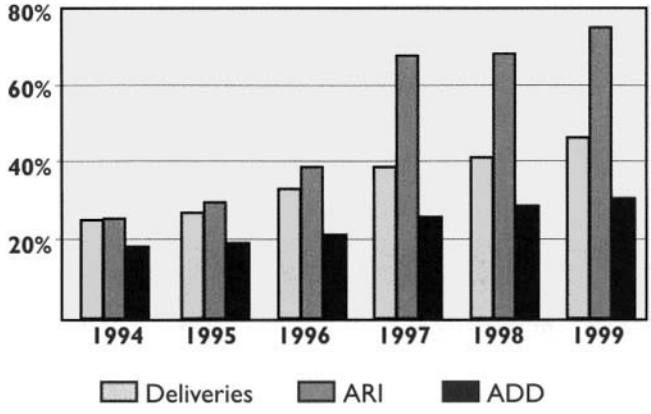
Main Achievements of Basic Health Insurance

The SBS came into existence under Supreme Decree 25265 of December 31, 1998, and its implementation within health centers began on May 10, 1999. The SBS is of voluntary character for municipalities and starts operating within the municipal territory upon the signing of a special agreement between the Health Ministry and the corresponding Mayor. The country comprises 314 municipalities, all of which entered into such agreements within a time span of eight months following the launching of the SBS.

The impact of the SBS thus far has been quite noteworthy, particularly in regard to the increased demand it has stimulated for public health services and social security, helping to consolidate and extend the results achieved in this area since 1966 under the national mother and child health insurance program. The increase in demand for health services (see Figure 3.3) has been especially apparent in the evolution of the proportion of childbirths taking place in hospitals or clinics, which went from only 33 percent of all deliveries in 1996 to 47 percent in 1999—a 50 percent increase in three years. More notable still has been the increase in coverage of acute respiratory infections (ARI), which rose from 39 percent of total estimated cases in 1996 to 76 percent in 1999—an increase of almost 95 percent in only three years. The growth in coverage of acute diarrheic diseases (ADD) has been somewhat more modest, with the number of attended cases over total estimated cases increasing from 21 percent in 1996 to 31 percent in 1999—an increase of 68 percent.

From a financial point of view, basic health insurance represents an important effort in the mobilization of public resources destined to the resolution of priority health problems. The resources assigned to the SBS represent 45 percent of the annual $70 million that the state sets aside on average to finance the annual expenditures of the Ministry of Health. Of the approximately $30 million that the func-

Figure 3.3. Growth in Coverage by the SBS for Childbirths, Attended Cases of Acute Respiratory Infection, and Acute Diarrheic Disease



Source: National Health Information System (SNIS): www.sns.gov.bo.

tioning of the SBS costs annually, roughly one-fourth (between $8 million and $10 million) is financed by municipal contributions. This sum would be even larger if the municipal contributions deposited in the local compensatory health funds were to be used in their totality. Thus far, the SBS has not suffered from any funding problems. On the contrary, the evolution of its funding aspect leads to the firm conclusion that the system is financially sustainable.

The rising indicators for coverage and demand, verifiable through diverse information sources, reflect a story of success for this national policy of basic health insurance. In effect, SBS has become the principal tool for reducing disease and death among the poor, in the sense that the 75 treatment categories covered by the SBS account for about 56 percent of the preventable causes of morbidity and mortality in the country, which tend to affect primarily the lower-income populations.

Principal Problems

The functioning of the SBS as the keystone of Bolivia's health reform effort has become quite apparent throughout the entire range of operations of the country's health service sector. Since its launching, the SBS has had the effect of putting the whole public health system under

a microscope, shining a light on its failures, insufficiencies, and bottlenecks and also highlighting its many strengths and capabilities. An evaluation of the SBS thus becomes an indirect evaluation of the Bolivian public health system and cannot avoid references to the structural and functional realities, both good and bad, that define and express the overall Bolivian health system at its present stage.[1] The Ministry of Health is currently working on a new legal framework for the SBS and is making adjustments to the initial design in order to strengthen and deepen the implementation process and to address the principal problems encountered thus far in the functioning of basic health insurance, which include the following:

- The increase in demand for health services comes not only from an increase in real coverage but also from a shift toward the public sector by patients who previously went to the private or NGO sector. This is evidenced by the fact that concurrently with the increase in demand for services in the public sector, there has occurred a drop in the demand for services in NGOs.
- A significant proportion of the population is still unaware of the SBS, especially in the poorest sectors and municipalities with low accessibility where the extension of health care services is conditioned upon the existence of communication means. This lack of awareness results in these sectors' continued low demand for services.
- In distant populations particularly, there have been found increasing levels of fraud, which exacerbates poverty and diminishes the population's access to health care.
- In urban populations, as a consequence of the economic recession there has occurred an increase in some nonpoor sectors' demand for publicly funded services, largely for treatments that do not primarily affect the poor. This trend has generated competition between two social sectors for access to services intended for the poor.

[1]David Tejada, consultant for the evaluation of the SBS.

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CHAPTER FOUR

Efficient Equity-Based Health Sector Reforms in Vietnam

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Vietnam has a population of 76.5 million (1999). It borders with China, Laos, and Cambodia. Before 1986, the country's health sector had developed a network that reached all the way to the village level, and the Vietnamese rural health care system was at one time an example for many other countries. After 1989, the impact of the market-oriented mechanism created many difficulties for the health sector not only in rural areas but also in hospitals at all levels (see Figures 4.1, 4.2, and 4.3).

Economic growth has considerably improved people's living standards. The market mechanism, however, has also generated a distinction between rich and poor, with some areas and some people being poorer than others. This rich-poor gap has continued to grow, according to the 1995-98 household-based data collected by the primary health care unit of the Ministry of Health. The income differential between the highest-income groups and the lowest-income groups is expressed by a factor of approximately 7. The gap is more and more visibly affecting the population's health service utilization rates, which are lower for the poorer groups (curative services) than for the richer ones (see Figure 4.4).

There also exists a pronounced difference between the plains areas and the mountainous areas in terms of the overall utilization of public health facilities (47.5 percent of the population per year in the plains areas versus only 11 percent in the mountainous areas), and especially so in regard to the hospitalization rate (25.9 percent in the plains versus only 3.4 percent in the mountains).

Figure 4.1. Economic Reform's Impact on Hospital Utilization, 1986-95

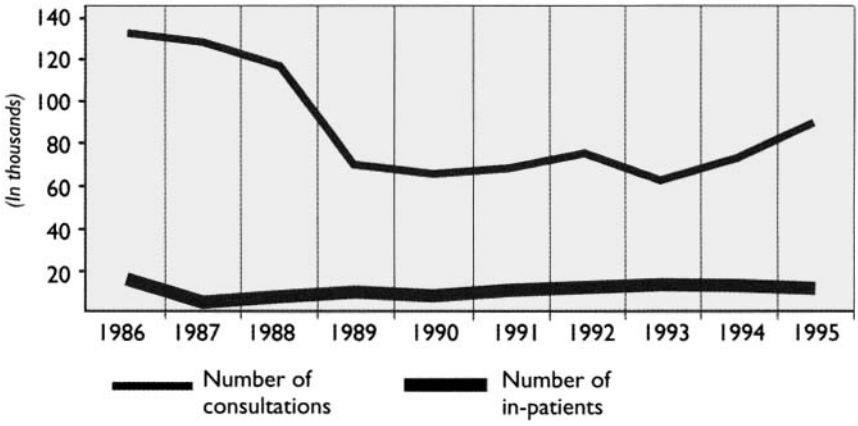


Figure 4.2. Number of Community Health Workers, 1986-98

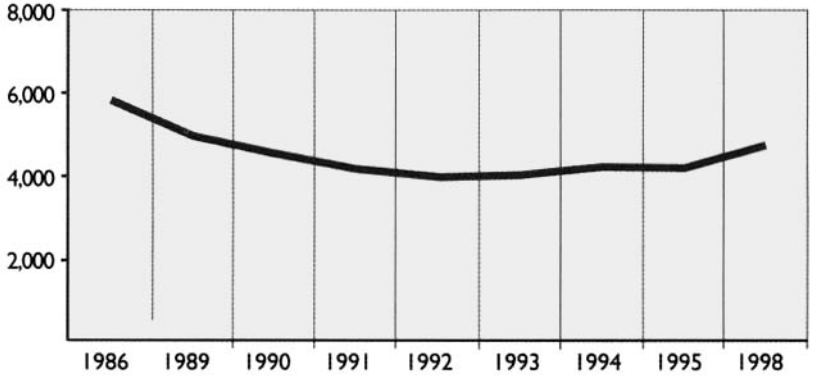


Figure 4.3. Number of Community Health Stations, 1986-98

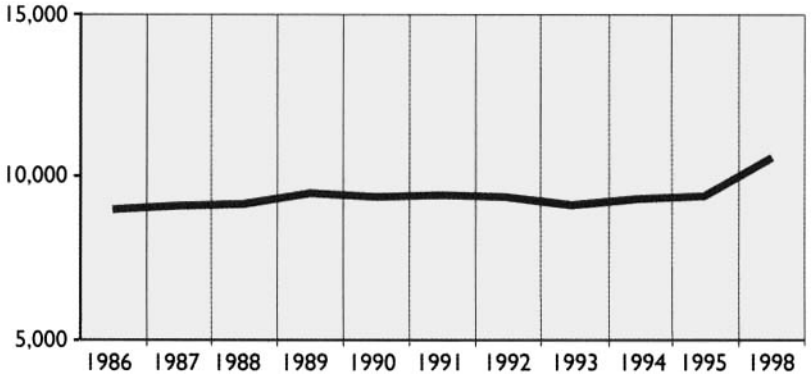
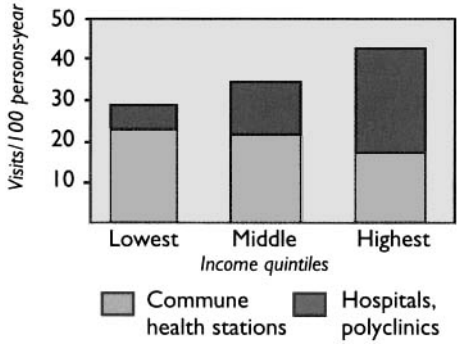


Figure 4.4. Utilization of Public-Sector Health Facilities by Income Group



In rural areas of Quang Ninh province for households reporting illness, the ability to pay was as follows:

- The poor spend 22 percent of their income on health care. The non-poor spend 8 percent of their income on health care.
- The poor spend 30,000 VN dong /person/year on health care. The non-poor spend 70,000 VN dong/person/year on health care.
- The poor make 0.7 visits to health providers/person/year. The non-poor make 1 visit to health provider/person/year.
- 80 percent of the health expenditure of the poor is used for ambulatory care.
  50 percent of the health expenditure of the non-poor is used for ambulatory care.

The poor have limited their spending on curative health care, especially on in-patient care, in part because hospitalization entails rather high fees. This situation results in inequities in health care. A survey conducted by the General Statistics Office in 1993 revealed that the high-income group spends 2.3 times as much per person on out-patient care as is spent by the low-income group and 3.9 times as much on in-patient care.

The difference in access to public health facilities between better-off and poor groups within overall poor areas (such as the central coast and mountainous areas) is not so large, but the difference is very large within overall richer provinces. This means that in the future as the economy develops more, the rich-poor difference in access to and utilization of public health services will be even greater.

As regards efficiency in using health resources, Vietnam is one of the countries that have had much success (based on the existence of relatively high life expectancy figures despite the country's present economic situation and the limited budget available for public health). Even so, the current underutilization of health facilities is still a big challenge to us. The present study will touch upon the following key issues:

- financing of health care
- allocation of available resources
- achievement of equity and efficiency in resource utilization.

The Role of Government and the Market in the Health Sector

During the "subsidized" period, the government could cover nearly all health costs, even though the provided services were at times slow, inefficient, of low quality, and of limited range of choice (in part as a result of suboptimal resource investment). When the country shifted toward decentralization and nonsubsidization, however, the market-oriented mechanism's negative economic effects on equity in the health sector confronted the sector with the urgent need to choose among the following possible directions:

(1) market orientation (privatization)
(2) shared role of the public health sector and the private health sector
(3) subsidization
(4) public health sector as the key player, with the private health sector as a complementary component sharing the same responsibilities and tasks.

With a view toward equity (ensuring sustainable investments, addressing the shortcomings of the subsidized health system, and accepting the private health sector), the fourth alternative option seemed to be the most appropriate. There now exists quite good integration of the preventive and curative health systems, and sustainable investments can ensure that the need-based system will preserve patients' right to choose among services.

The market-oriented economic model has been accepted in Vietnam, yet this does not mean that we should necessarily apply every single market principle to the provision of health services. The nega-

tive effects of the market mechanism on the health system have in fact raised questions, and these questions need answers not only at the ministerial but also at the national level.

Poor people and poor areas have to cope with more difficulties in obtaining access to public health services than do higher-income groups and richer areas where the transport system is more developed (inequity in access to health services). At the same time, the poor also have to restrict their spending on health care to a lower amount than that spent by higher-income groups even though the poor in general have a lower health status and thus greater need for health care. According to 1990-98 data collected by the Ministry of Health, overall utilization of community health stations and district hospitals is gradually increasing and the utilization rate of private health facilities decreasing, which reflects that public health services are recovering a bit and have become more attractive alternatives. But meanwhile, as noted earlier, there exist quite visible inequities between rich and poor groups in rates of hospital utilization, in particular in-patient health services.

Underutilization of services at community health stations is also quite serious, despite the many efforts by the government and the Ministry of Health to improve investments. The 1999 plan of the Ministry of Health centers around a policy to strengthen the village health network so as to improve efficiency and utilization of the amply available health manpower resources at this level and to improve access to health services for poor groups. Equity in health care may also be improved via the health insurance system for the poor (community-based insurance).

Financial Resources for the Health Sector

Financial resources for health encompass the following (see Figures 4.5 and 4.6):

- government budget (taxes)
- health insurance
- hospital fees
- foreign aid.

The figures help us to illustrate the following:

- The Vietnamese health sector is still financed primarily through the government's budget.

Figure 4.5. Structure of the Health Sector's Budgetary Resources, 1998

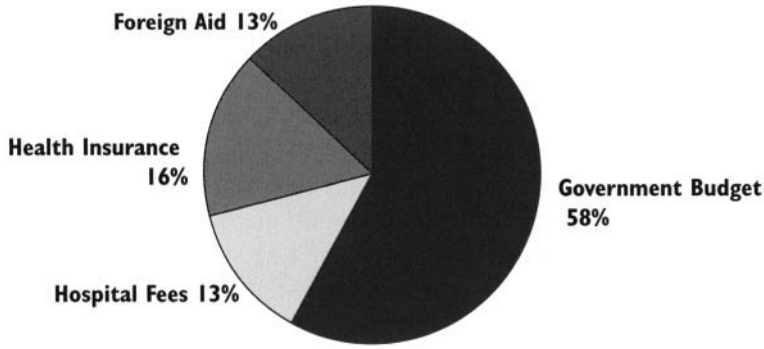
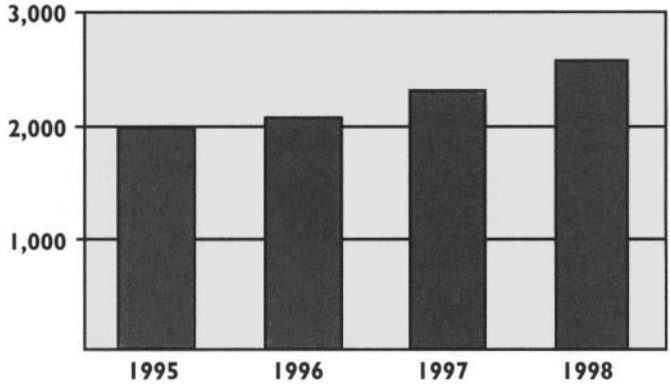


Figure 4.6. Government Budget for Health (1995-98)

(VND Billions)



• This government budget for health has increased only a little bit even during the years of rapid economic growth (1995, 1996, and 1997) and has actually been on a downward trend as compared with population growth and inflation. Because the tax-based government budget for health has stagnated, the ability to maintain equity in health care has deteriorated (the tax-based budget could be used to ensure a resource flow from the rich to the poor, from the working age populations to the elderly and children).

An important potential financial benefit from health insurance plans is their potential growth. But the coverage of the health insurance system is still less than 10 percent of the population, mainly salaried subscribers. Most farmers—whose need for health care is high but whose ability to pay is limited—are not covered by such health insurance plans. And the potential for cross-subsidizing the country's lower-income groups from health insurance system resources is limited by the health insurance sector's practice of using nearly all the funds collected strictly in benefit of its own health insurance enrollees, despite the not-uncommon abuse of health insurance cards to utilize non-health-related resources of hospitals.

Hospital fees do not account for a great proportion in the total budget for health, but they fund a considerable proportion (about 50 percent) of total hospital expenditures at present. The bigger the proportion of hospital fees in the total health budget, the more difficult will be the situation encountered by the poor. In the short term, hospital fees have been unable to be reduced because other income resources for hospitals are still limited. It is hoped that in the future, this income resource can be better managed, alongside other supportive solutions, in the interest of protecting the low-income sectors.

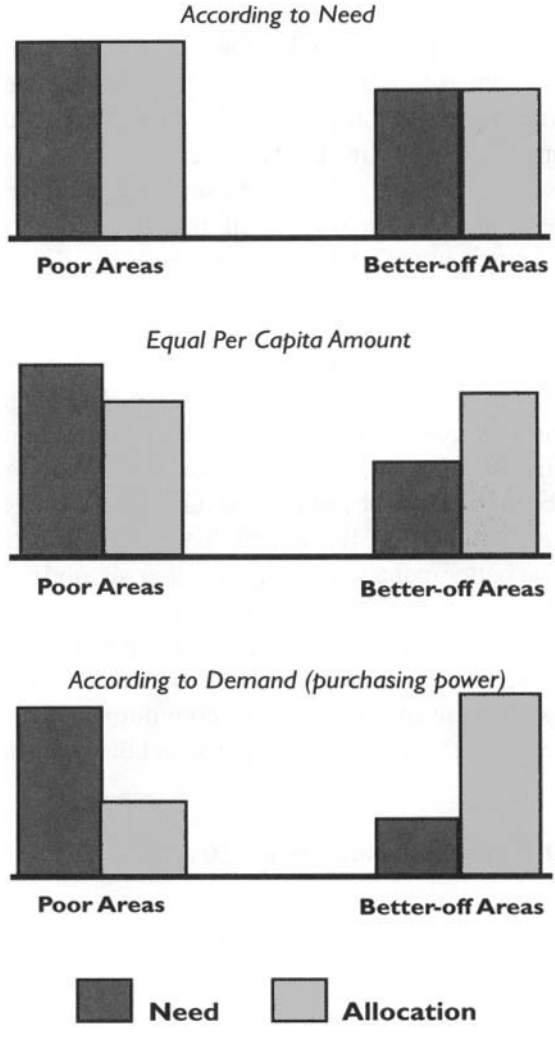
The income from ODA constitutes an unsustainable resource, so if programs supporting poor people rely too much on this resource, it will be difficult to ensure government's commitment, thereby affecting the political objectives of both the party and the government.

Allocation of Financial Resources for Health

Appropriate health resource allocation can facilitate both equity and efficiency at the same time. There appear to exist three alternative approaches, as follows (see Figure 4.7):

- Allocation according to need: areas in which people's need of health care is high and medical expenditures are also high would receive a bigger proportion of available health resources.
- Equal per capita allocation: under this option, budget resources for health care would be allocated equally to all, across the board, on a per-person basis, regardless of the level of individual people's needs. Those with high levels of need for resources to defray their high medical expenditures would receive only one equal resource share apiece from the government, which would result in budgetary inequity

Figure 4.7. Modes of Allocation of Government Budget between Areas



and in care or resource shortages for many of the poor.

- Allocation according to purchasing power (by demand): this is a purely market-oriented health resource allocation method, and it results in serious inequities.

The present approach to the allocation of budgetary and other resources in Vietnam's health sector consists of a mixture of the first and the second alternatives. In order to mitigate inequities in investment, the allocation modality used should evolve increasingly toward that described under the first alternative—allocation according to need.

As regards the relationship between efficiency and equity, some people argue that these two objectives are incompatible and perhaps even mutually exclusive. This mistaken notion stems from an overemphasis on the commercial concept of high productivity, of pursuing the desired outcome at the lowest possible outlay, while forgetting that if the results do not in fact turn out to satisfy the agreed-upon health objectives, then ultimately, low efficiency will be the outcome, as well as a deepening of inequity. Health financing in Vietnam does appear to be quite efficient at present (considerably high life expectancy at birth for the population despite a low national per capita income level), but there still exist many shortcomings to be remedied. For instance, the per capita health budget for people in the poor and mountainous areas is already 1.8 times higher than that for inhabitants of the country's more advantaged areas, but even this level is not sufficient to respond adequately to the health care needs of those poor and mountainous communities, which have the burden of more disease and higher medical costs alongside a lesser ability to pay hospital fees.

The Way Forward

In order to formulate a health sector orientation in Vietnam conducive to efficiency and equitability, the following principles must be observed:

- adoption of equity as one of the goals of a need-based health care system and active pursuit of it by generating new instances of equity and by limiting or eliminating existing inequities
- promotion of equity in health care budget allocation through prioritizing investment in accordance with people's needs, with attention to vulnerable and/or poorer population groups
- establishment of a good relationship between the public and private health sectors, with the public sector taking the key role and the

private sector taking a regulated complementary role

- investment of health resources in a measured and organized manner and in conjunction with an effort to find new ways to avoid waste, increase savings, consolidate an affordable hospital fee structure (particularly in health insurance systems), and improve health care management capacity at all levels.

The creation of a more efficient, equity-oriented, and sustainable health sector will also require focused attention on the following five critical elements:

- human-resource development to improve professional competence and resource management
- health economics so as to mobilize every potential resource in a structured and prioritized way
- appropriate health technologies and accessible information
- health logistics
- improved organization and management—and especially, improved social mobilization.

Health economics should be utilized to strike a good balance between the proportion of available health sector budgetary resources destined for rural areas (where the economy is still underdeveloped) and the proportion destined for urban areas (where the economy is more developed), in accordance with the following suggestions:

- Health services in rural areas must be financed primarily (75 percent) by the government budget (national and local taxes), to be complemented by contributions from the community, health insurance funds (10 percent), foreign aid (10 percent), and direct hospital fees (5 percent). For the short term, hospital fees cannot be reduced, and therefore efforts should be made to increase the proportion from the government budget.
- Health services in urban areas are also to be financed from taxes, but less than in rural areas—50 percent to 60 percent of the total —because tax receipts are limited. To complement this, voluntary and compulsory health insurance can be expanded to cover 20 percent to 25 percent of the total budget for health services in urban areas, hospital fees can contribute 10 percent, and 5 percent can come from foreign aid.
- In Vietnam, we need more tax-based financing of the health sector and more social insurance (subsidized).

In 1998, 54 percent of all health expenditures nationwide went for user fees and pharmaceuticals. To move toward an equity-oriented strategy, the following financing systems should be utilized:

- insurance
- provincial budget
- international support
- community contributions (a 1.5 percent tax on household income)
- progressive reallocation of government budget to the health sector (0.2 percent to 0.5 percent of GDP per year).

Vietnam clearly has achieved improvements in its population's health status over the last 25 years since reunification. But as in many other countries, the financing of health care services is growing increasingly inefficient and inequitable.

Reference

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PART III

Preventive Health

Chapter Five

The Immunization Program in Central America and the Keys to Its Success

Salvador García Jiménez, M.D.

Chapter Six

Organization and Management of Preventive Care

Charas Suwanwela, M.D.

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CHAPTER FIVE

The Immunization Program in Central America and the Keys to Its Success

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Global Context

In the health investment section of its 1993 *World Development Report*, the World Bank stated that out of all public health activities, vaccination is the one that offers the best results in terms of cost-effectiveness.

Immunization has made possible the global eradication of smallpox. It took a total of 184 years—from May 14, 1796, when Edward Jenner gave the first successful vaccination, until May 8, 1980, when the World Health Organization declared that smallpox had officially been eradicated from the world—but once the global eradication campaign was launched, it took only 11 years.

The global polio eradication initiative was launched in 1988 to eliminate polio by the end of the year 2000 and to achieve the simultaneous strengthening of the world's health infrastructure. Significant progress toward both goals has been made during the intervening years, and the world is now on the threshold of another public health victory, with the achievement of poliomyelitis eradication. This goal in fact was attained in 1994 within the confines of the Western Hemisphere, and since that date this half of the world has managed to maintain its polio-free status without wild poliovirus circulation, keeping satisfactory track of surveillance indicators for acute flaccid paralysis and continuing with its high immunization coverage rates.

Polio is gone from the Western Pacific region and is currently showing no trace in Europe. There has occurred a dramatic decline in cases everywhere in the years since the eradication target was set. Millions of children who would have been paralyzed can still walk. Polio has gone from being a leading cause of disability to being a disease that is on the verge of eradication (Figure 5.1).

Polio eradication has also achieved lasting benefits that will have an impact on the control of other diseases. Overall immunization coverage has improved in countries where polio has been eradicated.

Other health interventions, such as delivery of vitamin A supplements, are now included in polio immunization campaigns.

The dramatic increase in vaccination coverage throughout the world has resulted in major reductions in the incidence of other vaccine-preventable diseases—namely, measles (Figure 5.2) and neonatal tetanus. This situation has fostered important changes in the health profile of the world's population.

Eradication is more than just bringing to zero the number of cases of a given disease. Eradicating polio means that the poliovirus will be wiped off the face of the earth and that vaccination will no longer be necessary—resulting in substantial savings, as has been the case with smallpox since its eradication more than 20 years ago.

It has been estimated that when all countries are certified as polio free, approximately US$1.5 billion in treatment will be saved each year, mostly from stopping vaccination. Spending on medical care and rehabilitation for polio victims will eventually fall to zero.

The Americas

The region of the Americas has been a pioneer in the control or eradication of immuno-preventable diseases and has been maintaining a very high level of effectiveness in the domain of vaccination since 1977, the beginning year of the Pan American Health Organization's enlarged program of immunization (EPI).

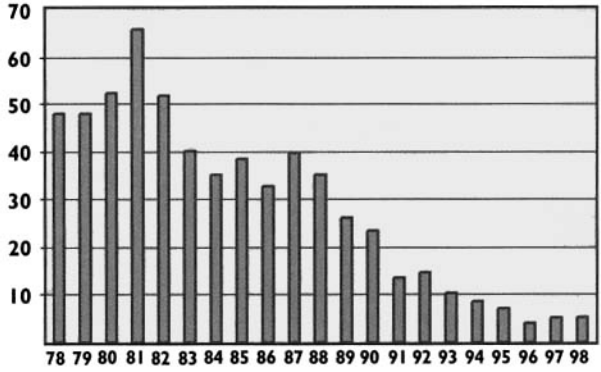
The Pan American Health Organization (PAHO) launched the EPI for the purpose of strengthening the capacity of members' vaccination programs to immunize their national populations. The vaccines initially included in the EPI were six: DTP (against diphtheria, tetanus, and whooping cough), BCG (against tuberculosis), OPV (against poliomyelitis), and the vaccine against measles.

Despite the fact that 20 years ago vaccination coverage in Latin America was very low and epidemiological surveillance for immuno-preventable diseases was virtually nonexistent, it was the first region of the world to eradicate smallpox, eliminate poliomyelitis, and control measles (Figure 5.3).

Central America

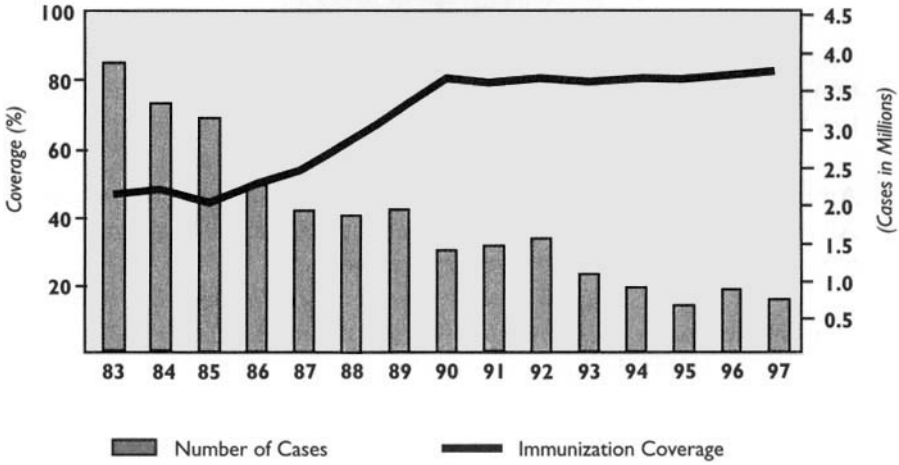
Within Latin America, Central America is one of the most high-performing subregions in terms of fulfilling the EPI vaccination program

Figure 5.1. Global Annual Reported Polio Cases, 1978-98
(Thousands)



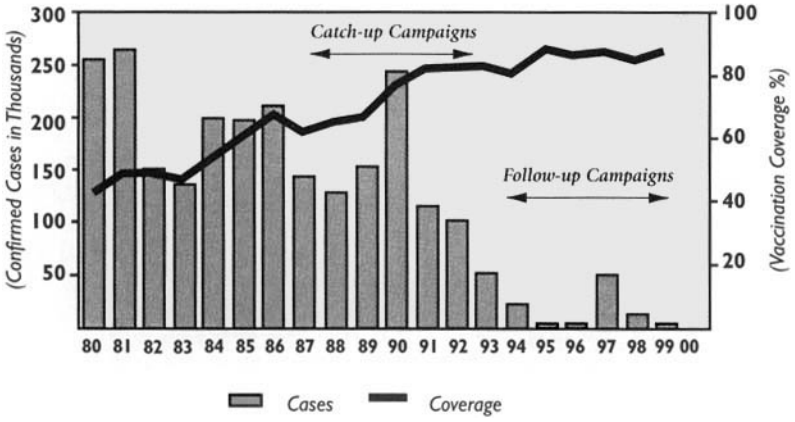
Note: These data include only those countries that have reported data as of 29 March 1999.

Figure 5.2. Reported Global Measles Vaccine Coverage and Measles Cases, 1983-97



Note: These data include only those countries that have reported data as of 20 July 1999.

Figure 5.3. Confirmed Cases of Measles in the Americas, 1980-2000



Source: PAHO/WHO data to April 2000.

and reaching the goals established for attainment before year's end 2000—namely, eradicating poliomielitis and measles and controlling neonatal tetanus. Central America's progress in attaining high vaccination coverage becomes all the more impressive when we consider how low the subregion's coverage was at the beginning of the EPI.

In 1988, the mean level of coverage against measles in Central America was still 10 percent lower than the mean for the rest of the Americas, but ten years later it surpassed the 90 percent mark and was 6 percent higher than that of the other subregions.

At present, Central America is one of the measles-free subregions of the Americas and maintains a satisfactory level of established epidemiological surveillance standards.

As for polio vaccination coverage, the mean for the subregion has been in general 6 percent higher than that for the rest of the Americas, with average coverage higher than 90 percent. The last case of poliomyelitis in Central America occurred one year before the occurrence of the last case in the rest of the Americas.

All but one of the Central American countries have already introduced most of the currently recommended vaccines into their national vaccination schedules: measles-mumps-rubella (MMR), hepatitis B, and hemophilus influenza B. Moreover, half of these countries have adopted the pentavalent vaccine, which has the potential advantage of reducing the number of injections and syringes required, thus

Table 5.1. Health Sector Expenditures in Central America and Selected Countries

Country	GNP Per Capita US$	Total GNP US$ Millions	Health Expenditure Percent GNP	Three Doses of Pentavalent US $10.50 Percent of Health Expenditures	Three Doses of Pentavalent US $10.50 Percent of Total GNP
Nicaragua	410	2,024	5.3	1.71	0.090
Honduras	740	4,675	2.8	1.64	0.046
Guyana	800	684			0.027
Bolivia	970	7,900	3.8	0.93	0.035
Peru	2,610	65,800	2.2	0.44	0.010
Costa Rica	2,680	10,530	1.8	0.50	0.009
Panama	3,080	8,660	4.7	0.16	0.007
Mexico	3,700	360,025	2.8	0.24	0.007
Uruguay	6,130	20,290	1.9	0.16	0.003

cutting the waste rate. All this progress has been taking place despite the very low per capita GNP of countries such as Nicaragua and Honduras, where health sector expenditures range from 3 to 5 percent of total GNP (Table 5.1). This situation is nearly identical in four of the six countries of the Central American subregion.

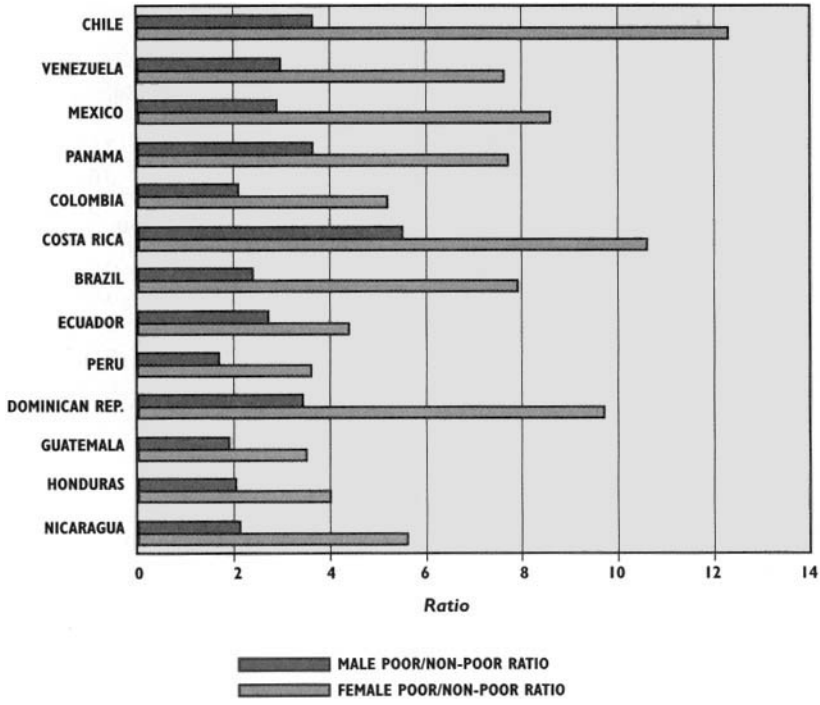
The Socioeconomic Situation in Central America

The six countries of Central America are Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and Panama. Their total number of inhabitants is about 33 million, some 14 to 16 percent of whom live in border municipalities, making these populations very mobile, variable, and sometimes difficult to reach.

Despite democratization and economic reform, the socioeconomic inequalities in the subregion are increasing and constitute a major challenge to development. Income is distributed more unevenly in the Latin American region than anywhere else in the world, and the Central American subregion is no exception. The Gini coefficient for the subregion is 0.56, some 15 points worse than in Southeast Asia.

The gap between the Central American countries and the more developed countries of Latin America is very wide in terms of their respective ratios of poor versus non-poor people's probability of dying between the ages of 15 and 59 (Figure 5.4), meaning that the poor of

Figure 5.4. Ratio of the Probability of Dying between Poor and Non-Poor, Ages 15-59, by Gender for 13 Latin American Countries



Central America are at relatively greater risk than are the poor of the other countries mentioned.

Most of the Central American countries belong to the ranks of the world's least-developed nations. People with low incomes constitute a large portion of the total population and suffer from a high degree of social vulnerability:

- Some 60 percent of the inhabitants of Central America are poor (20 percent in Costa Rica, 25 percent in Panama, 50 percent in El Salvador, 66 percent in Nicaragua, 75 percent in Guatemala, and 75 percent in Honduras).
- Unemployment rates range from 10 percent to 50 percent, some 40 percent of the jobs are situated in the informal sector, and 20 percent of the salaries are lower than the minimum salary established by law.

- The average infant mortality rate is 38 per thousand newborns, within a wide range from country to country (one of the countries registering a rate of 5 and another a rate of 150).
- Excluding Costa Rica, the countries' illiteracy levels are high, ranging from 20 percent to 40 percent.
- Only 60 percent of the children entering school actually complete the six years of primary schooling (spending a mean of 8.5 years to do so), and only 60 percent of school age children actually attend school.
- Some 30 percent of the Central American population is without access to regular health services, and up to 40 percent is without the benefit of normal sanitary conditions and safe drinking water.
- Approximately 25 percent of the subregion's children suffer from chronic malnutrition.

Central America's Vaccination Program

In view of these somewhat dismaying statistical realities, one might well wonder how the subregion ever managed to achieve all of the major objectives of its ambitious long-term vaccination program. The following sections describe some of the keys to Central America's success. The topics are not necessarily presented in keeping with their relative degree of importance. Nor is the listing an exhaustive one, but it does provide us with an outline of the more relevant factors, issues, and conditions that might have favored the positive outcomes of said vaccination program in this subregion of the world, making possible the accomplishment of the established goals. These issues must be seen from within the larger context of the overall development process and within the framework of modernization and health reform. The findings may well lend themselves to adaptation for and application in other regions or subregions of similar development levels and sociopolitical conditions.

Deep Commitment by Health Workers

One important element of the success story is that health workers in Central America display in general an extremely idealistic and inspired approach to their work. They perform their duties in charismatic fashion to a level far beyond their basic obligations. Despite low salary levels and the nearly total lack of social or professional recognition,

they manage to mobilize the enthusiasm needed to overcome most operational difficulties. The commitment of these unsung heroes has been one of the major keys to the Central American subregion's extraordinary performance in its vaccination program.

Intelligent and Dedicated Regional Leadership

PAHO established the operational basis of eradication under the unfailing enthusiasm and brilliant leadership of the regional vaccination program director, who has devoted his entire career to disease prevention and headed the program for more than twenty years. Taking a cue from his laudable example, the EPI staff in the field has very competently promoted and supported the strategies recommended to accomplish the program's goals.

The regional leadership, supported by strong regional management, has provided invaluable help in the advocacy for more funds, creating synergy between governments and donors, coordinating all partners' efforts to strengthen routine immunization programs, and endorsing the introduction of new and underutilized vaccines. It has assisted the Central American countries in the establishment of clear priorities, the optimization of resource allocation in high-risk areas, and the maintenance of high levels of immunization consciousness among the population.

The regional level has also promoted the platform for coordinated action, organizing frequent national, subregional, and regional evaluation workshops, including technical advisory meetings held on an annual basis to analyze the countries' program status and to reorient their programs when so indicated. A network of laboratories has been installed to ensure that all countries have access to accredited labs.

In addition to these more technical meetings, PAHO has promoted periodic summits among the region's health ministers to encourage member countries not only to proclaim but also to renew their long-term commitment to the achievement of regional vaccination goals and to share in the dream of eradicating the targeted diseases.

Periodic evaluations of national programs have been conducted by international teams led by PAHO/WHO, with very active participation by all interagency coordination committee (ICC) partners. Designed in accordance with a standardized methodology, these evaluations enable the countries to ascertain which components of their programs require improvement.

Social Mobilization and Community Participation

Veritable armies of Central American health workers and volunteers have been trained and mobilized. There now exists in the subregion a strong partnership for health, comprising millions of volunteers through the offices of their civil, political, and religious leaders.

This mobilization has enhanced the vaccination program's image in the eyes of political leaders and heads of state and has made possible the provision of vaccination and other health services to children who have heretofore not had access to such services. It has mobilized funds for other health-related activities as well and has created a culture-wide orientation toward the reduction of morbidity and mortality, thereby serving as a platform for the further development of preventive health care and of the health sector in general.

Social mobilization through eradication programs has created a consciousness among health workers and politicians of the need for proactive prevention of disease versus ex post facto curative treatment. It has made them aware of the corresponding need to support the subregion's communities in improving inhabitants' basic health status and in strengthening local capabilities to respond to inhabitants' health needs.

Achievement of High Levels of Vaccination Coverage

Attainment of vaccination coverage greater than 95 percent in every municipality in all of the Central American countries is of the utmost importance for disease eradication purposes. Happily, these countries have indeed been achieving high coverage levels through their strong routine immunization programs, as complemented by strategies of national immunization days and mop-up campaigns.

For the measles elimination plan, two additional vaccination strategies have been playing an important role: catch-up campaigns to vaccinate children under 15 years of age and follow-up campaigns to vaccinate children under 5 years of age, in order to ensure vaccination of all the children still unvaccinated and susceptible to measles once the number of such children has accumulated to the same level as the country's population of newborns.

Enhancement of Epidemiological Surveillance

Epidemiological surveillance assesses the progress toward control or eradication of immuno-preventable diseases. Surveillance procedures and standardized indicators are extremely useful in determining the impact and effectiveness of most control and intervention measures.

In addition to serving as an outbreak confirmation mechanism, the region's strengthened epidemiological surveillance system now contributes to the active detection of disease, using a feedback information system to collect local, national, and regional data for analysis, thereby making it possible for the needed disease control measures to be implemented in a more timely fashion.

Following the successful eradication of polio in the Americas, a regional laboratory network has been created. This network performs an efficient quality control function and is now in the front lines of the effort to eradicate measles and to detect outbreaks of other infectious diseases such as yellow fever and cholera.

Through citizen participation and under the coordination of community leaders, the community itself has been integrated into the epidemiological surveillance system, to help detect and even investigate cases of disease.

Political Commitment by the Government

When a disease—such as polio or measles—is seen as a leading cause of disability, the whole society considers halting that disease's transmission as being of the utmost urgency. Politicians are well aware of this and give vaccination high priority in their political agenda. One of the major associated challenges in Central America is that of mobilizing the necessary funds. The subregion has traditionally met this challenge by finding various ways to counteract or better cope with its instability in financial resources. And the visibility and popularity of polio immunization campaigns have led national governments and political leaders to increase existing budgets for routine immunization programs in several countries. As a matter of fact, for the whole subregion about 95 percent of the resources needed to cover the program expenses are financed by national sources, with external donors supplying only the remaining 5 percent.

In some of the countries, the level of commitment to the vaccination program is extraordinarily high. For instance, in El Salvador during the period of the armed conflict, special negotiations were held

to arrange for periodic formal truces for immunization days. The warring parties in areas of conflict arranged for ceasefires in order to create a safe work environment to allow health workers to access unvaccinated communities—an important step not only in polio eradication but also on the path to the peace agreements.

Strategic Alliances and Partnerships

At the outset, there did not exist a high level of participation by national governments or cooperation by international organizations in the implementation of the national vaccination programs. But the international community responded quickly to the countries' call for additional financial resources to meet the eradication challenge.

An interagency coordination committee—headed in general by the respective national Ministry of Health—has been working in most of the individual countries of Central America for more than ten years, coordinating the participation of all vaccination partners and supporting and coordinating both the one-year and five-year action plans.

These national ICCs have helped donors, governments, NGOs, and other public and private partners to establish a truly collaborative working partnership aimed at strengthening the national immunization programs, as part of a larger overall health project to be carried out in several phases, the immunization component being the first.

This extensive partner coalition includes international agencies such as WHO, UNICEF, Rotary International, the Inter-American Development Bank, the Centers for Disease Control, the governments of multiple donor countries, and, more recently, the GAVI.

By installing the necessary institutional and financial mechanisms to support effective and equitable national immunization programs, this partnership will inherently be addressing broader issues of vaccine program sustainability and facilitating the introduction of additional vaccines of public-health importance into the routine vaccination schedule.

Long-Term Sustainability

The Central American countries have already initiated the process of ensuring an adequate resource flow to their vaccination programs over the course of time. Legislative commissions on health have drafted

bills that, when approved by the respective national congresses, will guarantee by law that resources will be assigned each year from the Treasury into the Ministry of Health's budget to purchase the necessary amounts of vaccine to cover the poorer sectors of the population and the country's entire infant population as well. In some cases, resources are pooled together from the Ministry of Health, municipalities, communities, health promoters, and social security institutions for the acquisition of vaccines. At least two countries have already approved this bill.

Intrasectoral and Intersectoral Coordination

To ensure efficiency in the use of health resources, intrasectoral and intersectoral linkages are being created among health ministries, social security institutes, and NGOs. Several health ministries have established operational agreements with those partners not only to reduce the duplication of services but also to provide health coverage with vaccination services in localities in which neither had done so before.

Meanwhile, a framework for collaboration with nongovernmental organizations has also been created. Agreements have been signed with the private sector—associations of pediatricians, neurologists, and other specialists—to promote and strengthen the sector's participation in immunization and surveillance programs. In fact, the strong participation by the private sector in such health matters has revitalized immunization programs in Central America.

Women's Participation in the Health Sector

Throughout the entire region of the Americas, and especially in Central America, women have been involved in the health sector as active beneficiaries of health care and as agents and promoters of vaccination services. Because of their consciousness of the benefits they themselves have experienced from tetanus and diphtheria vaccination and because of their growing role as local decision makers, women have been a strong force in and for the vaccination program, serving as a critical link in vaccination coverage.

The personification of this participation by women has been the role played by the first ladies of the region in promoting the eradication initiatives. All of the first ladies have become staunch supporters of the eradication program and have put it at the top of their work agenda.

Their advocacy of vaccination as a universal right of children has been very helpful at the operational level, contributing to the preferential treatment given within the health sector to vaccination-related activities.

Decentralization Process

The decentralization process is an important component of the health sector reforms currently under way in the countries of Central America. One of the objectives of decentralization is to improve coverage and quality of health service networks, including immunization systems. In general, reform-related decisions have tended to be implemented rather slowly. The vaccination programs in the subregion, however, are already oriented toward local management, which in many instances is backed up by active community participation. This approach has increased the vaccination program's administrative capacity in regard to analysis of local data for immediate action, allowing local decision making for rapid implementation of vaccination activities, as well as containment measures in unusual situations.

Revolving Fund for the Purchase of Vaccines

In 1997 PAHO created the EPI revolving fund for vaccine procurement, a financial mechanism that works as a common fund for the purchase of vaccines, syringes, and cold chain equipment through a system of bulk purchasing. PAHO puts together the requirements of all the countries of the region, makes international vaccine producers an invitation to tender, and places the purchase order with the one offering the best price.

This revolving fund continues to play a critical role in the dissemination of vaccines already available, as well as in the introduction of new vaccines, such as that against hemophilus influenza type B.

Through better planning and enhanced coordination with vaccine manufacturers to avoid any disruption in vaccine supply, the fund has recently improved its capacity to respond to countries' needs.

Additional Keys to the Program's Success

The following have also played significant roles in the success of the Central American vaccination program:

- improvement of the cold chain to keep vaccines safe and creation of an effective vaccine distribution system
- extensive and successive training of all health workers involved in vaccination
- system of methodical supervision focusing on compliance with established indicator levels.

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CHAPTER SIX

Organization and Management of Preventive Care

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The new millennium is indeed ushering in a transitional period in human affairs. Changes are appearing in all circles. The human-rights movement and a trend toward democracy are fostering many social changes. Economic growth, regression, and crisis can be closely linked to globalization and market competition. Technological developments create new opportunities but at much higher cost, and advances in information and communication technologies provide expanded possibilities but can also widen gaps. Knowledge and its uses, which have contributed to marked progress in the health status of the population, are increasing exponentially, leading to the so-called knowledge society. In this new environment, the health sector cannot avoid the reality of change. The sector indeed is at the leading edge, with all the rapid and sweeping changes it is experiencing. Within the world's increasingly complex and dynamic health system, preventive health care must be seen in a new light.

Paradigm Shift for Preventive Care

Preventive care—which in the recent past primarily targeted transmissible diseases, using vaccination as its main intervention—is now so changed that it requires new perceptions, values, and approaches. A paradigm shift is in order. Even in the area of immunization, there exists more complexity than ever before, given its widened range of tools (new vaccines against viruses, bacteria, and parasites) and given the growing specificity of vaccine uses. In addition to the traditional vaccines in use such as those against smallpox, diphtheria, typhoid, cholera, pertussis, tetanus, polio, tuberculosis, rabies, measles, mumps, rubella, rubeola, varicella, encephalitis, influenza, and hepatitis, newer ones have been rapidly appearing, such as those against malaria, dengue, pneumococcus, rotavirus, respiratory virus, and HIV. Prevention

and control of these different diseases are at different stages of development. Smallpox virus is claimed to have been eradicated from the surface of the planet, never to return. Eradication is the objective for some other diseases as well, such as measles and polio. In real life, however, the desired results cannot always be accomplished as readily as expected or planned. Many problems persist or even reemerge, such as tuberculosis and malaria. Resource limits, cost increases, technological imperfections, logistic difficulties, and cultural barriers are encountered. Diversification of interventions, strategies, and programs to suit local needs as well as targeting of activities to specific groups such as newborns, children, adolescents, and the aged are among the responses. Additional testing or specific diagnostic measures may be required in order to identify appropriate targets. Timing and programming of vaccination and revaccination add to the complexity.

The category of preventable diseases has expanded. Knowledge and technology have rendered preventable many diseases and their risk factors. Sanitation and vector control have contributed to great improvement in the world population's health status over the past century. Now many noncommunicable diseases are becoming preventable. For instance, dental caries can be prevented with fluoride. Cardiovascular and cerebrovascular diseases can be prevented or mitigated by attacking the root causes—namely, hereditary transmission, improper diet, inadequate exercise, and inappropriate lifestyle factors, including active or passive smoking. A high-fiber diet can prevent cancer of the colon. The number of accidents and injuries can be reduced by control of alcohol and drug consumption among drivers. Treatment of hypertension and diabetes as well as control of lipidemia can reduce vascular degeneration and damage, which if unattended can lead to disastrous results. Prevention of noncommunicable diseases may soon surpass that of transmissible ones in the work of the preventive-care sector.

Appropriate services for effective management of diseases can lead to the prevention of more-serious illness and of disabilities such as blindness. Organizational accommodation and arrangements may be required for the prevention of occupational diseases. Boundaries have become less distinct between preventive care and health promotion and between preventive care and curative care. Health interventions should be approached holistically. Educational campaigns promoting improved lifestyle habits—stopping smoking, abstaining from consuming uncooked snails, and so forth—can have a significant impact in preventing many specific diseases.

The use of new tools and approaches can be quite costly. Economic dimensions complicate the decision both at the individual level

and at the level of national policymaking. Many preventive measures—such as some of the newer vaccines—are so costly that they are not available or affordable for people or countries with limited resources. The setting of appropriate policies, norms, and standards is an important strategy for prevention, and the financing aspect must be an integral part of the plan.

With all these changes, preventive care plans and programs must be carried out with the involvement of the different interested parties or stakeholders. Government can no longer afford to be solely responsible, nor can the health sector be left entirely to health professionals. The general public, civic organizations, nongovernmental agencies, businesses, and the mass media must also be involved. Indeed, they must exercise ownership of health policy and health sector plans and programs. Prevention is optimally the responsibility of individuals and their families. Thus, the need exists to de-mythify health care through public information and education.

Knowledge-Based Approach Designed with Economic, Social and Cultural Considerations

With preventive care's paradigm shift and the worldwide transition into knowledge-based societies, knowledge is clearly an important factor, and its mechanisms of acquisition should be examined. Today's information explosion cannot be ignored, since the existing storehouse of long-established knowledge no longer suffices for designing effective health policies and programs. In order to cope with this information explosion, countries and individuals must be able to make critical choices by means of competent evaluation of knowledge and technologies. The flood of information coming from many different sources will unavoidably contain some invalid and misleading statements and figures. It is vital to have the ability to distinguish accurately between trustworthy information and information that is unreliable – and perhaps even biased, confused, or totally mistaken. Safeguarding against misinformation requires user immunity in the form of critical-appraisal ability.

Optimization of knowledge by turning research results into more-usable forms—such as guidelines, standards, norms, best practices, or lessons learned—is an important mechanism often lacking in developing countries. The World Health Organization and international academics have over the years been serving developing countries by issuing recommendations on best preventive practices. The rapidity of

changes and the need to adapt to local conditions make it necessary for each country to select, adapt, and apply international standards and norms as well as to establish in-country capability for this purpose. In the use of knowledge and technology, operational aspects are situation specific. Local research is needed in order to use knowledge properly and effectively. The principle of "essential national health research" (ENHR) has been proposed by the Commission on Health Research for Development and is now applied in a number of developing countries. Each country determines by and for itself the kinds of research that are essential for it. Priority setting, capacity development, and in-country mechanisms are among the steps in this effort. Research on preventive care frequently appears on the priority lists.

Thailand's recent development of a national list of essential drugs illustrates the process of knowledge evaluation and utilization. In 1997, the economic crisis in Thailand forced the government to reduce expenses in both curative and preventive health care. The welfare cost for government employees had increased fourfold during the seven-year economic-boom period before the crisis. In order to reduce expenses, it was decided that reimbursement to patients for their pharmaceuticals purchases would be limited to drugs on the country's essential-drug list. A committee with 23 working groups was established to determine which drugs should be listed as essential for Thailand's health services. Many vaccines and other preventive pharmaceuticals were considered. Scientific proof (or the absence thereof) regarding the efficacy, safety, and cost-effectiveness for each of the different drugs was noted and then cross-referenced with a listing of the most important health problems affecting the Thai population. About 800 items were included in A, B, C, and D categories, with guidelines for different uses. The list is periodically revised to cope with the dynamic nature of knowledge. Hepatitis B, influenza, and measles vaccines, as well as many drugs for the prevention of noncommunicable diseases, are all expensive, and therefore mass vaccination for some diseases would be too costly. To achieve maximal cost-effectiveness, guidelines for drug use in certain age groups with certain conditions or criteria have to be developed, utilized, enforced, monitored, and sanctioned.

Dissemination of appropriate knowledge through education and through use of the mass media clearly constitutes an important part of any preventive program, especially of those programs aiming at lifestyle changes and at compliance with the requirements of a given intervention.

Organization of Preventive Care

In the past, preventive care in many countries was primarily the responsibility of the central government, which set policy and designed and operated preventive programs, using the bureaucratic machinery at its disposal to carry out needed activities and to help provide a range of health services all the way down to the village and community level. Such an approach worked acceptably well when the national health situation was less complex. Back then, the prototypical interventions based on known and established technologies were applicable in most settings—a good example being cold chain operation for vaccine distribution. Mass immunization could be planned centrally and implemented on a "from-the-top-down" basis.

Today's more complex situation, however, calls for a different organizational setup, because the old centrally controlled bureaucratic system is no longer sufficiently effective. Flexibility and innovation are required in order to adapt to local conditions. The magnitude of the problems to be addressed and the broadness of the range of needed activities make it imperative that additional stakeholders and concerned parties be mobilized within the sector. Community and civic organizations can provide the manpower and facilities required. Schools and mass media can help with the dissemination of information and with the needed educational efforts. Nongovernmental and philanthropic organizations with their volunteers can be extremely helpful, with some of them focusing on certain disadvantaged population groups and thereby expanding the coverage of the preventive health care sector.

Thus, government's role within the preventive health care sector has changed. The country's decentralization process itself has also contributed to the shifting of certain responsibilities away from the central government to the local government. In this connection, the overall approach to tax collection can be modified, so that locally collected taxes can be administered by local authorities for performance of the newly acquired public-sector functions of local government, including preventive care.

The organization of the structure of the preventive care sector has been transformed. Different varieties of operational modalities must be allowed in order to increase the sector's effectiveness, efficiency, accountability, and service quality. A good example would be the approach adopted by the organization for the prevention and control of HIV/AIDS epidemics in Thailand. A national coordinating committee—chaired by the prime minister and comprising ministers and other

government officials, academics, researchers, and representatives from the private sector and NGOs—sets certain policies, designs the overall plan of action, and monitors the progress being made. Activities are carried out through various different channels, both public and private, and flexibility and innovation are allowed at operational levels.

In Phitsanulok province, for instance, a provincial committee for the prevention and control of HIV/AIDS, chaired by the provincial governor, is responsible for policy setting and for the coordination and supervision of activities within the province. Initially there existed an informally constituted core group of about ten people (including leaders from NGOs as well as health professionals from the provincial health office and from hospitals). This group made studies and a strategic plan for the province as technical input into the provincial committee. The core group expanded to include 25 people from ten agencies, and the activities of prevention and control were undertaken by specialized groups. A technical group of academics and professionals was active in providing information and training. Community groups in the villages also undertook numerous activities. The "caring group" was formed by 29 people and initially trained 200 volunteers to work in the villages. The trainees in turn trained 600 leaders in 120 villages. Now there are more than nine such caring groups with more than a thousand members. The groups are supported technically and financially by provincial and district committees, offices, and foundations. Various teachers' groups and women's groups initially focused on HIV/AIDS-related activities and then expanded into multipurpose welfare. "Modern teenager" was a self-help group created by teachers and students in five schools. The local artists' group mobilized and trained artists so information about HIV/AIDS could be integrated into songs and folk plays. The "yellow rose" groups give prevention-related and other advice and assistance to prostitutes. The "Phitsanulok people against AIDS" foundation was registered in 1993 and raised funds to support activities both in the villages and hospitals. Indeed, the mobilization has been extensive and productive. An evaluation in 1998 revealed a reduction in the annual incidence of STDs from 411 to 21 per ten thousand people in less than ten years, and the spread of HIV was brought under better control, with the infection rate remaining below 2 percent among army conscripts, blood donors, and pregnant women.

Thailand's method of structuring of its antismoking effort constitutes another interesting example. The government officially adopted an antismoking stance in 1990, and a special office was created at that time within the Ministry of Public Health. The Thailand Health Foun-

dation, an NGO, played a leading role in the country's antismoking activities by sponsoring research and epidemiological studies as well as by contributing to the antismoking education and mobilization of the population on a planned and continuous basis, with the involvement of journalists and the mass media. The foundation was successful in pushing for Thailand's anti-tobacco legislation and worked diligently on the enforcement of the law. Representatives of the foundation even went to a hearing organized by the U.S. Congress to explain about unwanted practices by U.S. tobacco companies.

The blindness prevention effort was based at both the national and regional level. The intervention was complex, involving research, epidemiological surveys, information dissemination, manpower development, rehabilitation, and the provision of services, including medical care, cataract surgery, and eyeglasses distribution. The project had been recommended by the Southeast Asian Regional Office of the World Health Organization in 1978. A national committee for the prevention of blindness was set up in 1982. National surveys of blindness were undertaken in 1983, 1987, and 1994. In 1983, functional blindness was estimated at 1.14 percent of the population, of which 47.3 percent stemmed from cataracts. There existed a backlog of 270,000 untreated cataract patients. A national plan of action involving primary, provincial, and tertiary care called for the training of manpower and the establishment of eye care units and centers. In parallel with this public-sector development, the blindness prevention foundations were operating nationally and in the provinces. Other philanthropic foundations and organizations such as Princess Mother's Foundation, Lions Clubs, Christian Foundations, and Help Age International also provided support to extended eye clinics as well as rehabilitation and training for the blind.

Preventive care in Thailand benefits significantly from international cooperation channeled through multilateral and bilateral agreements and collaborative efforts. International cooperation at the local border level is also crucial to the country's prevention activities, as illustrated by its experience with an outbreak of diphtheria at the Thai-Laos border in Nan province. Local health authorities' early recognition of the outbreak and the resultant timeliness of the intervention stopped the spread within five days in Thailand and within one month in Laos. The existence of good relationships between health authorities on both sides of the border was essential, facilitating an active interchange of information and the joint training of needed personnel and volunteers. In addition to their regularly scheduled meetings, the Thai and Laotian health officials held four special joint meetings dur-

ing the outbreak. Collaborative efforts were undertaken to vaccinate all children younger than ten years on both sides of the border.

Management of Preventive Care

Given the complexity of the problems that must be addressed by the preventive care sector, modernization of the management of that sector is essential. The role of the central government in prevention must continue to evolve. The basic prevention functions required from central government at this point are policymaking, advocacy, and promotion. In addition, the government's establishment of prevention norms and standards and its provision of guidelines and suggestions would facilitate the prevention activities undertaken by local officials, by NGOs, and by other agencies both public and private.

The dynamic nature and great complexity of information in the knowledge society make it essential to create some type of prevention information clearinghouse. The answer may lie in the establishment of a highly regarded and impartial informational network with a system of built-in checks and balances.

In order to safeguard the public and protect consumers, there must also exist an effective regulatory function carried out through the law, law enforcement, and activities of oversight, with effective controls and penalties in place. Quality assurance and quality control are essential in today's free-market world. Because quality control mechanisms can be very complex, they can be managed best through joint public, professional, and private efforts. Disclosure, transparency, and information flow are the rule. Direct provision of care by the public sector may be limited to those areas not covered by other agencies. The public sector can serve as a type of pivot or conduit between the free market and the optimal supplying of the prevention-related needs of the national population. Government also can help bridge the gap that exists between the better-off and the underprivileged in terms of the satisfaction of their prevention requirements.

The financing of preventive care is also a key issue. The high costs cannot be borne entirely by the central government, through its tax monies. Social security, social insurance, and welfare programs must be tailored to the prevailing situation. In addition, the government may need to provide legal, regulatory, or fiscal incentives to allow other prevention stakeholders to function most cost-effectively. Technology assessment with appropriate selection is another impor-

tant element in the provision of the best possible preventive care along with adequate control of skyrocketing costs.

Conclusions

Preventive care is now much more complex than in the past. It has expanded from transmissible to noncommunicable diseases and to diseases with behavioral and occupational risk factors. The applicable knowledge-based interventions are complex, dynamic, and costly, and so the organization of preventive care must become correspondingly more complex, flexible, and variable. The health role of government is shifting, and although national health policy may still be centrally generated, the operational trend is now toward decentralization and broader-based participation. Advocacy, mobilization, research, and human-resource development are essential, and coordination, quality control, strategic support, and diversified financing are elements of the modern management approach now required for successful preventive programs.

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PART IV

The Organization of Health Systems

Chapter Seven

The Structure of Primary Care: The Brazilian Strategy

Dr. Adib Jatene

Chapter Eight

Delivery of Basic Health Services in China: Current Status and Ongoing Reforms

Xinhua Li, Chunming Chen and Kean Wang

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CHAPTER SEVEN

The Structure of Primary Care: The Brazilian Strategy

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Between March 1979 and May 1982 I held the position of secretary of health of the state of São Paulo in Brazil. During that period, the recommendation "health for all at the year 2000" emerged from the Alma Ata conference sponsored by WHO. The emphasis on primary care rather than hospital care was the main orientation, especially on the part of public health personnel. In almost all states in Brazil the secretaries of health were encouraged in that direction, later creating the National Council of State Secretaries of Health, of which I served as the first president.

At that time significant demographic changes were occurring in Brazil, including a major population increase and rapid urbanization. Now some 75 percent of the population lives in urban districts. In 1980 the state of São Paulo had only 9 percent of its population living in rural zones. The São Paulo metropolitan area includes 51 percent of that state's entire population, much of which was concentrated in districts without the infrastructure necessary for maintaining a healthy lifestyle. In addition, the health professionals they needed did not wish to live in such areas. We identified areas with more than 100,000 people yet no medical offices and districts with 300,000 people yet not a single hospital bed.

Trying to overcome this problem and to offer basic health care at least, we divided the area into sectors varying from 10,000 to 15,000 inhabitants. For each group we planned to build a health center and for every ten health centers one local referral hospital. This project, known as the São Paulo Metropolitan Health Plan, showed that there existed a need for 450 health centers and 40 local hospitals. Looking for the money to make the plan a reality, we negotiated a $50 million World Bank loan. It is interesting to note the difficulty we had in convincing the bank to invest in a metropolitan area rather than in rural zones, where it was focusing the bulk of its support in those years. We engaged in negotiations for almost three years to get the needed funds. This loan was completely utilized, but because inflation was high we

were able during that decade to build only half of the needed health centers and only four of the large referral hospitals, and we had also hoped for many more small hospitals.

The overall impact of the health center project was not as great as had been expected, the main reason perhaps being the difficulty of establishing close ties between the health center staffs and the populations served. The hiring system in the public service gave no preference to applicants living near the health center in which they would be employed, resulting in lack of visceral commitment by these public servants to the local people they end up attending. Specifically, doctors and nurses usually live in the most developed areas of the city, far from the poor areas in which the health centers were located. In addition, since these professionals were hired to serve on only a part-time basis, the impact of their presence was not such that they could gain the close confidence of the inhabitants, who preferred to seek out a distant tertiary hospital or an emergency hospital they thought would find the solution for their problems.

Another chronic problem was the insufficient budget for current expenses and maintenance. The 1988 Brazilian Constitution incorporated a good deal of input from the health reform group involved in the discussion of the health care sector in Brazil since the 1970s, and as a result the country now has a universal system wherein health care is viewed as a right of the citizen and a duty of the State and is therefore provided free. There exist in Brazil various health care prepayment groups comprising the approximately 25 percent of the population that is able to pay either directly or indirectly for health care. The other 75 percent of the population depends on a unified health care system comprising three levels of public administration and funded by the federal government (70 percent) and by the state and municipal governments (30 percent).

Brazil at a Glance

Brazil is a continent-sized country that presents a very wide range of internal conditions in regard to climate, vegetation, geography, demographic density, economic activities, and sociocultural characteristics:

- territory: 8,547,403 square kilometers
- population: 163,947,554
- number of municipalities: 5,506

- average life expectancy at birth: 67 years (1996) (from 47 years in 1950)
- fertility rate: 3.0 per woman (1991) (from 6.3 in 1960)
- infant mortality: 36.7 per thousand live births (1998)
- main causes of infant mortality: perinatal occurrences, diarrhea, and pulmonary infection
- main causes of general mortality: cardiovascular diseases, external causes (traffic accidents, homicides, violence), and cancer
- total GDP: US$804 billion (1997)
- per capita GDP: US$5,037 (1997)
- illiteracy rate for 15-year-olds: 14.7 percent (1997)
- population provided with safe drinking water through pipes: 85.6 percent (1996).

Health Care Structure

The Unified Health System (SUS) is responsible for health promotion, protection, and recovery through its provision of primary, secondary, and tertiary health care, which includes diagnostic procedures and therapy. The SUS is the organizational model for the health sector as outlined in the Constitution of 1988 and is based upon the concepts of universality, integration, decentralization, hierarchy, and popular participation. It is perhaps the most visible public assistance policy and program in effect in Brazil, and each level of its management (federal, state, and municipal) carries out a specific set of predetermined functions through the respective level's health authority.

Given the tremendous differences among the country's areas and governmental levels, the decentralization of SUS is taking place gradually and progressively—although somewhat more intensely starting in 1993. The SUS is organized on the basis of decentralization to the municipal level, with growing participation by the population. Two intermanagerial partisan commissions have been established – namely, the bipartisan commission linking municipal and state levels and the tripartisan commission linking municipal, state, and national levels. Managers at the state and municipality level are given the degree of autonomy they can handle in the organization and functioning of their health systems. According to the kind of management that municipalities can perform, they can even be granted complete management of primary care (GPAB) services and complete management of the municipal system (GPS). The overall picture is as follows:

- municipalities with autonomy to manage primary care services: 4,849 (85 percent of the population)
- municipalities with autonomy to manage all health systems: 494 (8.8 percent of the population)
- municipalities still without the system: 193 (6.5 percent of the population.

The organization of primary care at the local level is based on three programs. The first one is the primary-care budget program (PAB), which allocates $5.50 per capita annually to the municipalities to support the relatively simple health services provided in first aid units, such as vaccination, mouth hygiene, and family planning. The other two basic local-level programs that are part of the country's new health care policy are the program of community health agents (PACS) and the family health program (PSF), established under the guidance of the Ministry of Health, carried out by the municipalities, and coordinated by the health authority. The two sections that follow will describe the operation of the PACS and the PSF.

Program of Community Health Agents (PACS)

The program of community health agents is now consolidated not only in the poor areas of the northeast but even in the periphery of the metropolitan regions such as São Paulo. Each community that is going to be assisted is given a preliminary visit, and with the help of local leaders, its houses and families are counted. The families are divided into groups each containing between 150 and 250 families, depending on population concentration. Among the families of a given group, one person who has lived in the area for more than two years is selected and trained to be the group's health agent. The agent performs the following tasks, among others:

- visits every home each month
- makes a record of each person residing in the area
- searches out cases of chronic diseases such as hypertension, diabetes, and tuberculosis
- identifies pregnant women, in order to provide adequate prenatal evaluations
- keeps track of the vaccinations of every child
- teaches simple health care measures such as how to manage diarrhea.

Community health agents—the vast majority of whom are women—play a very important role. In 1996 when we first installed the program for almost 100,000 people in the periphery of the city of São Paulo, the agents discovered that pregnant women were being given access to only one prenatal consultation apiece. This is the real underlying cause of the country's high rates of maternal mortality and perinatal infant mortality. Now each pregnant woman has access to more than five prenatal consultations. Another example relates to tuberculosis control. The state secretary of health was following only nine cases of tuberculosis in the area. The agents found 62 additional cases, and since they are neighbors with the persons who have the ailment, they are easily able to visit them almost every day to ensure that they are taking the medication properly.

In many areas of the country the presence of a community agent simply doing her basic assigned tasks can contribute enormously to changing a negative situation. The dramatic reduction of diarrhea as a cause of infant mortality is the most striking example that comes to mind. In Camaragibe, an area of 106,000 people in the Recife metropolitan area, the number of pediatric hospital beds has now been able to be reduced because of the lack of patients. The overall number of community agents in the country is approximately 129,000 (from 29,000 in 1994). They work in 4,390 municipalities and take care of around 70 million people, together inspiring and helping each other in different health-related community activities (Figures 7.1a, 7.1b, 7.2, and 7.3).

Family Health Program (PSF)

The PACS program of community health agents working alone is a strategy to link health services and population until it is possible to implant also the family health program (PSF) team approach, which actually extends the functionality of the agents. The family health program has as its basic operational unit a health care team with a physician, a nurse, and one or two auxiliary nurses. The PSF team serves the areas covered by five or six community health agents.

The PSF team works primarily in a central health care center but makes house calls when the agents identify a given patient as nonambulatory. These health care centers vary in size and can each house from one to six PSF teams. This overall operational structure facilitates a close linkage between the professionals and the community and contributes to a high level of confidence and responsibility on both sides. Although most of the professionals do not actually live in

Figure 7.1a. Number of Municipalities (PACS)

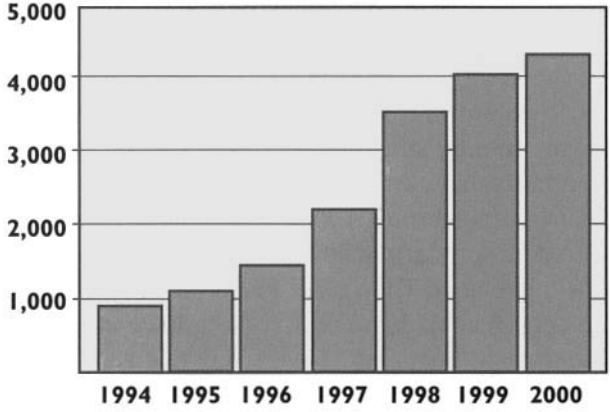
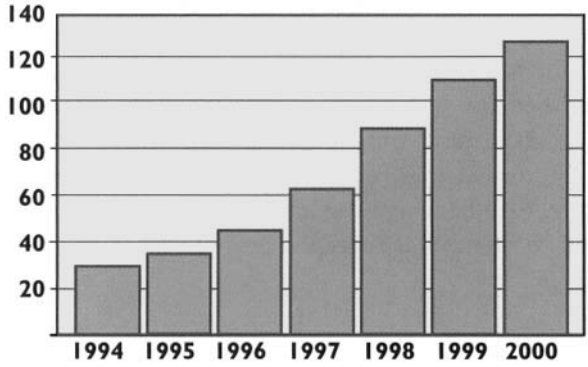


Figure 7.1b. Community Health Agents (PACS)
(Thousands)



the area they serve, they work on a full-time basis and in close collaboration with their respective five or six community health agents, who by definition do live in the individual communities they serve. A family health unit does the following:

- works as gatekeeper to the regional health system
- serves a specific territory with a population expressly under its responsibility
- has a basic team composed of a physician, nurse, auxiliary nurse(s), and four to six community health agents, with the possibility of incorporating additional professionals into the team according to their availability and the needs of each municipality or region

Figure 7.2. Goals for Population Coverage (PACS)
(In Millions)

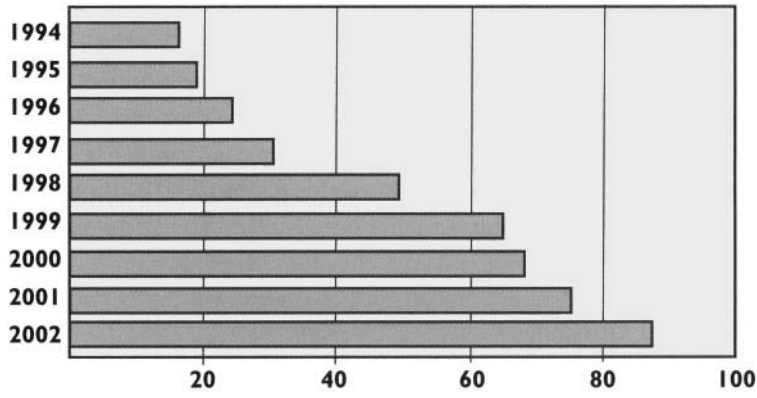
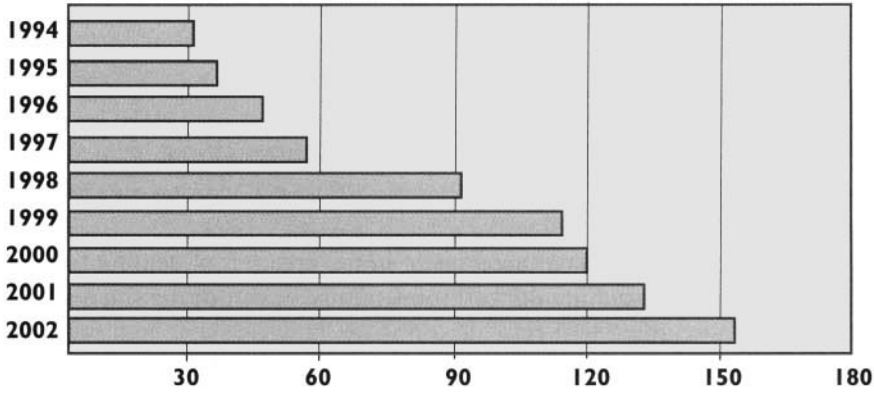


Figure 7.3. Goals for Expansion (PACS)
(Thousands of Agents)



Note: Data up to June 2000.
Source: Basic Attention Department.

- is oriented toward the family and the family's social environment
- promotes commitment and co-responsibility among health professionals
- reduces the risk factors to which the community is exposed
- provides high-quality continuous and integral care to people in their homes and health care centers

- promotes community organization and mobilization for the effective practice of social control of disease and risk factors
- fosters health education and health promotion activities.

The number of PSF teams is approximately 8,000 (from 328 in 1994), serving 2,614 municipalities as of July of this year and covering around 38 million people. The expectation is to reach a level of 20,000 PSF teams by the end of 2002, serving almost 70 million people (Figures 7.4a, 7.4b, 7.5, and 7.6).

Progress and Outlook

There exists a strong movement in the medical and nursing schools of Brazil to supply the public health system's need for trained professionals. The following actions have been supported by the Ministry of Health in order to help municipalities and states achieve their goals for increasing the number of community health agents and PSF teams.

- Budgetary increments for the primary health care sector are now paid on a per capita basis. All municipalities that have established PACS/PSF teams receive federal incentives. A new regulation signed in November of 1999 states that incentives for PSF should be paid in accordance with the size of the population served. In addition, municipalities that have increased the number of PSF teams over the number they had in October of 1999 will receive a bonus.
- Investments have been made in the creation of centers for the training and continuing education of family health professionals. These training centers will provide a linkage between state and municipal health care personnel and universities and other formal-education institutions that provide health care instruction.
- Efforts have been made toward the designing and distribution of data-processing systems to process information collected by PACS/PSF teams, in order to support these teams and their local governments in keeping track of health care activities and results.
- For the first time in our history the National Parliament has approved health sector funding sources and financing methodology that will ensure relatively stable income for the sector, avoiding resource reductions caused by any possible future national economic difficulties.
- Plans are being made for the eventual structuring of PSF team referral specialties and the creation of locally available hospital space for the less complicated cases.

Figure 7.4a. Number of Municipalities (PSF)

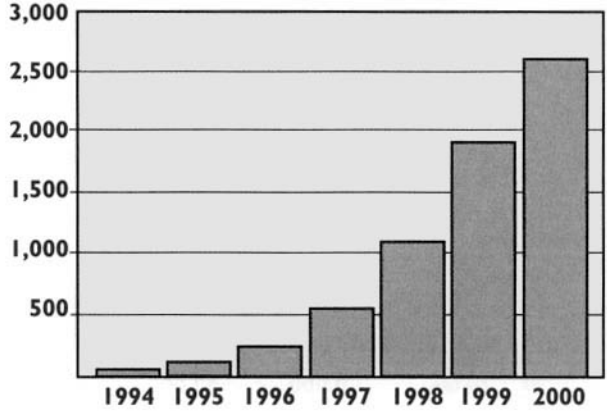


Figure 7.4b. Number of Health Family Teams (PSF)

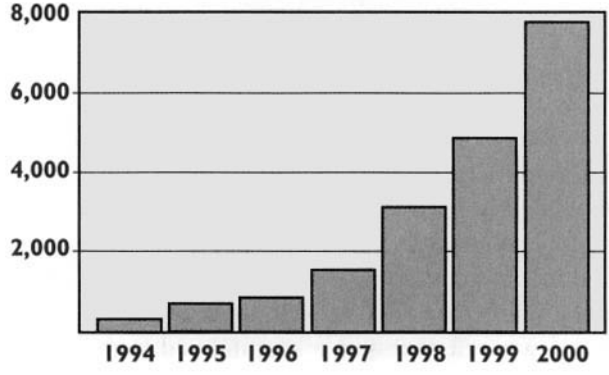
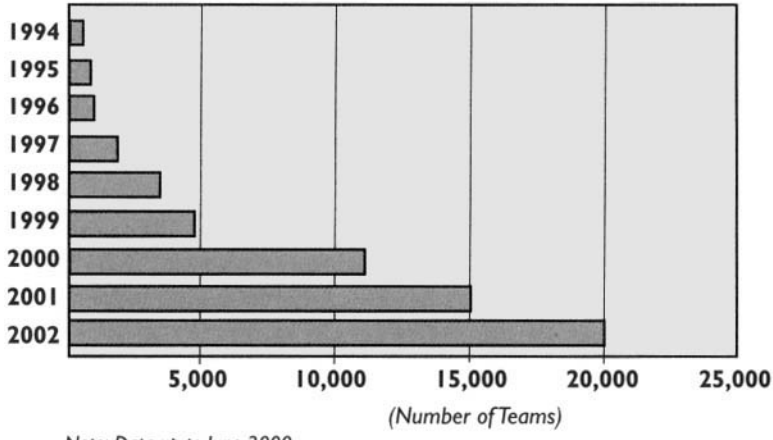
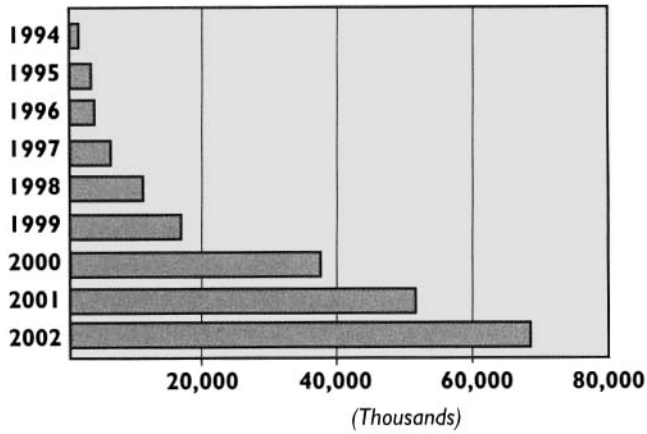


Figure 7.5. Goals for Expansion (PSF)



Note: Data up to June 2000.
Source: Basic Attention Department.

Figure 7.6. Covered Population (PSF)



Note: Data up to June 2000.
Source: Basic Attention Department.

The inequalities in our country exist not only at the financial level but at every other level as well. For instance, the developed areas of the city of São Paulo have more than 13 hospital beds per thousand inhabitants while the same city's peripheral areas (wherein live some 70 percent of its people) have only 1.06 beds per thousand inhabitants. São Paulo in fact has certain districts containing up to 250,000 inhabitants yet not a single hospital bed. In total, nearly 4 million inhabitants of that city are without access to a hospital bed in the areas in which they live. Hence, they have to travel long distances for hospitalization, which frequently is not even available. Overall, there exists growing consciousness that the universal health care systems that are being implanted need not only public funding but also greater participation by society as a whole, including private citizens and nongovernmental organizations. In this way, it will be possible for equity to be increased.

CHAPTER EIGHT

Delivery of Basic Health Services in China: Current Status and Ongoing Reforms

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The current framework of China's health care system appears in Figure 8.1, with the dotted lines indicating that the lower-level institution receives professional guidance from the upper-level institution. In urban areas (county level or higher), basic health services are provided mainly by subdistrict hospitals, and in addition to these hospitals, 126,086 registered private clinics existed in urban China as of 1998 *(China Health Yearbook 1999)*. The primary health care system in the country's rural areas (below the county level) consists principally of specialized health care stations and hygiene and anti-epidemic stations. The latter have existed since 1950 at all three structural levels—namely, the provincial level, the prefecture/municipal level, and the county/district level. Other professional institutes—such as the Institute of Parasite Diseases, the Institute of Tuberculosis, and the Institute of Occupational Diseases—have also been established in order to meet the specific needs of local disease prevention and control.

In 1997, urban China had a total of 5,905 preventive-care institutions (Table 8.1). In addition, the number of urban hospitals has increased substantially during the past four decades (Table 8.2). Information in Tables 8.3 and 8.4 relates to the primary health care network in rural areas, at the township and village levels.

Experiences in Delivery of Basic Health Services

National Health Policy

- Emphasis on health services in rural areas
- priority to preventive medicine
- equal attention to traditional medicine and western medicine
- mobilization of all community resources on a basis of science, technology, and education.

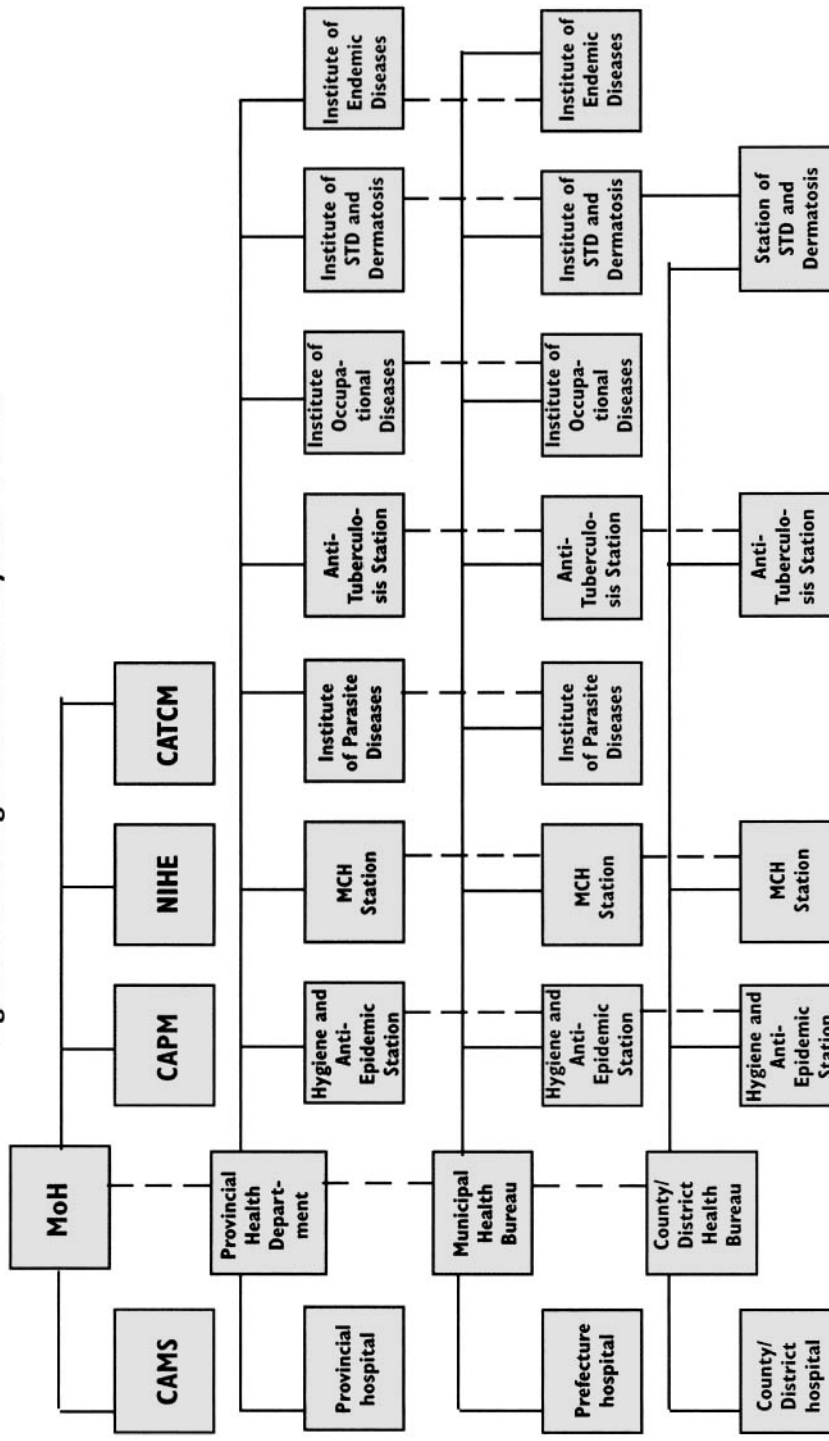


Figure 8.1. Existing Health Services System in China

Table 8.1. Number of Preventive-Care Urban Institutions of County Level or Higher in 1952 and 1997

Institutions	*1952*	*1997*
Hygiene and Anti-Epidemic Stations	147	3,619
Professional Institutes	188	1,893
Others	20	393
Total	481	5,905

Source: China Health Yearbook 1998.

Table 8.2. Number of Urban Hospitals of County Level or Higher in 1949 and 1998

Urban Hospitals	*1949*	*1998*
Total	2,600	15,277
Administered by Health Department	1,650	7,873
Central Level	-	59
Provincial Level	-	377
Prefecture/Municipal Level	-	1,822
County/District Level	-	5,615

Source: China Health Yearbook 1999.

Successful Social Mobilization and Community Participation

- Steady and powerful support by various levels of government: for instance, the national patriotic health campaign is supported by more than 30 ministries at central level, four of which initiated a vast health education program for many millions of farmers in 1994; another example is that the inoculation rates of four vaccines in the EPI program are higher than 95 percent, made possible by the consistent participation and interest of local governments, especially by the rural areas' township and village officials.
- Active participation by NGOs: the country's NGOs have played an important role in health education and promotion, EPI, environmental protection, and the like—for instance, the Household Committees' social work support has been extremely helpful for the delivery of basic health services in urban areas.

Table 8.3. Township Hospitals and Health Professionals in 1965 and 1998

Indicator	*1965*	*1998*
Hospitals	36,965	50,071
Beds	132,487	737,693
Health Professionals	214,427	999,432

Source: China Health Yearbook 1999.

Table 8.4. Villages and Village Clinics in 1985 and 1998

Indicator	*1985*	*1998*
Number of Villages	716,639	732,411
Clinic Coverage Rate (percent)	87.35	89.50
Village Clinics	777,674	728,788
Rural Practitioners	1,293,094	1,327,633
Rural Midwives	513,977	322,371[a]

a. 1997.
Source: China Health Yearbook 1999.

Table 8.5. Professionals in Disease Prevention and Control

Types of Professionals	*Number*
Health Professional[a]	5,535,700
Doctors[a]	1,999,500
TCM Professionals	503,300
Preventive or Health Care Professionals[a]	219,388
Township Health Professionals	999,432
Rural Practitioners in Villages	1,327,633

a. County level or above
Source: China Health Yearbook 1999.

• Participation by large numbers of disease prevention and control professionals (Table 8.5): professional input has been vital for controlling and preventing disease.

National Patriotic Health Campaign Based on Mass Participation and the Concept of Social Macro-Health

It has been 50 years since the committee of the national patriotic health campaign (NPHCC) was established. The NPHCC is a multisectoral agency formed by more than 30 ministries with health-related commissions, such as the State Development and Planning Committee, the Ministry of Agriculture, and the National Environmental Protection Bureau. The first director-general of the NPHCC was Premier Zhou En-lai. The committee's administrative office is housed in the Ministry of Health, and the minister of health is also director of this office. The objectives of the NPHCC are to coordinate health programs among different sectors and to provide leadership in the country's health efforts. Notable accomplishments of NPHCC include the following:

- control of STDs at the outset of the new China
- control of schistosomiasis in the 1950s
- control of pests and promotion of health
- provision of sanitation services and safe water in rural areas
- provision of health education for farmers
- undertaking of health-related urban initiatives.

The concept of social macro-health consists of four elements. The first is that the health care system should be developed as an open system. Second, health development should be harmonious with social and economic development. The third is "health for all and all for health." And fourth, health care development is set as a common goal for all social sectors.

Health Care Provision in Rural Areas

China's universally acknowledged rural cooperative health care scheme, three-level primary health care network, and system of rural practitioners (the "barefoot doctors") have been the magic keys to successful prevention and control of disease in the country's rural areas.

Main Achievements

Significant Improvement of the Health Status of the Chinese Population

The proportion of China's 1996 total health expenditure to its total national expenditures was 2.56 percent, in contrast to approximately 11 to 13 percent in the United States and Japan (National Health Economics Institute 1999). We used only 1 percent of the world's total health expenditures that year to meet the basic health care needs of 22 percent of the world's population (Zhao YX et al. 1999).

Prevention and Control of Major Communicable Diseases

- Eradication of smallpox: the last case of smallpox in China was identified in March 1961, some 17 years before the world's last case of smallpox was identified, after which the disease was officially declared as having been totally eradicated worldwide.
- Prevention and control of infectious diseases by immunization: the incidence of measles, diphtheria, pertussis, encephalitis, and epidemic cerebrospinal meningitis has declined substantially, and China's poliomyelitis-free status was officially announced in July of 2000.
- Prevention and control of schistosomiasis: four provinces (Shanghai, Guangdong, Fujian, and Guangxi) have achieved the goal of schistosomiasis eradication, and in another eight provinces the areas affected by the epidemic have shrunk.

Capacity Building for Catastrophes

In 1998, during the period of severe flooding along the Yangzi, Songhua, and Nenjiang rivers, health, television/radio, agricultural, and publicity organizations in the eight flood-stricken provinces came up with an effective emergency response to the disaster. Thanks to their effective disease prevention and control efforts, no epidemic broke out in the wake of the catastrophe.

Table 8.6. Significant Improvement of Health Status during the Past 50 Years

Indicator	*1949*	*1997*
Incidence Rate of Acute Infectious Diseases (1/100,000)	20,000	203
Mortality Rate of Infants (1/1000)	200	33
Mortality Rate of Pregnant Women (1/100,000)	1500	64
Life Expectancy (Years)	35	70

Source: Huang Y 1999.

Problems and Challenges for Basic Health Service Delivery

Change of Disease and Death Pattern: Double Disease Burden

In the past several decades, the pattern of disease and death in China has changed greatly (Table 8.6). The rate of mortality from infectious diseases among Chinese urban citizens decreased from 127.8 per 100,000 in 1957 to 4.6 per 100,000 in 1998. Meanwhile, the rates of mortality from malignant tumors, heart disease, and cerebrovascular disease have increased (from 37.2 to 147.2 per 100,000 [tumors], from 47.6 to 114.8 per 100,000 [heart disease], and from 39.3 to 149.5 per 100,000 [cerebrovascular disease]). In 1998, deaths from tumors, cardiovascular disease, and COPD contributed 77 percent of total causes of death among Chinese urban citizens (Figure 8.2) *(China Health Yearbook 1999)*. Results of a national survey on health services in 1993 indicated that nearly one-third of urban residents suffered from different kinds of NCD. The population over 60 years of age already numbers 130 million, or 10 percent of the total population. By the 2030-2040 decade, it is estimated that 400 million will be beyond 60 years of age, and China will face a serious aging problem.

Imbalance between Health Resource Allocation and the Population's Health Needs

Figure 8.3 gives an idea of the changes that need to be made in order for health resource allocation to match more closely the population's health needs.

Figure 8.2. The Five Most Common Causes of Death in China

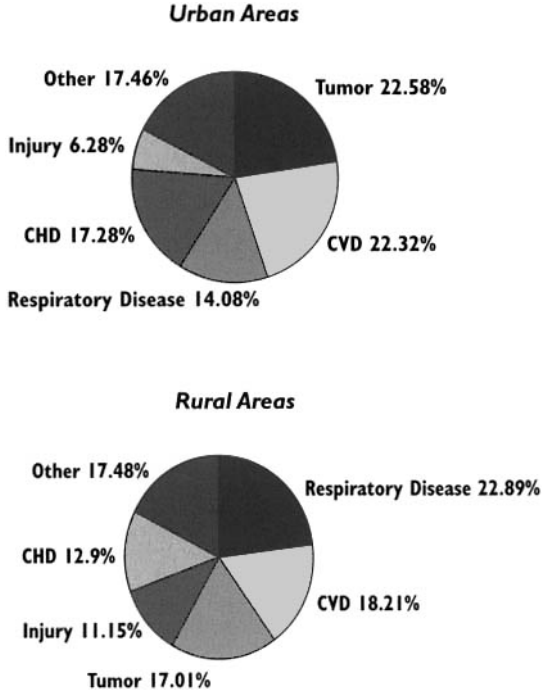


Figure 8.3. Imbalance between Health Resource Allocation and the Population's Health Needs

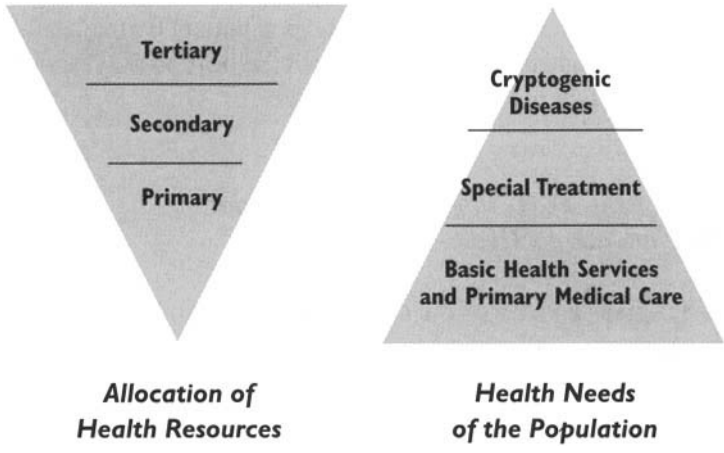


Table 8.7. Cost per Outpatient and Hospitalization Service, 1990-97

Indicator	*1990*	*1993*	*1995*	*1997*
Average Cost per Outpatient Service (¥)	10.9	23.3	39.9	61.6
Proportion of Drug Fee (%)	67.9	65.2	64.2	61.4
Average Cost per Hospitalization Service (¥)	473.3	1,021.3	1,667.3	2,384.2
Proportion of Drug Fee (%)	55.1	52.3	52.8	49.7

Source: Song Wenge 1999.

Rapid Increase in Economic Burden from Health Care

Since the 1990s, the country's total expenditure on health care has rapidly increased, more quickly than has the GDP in the same period. In terms of health care's financial structure, the share of costs borne by the patient is rising yearly, while government's share and society's share are declining (Figure 8.4) (National Health Economics Institute 1999). The average health expenditure per person increased from 656 ¥RMB in 1990 to 27,252 ¥RMB in 1997. Table 8.7 shows the changes in average cost per outpatient and hospitalization service during the first part of the 1990s.

Problems Incurred by Social Reforms

In the pre-reform era, people's jobs or work units (society), the government, and the patients themselves constituted the cost-paying basis of health care coverage. Over the past twenty years the government has implemented a series of economic reforms that has changed the structure of the economy and has modified the old health care system that was based on health coverage provision by state enterprises. With further state enterprise reforms from 1997 onward, state enterprises have found it increasingly difficult to maintain the accustomed range of welfare benefits, in particular the provision of health care treatment, and now with the rapid expansion of the private sector, most employees have no form of medical insurance at all. Table 8.8 shows that the proportion of urban population with medical insurance has indeed been declining.

Table 8.8. Percentage of Urban Population with Medical Insurance in 1993 and 1998

Insurance Status	*1993*	*1998*
Full Government or Work Unit Insurance	53.5	38.9
Partial Government or Work Unit Insurance	13.8	7.2
No Insurance	27.3	44.1

Source: Ministry of Health 1993 and 1998.

Table 8.9. Urban Residents' Use of Health Services, 1993 and 1998

Indicator	*1993*	*1998*	*Percent Change*
Out-Patient Attention			
Consultation Rate in Past Two Weeks (%)	20	16	
Cases of Illness that did not Consult a Health Worker (%)	42	50	
Cases of Illness not Obtaining Treatment for Financial Reasons (%)	19	32	+68
In-Patient Admissions			
Referred to Hospital but not Admitted (%)	26	30	
Not Admitted for Financial Reasons (%)	41	63	+54

Source: Ministry of Health 1993 and 1998.

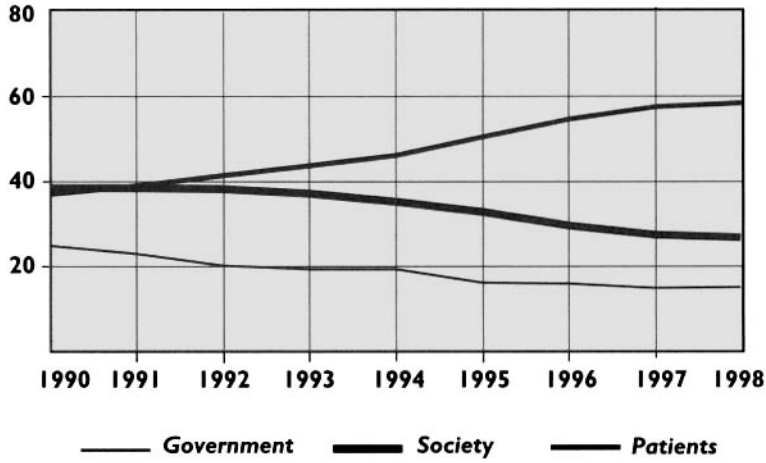
A major additional factor is that the cost of health care is rising much more quickly than income. Thus, there exists a serious decline in the accessibility of health care for financial reasons (Table 8.9).

The Strengthening of Community Health Centers and Stations

The structure of China's basic health service system was presented in Figure 8.1. The system is currently undergoing a process of reform and reorganization. Figure 8.5 presents an outline of the simple health system model being implemented by the current reforms. In rural areas,

Figure 8.4. Composition of Financing of Total Health Expenditures

(Percent)

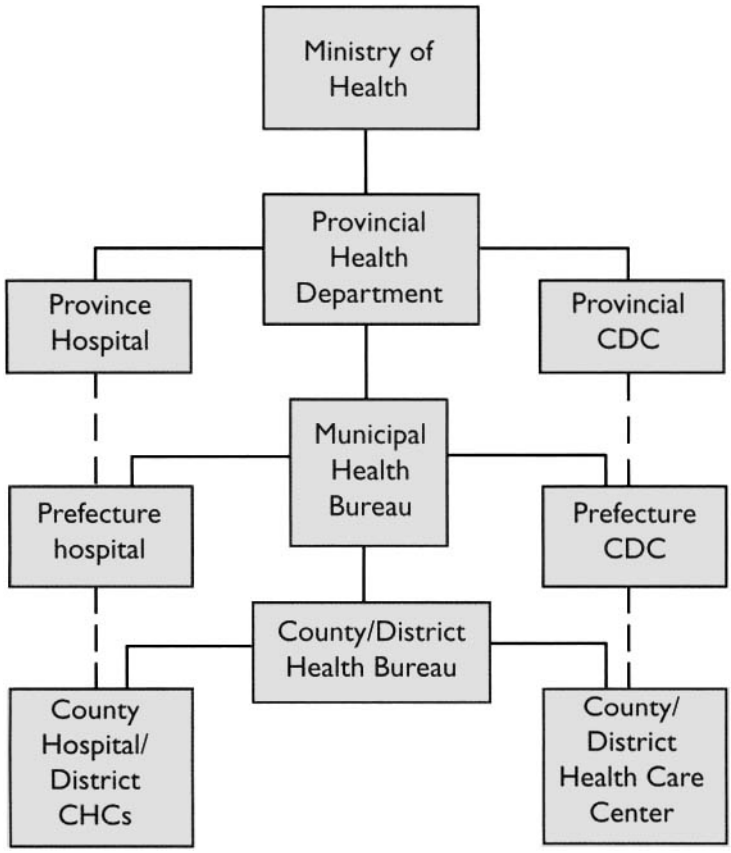


township hospitals may be reconstructed into community health centers (CHC), and village clinics may become community health stations (CHS). Developing more of these community health centers and stations could free up tertiary hospitals to focus on more difficult health problems and could also contribute to control of medical costs. Community health centers and stations—convenient and cheaper for patients—attend to general health problems. Under the new policy, the CHC and CHS would offer comprehensive, integrated health care combining the following six elements (Ministry of Health 1999):

- disease prevention
- health education and promotion
- maternal and infant care
- provision of family-planning services
- clinical treatment of common diseases
- community-based rehabilitation.

The community health centers and stations would thus incorporate existing preventive services and primary-level hospitals and clinics. The approach is to transform current primary health facilities into community health centers and stations rather than to develop totally new facilities. Cities are being encouraged to start by setting up pilot community health stations, and some cities have already established preliminary CHS frameworks. By the year 2005, all cities should have

Figure 8.5. Structure of Health System after the Current Reforms



such a framework in place, and some cities should have already established a comprehensive CHS system. By the year 2010, all cities should have established a comprehensive CHS system. The issues and objectives to be addressed in the development of the community health centers and stations include the following:

- appropriate training for health care workers
- scope of the care (the package of services) to be provided
- fund-raising mechanisms, especially ones that will facilitate access by the poor and vulnerable to the services
- cost-effective disease management protocols
- integration of curative and preventive services for provision by well-organized local health facilities

- decreased volume of inappropriate demands on hospital (secondary) services through effective community health center and health station referral systems.

Additional Health Sector Reforms

Pharmaceuticals Management

The government has recognized a major problem in that a large portion of medical workers' incomes is derived from sales of pharmaceuticals, which oftentimes results in over-prescription. Several measures are being introduced to address this concern, including the following:

- Separating the accounting of drug revenues from that of other sources: the local government will collect the net pharmaceuticals revenues and decide how much the hospital should have—as, for instance, in Sichuan province, where the plan is to limit the proportion of total revenue from drugs to 60 percent for primary services.
- Encouraging a move away from hospitals' purchasing of their own drugs toward their use of a pharmaceuticals procurement agency shared by several hospitals: in Shenzhen, for instance, the municipal government has taken over pharmaceuticals procurement.
- Introducing competition: patients who have been prescribed drugs by a hospital will be allowed to purchase drugs from private pharmacies instead of being forced to buy from the hospital.
- Controlling costs: the Ministry of Labor and Social Security is reviewing the drug list to identify which drugs can be claimed under the new basic medical insurance program.

Basic Medical Insurance

The medical insurance reforms must address the changes stemming from the restructuring of state enterprises as well as from the rising number of retired workers. Medical insurance reforms are also intended to address the escalating costs of medical care. The reforms envisioned by the Ministry of Labor and Social Security aim to develop a unified basic medical insurance scheme that should eventually cover all employees and the retired.

The funds will come from employers and employees. The employer pays 6 percent of the worker's annual salary for each em-

ployee, and employees pay 2 percent of their annual salary. Funding is split into two elements: an individual savings account and a social-pool account. The individual account is intended to ensure that the individual has an interest in minimizing treatment costs, since some of these costs are paid from that account. The baseline is 10 percent of a worker's annual salary, and the ceiling on medical expenditures will be four times a worker's annual salary. The ministry is also considering an insurance plan for cases of serious illness.

Medical insurance will cover treatment at community health stations and centers as well as at higher-level hospitals, and it encourages the use of the stations and centers by giving higher reimbursement rates for services performed there. The basic medical insurance can also be topped up, as a means for government employees to maintain their entitlement.

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PART V

Health Financing

Chapter Nine

Managing Competition in the Tropics:
Health Care Reform in Colombia

Juan Luis Londoño

Chapter Ten

Health Resource Allocation Mechanisms:
The Philippine Experience

Senator Juan M. Flavier, MD, MPH

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CHAPTER NINE

Managing Competition in the Tropics: Health Care Reform in Colombia

Juan Luis Londoño
Minister of Health, 1992-1994

In the 1990s, health reform fever spread across Latin America. Most countries of the region looked at many different options for their reforms, but few of the countries actually advanced very far in the decision-making process. Colombia is one of the exceptions. The competitive environment created by the new system established in 1993 has led to the extension of insurance coverage to nearly 22 million Colombians, the creation of 25 HMO-like organizations, and the mobilization of new resources equivalent to more than 3 percent of GDP.

The present paper describes the main characteristics of the system, which we shall refer to as structured pluralism[1] or managed competition in the tropics, with particular emphasis on implementation issues related to technical design, institutional change, and political aspects of the reform. Many interesting lessons (both positive and negative) for other developing countries are drawn from this policy experience.

In the early 1990s Colombia's health system had two salient features—one of the lowest rates of coverage by social health insurance in the entire Latin American region and the region's single most regressive pattern of national public expenditures in health care. By the beginning of the new century, however, the World Health Organization was describing Colombia's health sector as being the most efficient one in the developing world and as the most equitably financed in the entire world. How was a country that had been known primarily by its violence, guerrilla movement, and drug trafficking able to achieve such a rapid and dramatic transformation?

Let us examine that process of change. Our first section describes the health system before the reform. The second section presents the principles of the new system, and the third presents the new

[1] For a more general description of the characteristics of structured pluralism, see Londoño and Frenk (1997).

system's major components. The fourth section analyzes the main technical, institutional, and political problems encountered during the implementation phase. The fifth section summarizes the main achievements of the reform in terms of financial mobilization, institutional development, insurance coverage, equity, and efficiency. The sixth section outlines some lessons derived from the Colombian experience that may be useful in designing health sector reform policies in other countries.

Colombia's Health Care System in the Early 1990s

The evolution of the health care situation in Colombia up to the early 1990s had been shaped by the collision of a very rapid epidemiological and demographic transition against a backdrop of very sluggish institutional and financial dynamics. This combination of factors had led to ever-higher health care costs for the poorest sectors of the population and to increasing segmentation in the public's access to health services.

The aggregate health indicators revealed a country undergoing rapid change. The life expectancy of women had risen from 52.3 years in 1950 to 63.5 years in 1970 and 72.3 years in 1990. The overall fertility rate had dropped from 6.6 in 1960 to 2.6 in 1990. In 1994, the infant mortality rate was approximately one-seventh of what it had been in 1960,[2] a faster improvement than in almost any other country in the world during that period. The share of communicable diseases in causes of mortality had shrunk from 60 percent in 1950 to 15 percent in 1990. The burden of disease, which in 1990 was 170 DALYS per thousand persons, was one-fourth lower than in the rest of Latin America. And all of this had been accomplished with health expenditures—public and private—equivalent to 5.1 percent of GDP between 1970 and 1991, not very different from what might have been expected for any country with a similar degree of development.

The situation was less favorable, however, in terms of user equity in the outcomes, access, and financing of health services. The infant mortality rate in Colombia's urban middle and upper classes had been brought down to the same level as in developed countries, but the poorer communities still showed an infant mortality rate of more than 200 per thousand. Access to health services was fairly limited for large segments of the population. In 1992, some 25.1 percent of those who were sick had no access at all to the health system. This restriction of

[2] UNICEF, *World Report on Children 1999.*

access affected 34 percent of the poorest deciles and only 2 percent of the wealthiest deciles. Trained health care professionals were absent at 22 percent of the recorded childbirths. And to compound this difficulty of access, the financial burden of health services fell relatively more heavily on the poorest groups. In 1992, the poorest deciles of the population reported having spent 18 percent of their income to pay for hospitals, doctors, and medicines, while the wealthiest deciles had spent less than 3 percent of their income on health care during the same period.

This high degree of user inequality within a context of fairly good overall national health results is one indicator of the systemic financial and institutional problems facing the Colombian health system at the start of the 1990s. Expenditures on health care were excessively dispersed. Families' out-of-pocket expenses represented more than 50 percent of the total expenditure on health care—a percentage greater than what might have been expected in general for a country with a similar degree of development. This direct family health care cost, which fell disproportionately on the poorest, was identified as the main obstacle to universal access to health services. In fact, a 1992 survey revealed that for the poorest population groups, the cost of the services constituted a barrier to access four times more important than the lack of doctors or facilities.

The extreme fragmentation of health services financing was primarily the result of the country's low degree of social security development. Despite more than 40 years of growth by the social security system, less than 20 percent of the population in 1992 was affiliated with that system—a very low figure compared with 57 percent for Latin America as a whole.[3] There had been countless complaints of corruption, inefficiency, and lack of good service quality at the Social Security Institute, and many population groups had been looking for an alternative. The figures indicated, indeed, that the Social Security Institute's apparent monopoly was beginning to be neutralized by a gradually emerging group medicine system with different plans for different populations. Government employees—especially in public enterprises and local agencies—had spontaneously developed a system of parallel provider organizations (28 *cajas de previsión*). The families of employees of large private companies were receiving some health services from a system of cooperative organizations (more than 50 *cajas*

[3] In fact, only Honduras, Guatemala, El Salvador, Bolivia, Paraguay, and Ecuador had less social security coverage in 1990 than Colombia. Moreover, they all have lower degrees of economic and social development.

de compensación). The wealthiest groups were joining a fast-growing prepaid medical system with more than 20 new institutions since the mid-1980s. And low-income families were experimenting with a large number of cooperative and mutual organizations. This spontaneous institutional development, however, had some drawbacks. It was generating unnecessary duplications of expenditure (with a significant percentage of the population reporting a dual affiliation), it offered very few incentives for saving resources, and instead of increasing the population's ability to move from one option to another, it was clearly segregating and segmenting the population.

In general terms, then, the low coverage and high cost of health services for the poorest population sectors were essentially the result of the overall inefficiency and inequity of the public health system. The Ministry of Health was concentrating at that time on directly financing and managing a system of secondary- and tertiary-care hospitals, but these hospitals had an occupancy rate of less than 50 percent and a very low level of productivity. The ministry had also built up an extensive network of health centers and stations that were virtually unused and unaccepted by a large percentage of the population. Private-sector doctors, laboratories, and pharmacies were providing many outpatient services and medicines for the poorest. Public resources, moreover, were not well targeted on the poorest population: some 40 percent of the official subsidies to public hospitals were benefiting the wealthiest 50 percent of the population. In fact, studies on the impact of public health expenditures indicated that Colombia at that time had the most regressive system in all of Latin America.[4] This regressivity stemmed from the concentration of expenditure in the large cities, the lack of consistency between public priorities and the illnesses most commonly afflicting the poor, and the cost-free use of public hospitals by those with the ability to pay. Efforts to transform the public system by turning health centers over to municipal governments had given rise to enormous technical and political problems.

Thus, the Colombian health system in the early 1990s was encountering enormous difficulties in attempting to provide universal health care in an efficient and equitable manner. More than 80 percent of the population had no insurance, and more than 25 percent had no access whatsoever to health services. If this outmoded public system and highly dispersed and segmented private system had been maintained, the provision of coverage for all Colombians would have entailed too great a financial effort and too complex an institutional challenge.

[4] ECLAC, 1994.

Principles of the Reform

The aforementioned circumstances stimulated discussion of possible health system reforms, building on existing accomplishments and institutions. The discussion began separately in each of the various components of the health system. For instance, since the early 1980s, the Social Security Institute had made known the limits of payroll-tax-based financing and had been requesting public funds in order to expand its coverage. In the mid-1980s, local agencies and public health specialists had begun discussing alternatives to the centralized management of health services. In the late 1980s, insurance companies had demanded regulation of the burgeoning prepaid medical systems. But this wide range of partial perspectives made it difficult to make decisions about the mounting problems of the system as a whole.

The discussion on health sector reform gained considerable momentum in 1991 within the context of the reform of the nation's Constitution. After six months of intense debate, several constitutional principles were agreed upon in regard to health care in Colombia, and these served as the basis for subsequent discussions of health sector reform. The Constitution of 1991 stated that health sector reforms should adhere to the classic principles of social security—namely, universality, solidarity, and efficiency. It further stated that such reforms should take place on a basis of financial sustainability and should involve a variety of public and private agents.

Bearing in mind these constitutional principles, the government and various congressional and civic groups worked for two years on the proposals that in 1993 would become Law 60 on the decentralization of social services and Law 100 on the reform of social security.[5] In addition to incorporating the aforementioned constitutional principles, these laws incorporated other related principles that are gaining acceptance internationally—namely, the integration of care, the quality of services, the decentralization of resources and responsibilities, and the harmonization and integration of the related political decisions.

The unusual thing about Colombia's case is the unique way in which other principles that are controversial in many countries were incorporated into the social security system—namely, insurance, equity, competition, and freedom of choice.

[5] The various proposals, negotiating procedures, and conflicts surrounding the draft legislation are described in Londoño and Paredes (1994) and Londoño and González (1994).

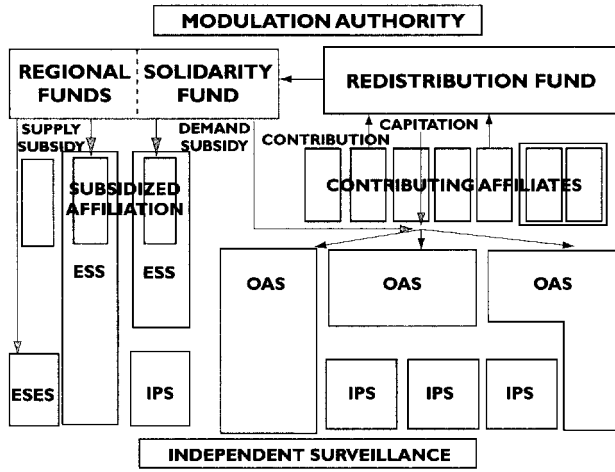
- Colombian law generalized *insurance* as the organizing principle of the health systems, and the entire Colombian population must have been enrolled in the social security system before the year 2001. Thus, the traditional view of health care as a public-assistance problem was laid to rest.
- To achieve *equity*, the law reinforced the public nature of health care financing, lifted the barriers to switching from one institution to another, and provided for the gradual inclusion of the poorest population groups in benefits and social security plans. Accordingly, it strengthened public finance through obligatory contributions from the families of well-off workers and through government assistance for the poorest families.
- It permitted and actively promoted *competition* in the delivery of the various services by independent providers and, more importantly, in the comprehensive provision thereof by agencies other than the Social Security Institute.
- In consonance with this, it also reinforced the principle of families' freedom to *choose* from among various different comprehensive health service provider institutions.

From a political perspective, the spontaneous growth of multiple health systems serving different population groups had generated forces and interests that prevented the adoption of extreme reform options that might have been more relevant in other Latin American countries, such as turning the system totally over to the state and/or municipal government or to the private sector. The pluralistic political forces operating in Colombia at the time could be reconciled only through a law establishing a structured system of rules and equality of conditions for all participants in the new system.

Design of the Reform

Law 100 of 1993 establishes rules of the game for a pluralistic system that makes it possible—through public funding, competition, and freedom of choice—to strive for universal access to social security in health within a context of equity and efficiency. The law's 98 articles, which are contained in 36 pages, lay down the general principles of the new system and entrust that system's operational development to a national health board.

Figure 9.1. A Structured Pluralism Model in Columbia



The New Pluralistic Health System

The Colombian system can be characterized as one of structured pluralism, with public financing for a comprehensive package of personal health services. The essence of the system resides in the design of the institutions and in the design of the global incentives for universalizing the population's access to the system.

Institutional Design

The design of the institutions provides for specialized agents to fulfill the basic functions of the health system—the modulation, financing, coordination, and delivery of services—in accordance with the following guidelines (Figure 9.1):

- Modulation is separated from the financing and delivery of health services. A national health board was created that has full regulatory power over the entire system, leaving the tasks of management and technical assistance to the Ministry of Health. The provision of services was shifted from the Ministry of Health to local agencies and to independent public enterprises. Superintendence was organized as a specialized and independent monitoring and surveillance entity.
- Financing is separated from the delivery of services by creating a national health fund *(fondo de solidaridad y garantía)* independent from the social security organizations.

• Delivery of health services is separated from organizations that specialize in the coordination of health services. To accomplish this, the following decisions were made: (1) have authorities in the different areas of the country specialize in the provision of public health services constituting public goods or having high externalities; (2) have specialized independent public or private agencies (personal health service providers, or IPS by the Spanish acronym) that are financed primarily through the sale of personal health services; and (3) encourage the founding of health service coordination organizations *(EPS*, the acronym of *empresas promotoras de salud)* that go beyond simple risk management (in the style of traditional insurance companies) to participate also in purchasing services and in organizing networks for access to services and user representation.

In this way, the Colombian law created a system with agents specialized according to function, the novelty of which resides in the central role of the EPS as coordination agencies that link the various populations to the various service providers.[6]

Design of Global Incentives

Global incentives were designed to promote forms of competition in that environment in which markets would be least likely to fail—namely, in the integrated delivery of services. Competition in financing is minimized by reinforcing the public nature of the resources provided, through a mandatory contribution (of 12 percent) from families. This mandatory, prepaid system must become self-financed. The law provides no subsidies for the population with the ability to pay. The objective was to minimize the most adverse effects of competition (such as the dispersion of services and the segmentation of markets) and of free choice (opportunistic behavior or moral hazard) by bundling services for a universal benefit package, by ensuring choice and mobility for the population, and by establishing the family as the focal point of decisions.

Competition is focused, then, on integrated service delivery systems. A universal—integral and semi-comprehensive—package of health services was established, which the EPSs provide for their members. Members contribute to the national health fund according to their

[6] Chernichovsky (1996) calls this a two-market model, the first to compete for the affiliation of populations and the second for groups of providers to compete for selling their services.

ability to pay, and the fund pays the EPS selected by each family according to that family's level of expected risks. To guarantee access to this package, the fund pays each EPS a risk-adjusted per capita fee based on gender, age (five groups), and the population density of the place of residence (two groups).[7] Based on this global per capita payment—which, on average, is $120 per person per year—the selected EPS makes available to the family a service network put together through contracting or through using its own providers, ensuring, in any case, freedom of choice from among various providers. The families who contribute to the system have the option of joining any of the EPSs for a minimum period of one year, and the organizations cannot reject persons who wish to join or to renew their contracts. Instead of price competition, the Colombian system seeks to promote competition in the quality of services.

Inclusion of the Poor

The greatest source of inequality in the old health system had been the marginalization of the poorest population from access to services and insurance. To deal with that factor, the new law called for the creation of a special system. Within this "subsidized" social security program, the focus was placed on enrolling the 30 percent of the population living below the poverty line (as of 1993). The new focus on the poorest was designed to accelerate change and to facilitate universality of coverage and access. The law called for the allocation of specific public resources for this purpose, combining 1 percent of the contributions from families having the ability to pay and a fixed percentage of the public revenue earmarked for health service financing through the local states and municipalities. A transitional link was established for the gradual incorporation of the population into the system of structured pluralism.

This transitional link had three components. The first component was the restructuring of the way in which public health services were financed. The reform established a solidarity fund (with resources of more than $250 million in 1996) to finance direct subsidies to users for their membership in the insurance system, to be co-financed using 60 percent of the resources that the nation sends to the municipalities

[7] The law also calls for the creation of a reinsurance fund for cases of catastrophic illness, but this fund has not yet been implemented.

for health services. This approach made possible the creation of a fund to finance vouchers, or demand subsidies. It also provided for a gradual transition from the traditional public financing of hospitals by budget item and by program toward a results-based financing system designed around a more comprehensive and proactive budget.

The second component of the transitional link was the switching of public responsibility away from the financing of "levels of care" toward the financing of specific packages of health care services or interventions. The law's medium-term goal was defined as 100 percent enrollment of the poorest population in the universal benefits plan provided by the EPSs. In the short term, the focus was simply the rapid universalization of access to a basic package of benefits aimed at combating communicable diseases and at providing maternity and child health care. The law provided for the gradual expansion of this basic package to include all the services called for in the universal benefits plan. The initial package was financed by a per capita payment of approximately $70 per person, and the municipality was assigned the responsibility of enrolling the population in each area.

The third component of the transitional link was the grouping of specialized promotional agencies to accelerate the formation of EPSs and thus facilitate the enrollment of the poorest population throughout the national territory. Social security institutions at best covered only 30 percent of the 1,040 municipalities in the country, and therefore the law provided for the development of two special types of EPS: public agencies and community health agencies *(empresas solidarias de salud)*. Through the modality of public agency, public hospitals could form partnerships with each other or with nonpublic providers to offer membership to the poorest population sectors in exchange for the per capita payment. The second modality encompassed the development of two different types of community health organization. In areas of the country in which there already existed EPSs, especially on the outskirts of large cities, the community health organizations could serve as user alliances for collective purchase of packages of services from EPSs, using public resources allocated to the communities for channeling to the EPSs of their choice. In areas of the country in which no EPSs existed, especially in rural areas, the community health organizations could contract for services from independent providers or from health teams hired for that purpose by the community.

Thus, through the incentive provided by the per capita payment, the integration of health services into a universal package, and the direct financing of demand, the poorest population sectors could gradually join the rest of the population as participants in Colombia's

general system of social security in health. As one of the main mechanisms for transformation of the public health system, the law called for gradually extending to the poorest population sectors the ability to exercise their free choice and their exit options.

Reform Implementation Problems

Laws 60 and 100 of 1993 established a general framework for the reform of the Colombian health system without providing specific details about how this reform should be implemented. This generality gave these laws enormous flexibility, which actually proved to be one of their greatest assets, but it also entailed certain negative consequences. The two laws' generality clearly simplified their political negotiation in Congress, for instance. But this very lack of complex negotiation during the first phase permitted the postponement of the eruption of potential conflicts already brewing at the time—and erupt they did, during the reform's implementation phase.

The reform implementation process produced some remarkable results in 80 months of existence, but it was not without problems. The difficulties that were encountered can be categorized into three main groups, as follows, each of which we shall examine in turn:

- technical problems
- problems having to do with institutional change
- problems involving political conflict.

The following pages will describe some of the present author's personal experiences[8] in making decisions about these three different types of implementation problems and will also outline the information that was available at the time, along with some of the solutions that were adopted.

Reform Implementation Problems Involving Technical Issues

The technical problems involved in implementing laws of this type are extraordinary. Calculation of the basic parameters of the new competi-

[8] The author was Minister of Health between 1992 and 1994, during the time of the creation of the proposals, their discussion and approval by Congress, and the development of the first steps toward implementation.

tive system required information that did not exist *ex ante*, as well as precise methodologies not yet validated by international experience. Consequently, Ministry of Health officials were faced with conducting a trial-and-error process—which might come as a surprise to technical analysts. The main technical difficulties lay in defining the following: (1) the benefits package, (2) the risk-adjusted per capita payment, (3) the mode of transition from supply side subsidies to demand side subsidies, (4) the size and functions of the EPSs, and (5) the methodology for targeting the public subsidy toward the poorest population groups. Let us briefly examine each of these five kinds of technical problems in reform implementation.

Benefits Packages

As noted earlier, the system featured (1) a transitional basic benefits package designed for the population targeted by the public subsidy and (2) a universal benefits package. Definition of the first, the transitional basic package, was guided by fairly technical criteria. An exercise was developed to assess the burden of disease, based on the methodology suggested by Murray (1995). Internationally accepted effectiveness parameters were used, and fairly reliable cost data were obtained empirically. The definition of the package was tested informally using the preferences of several communities.

But defining the second, the universal benefit package *(plan obligatorio de salud* or *POS)*, entailed technical problems that were more difficult to solve. In keeping with international recommendations, the methodology initially used was that of putting together benefit packages by including treatments demonstrating internationally well-documented cost-effectiveness. But this methodology proved to be of little use when it was time to make actual decisions. The law prohibited excluding problems or diagnoses but did allow the exclusion of non-cost-effective treatment procedures. In an environment with little competition, the precise definition of standard procedures and costs is extremely complicated, as it is not easy to get professionals to agree on the covered procedures, and the cost of the same procedure at different hospitals varies in proportions ranging from 1 to 5. Furthermore, for a large number of treatments, no reliable cost-effectiveness figures were available. Consequently, after a year of work by more than 15 specialists, a benefits package was assembled that limited procedures rather than specifying areas of diagnosis. Curative procedures for problems diagnosed as incurable, experimental treatments not approved by sci-

entific associations, and non-medical rehabilitation procedures and procedures for esthetic and cosmetic purposes were excluded.

Since the reform's outset, no progress has yet occurred toward making the benefit packages more sophisticated epidemiologically or in terms of cost-effectiveness. Meanwhile, the initial definition has been informally widened by the acceptance of judges' demands for new and unexpected medical procedures and drugs.

Per Capita Payment

The law approved the establishment of a per capita payment satisfying a double requirement—namely, that it finance the health plan and that it be financed by revenue collected through wage-based taxes. The imprecise nature of estimating the costs of interventions in the benefits package was compounded by the paucity of risk data for different diseases and populations. The Health Ministry's epidemiological monitoring systems were inadequate for actuarial purposes. Estimating the cost of the package, however, was no more difficult than predicting population incomes. The major difficulties were the under-reporting of incomes in the household surveys and the definition of a method for predicting the average income level of the first population to join the system. In March 1994, based on the cost data and optimistic calculations concerning the effectiveness of tax evasion control methods, the national health board approved an average per capita payment of $140 per person per year. A year later, with evidence of very poor results in controlling tax evasion, the board was forced to reduce the per capita payment to $120.

But to reduce the danger of cream skimming, the law provided adjustment factors for the per capita payment, on the basis of observable risks. Based on the recommendations found in the international literature, the regulations assigned the greatest importance to the criteria of gender, age, and place of residence. The available data on the incidence of each type of disease were used to assess the relative risk of disease by age and gender. To determine the possible demand for services, elasticities calculated empirically for Colombia were used.[9] On this basis, a structure of per capita payment fees was defined for five age groups. The stream had a clear U shape. The only significant gender-related difference involved women of childbearing age. There-

[9] Escobar (1990).

fore, seven age/gender groups were defined.[10] In keeping with the transportation cost estimate, 30 percent was added to the per capita payment for individuals from sparsely populated areas.[11]

Follow-up through the analysis of additional data on risks, costs, and population characteristics to assess the appropriateness of this per capita payment structure has been slow. The initial structure remains the same, and nominal annual adjustments have followed the evolution of the consumer price index.

Transformation of Public Subsidies

In order to finance the universal health insurance system, the law called for new resources and for the transformation of official subsidies to health institutions into demand-based subsidies for new affiliates. The law established a three-year period for this transition but no specific mechanisms for its accomplishment.

The transition team did not prioritize the design of this transition—a big mistake. The new government made a pair of decisions that made the financial transformation of the health care sector very difficult—namely, a doubling of the wages of public hospitals and the adoption of a fee-for-service system of invoicing. The increased demand for financial resources by hospitals was not matched by a promise of better outcomes. Without payment mechanisms designed to enhance their responsiveness and to improve their cost control, hospitals monopolized funds that were really supposed to be used to subsidize insurance expansion. In 1997 Congress decreased this commitment of the public budget in order to allocate resources into financing health insurance for the poorest population sectors, and it also redirected some of the new resources of the subsidized system into health care contracts with public hospitals. But the obstacles to the transformation of official subsidies had needlessly slowed the reform process of the public-sector health service providers.

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[10] The relative risk, with 100 as the average, was the following:

Age 0-1	2.15
Age 1- 4	1.48
Age 5-14	0.74
Age 15-44	
Men	0.35
Women	1.12
Age 45-60	1.26
Age 60 and over	1.45

[11] "Sparsely populated" means having a population density of less than 2 people per square kilometer.

Organizations for the Articulation of Health Services

In defining the responsibilities of the various agents of the new health care system, there were many discussions about the precise functions of the new EPSs and also about the degree of business stability that should be required of them in order to minimize the risk to users.

Politicians were unable to reach any consensus about the definition of the role of the EPSs as service providers. Numerous analytical arguments were advanced in favor of a strict separation between the functions of service coordination and service provision. Empirical evidence indicated that in Colombia, purely contractual organizations quickly encountered cost control problems. The regulations, as established, allowed for any possibility. Subsequent experience indicated that the EPSs had tried increasingly to form closed panels, especially in outpatient care. This has been an area of increasing conflict among EPSs, private hospitals, and medical organizations.

As for the EPSs' business stability, there were many different official voices of successful experience about how to improve the survival prospects of the EPSs. In keeping with the tradition of monitoring insurance companies, the variables selected for control were the enterprises' capital and their degree of liquidity. The required start-up capital was about $4 million, and a degree of liquidity equivalent to one month's worth of contributions was required. The liquidity requirement proved to be more restrictive than the capital requirement, but both have remained unchanged since their adoption.

Additionally, to avoid the excessive proliferation of HMOs observed in some other countries, attainment of a minimum acceptable size at the end of the first year of operation was specified. Research into the international literature revealed that 40,000 members was a size that diminished vulnerability to actuarial risks. Since empirical exercises involving economies of scale in similar institutions in Colombia and in other countries failed to yield conclusive results, this figure was chosen for EPS, although a small size was allowed for the community health plans.

After six years, there is evidence of too much stimulus for the entry of small organizations unable to reach minimum scale economies and to amass enough capital to avoid liquidity risks. As the equilibrium size got closer to 100,000 affiliates, a process of mergers and acquisitions led to a consolidation of EPSs and to a reduction of their overall number. Increasing foreign investment provided the required new capital.

Reaching the Poorest

The law required that the government health care subsidies target the population living below the poverty line. The country's household surveys provide sufficient information to measure the impact and intensity of poverty for society as a whole, but the resource allocation system requires the identification of the degree of poverty in each family individually. Accordingly, a beneficiaries identification system (SISBEN) was created, based on the direct observation of household characteristics. National household surveys were used to construct a series of 15 indicators (such as the head of household's level of education, the size of the family, the availability of drinking water, and the size and composition of the dwelling) for assessing each family's degree of poverty. Utilization of the survey in each municipality was made a requirement that the mayor had to see to in order for the community to receive any health resource transfer from the central government. Household observation surveys were carried out in more than two million households from 1994 to 1996, reaching virtually all of the 10 million poorest individuals. Approximately $3 million was spent on the process. The beneficiaries identification system was very effective in discovering the country's poorest populations, and it has been used for calculating subsidies in other areas as well, such as housing and nutrition.

According to formal evaluations, the initial targeting mechanism was technically successful, with an error of only 12 percent in its identification of the poor. The inclusion of a million non-poor among the ranks of the poorest was not the result of technical errors in the targeting mechanism but rather the result of data manipulation by certain local politicians and of national authorities' inability to control such data manipulation. Meanwhile, the system still needs to identify the new instances of poverty generated by the 1998-2000 economic recession. Four million additional cases of individual poverty associated with the recent rise in unemployment (20.4 percent in June 2000) have not yet been incorporated into the resource-targeting system, which clearly requires a major updating in order to reflect accurately the country's new economic situation.

Reform Implementation Problems Involving Issues of Institutional Change

Building the political consensus necessary for the approval of a health system framework law is an important achievement in itself, in that it

signals the direction of change for all the institutions concerned. But a health system reform process involves much more. The approved framework law must be accompanied by the development of technical instruments to implement the philosophy of the reform. The series of systemic decisions and those concerning each of the agents must be strategically sequenced to maximize the probability that the process of change will be successful.

The international literature on health systems provides few guidelines for planning a systemic process of change. Economic theory provides better instruments for outcomes analysis (based on comparative statistics) than it does for analysis of the institutions' organic processes of change. Consequently, the strategic development of the new health system in Colombia had to be guided not only by technical considerations but also by political intuition applied on an *ad hoc* basis.

Following the signing of Law 100, some 25 regulatory decrees needed to be written and issued in order to get the new system up and running. Under normal operating conditions in public institutions, such a process would have taken two or three years. But given the political dynamics of the moment—numerous interest groups had already begun to voice their opposition to the change, and the government had only eight months to carry it out before a new government was installed—it was my belief that taking the full two or three years could well have brought the entire reform to a halt.[12] Therefore, strategic decisions were made to develop the needed regulations as fully as possible within the eight months in office remaining to the existing government, to promote the speediest possible development of new agents and beneficiaries, and to create new mechanisms for allocating the additional health resources provided for by the law.

The proposals for each set of regulations were prepared by a working group of fifteen specialists (three economists, five physicians, five attorneys, and two public-health experts) who had been selected during the writing of the initial proposals discussed in Congress. The national health board (already organized especially for this purpose) examined each new regulatory proposal, and then the respective decrees were issued by the President of the Republic before the expiration of his term in office.

The priorities were as follows: (1) to reach the new beneficiaries; (2) to define the per capita payment system, the resource redistri-

[12] At the time, we were aware of the implementation difficulties experienced in the Netherlands and in Peru.

bution mechanisms, and the benefits packages; (3) to organize the EPSs and community health organizations; and (4) to develop a methodology for accurately identifying the intended beneficiaries of the subsidies. No consensus could be reached on the definition of a system for guaranteeing service quality, and there was too little time to specify exactly how the old resources would be reallocated and how the existing public institutions would be changed under the new system. But the expert services of a Harvard University consulting group led by Professor William Hsiao had been contracted to prepare the master implementation plan, to monitor performance, and to evaluate the overall effectiveness of the health reform.

The acceleration of the process of issuing regulations for the implementation of the new law did in fact later prove to be a crucial survival factor for the health reform process. The new government that took office in August 1994 displayed ambivalence about reforming the country's health system, but the dynamic of change that had already been set in motion by the new affiliates, new agents, and new resources had by that time generated irrepressible political pressure in favor of the reform. And since that time—five health ministers and many counter-reform initiatives (on the part of medical associations or public employees) later—the pluralistic system created by Law 100 remains in place, with wide popular acceptance throughout Colombia.

In the first six years of the reform, the greatest difficulties have been those related to making decisions about the transition of each of the agents from the old public system. In this connection, a not-unexpected dynamic of change has emerged. The new agents—community organizations, private organizations, and new municipal authorities—have been the source of the new system's energy, sometimes even over-responding to the new incentives. Conversely, the old public agents—especially the Social Security Institute, the departmental directorates of health, and the public hospitals—have been much more resistant to change. The resultant mixed dynamic has led to some duplication of resources and to slower response time in delivering services, which has tended to increase system costs.

Reform Implementation Problems Involving Political Issues

The political problems involved in implementing the reform were by no means negligible. How political conflicts are manifested depends very much on the agents making up each country's system and on the period of time in question. In Colombia's case, the degree of unity and

business organization at the start of the reform was relatively low, but most of the agents, new and old, did seat a representative on the national health board, which helped sidestep any large-scale inter-agent conflicts at the outset of the process. Rather, the political problems during the early part of the reform actually stemmed almost entirely from the instability of the authorities in the system. Meanwhile, the strengthening political organization of the old-guard health sector agents whose transformation was called for by the new system—Social Security Institute workers, public-hospital unions, and medical specialists' associations—began to make the potential political conflict within the new system increasingly evident. The past six-year period comprises two distinct subperiods with respect to the development of such political problems.

During the first three-year subperiod, the system was characterized by its abundance of resources and by the instability of its management. There were four different Health Ministry administrations during those three years, the average term being shorter than 11 months, as has been the case in the country for the past quarter-century in regard to Minister-of-Health tenure—and not very different really from the norm in the rest of Latin America. No matter how unremarkable, however, this ministerial instability contributed very little to the government's ability to guide the system's strategic development, because of the relative lack of continuity in the respective technical teams. This weakness created instability in some of the key decisions made in regard to the new system. For instance, the decisions about co-payment were changed several times, with the unit of per capita payment for the basic package altered three times in 1995 alone. Also, public institutions were not pressed hard enough to make the needed changes. Fortunately, this more or less predictable ministerial instability was in part counterbalanced by three positive offsetting factors. First, the steady operation of a representative national health board with three-year terms of office served to hold in check the potentially excessive ambitions of every new minister. Second, the contracting of three loans from international banks (the World Bank and the Inter-American Development Bank) provided some impetus for a continuing commitment to reform. And third, the periodic visits by the Harvard Mission technical group added an independent critical voice whose growing acceptance by the system's various agents was an important factor in advancing the reform.

During the second three-year subperiod, the system has managed to achieve greater institutional stability despite the growing resource scarcity stemming from the country's current economic and fiscal crisis. The average term of office for this subperiod's Health Ministers

has been two years, or twice the historical average. A stronger institutional adjustment capacity has emerged in response to the technical assistance from Harvard and from the multilateral banks. A clear consolidation of new EPSs has occurred, compensating for the growing weakness of old public insurance institutions.

Nevertheless, in terms of the management of scarce public resources, public hospitals have been politically stronger than the new health care agents of the subsidized regime. The process of transformation of public subsidies from supply side to demand side has come to a halt, reducing the availability of resources for expansion of health insurance coverage to the poorest. The subsidized regime with its immense benefits to the poorest in fact now faces its biggest challenge thus far.

Lessons Learned about Solving Implementation Problems

Comparative analyses of health system reforms usually tend to stress the political difficulties of implementing the reforms. But Colombia's experience indicates that the technical and institutional problems are also worthy of careful examination. For health sector reforms that make aggressive use of pluralism, markets, and competition, several crucial parameters that would help in orienting the new process cannot really be ascertained accurately through the information available before the new system is actually up and running. In establishing legal statutes and decision-making authorities, for instance, there is no alternative to trial and error for arriving at satisfactory solutions. For systemwide reforms, the sequencing of systemic decisions and the specification of institutional transition processes are almost as important as the principles and ideals pursued. In addition, the political difficulties that emerge are not always at the macro or structural level and can consist of such factors as the existing health sector bureaucracy's day-to-day passive resistance and the instability of positions with decision-making responsibilities. Fortunately, Colombia's experience indicates that it is not impossible to overcome these difficulties.

Colombia has been engaged in a relatively complex reform of its health system since 1993. The government has been attempting to develop a system of structured pluralism of health care providers that incorporates the new concepts of managed competition, and it has adapted these concepts to the environment of a developing country with a higher degree of inequity, less managerial capacity, and less social capital than many other countries of the world. Enormous technical and political problems have indeed been encountered in imple-

menting the reform, but many of these difficulties have been amenable to resolution through the application of available information and a great deal of common sense.

Results of the First Six Years

Colombia still awaits a full assessment of the impact of the laws in terms of the improvements they have brought about in the areas of equity and efficiency.[13] But the preliminary information that is available is in itself quite revealing.[14] Let us examine the results thus far with respect to the following five main areas:

- resource mobilization
- institutional development
- coverage expansion
- equity achievement
- efficiency in the system.

Resource Mobilization

Since 1993, the system has raised new public funds in the amount of approximately $10 billion (Figure 9.2). The ratio of health-related public expenditure to total GDP increased from 2.3 percent in 1993 to 4.2 percent in 1996, although it has since declined to 3.7 percent (2000). Because some portion of public expenditure has replaced out-of-pocket expenditure by families, social security's new level of expenditure on health has amounted to a bit more than 1 percent of GDP.

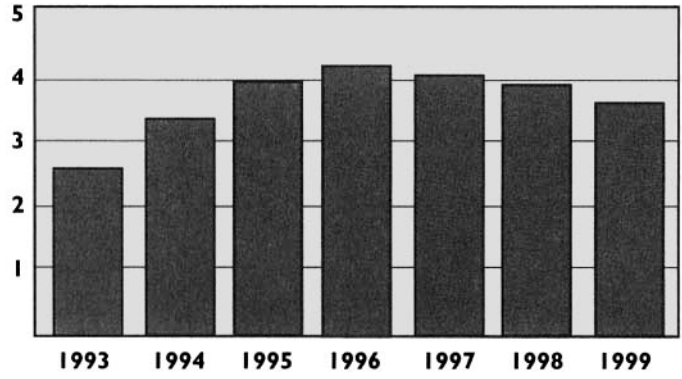
Institutional Development

The institutional development of management agencies, coordinating organizations, and health service providers has gained momentum. The

[13] The Colombia Health Care Reform Project Team of the Harvard University School of Public Health attempted an initial evaluation of the reform in 1996 (see Harvard University School of Public Health 1996). See also Londoño (1998), Government of Colombia (1999), Sánchez and Núñez (1999), Gonzáles (2000), and Castaño and others (2000).

[14] The information presented here is in part based on the Harvard report mentioned earlier and on interviews with the managers of the Ministry of Health, the management of the Colombian Social Security Institute, the Association of Comprehensive Medical Institutions, several local health directors, and an independent analyst.

Figure 9.2. Public Expenditures in the Health Care Sector
(percentage of GDP)



Source: Dinero: based on DNP and ISS.

national health board has emerged as the system's modulating agency. Area public-sector health agencies have gained considerable autonomy in managing social security in their respective zones. In fact, following an evaluation of their institutional capacity and information system networks, all states were certified for autonomous management of their health care systems, with little intervention by the Ministry of Health.[15]

Some 25 EPSs have been created altogether, six of which are public, seven are nonprofit, and 12 are for profit. Most of the new EPSs have been the result of the transformation of agencies that formerly provided comprehensive prepaid medical services to government employees, to the families of workers employed by large companies, and/or to the wealthiest segments of the population. Six of the EPSs are entirely new to the interplay of market forces, having originated in cooperatives, physicians' associations, private-sector business owners, or foreign investment (including joint ventures involving Chilean, Brazilian, and Spanish capital). The creation of the 25 EPSs has involved new capital amounting to $150 million. Contrary to expectations, the EPSs have not confined themselves to the big cities. Today, 78 percent of the country's municipalities have an EPS, and more than six hundred municipalities have more than one.

[15] The purpose of the World Bank loan is to provide financial and technical assistance to regions and municipalities for autonomous management of their social security systems.

Agencies associated with the subsidized system have experienced equally rapid growth. The number of new health service cooperatives formed is 149. Of these, 80 provide services to more than a million people, especially in small towns and in rural areas that are not sparsely populated. The growth of the subsidized system in the large cities has depended primarily on assistance from the EPSs. The most interesting case is Santa Fé de Bogotá. With strong leadership from the local authority, 19 agencies (nine EPSs, six *cajas*, and four state social enterprises) are competing openly to enroll 560,000 people from the poorest social groups and are providing the basic health package in exchange for a per capita payment.

The entrepreneurial growth of service providers has also increased markedly. Of the 146 secondary-care and tertiary-care public hospitals, 83 percent have changed their legal status to that of a state social enterprise. In this way, hospitals gain complete autonomy with respect to their assets, budgets, and hiring. They then create a board responsible for managing the hospital, hire professional managers, and agree to establish accounting, administrative, financial, and quality control systems.[16] The development of health service delivery organizations has been even faster. At least 1,000 new providers have been registered in the chambers of commerce of the biggest cities, most of them for ambulatory-care services.

Expansion of Coverage

The number of Colombians with health insurance has increased from about 5 million people in 1993 to almost 25 million people today (Table 9.1). The population affiliated with the contribution-based system has tripled, growing by 10.3 million individuals. Although the Social Security Institute accounted in the initial phase for most of the expansion, the EPSs have caught up and currently have 60 percent of the affiliates. These results have occurred much more rapidly than those in Chile, where it took the first five years for ISAPRES to attract a million members.

Colombia's new social security system has also expanded very rapidly to include the poorest population sectors. In the first six years, almost 10 million people have been covered by the basic health package. Of these, two million were covered temporarily in the first two

[16]The purpose of one of the Inter-American Development Bank loans is to provide financial and technical support to help these hospitals achieve autonomy.

Table 9.1. Insurance Affiliation

	Millions of People			
Affiliation	*1993*	*1995*	*1997*	*2000*
Contributory Regime	4.8	9.2	15.0	15.1
ISS	4.2	7.0	9.0	5.9
Other Regime	0.6	1.0	1.5	1.5
EPS		1.2	4.5	7.7
Subsidized Regime	0.2	3.0	7.8	9.5
Community Organizations	0.2	1.0	2.9	3.0
Public EPS		2.0	0.4	0.2
EPS			1.5	2.0
Other ARS			3.0	4.3
Total	5.0	12.2	22.8	24.6
Percent of Population	*13.4*	*31.5*	*56.7*	*58.1*

years by public EPSs. More than three million people have joined the system of cooperatives known as community health agencies, primarily in rural areas. Today, more than five million poor people are covered by formal agencies. And the most vulnerable population sectors' freedom to choose among integrated delivery systems has expanded more rapidly in Colombia than in the United States (the U.S. Medicaid and Medicare systems).

With the two regimes, coverage has expanded by a total of 19 million individuals. Social security coverage has expanded to 58.1 percent of the population, enabling Colombia to close the gap that had existed between its social security coverage and the average (57 percent) for Latin America.

Nonetheless, with the increasing reliance on wage-based taxes, the expansion of health insurance is quite sensitive to the business cycle. The 7 percent decline in per capita income and the seven-point increase in the unemployment rate since 1998 have had a serious impact on insurance coverage, which has declined both in absolute terms and as a proportion of total population.

Meanwhile, there has occurred a notable expansion in the utilization rates of health services. The number of medical consultations has increased 215 percent during the six-year period, and hospital discharges have increased 44 percent, with a large portion of this increase

in medical care occurring in medical attention for childbirth. Total provision of health services has increased by a factor of two in the last six years.

Equity in the System

The probability of affiliation of a person identified by household surveys increased from 18 percent to 55 percent between 1993 and 1997. In absolute terms, this expansion was homogeneous among income quintiles of the population—three million in each one (Figure 9.3). But in relative terms, the expansion was much greater in the poorest quintiles. Insured population numbers increased by a factor of 6.6 in the poorest quintile and by a factor of only two in the richest two quintiles. Health insurance coverage levels increased faster in the country's rural areas (by a factor of seven) than in the urban areas, where it only doubled.

The poorest benefited more than proportionally from new public resources flowing into the system. Income-equivalent transfers of health services toward the poorest two quintiles increased 290 percent, and transfers to the richest 20 percent decreased 80 percent. The effect on family income was huge. The poorest quintiles receive the equivalent of 24 percent of their income in health services, three times more than before the reform. Meanwhile, the changes for the middle class were small, and subsidies for the richest were almost totally eliminated.

The fairness of the health system has improved substantially (Figure 9.4). The *World Health Report* identified three dimensions of equity in the health system in comparison with the rest of the world

Figure 9.3. Increase in Insurance Probabilities by Social Stratum

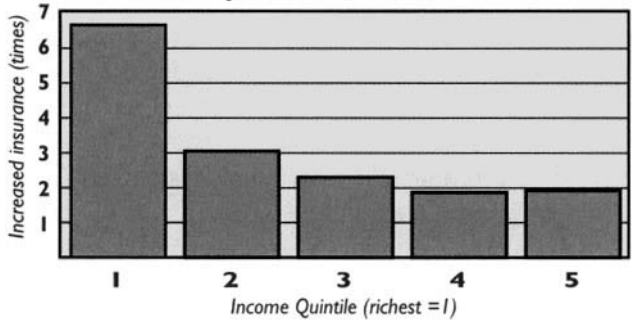
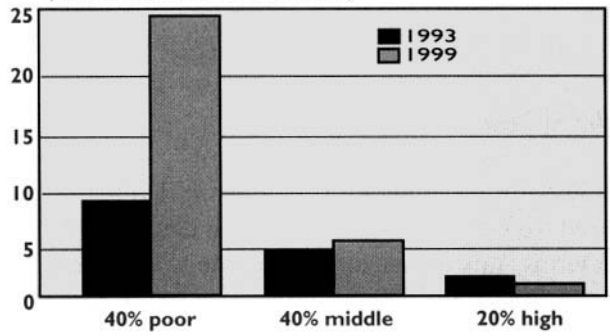


Figure 9.4. Importance of Subsidies
(Percent of Household Income)



Source: Dinero: based on F. Sánchez.

(Table 9.2). Colombia's fairness of health care financing is the best in the world, its equity in health outcomes is third in Latin America, and its equity in health care responsiveness is about the same as the average of Latin America.

Efficiency in the System

Public resources for health have increased by a factor of 2.1 since the launch of the reform. Even though this mobilization of public resources was somewhat offset by the decrease of about 40 percent in out-of-pocket family expenses, total health expenditure reached 9.3 percent of GDP, one of the largest financial efforts by any health care sector in Latin America, second only to that of Uruguay (Figure 9.5).

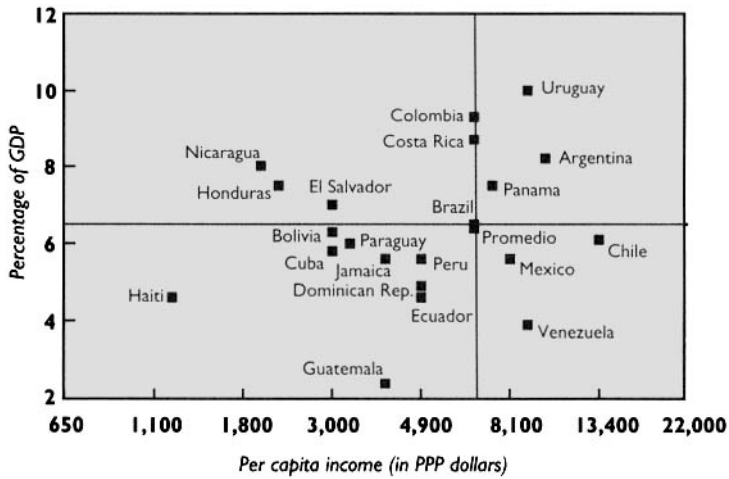
Doubling public resources for health, consistent with an increase of 50 percent in total health resources for the decrease in private expenditure, was parallel to an increase of 200 percent in health services. This simple aggregate comparison shows that as a result of the reform, global efficiency of the system may have increased 33 percent. But system efficiency can be analyzed from a wider perspective, because the outcome of the system is not just services, and its inputs are not only financial resources but also human and technological. The *World Health Report* recently attempted just such a measurement of system efficiency. According to it, Colombia's system has demonstrated the most efficient performance in Latin America. With its ranking as number 22 in the world, Colombia's health sector has achieved better relative performance levels than those of Costa Rica, Chile, and Cuba—and even those of Sweden and Germany (Figure 9.6).

Table 9.2. Equity Ranking in the World Health Report

Rank	Outcome	Responsiveness	Finance	Overall
1	Chile	Argentina	Colombia	Colombia
2	Cuba	Uruguay	Cuba	Cuba
3	Colombia	Dominican Rep.	Uruguay	Costa Rica
4	Costa Rica	Jamaica	Costa Rica	Chile
5	Paraguay	Brazil	Bolivia	Uruguay
6	Argentina	Costa Rica	Panama	Argentina
7	Mexico	Panama	Ecuador	Venezuela
8	Uruguay	Venezuela	Argentina	Mexico
9	Venezuela	Colombia	Venezuela	Panama
10	Jamaica	Cuba	Jamaica	Jamaica
11	Panama	Chile	Mexico	Dominican Rep.
12	Nicaragua	Ecuador	Dominican Rep.	Paraguay
13	Dominican Rep.	Mexico	Guatemala	Guatemala
14	Peru	El Salvador	Haiti	El Salvador
15	Guatemala	Paraguay	Nicaragua	Bolivia
16	Brazil	Nicaragua	Chile	Nicaragua
17	El Salvador	Guatemala	El Salvador	Peru
18	Bolivia	Peru	Paraguay	Ecuador
19	Honduras	Honduras	Honduras	Honduras
20	Ecuador	Haiti	Peru	Haiti
21	Haiti	Bolivia	Brazil	Brazil

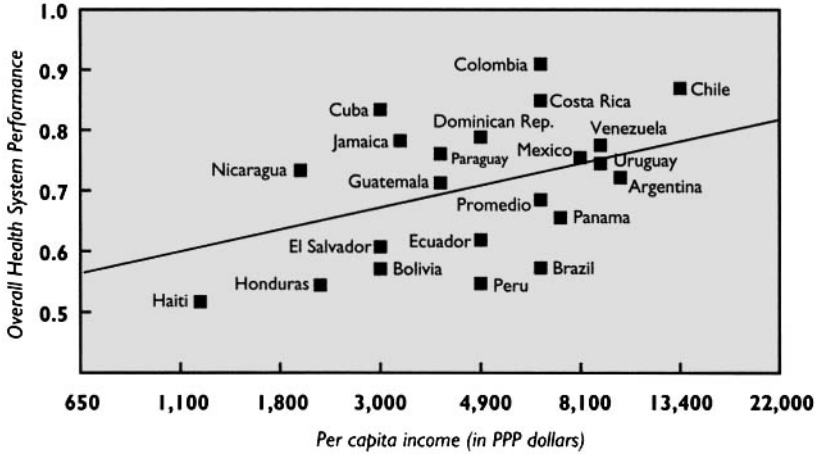
Source: World Health Organization, 2000.

Figure 9.5. Total Expenditure in Health



Source: Dinero, based on Statistical Annex, World Health Report.

Figure 9.6. Health System Performance In Latin America



Source: Dinero, based on Statistical Annex, World Health Report.

Overall Lessons

The structured pluralism developed by Colombia is a concrete concept encompassing mandatory affiliation, competition in the integrated delivery of universal health service packages, and mechanisms for the distribution of government resources. The government resources distribution mechanisms control aggregate expenditure and improve the equity of resource allocation. As an alternative to the health service nationalization, municipalization, or privatization proposals currently in vogue in many Latin American countries, the structured pluralism model holds enormous technical possibilities. It also could unite the political forces that make the reform possible.

Colombia's experience seems to highlight the importance of focusing state regulatory attention on simple incentives and on organizations for the coordination of health services. State efforts to develop multiple agencies for the delivery of various services or to devise highly sophisticated payment schemes are less likely to succeed. Mobilizing the poorest through demand subsidies, EPS-like coordination organizations have the potential to mediate the government's action more effectively, and instruments such as the risk-adjusted per capita payment (although not a problem-free approach) are more powerful and easier to use. The speed of Colombia's reform process is proof of the enormous capacity of nongovernmental agents to respond to appropriate incentives.

Colombia's case illustrates how tropical versions of managed competition—in addition to their suitability for cost control, as claimed in developed countries—can help speed the expansion of coverage in countries with less advanced social security systems. Given the lack of innovation that characterizes traditional public social security organizations, it would take too long to attain an acceptable level of universality through that route. Colombia's reform also illustrates how, with sufficient financial engineering, structured pluralism can be more effective than the more traditional public assistance schemes as a way of providing coverage for the poorest population sectors. For countries with large market potential, Colombia's experience seems to illustrate that the problems of adverse selection and cream skimming can be reduced.

From the viewpoint of implementation, the progress of Colombia's health reform may also hold some important lessons. Economic theory and existing data systems are not sufficiently advanced in areas such as risk adjustment and benefits package definition to provide policymakers with practical and timely responses. In the face of this, it is possible to use a pragmatic trial-and-error approach, even at the risk of making mistakes that will need subsequent correction on the fly. The Colombian experience suggests that to develop totally new agents and totally new market practices would require excessive initial incentives. Although such an approach could conceivably give acceptably good results, there is a Latin American saying that fits this situation exactly: "The merely good is the enemy of the best." One-shot "good" answers can admittedly be helpful sometimes, but it is really the development of appropriate high-quality, optimal overall decision-making procedures that will make it possible to identify errors and make timely corrections without incurring serious long-term political costs.

With respect to the sequencing of reform decisions, two lessons can be drawn from Colombia's experience. First, larger-scale decisions may be more likely to yield successful results than a very gradual and piecemeal process of decisions made one at a time.[17] Instead of seeking equilibrium case by case, health reformers should identify dynamic imbalances that suggest larger ideas for deepening the stability of the new system. The second lesson concerns the importance of quickly making room for the system's new beneficiaries, agents, and incentives. If reforms focus exclusively on simply reallocating existing resources, the reactions of the former agents may make the process

[17] See Hirschman (1995).

too combative or too lengthy or may even derail it altogether. If a society places a high value on changing its old health systems, it will probably be made to pay the price.

In general terms, the Colombian health sector reform has thus far surpassed all expectations. The discovery of a consistent set of incentives for the simultaneous improvement of equity and efficiency has been a major achievement. Even so, the country is only halfway through the health sector reform process. Half of the population remains without health insurance, and the covered populations are becoming increasingly demanding about the quality of the services they receive. Corruption is a big factor, along with a continuing enormous waste of resources. The increased reliance on wage-based taxes has made the system more sensitive to the economic cycle, and the recent economic downturn has been quite sharp.

Furthermore, difficult times still lie ahead for the Colombian reform process, for a number of reasons. For instance, public providers are paying a high price for being slow to learn, and their adjustment processes will be increasingly painful. Human resources are feeling the effects of the imbalance between the development of specialized doctors and the requirements of higher-quality primary-care provision. Today's rapid demographic and epidemiological change will accelerate even more, with its significant impact upon the health service demand profile. And unemployed and self-employed workers and their families are finding it harder and harder to join Colombia's social security system, even though greater poverty actually calls for increased, not decreased, social protection—just when the country's fiscal situation has already placed a limit on the ability to mobilize new resources.

Nevertheless, by actively building on the very real successes of its first six years, the Colombian model of managed competition and structured pluralism in the health care sector could well become an interesting model for study and possible implementation by other developing countries.

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CHAPTER TEN

Health Resource Allocation Mechanisms: The Philippine Experience

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The Philippine Health Context

Getting Better but Still Ailing

The most recent government reports show that in the Philippines the average life expectancy is now 70.3 years, the infant mortality rate is down to 44.8 per thousand live births, and the maternal mortality ratio is 162.2 per 100,000 live births (PMS 1999). Despite this improvement, the Philippines still lags behind other middle-income countries in the region. For instance, during the past decades, our decline in the infant mortality rate has been the slowest among all Asian countries. Translating our infant mortality figures into more graphic terms, this is equivalent to four busloads of babies falling off a cliff every day—a loss of around 200 infants daily or 73 thousand each year. Moreover, although the national figures have improved, there have remained large variations in health status across population groups and among provinces and zones within the country. Pockets of excellent health are found among the rich, while the burden of disease is heaviest on the low-income majority of the population. All these findings point to the need for the provision of adequate resources for health and to the need for better targeting of public health interventions.

Inadequate Resources and Misplaced Spending

In medicine, correct diagnosis is impossible without the proper tools, especially if we have already bought and are trying to use the wrong ones. Such seems to be the case at the national level of health care in the Philippines. The budgetary allocation for health has traditionally been lower than that for the department of national defense and other

government agencies. According to figures for 1998 and 1999, the Department of Health received a budget of around P11.5 billion as compared to the defense budget of P51.6 billion (42 Philippine *pesos* = US$1). A recent survey of health spending reveals that total expenditures for health are often less than the 5 percent of GNP recommended by the World Health Organization (DOH 1999). The same goes for individual households, which have been shown to spend only 2 percent or so of their incomes on health (NSCB 1998)—not too different from the amount they spend on tobacco and alcoholic drinks (Solon *et al.* 1992).

To compound this problem of resource scarcity, we are also faced with the problem of the inefficient way in which the little money that is available for health is actually spent. The bulk of it apparently goes for personal/curative care and overhead expenses. Not enough is allocated for public health measures and preventive health care services such as inoculation/immunization, family planning, and reproductive health care (Solon *et al.* 1992). Health Undersecretary Susan Mercado has pointed out (1999) that the government has tended to spend for sickness rather than for health. The cost of attending to sick or hospitalized persons takes up almost all of the allotment for health care. It would cost much less to attend to the preventive and proactive health care needs of the greater number of persons who are not yet sick or hospitalized but who are at risk of becoming so. A similar situation exists at the household level, where there is more spending for nonessential medicines (such as dietary supplements and what have been called "nutriceuticals" or nutritional supplements claimed to have pharmaceutical or therapeutic properties) than for the drugs the DOH has identified as more useful.

Devolution and Its Effect on Health Care Delivery

The amount and pattern of spending of health care resources at the local level changed in 1992 with the advent of the local government code. Prior to the enactment of the code, the Department of Health had been the single biggest health provider in the country, maintaining a network of zonal, provincial, district, and municipal health offices to deliver a basic set of public health and primary health care services to the population—some 12,580 rural health units, city health offices, and village stations providing services such as family planning, immunization, and maternal and child care. DOH had also maintained a network of hospitals, including four specialty hospitals, to provide a multi-tiered

system of personal health care services. Needless to say, the operations of these two networks were heavily subsidized and were financed out of the budgetary allocations of the DOH. The DOH budget ranged at that time from 2 percent to 3.5 percent of the total government budget, and in 1993 the DOH accounted for approximately one-third of the country's total health expenditures—a figure that decreased to approximately one-seventh of the country's total health expenditures by 1997, six years after the devolution of health services to local government units.

Through the local government code, the responsibility for planning, organizing, financing, and delivering basic public health services and personal health care services was devolved to local government units (LGU). Thus, the responsibility for delivering public and primary health care services was transferred to the municipal and city governments, using their network of 12,580 municipal and city health offices and village health stations. Meanwhile, provincial governments were entrusted with the responsibility to maintain and operate the 595 provincial and district hospitals for the delivery of basic personal health care services.

Financing for these devolved functions was sourced from the local government units' share of the internal revenue allotment, a formula-based revenue transfer system. Before devolution, the local government units' share had been 20 percent of total taxes collected, and distribution had been based on a formula that incorporated population, land area, and the concept of equitable sharing. Following the devolution, the local government units' share of the internal revenue allotment was increased to 40 percent of total revenues collected. Rules for distribution of the internal revenue allotment share were also drastically altered. The code adopted a vertical allocation formula that assigned 23 percent to provinces, 23 percent to cities, 34 percent to municipalities, and 20 percent to *barangays*. The share of individual local government units was based on three parameters: population (50 percent), land area (25 percent), and equal sharing (25 percent). We now see indicators of a better health picture in some local government units in which 25 percent of the budget goes to the health sector, although on average, spending for health is at around 10 percent of the internal revenue allotment

Since devolution, the role of the Department of Health has become that of policymaker, regulator, co-financer, and provider of technical assistance. It also continues to manage and operate four specialty hospitals and around sixty other regional and national hospitals and sanitaria, which still receive budget resources from the yearly allocation of the DOH. The DOH also continues to provide support to prior-

ity national programs such as immunization, family planning, and control of tuberculosis, malaria, and certain noncommunicable diseases (in the form of training, monitoring, IEC support, pharmaceuticals, and medical supplies).

The National Health Insurance Program

The coverage of the former Medicare system of the Philippines had been limited to the employed, both governmental and private. Through a law passed in 1995, the Medicare program has now been expanded into the national health insurance program (NHIP). Considered as an integral part of the whole health care reform initiative, the national health insurance program was designed (1) to relieve the fiscal burden on the public hospital system, (2) to provide protection against the burden of unpredictable medical expenditures, (3) to address limitations of the private health insurance market, and (4) to ensure the population's access to personal health services through the provision of premium subsidization. The law mandates that universal coverage be achieved within 15 years.

Three categories of membership exist under the national health insurance program: (1) the employed members, or the formal sector, amounting to about 40 percent of the population, (2) the self-employed, also referred to as individually paying members, amounting to about 35 percent of the population, and (3) the indigent members, amounting to about 25 percent of total population. Premium payments for formal-sector members are the shared responsibility of the employer and the employee. The individually paying members do not receive subsidies as such, but the premiums collected from them are lower than those collected from the formal-sector and indigent members. The premiums for the indigent members are fully subsidized, to be co-paid by the national and local government in accordance with a cost-sharing formula determined by the income class of the local government unit of the area in which the enrolled indigent resides. All three types of members enjoy the same benefits.

The national health insurance act of 1995 vested the implementing agency for the national health insurance program, the Philippine Health Insurance Corporation, with enough powers and flexibility to explore alternative ways of packaging benefits and of paying service providers. The corporation is also empowered to develop mechanisms for working with local government units, community-based organizations, and private insurance firms to implement universal coverage.

Health Resource Allocation by the Government

Different Allocation Mechanisms

After the implementation of the local government code of 1991 and the adoption of the national health insurance law of 1995, the government has been utilizing national and local direct and indirect subsidization as the principal mechanism for allocating health resources.

Public health services and primary care services—the provision of which is clearly a government responsibility—are directly subsidized both nationally and locally. National direct subsidization comes mainly from the budgetary allocation of the Department of Health, which allots 30 percent of its annual budget (around P3 billion) for public health programs. Municipal and city governments provide local subsidies from their share of the internal revenue allotment, and they also have the authority to raise local revenues to supplement the central revenue transfer. In 1997 local government units' expenditure for public health services was almost P8 billion, or 50 percent of total local government units' spending for health.

The provision of public health services and primary care services is unambiguously a governmental responsibility. But the proper sourcing of financing for personal health care services is not as clearly delineated. The definition of the proper role for government funding to play in the provision of personal health care services is in fact quite a controversial area. Nevertheless, the issue becomes less controversial if the main rationale is defined as the ensuring of access by the poor to an essential set of clinical services. The Philippines wields three sets of allocation instruments to pursue this equity objective:

- national direct subsidies (through the DOH-retained hospitals)
- local direct subsidies (through the district and provincial hospitals managed by provincial governments)
- national and local indirect subsidies (through social insurance).

In regard to national direct subsidies, the DOH is currently maintaining and supporting 61 hospitals, which range in category from regional hospitals to specialty centers. Around 60 percent of the DOH annual budget (P6.5 billion in 1999) is allocated for the maintenance of these hospitals.

Provincial governments—which maintain the provincial, district, and municipal hospitals that have been devolved to them—provide the local direct subsidies for personal health care, also from their share of the internal revenue allotment. In 1997, the provincial governments spent almost P4 billion on personal health care services, constituting 25 percent of the local government units' total spending for health.

Indirect subsidization for personal health care is in the form of premium subsidies for indigent enrollees. Premium costs are shared between the national government and the local government of the area in which the indigent enrollee resides. The local government units source their share of the premium payments from their own budgets, while the share from the national government is regularly sourced from liquor and tobacco taxes. The indigence program has taken some time to get under way. As of late 1999, fewer than 200,000 families were enrolled.

Government subsidies constitute 43 percent of total health spending, with an almost even split between national and local direct subsidies. Some 48 percent of total health spending still comes from out of pocket, showing the grossly inequitable and inefficient pattern of health care financing in the Philippines—inequitable because income distribution is distorted, with the majority of the population belonging to the low-income group, and inefficient because of the absence of risk pooling. Social insurance contributes only 6 percent to total health spending.

Effectiveness of These Allocation Mechanisms

National direct subsidies for personal health care have been focused on DOH-retained hospitals ever since the devolution, even though these hospitals' location (mostly in urban centers and richer provinces) and cost structure suggest that they may be inequitable and inefficient channels for such subsidies. Regional hospitals charge more to deal with the type of cases that are best handled at provincial and district health facilities, yet, except for the specialty hospitals, most DOH-retained hospitals' caseloads consist largely of normal deliveries and ordinary respiratory disorders, which can be more cost-effectively managed at lower-level facilities.

Local direct subsidies for personal health care channeled through district and provincial facilities is an ideal mechanism but at present cannot be expected to expand to match local needs. Many prob-

lems still must be addressed. The predevolution backlog, the mismatch between the internal revenue allotment share and the cost of devolved functions, and spillover effects or cross-border use problems remain formidable obstacles.

Meanwhile, national indirect subsidies through social insurance have yet to reach the poor, as the Philippine Health Insurance Corporation is still developing a workable strategy to expand coverage through local government units. Enrolled indigents' rate of utilization of national health insurance program benefits has been very low, presumably because of the lack of ready access by the poor to hospital facilities. Alternatively, since the support value of social insurance is not 100 percent, perhaps the low utilization rate could also stem from poor people's inability to pay the balance of the hospitalization bill. Meanwhile, the hospitals of the local government units may stand to lose access to premium subsidies because of their inability to qualify for accreditation as national health insurance providers, owing to the suboptimal condition of their facilities and personnel.

In general, the current system of subsidies does not seem to be effective and efficient in meeting the goals of access equity and poverty alleviation. Public investments in personal health care need to be better targeted toward the poor. General subsidies to health care, such as free or very low-priced services for all, usually result in large leakages to more-affluent beneficiaries and are not likely to be successful unless specific targeting to the poor is undertaken. Similarly, attempts to reduce disparities in health status through general subsidies to health care may be efficacious but are likely also to be wasteful in the sense that without targeting or some form of cost recovery or financing from the non-poor, the latter will capture much of the benefit of the subsidy.

The Need for Reform

Five Components of Reform

The current leadership of the DOH has identified five key areas of reform intended to address existing inequalities and inequities and to improve the performance of the health sector. The five-point health reform program is built around three main policy instruments: service delivery, regulation, and health financing. The five components of the reform package are the following:

- increase in investment for public health programs and adoption of multi-year budgets for measures related to important diseases such as tuberculosis, malaria, and those preventable by vaccination
- critical upgrading of public hospitals and the granting of managerial and fiscal autonomy to them in order to reduce the requirements for public subsidies
- restoration of the integrity of the local primary health care delivery system through collaboration among the local government units
- strengthening of the DOH's regulatory capacities in order to optimize health care service quality and cost structure
- expansion of coverage and benefit spending of the national health insurance program.

Increased Government Financing

Tax income remains the biggest source of government financing. With limited resources available for health, government must explore the levying of new taxes on disease-generating industries and activities. Evidence shows, for instance, that noncommunicable chronic obstructive pulmonary diseases and other respiratory illnesses such as asthma and emphysema are adversely and directly affected by pollutants and poor air quality (UNDP 1998), so industries that pollute the air and water could be made to become more socially accountable by having to cover the cost of health problems that can be attributed mainly to them.

Another example relates to accidents. With the rising number of health problems, deaths, and injuries being caused by vehicular traffic mishaps, a ratio-based tax may be levied, in order to finance the rising toll of accidents caused by road users. Both houses of Congress have already approved the imposition of a road usage tax in the form of higher registration fees. Although not specifically targeting the financing of health care, the projected P2.3 billion in new revenue can be earmarked for social services and can lessen the generally intense competition among the various governmental agencies for scarce official resources.

In addition to dampening the consumption of goods considered harmful to people (Dumlao 1999), some believe that excise taxes or "sin taxes" should help to pay for health services, in keeping with the idea that companies that profit from the tobacco or alcohol industries should also be made financially responsible for the treatment of the lung cancers and other problems caused by smoking and excessive

drinking. In addition to products that are directly linked to harmful effects, the government finance secretary has stated that consumer goods such as soft drinks and artificial juices should also be taxed (Go 1999), because they too are damaging to the health, in the sense that they tend to replace basic products that are widely recognized as much more healthful.

On the other hand, quite a few people argue that there is really no need for new taxes. What is more important, according to them, is to make sure that taxes already on the books are actually collected. Representative Herminio Teves states that the projected P12.3 billion in new tax revenue is far less than the P132 billion that could be obtained if the bureau of internal revenue would work on collecting the value-added tax for 1997 and 1998 (Star 1999). Díaz (1999) has reported that certain large companies and commercial banks owe the government a total of at least P14 billion in back taxes. Based on these reports, many representatives in Congress have suggested that instead of imposing new taxes, the government should go after tax cheats and make tax collection more efficient.

Government can also salvage needed resources for health through better accountability and the elimination of corruption. International donors have in fact expressed their desire for the Philippines to address corruption and mismanagement (Star 1998), in order to increase the effective impact of official development assistance and tax revenue. The need clearly exists for additional and continuing official development assistance and private inflows (Gaylican 1998), especially since only 1 percent of official development assistance to the Philippines goes to support the health, education, and agriculture sectors (MNC 1998). In this same vein, government officials might usefully repeat their call for developed countries to provide .7 percent of their GNP for official development assistance (Medalla 1999).

Reducing the Financial Burden on Individuals

According to the Secretary of Health (Romuáldez 1999), individuals or households are the source of the largest share of health-related spending, and government, the national health insurance program, and other contributors are the sources of the remainder, which amounts to about half. To relieve this pressure on individuals, the share of health financing provided by the national health insurance program must be increased, because at present the program accounts for only 7 percent of total health care spending.

At the community level, social health insurance schemes such as the Botika Binhi model (Ramos 1998) may be established to help relieve the burden on the household purse. The key features of community health care financing are the following (Flavier 1999):

- It requires community consultation.
- It gradually builds up family savings for health care.
- It is managed by the community.
- It is self-generating and financially self-sustaining.
- It tends to encourage the use of herbal medicines and other similar products.

Closing Remarks

Shift in Subsidy: From Supply to Beneficiary

The government is gradually shifting its allocation policy away from supply subsidies toward beneficiary subsidies through social insurance. Near-universal insurance coverage is anticipated by the year 2004, by which time the Philippine population's out-of-pocket spending will be accounting for only 10 percent of total health expenditures, while social insurance's participation will have risen to 35 percent.

Striking a Balance between Level and Direction of Health Spending

Poverty may be leading to a world health crisis. According to some experts, no lasting prosperity can be achieved for humanity if public health continues to be viewed only as a side benefit of economic development (*Star* 1998). In a situation of poverty, inequity, and ill health, health care financing must be increased and spending on public health must be better prioritized and more effectively directed. It would be fruitless to focus only on defining an appropriate level of resources for health without also appropriately redirecting health spending.

In effect, allocation problems in developing countries stem from the low level of financial resources available for health care, compounded by the poorly directed spending of these already-limited resources (Akin 1987). Under conditions of very limited funding for the health sector, health services necessarily deteriorate, because it is virtually impossible to achieve efficiency and effectiveness without having an adequate overall resource level (Abel-Smith 1993). Yet even

when a country does have a huge amount of resources available for the health sector, if the health sector's management itself is not very good and if these abundant health resources are not properly allocated and productively spent, then even a high overall level of resource availability is essentially meaningless (WHO 1988). A balance must be struck between the definition of the appropriate overall level of resources and the consideration of the areas in which health spending would be most efficiently and effectively utilized.

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PART VI

Health Regulation

Chapter Eleven

Regulation of the Health Sector in Chile:
The Role of Government and the Private Sector

Dr. Cecilia Acuña and Dr. José Pablo Gómez

Chapter Twelve

The Health Care Role of the Government
and the Private Sector: The Malaysian Model

Dr. Khalid Abdul Kadir

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CHAPTER ELEVEN

Regulation of the Health Sector in Chile: The Role of Government and the Private Sector

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Governments may play different roles in the health sector. In Chile, government has traditionally focused on provision and financing of health services, although during the past ten years, providing insurance and purchasing health care services have also emerged as important tasks to be performed by the public sector. Regulation (design and implementation of a set of rules aimed at guaranteeing the fair play between providers and consumers of health services) has remained the public health sector's least developed function, as well as the most unfamiliar to policymakers.

During the course of the past 20 years, the government has radically altered its stance toward Chile's private health care sector, from an attitude of strong support and promotion to more of a command-and-control attitude. In the 1980s, the military government had implemented a radical health reform aimed at completely supplanting the public sector's activity in health insurance and health service provision with the virtually unregulated activity of the new private companies. The democratic governments that have had control of the country since 1990 have tried to change that situation by passing laws to regulate the private sector's health-related activities, primarily in insurance and in private provision of goods and services that reinforce the public sector's own health-related activities.

As an illustration of how the government is carrying out its regulatory function in the health sector, the present paper describes the current status of the relationship between the government and the private health insurance companies (ISAPRES). The regulation of Chile's health sector is a work in progress, by no means completed, and in need of further effort in order to meet the population's expectations regarding the quality of health services provided by the public health sector and by the private health sector.

Chilean Health Status

Chile is located on the southwest coast of Latin America. It has an annual per capita income of approximately $5,000, and school coverage is almost 98 percent. The country has a total population of around 14 million. The rural population accounts for 15 percent of that total, and around 80 percent of all inhabitants live in the four major Chilean cities, half of that 80 percent residing in the Santiago metropolitan area itself or nearby. The country is administratively divided into 12 areas (called "regions") from north to south.

Chile has experienced great economic growth in the past decades, along with a tremendous improvement in the quality of life of its population. The country has also gone through a process of change in its epidemiological profile. Lifestyle-related diseases have become the main causes of death (coronary illness/cardiovascular disease, cancer, and motor vehicle accidents), although some diseases stemming from poverty[1] are still a significant source of disability and loss of productivity among the poorest Chileans.

Overall, Chileans now enjoy one of the best national health rankings in all of Latin America. Although the average Latin America infant mortality rate is more than 30 per thousand live births, in Chile it is closer to only 10 per thousand. The country's general mortality rate and its maternal mortality rate have also been steadily decreasing during the past 25 years, and current life expectancy in Chile is 75 years. The World Health Organization's *World Health Report 2000* in fact ranks Chile twenty-third worldwide on health level and thirty-third on overall health system performance.[2]

These outcomes have been achieved with a health expenditure of around 6.5 percent of GDP, comprising public (2.8 percent) and private (1.7 percent) health care systems, users' out-of-pocket expenses as co-payments, and other related expenses.[3] But behind the good general health indicators, huge differences do exist among Chile's 12 zones or regions, revealing the main problems of the system: inequity, lack of accountability, and inadequate or poorly defined regulation.

[1] Diseases stemming from such things as malnutrition, lack of appropriate heating conditions at home, indoor pollution, and poor sanitation conditions.

[2] See World Health Organization 2000. In World Health Organization 1999, Chile appears as an example of health improvement during the past century.

[3] Largely as co-insurance against labor-related risk and diseases.

Chilean Health System

Chile's Constitution grants all citizens the right to receive the health care services they need. In reality, however, Chileans' ability to access health care depends upon their affiliation with a health insurance system. The country has two main health insurance systems: (1) public insurance FONASA (the national health fund) and (2) private insurance companies, called ISAPRES. The army health system and the insurance programs covering labor-related risks function separately from FONASA and ISAPRES.

The health insurance system as a whole is financed by general taxation, a 7 percent payroll tax contribution by employees, and out-of-pocket expenses. All formal-sector workers have to contribute either to FONASA or to an ISAPRE, and the unemployed and the poor are covered also by FONASA. Public goods such as immunization, the pregnancy subsidy, and provision of supplementary food (for pregnant women, small children, and the elderly) are supported by public funds regardless of the beneficiary's insurance system.

Health care is organized on the basis of public and private networks that function separately, linked by contract or by default[4] to one or both insurance systems. Health care financing, insurance, and service provision can be performed by both the public sector and the private sector, but regulation is entirely the responsibility of the public sector—even though the public health sector has actually been much more focused on the financing and provision aspects, and now on insurance, than on its regulatory function (Figure 11.1).

Regulation within the Public Health Sector: The Problem of Accountability

The Chilean public health sector consists of several decentralized institutions under the authority of the Ministry of Health, which is legally responsible for the outcomes of the whole system. Those institutions are (1) the institute of public health, (2) the national health fund (FONASA), (3) the superintendency of ISAPRES (private insurance companies), and (4) the health services.

Only the superintendency of ISAPRES and the institute of public health have been assigned the regulatory function as a specific formal commitment, but in practice all four institutions play important

[4] As happens with public providers and with the public insurance fund, FONASA.

Figure 11.1 Organization of Chile's Health Sector

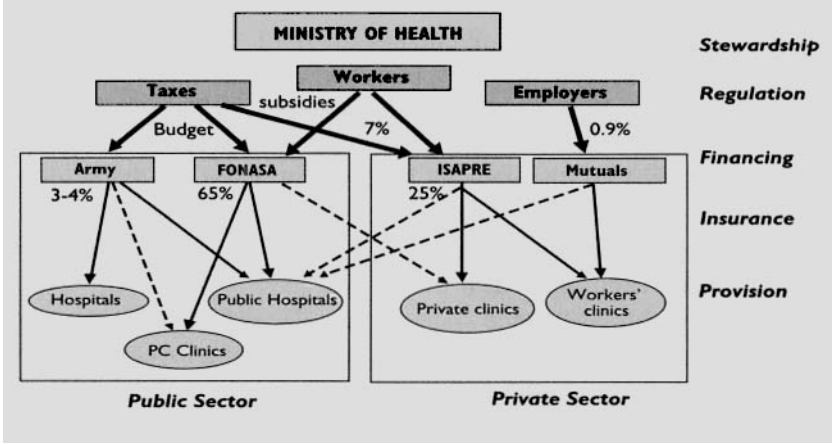
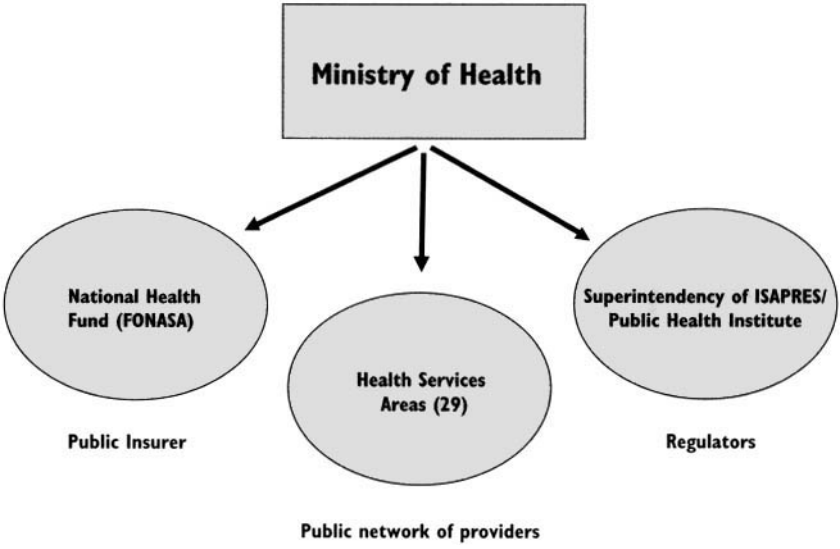


Figure 11.2. Chile's Health Sector



regulatory roles, each in its own way, ranging from establishing specific rules or laws (the Ministry of Health itself, the superintendency of ISAPRES, the institute of public health, and the health services) to sending price signals to the market of providers and insurers (the national health fund). Most of these institutions also provide some kind of health services, such as health care (the health services, through their network of public hospitals), vaccines (the institute of public health), or insurance (the national health fund) (Figure 11.2). An interesting issue arises here in regard to public sector accountability. These institutions carry the authority of the Ministry of Health and therefore have the power to restrict or control private provision of health-related services, even though no such control exists over the public sector's own provision of similar services.

Regulation of Public Providers of Health Care

Chile's health services are the representatives of the Ministry of Health in each of the 12 zones of the country. Historically, the health services have carried out public health activities in their respective territories and at the same time have managed their territories' regional public hospitals. Thus their role has been dual—heading the territory's network of public providers and at the same time acting as local regulators of the entire health sector within in the territory. This duality has led to a loss of confidence in the public/private relationship. The public agency supervising private clinics is in effect the very same public agency managing public hospitals that are presenting serious problems related to efficiency and respect for patients' rights. This delicate situation makes it difficult for the public health services to define and enforce quality standards vis-à-vis private providers when many times it is clear that the same standards are not being enforced vis-à-vis the public providers.

Seemingly, it should be easy to create a more balanced state of affairs by merely adopting the same standards for private and public providers. But in practice, the two sets of providers operate in such vastly different circumstances that achieving balance cannot be a matter of simply changing some rules. Indeed, the public health sector is already well saturated with detailed regulations designed to ensure appropriate use of the money coming to it from the public budget. Some of these same regulations, in fact, make it impossible for a public hospital to use economic incentives in order to keep qualified personnel from going into private activity and impossible for it to fire those workers who are not meeting minimal goals, largely because of political

influence and pressure from different interest groups within the health sector. In contrast, the private health care sector operates within quite a permissive labor framework and enjoys the freedom to manage financial resources as it sees fit.

Regulation of Public Insurance

The superintendency that oversees ISAPRES (private health insurance companies) has no legal power to regulate the publicly administered health insurance fund (FONASA). FONASA instead is directly supervised by the Minister of Health. Certainly an issue exists here, because FONASA does compete with ISAPRES and both might reasonably be expected to have the same regulatory framework. But they do not, because of an as yet unaddressed structural problem related to the nature of both insurance systems (as we shall see later in some detail).

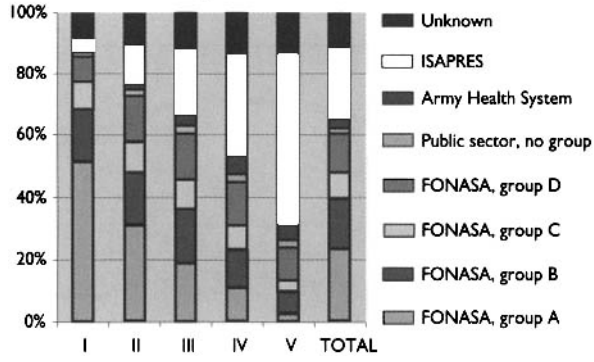
It has become apparent that one of the largest problems with the system as it now stands is that the same set of rules does not apply across the board to the private sector and to the public sector. In the field of provision one might possibly interpret this situation as benefiting the public side (although public providers would argue they do not have enough human or technical resources to perform any better than they do), but in the field of insurance the situation is quite the opposite, with the private side apparently being the benefiting party.

Regulation of the Private Health Sector: The Private Health Insurance Market

Chile's 1980 health system reform separated financial administration of the public health sector from service provision and from the Ministry of Health and created the national health fund (FONASA). It also authorized and promoted the introduction of competing private health insurance companies (ISAPRES).

The national health fund, FONASA, charges all its affiliate members the same 7 percent payroll tax regardless of the individual's level of health risk. In contrast, the ISAPRES private health insurance companies are allowed to adjust the contribution level, taking the 7 percent payroll tax as the minimum contribution. FONASA is obliged to offer the same insurance plan to all its members, while ISAPRES may adjust the benefit package to fit the risk level of the affiliate or his/her family. This difference reflects the radically different rationales behind the two insurance systems: FONASA is based on salary-related

Figure 11.3. Health System Affiliation by Quintiles, 1998



contributions and operates under the principles of solidarity and no exclusions, while ISAPRES insurance companies are based on risk-related contributions and operate like any traditional insurance company, with exclusions depending on each individual's health profile.

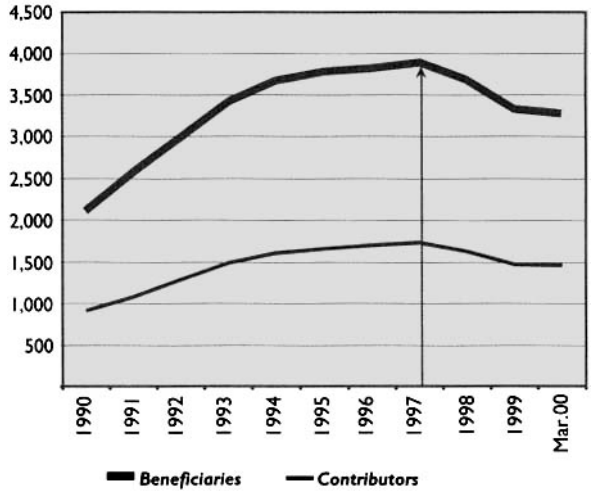
In addition to these structural differences, the ISAPRES companies went without any regulation for ten years following their creation (for political reasons), becoming a very attractive and active business and growing from 2 percent population coverage in 1983 to 25 percent coverage in 1999. The structural differences between the two systems, the initial lack of regulation of the ISAPRES companies, and the policy of channelling all cross-subsidies through FONASA resulted in a severe segmentation of the health insurance market. The national insurance fund, FONASA, carried the poor, the elderly, and those with potentially costly pre-existing illnesses, while ISAPRES focused on the richest and usually risk-selected the healthiest and the youngest (Figure 11.3).

To deal with this situation, the democratic governments have focused on strengthening the superintendency of ISAPRES, enhancing FONASA's role as the public sector health insurance provider, and introducing regulations designed to reduce risk-based selection of clients by the companies. The improvement of FONASA, the present economic crisis, and the ISAPRES companies' lack of transparency regarding prices and benefit packages have resulted in a shift of contributors from ISAPRES to FONASA during the course of the past three years (Figure 11.4).

In search of subscribers, the ISAPRES companies are now offering new kinds of health insurance plans, called "closed" plans and "preferred-provider" plans, which are very HMO-like in design. The

Figure 11.4. Private Insurance (ISAPRES) Affiliation, 1990-99

(thousands)



ISAPRES are now also offering new benefits that provide better coverage for catastrophic illnesses, under the supervision of the superintendency of ISAPRES.

ISAPRES and Efficiency

In regard to the efficiency of the ISAPRES system, two especially interesting facts emerge. First, the private insurers' administrative costs have remained high and have held steady during the entire past decade at around 20 percent of their total income (Figure 11.5). The ISAPRES would attribute this fact to the regulations they must satisfy and to the natural effect of sales force competition tactics. This may indeed be part of the explanation. It could also be that their high administrative costs are directly related to the huge number of different benefit packages they offer, necessitating proportionally huge management expenditures on information provision, sales systems, and cost control systems for those packages.

Second, for the ISAPRES the frequency of use of health services and the individual cost of those services have both been increasing (Figure 11.6), meaning that the ISAPRES have not used their bargaining power to get better prices and also that they have not designed new incentives aimed at improving the health service utilization patterns of their beneficiaries. The ISAPRES have simply transferred the increment into the premium price paid by users for their

Figure 11.5. Revenues and Operational Costs of ISAPRES

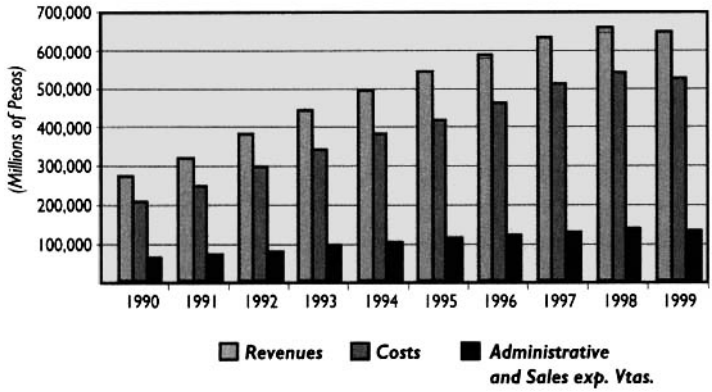
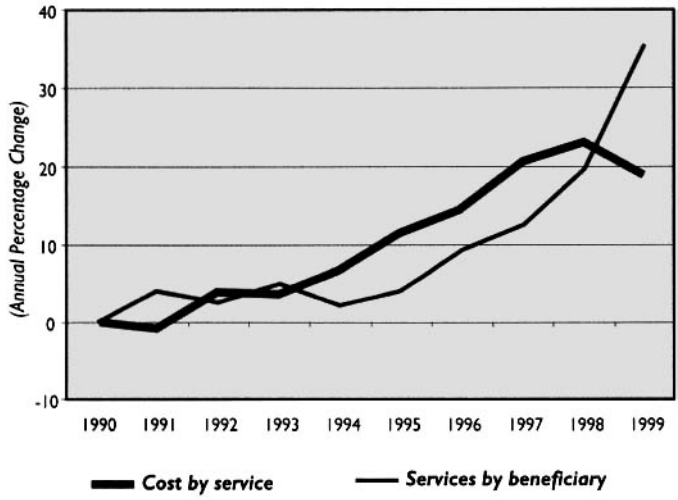


Figure 11.6. ISAPRES, Annual Variation Rate of Service Consumption



access to the benefit packages. As a result, an increase has occurred in total expenditures without any concomitant improvement in the health status of ISAPRES beneficiaries.

This situation shows a clear lack of efficiency on the part of ISAPRES. But what is more serious is that it also reveals a glaring lack of regulation—a lack that is highly detrimental to users' interests. To address this problem, the Ministry of Health must define a policy on basic health care packages, and the superintendency of ISAPRES must be given the authority to be informed of the relationships between

ISAPRES and providers, in order to introduce new contracting methods or payment mechanisms. In the meantime, health authorities are forced to remain passive witnesses to the cost increases in the private insurance market.

The Problem of Equity

Chile has a major problem in regard to equity of health care coverage. Even after great effort by the government, FONASA's per capita expenditure is still remarkably lower than that of ISAPRES: in 1999 FONASA enrolees accounted for approximately $250 apiece in consumption of health services while ISAPRES contributors accounted for nearly $400 apiece. In certain areas of the country, the infant mortality rate is as high as 40 per thousand live births, while in rich areas like Santiago it is between 6 and 7 per thousand.

A good deal of work remains to be done in order to remedy this appalling lack of equity. The most urgent tasks would seem to be the following: (1) improvement of subsidies for the poor, (2) introduction of mechanisms to control overutilization of certain services, and (3) adoption of the regulations necessary for ensuring accountability and fairness in insurance coverage and in health service provision. Before these three tasks can be undertaken, however, an effort will need to be made toward achieving the necessary political consensus.

The Population's Expectations

Chile's inhabitants do not identify the Ministry of Health with the need for an intensified health sector regulatory function. They are simply hoping for improved provision of health care services as reflected in quicker access, better health care facilities, and greater respect for their rights. People's expectations always seem to go beyond policy improvements. Perhaps this is why the population's impression of the quality of health care services has grown increasingly negative during the course of the past ten years, despite the good results produced by the system. The main issues as perceived by the population are the following:

- problems impeding timely access to health care
- lack of respect for patients' rights at public hospitals
- lack of transparency of private insurance
- poor condition of public sector facilities.

Meeting people's expectations will depend largely on the Health Ministry's defining and implementing the basic regulations required to ensure the system's responsiveness to users' needs within a framework of mutual respect and responsibility.

Final Comments

The Chilean health system faces several serious challenges: (1) to maintain the good health status that the country has already achieved, (2) to improve the health sector's performance, (3) to address the sector's main problems, and (4) to satisfy the population's health care expectations. These challenges call for a redefinition of the roles and priorities of government in the health sector. They also necessitate a shift in the nature of the relationship between the public health sector and the private health sector. The need exists for new programs of public services and private services that put the health interests of the population—not the interests of providers, insurers, or politicians—at the center of the system. New methods must be developed to deal with health problems, methods that encompass all the health sector actors and activities in the country, not just those of the public sector.

One of the recognized functions of all Ministries of Health is regulation. Health Ministries must define and approve the appropriate rules and standards for the sector and then ensure sector-wide compliance with these rules and standards. Regulation is a powerful tool: it can promote or restrict the activities of any public or private actor within the sector. But never should it be utilized to preserve or promote the interest of some specific group over the best interest of the people. By this definition, regulation in the Chilean health sector is still a work in progress. It must now begin to be viewed and treated as a top priority in order for the Chilean health system to be able to address successfully the challenges it currently faces.

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CHAPTER TWELVE

The Health Care Role of the Government and the Private Sector: The Malaysian Model

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Malaysia is a multiracial country situated in Southeast Asia, with a population of about 23 million. Within the last two decades it has been transformed from a largely agriculturally based rural economy into a rapidly developing newly industrialized nation. Together with the country's rapid transformation and its newfound wealth, the expectations of the Malaysian people have also changed. They are more educated and more knowledgeable than before, and they are now demanding higher standards in the provision of all kinds of services, including health care services.

Along with the recent modernization, industrialization, and development, the country's pattern of diseases has also changed. Diabetes, obesity, hypertension, and cardiovascular diseases have become more prevalent, while tropical diseases and malnutrition are now very rare. Deaths and injuries from motor vehicle accidents are second in number only to deaths and disease of cardiovascular origin. Meanwhile, medical science itself has also experienced tremendous changes in terms of diagnostic tools, treatment methods, and new drugs.

The country's new wealth, the higher expectations of the people, the change in the country's disease pattern, and the recent advances in medical technology have resulted in profound alterations in Malaysia's medical and health services sector. The provision of health care and of medical services once used to be entirely the responsibility of the government. But the private sector has now assumed a much greater role in satisfying the population's health care expectations and needs. This shift has resulted in a split within the health care sector between public and private providers, greatly to the detriment of the health services provided by the government. To heal this rift and to prevent further erosion of the services provided by the government, new strategies have been designed and implemented. These strategies have met with varying degrees of success.

Public Health Services

The government has managed to provide very comprehensive and effective health and medical service throughout Malaysia that could serve as a model for most other developing countries. The health policy was designed to ensure equitable provision of health care for all, so that even the poorest family in the most remote corner of the nation has access to health facilities provided by the government.

The Ministry of Health operates 118 hospitals throughout the country. At the apex is the Hospital Kuala Lumpur in the capital, which has only recently been surpassed in terms of the modernness of its facilities by a brand new hospital (Hospital Selayang) situated just outside Kuala Lumpur that is fully computerized and paperless. Another modern new computerized hospital was recently opened at the country's new administrative capital, Putrajaya. The capital Kuala Lumpur with a population of two million is further served by two modern thousand-bed university hospitals run by the Ministry of Education. Thus, Kuala Lumpur now has four large tertiary-care hospitals that act also as referral centers for difficult cases from throughout the country (and also from neighboring countries).

Each local state has a general hospital with all the specialties and facilities needed for modern treatment of illnesses at the tertiary level. Each state's general hospital serves as a referral center for that state.

Every district has a district hospital ranging in size from 250 beds to 500 beds that provides secondary-level health care, with specialties in the major disciplines and with modern radiology and pathology services. The next Malaysia Plan (2001–2005) provides for 23 more hospitals at the district level.

The primary level of health care is provided by 773 health clinics, 1990 rural clinics, and 107 maternal and child care clinics, supplemented by 194 mobile clinics.

Thus, every citizen has access to health (and dental) services provided free by the government. Every child born is given free immunization to almost all types of childhood diseases and hepatitis B. With these health services provided, the neonatal death rate is now comparable to that of any other modern nation, at 4.6 per thousand, and the average life span for men is 73 years and for women 75 years. Malaria, filiriasis, typhus, and other infectious diseases are uncommon and restricted to border and jungle fringe areas. Tuberculosis is largely controlled, so much so the nationwide network of TB centers and the national TB center had to be closed. But now, the country has a national

heart institute, a reflection of the change in Malaysia's disease pattern. All these health care services are provided by the government utilizing only 3.9 percent of the GNP.

Private Health Services

The last two decades have witnessed a mushrooming of private health care facilities in the country, and the provision of private health care services has now become a major service industry, with private hospitals being listed on the Kuala Lumpur Stock Exchange. More than 55 percent of the nation's physicians now work in the private sector, and about 15 percent of the specialized health care services needed in the country are provided by 1,100 specialists in private practice (compared with 660 in government and 281 in universities).

Private health services are provided at all three levels of care. A nationwide general practice/family care clinic operation, run as solo or group practices, provides primary health care for a fee. These are supported at the next level by small maternity homes/centers and by specialized clinics. The specialized hospitals burgeoning throughout the country, especially in the major cities, provide high-quality tertiary-level subspecialty care services to those who can afford them. There exists no national health insurance scheme, but the population nevertheless demands and obtains private health care services paid for out of pocket, by savings and the like.

The Role of Public and Private Health Care

A serious overlap and redundancy exist in the provision of health care services by both the government and the private sector. On the other hand, the simultaneous existence of both sectors has ensured equitable health care for all in the country.

The government provides nearly free comprehensive health and medical services to every citizen (and to foreign workers). Every citizen is entitled to the highest level of tertiary care at the Kuala Lumpur hospital or the university hospitals at a very subsidized rate, or even free if they are (1) government employees, (2) dependents of government employees, (3) officially poor, elderly, or invalid, or (4) children up to 12 years old.

All Malaysians have the right to use private health care services if they can afford them, and in a sense the richer groups do not

utilize the subsidized government health services meant for the poor. The rural health services, which are not attractive to the private sector, are administered by the government. Preventive health care, too, is the responsibility of the government, which also has the task of providing health care to the aborigines and to the population in the remote areas of the country.

The government is embarking on a quest to ensure the fundamental health of the nation and is actively promoting the basic wellness of the population rather than focusing simply on curative medicine. Meanwhile, the private sector thrives on illness and on the need for curative medicine. The care of chronic debilitating illness (such as dialysis services for chronic renal failure) is a burden that the public cannot well afford, yet it is also one that the government sector is obliged to provide.

Dual Effects of the Thriving Private Sector

With the modernization of society and the increase in knowledge through access to the Internet and other media, the Malaysian people now have higher expectations regarding health care quality. They demand and obtain the desired level of care quality from the private health care sector, at a cost to their family budget. The government is seeking to meet the population's demand for higher-quality care and has initiated nationwide quality assurance measures. It has also improved the facilities in major public hospitals to match the facilities available in the private hospitals. Thus, unlike the situation 20 years ago, many government hospitals have very modern and up-to-date facilities and equipment and very high-quality clinics and wards.

The other side of the coin is that the thriving private health care sector has at the same time contributed to serious erosion in certain other aspects of the government's health service provision. The country's existing supply of medical and paramedical manpower cannot meet the demand from both the public health care sector and the booming private health care services industry. Until recently, there were only three medical schools in the country, producing about 400 physicians per year, with another 150 to 200 physicians per year coming in after their graduation from medical schools overseas. Specialists were few and mostly trained abroad. Nurses and other paramedics are also in short supply. The private sector has managed to attract many of these doctors, specialists, nurses, radiographers, technicians, and others with its larger remunerations, at the expense of the government health ser-

vices. New private hospitals compete for the same manpower that the government hospitals need.

No provision for private practice exists for doctors who are employed by the government, and conversely, little opportunity exists for private doctors to practice in government hospitals or university hospitals. The university hospitals and larger government hospitals are the training ground for medical students, specialists, and subspecialists as well as for nurses and other paramedical staff. But unfortunately, the migration of well-trained and experienced physicians and paramedics to the private sector has resulted in grossly understaffed medical schools and teaching hospitals.

The Experience of Hospital Universiti Kebangsaan Malaysia

In an effort to overcome the problems occasioned by the country's thriving private health care sector, government, the universities, and medical professional organizations had to begin to rethink the roles of the governmental and private health care sectors and to modify the existing paradigm for the interaction of the two. The redundancy of services and the competition for personnel by the two sectors had to be remedied, and the resultant efforts to merge certain aspects of the two sectors have indeed met with some success.

The Universiti Kebangsaan Malaysia (National University of Malaysia) and its new hospital complex in the south of the capital have played a major role in this transformation and paradigm change. To ensure that its experienced and highly qualified academic staff and consultants are not entirely lost over to the private sector, the university has employed them as visiting consultants to the hospital, giving them remuneration competitive with private rates. Thus, the professors and lecturers who joined the private sector are still able to practice, teach, and train junior-level doctors on a part-time basis. This type of arrangement was previously not considered practicable, especially since these professionals' current part-time government pay is equivalent almost to their previous full time pay as government specialists or lecturers. Nurses and other paramedical staff from the private sector are also now employed *ad locum* by the public health care sector on part-time basis. In the past, the government nurses would do *ad locum* (but at the time, illegally) in the private hospitals, because of the shortage of such personnel. Meanwhile, public-sector professors and lecturers now have the opportunity to work in the private sector on a part-time basis. Thus, the Universiti Kebangsaan Hospital has signed agreements with pri-

vate hospitals and organizations whereby there occurs a free flow of human-resource traffic in both directions. The specialists who joined the private hospitals are now allowed to return to the university to teach, train, and practice, and university doctors are now allowed to work in the private hospitals part time.

Similarly, the University Kebangsaan Malaysia was able to work with other nongovernmental organizations to build up certain centers in the hospital. Thus, the Universiti Kebangsaan Hospital teamed up with the national cancer council to open up the cancer center, with staff, provision, and finance coming from both sides. The hospital also teamed up with the national electricity company and the national petroleum company to open the national burn center, with the largest bank in Malaysia to open the transplant center, and with the leisure-based company Genting to open a virtual library based at the hospital and accessible to all Kebangsaan doctors and their mentors in hospitals throughout the country.

This program is effectively blurring the boundaries of private and government sectors and has been followed by the government hospitals and other universities as well. The Ministry of Health has now embarked on a campaign to reemploy the specialists from the private sector on a part-time basis. The other two university hospitals have also allowed their academicians the right to conduct a limited amount of private practice. The Ministry of Health has allowed four private medical schools to be set up based at the respective local-state general hospitals and utilizing public medical specialists to serve as part-time lecturers and professors and the private academic staff to practice in the government hospitals. The national heart institute has joined up with a number of private hospitals to set up cardiothoracic surgical services on a joint basis.

Similarly, the Universiti Kebangsaan Hospital has been chosen by the Ministry of Health to initiate an area health care program. The university hospital system belongs to an organization different from that to which the Ministry of Health hospitals belong. University hospitals have always been seen as tertiary-care referral hospitals, concentrating on curative medicine, while preventive and primary care medicine is under the Ministry of Health. In this new venture, the area in which the Universiti Kebangsaan Hospital is situated is to be conjointly administered for preventive medicine and primary health care, so that the primary health care centers act as gateways and sieving centers for higher-level tertiary care at the Universiti Kebangsaan Hospital.

The university has thus launched primary and family medicine centers outside the hospital into the surrounding areas, and a low-risk

birth and maternity center has recently been opened about 20 kilometers away. Universiti Kebangsaan Hospital staff also provide industrial health care to the area and conduct surveys on the health status of the area's population. Programs to promote a healthy lifestyle are being started in collaboration with the private practitioners in order to strengthen the government's wellness campaign and to obtain the support of the local practitioners. The Universiti Kebangsaan Hospital has also started a home nursing program, the first of its kind in the country, through which patients discharged from the hospital are given continuing nursing care and rehabilitation services. In addition, the university has opened a dialysis center at its main campus, Bangi, 30 kilometers away, in order to provide dialysis services to its staff and students.

This conjoint area health care program fits in well with the university's medical and nursing undergraduate training programs, which follows the World Health Organization's call to ensure that doctors and nurses are trained also in the provision of preventive and primary care and not just in high-level tertiary care.

Summary and Conclusion

Malaysia is undergoing a transformation in its health and medical services as a result of the country's rapid economic growth and industrialization. The demand for high-quality tertiary and secondary health services has resulted in the rapid growth of the private health care sector, which caters to those population groups that desire and can afford private care services. The government sector's own traditional focus on the provision of primary and preventive care has also expanded to cater to this more-sophisticated demand, through the establishment of many new state-of-the-art government hospitals. Meanwhile, the government sector remains the main provider of health services (1) to those living in rural and remote areas, (2) to the poor, the aged, and the handicapped, and (3) to government employees and their dependents.

The growth of the private sector has greatly strained the country's available supply of medical manpower and has also resulted in redundancy and overlapping of some of the services provided. The health care roles of the private sector and the public sector have to evolve accordingly, in order to address these issues. Efforts are now being made to merge some of the services provided by the government with the services provided by the private sector. The Universiti Kebangsaan Hospital has played a pivotal role in bringing about such changes.

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PART VII

Health Strategies in Multilateral Agencies

Chapter Thirteen

Health Sector Organization/Reorganization
in Latin America and the Caribbean

Roberto F. Iunes

Chapter Fourteen

Health Sector Challenges in Asia and the Pacific:
The Strategy of the Asian Development Bank

Dr. Indu Bhushan

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CHAPTER THIRTEEN

Health Sector Organization/Reorganization in Latin America and the Caribbean

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Latin American and Caribbean health indicators have shown significant improvements in recent years, as evidenced by the following:[1]

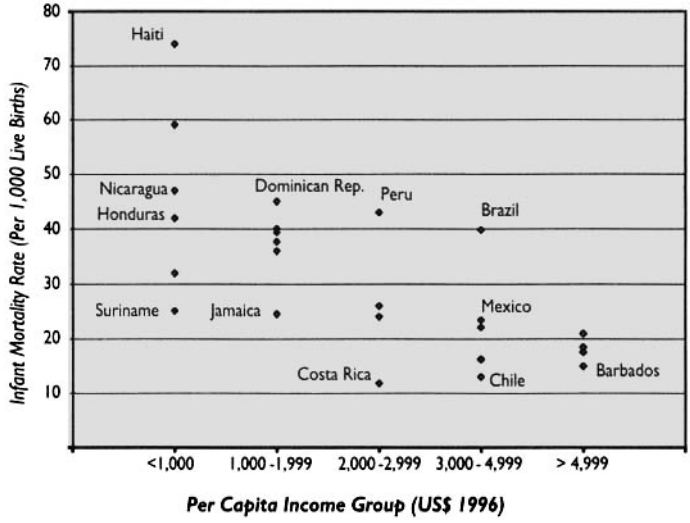
- Immunization coverage has increased substantially. Diphtheria/pertussis/ tetanus immunization coverage among infants increased from 38 percent in 1980 to 83 percent in 1997, and measles immunization coverage increased from 41 percent to 90 percent during that same period.
- Life expectancy at birth increased by more than four years between the first half of the 1980s and the first half of the 1990s (from 65.4 to 69.8 years).
- The age-adjusted rate of mortality from communicable diseases fell by almost 50 percent between the first half of the 1980s and the first half of the 1990s (from 181 to 94 per 100,000 inhabitants, approximately).
- The proportionate rate of mortality from acute respiratory infections declined from almost 17 percent during the first half of the 1980s to about 11 percent during the first half of the 1990s. An even more impressive decline was that observed in the proportionate rate of mortality from diarrheal disease, which was reduced by almost two-thirds between the first half of the 1980s (nearly 22 percent) and the first half of the 1990s (around 8 percent).

Despite these improvements, the region's health indicators generally tend to be worse than those of other parts of the world of similar (and sometimes even of lower) income levels. This scenario has impelled many countries of the region to seek improvements in their health systems through intensive structural and organizational changes. Such processes of change are generally known as health reforms.

The present study provides a general discussion and critical assessment of these Latin American and Caribbean health sector reor-

[1] Data from PAHO 1998.

Figure 13.1. Infant Mortality Rates by Income Group
(IDB Member Countries, 1996)



ganization processes. We shall describe the issues behind the different proposals to reorganize the region's health systems, the actions of the Inter-American Development Bank in the health sector, and the problems encountered in the implementation of health system reorganization processes—in particular the fact that some of the proposed solutions can introduce their own sets of problems and challenges.

The Forces Driving Health System Reorganization in Latin America

Inequity

The pronounced income inequality and social disparities that characterize the Latin American and Caribbean region are reflected in the countries' health sectors. In this regard, we need to keep in mind that monolithic regionwide indicators can mask some extremely large disparities among and within countries.

Figure 13.1 (PAHO 1998) displays infant mortality rates for IDB member countries grouped by per capita income level.[2] The coun-

[2] IDB member countries are Argentina, Barbados, Belize, Bolivia, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Suriname, The Bahamas, Trinidad and Tobago, Uruguay, and Venezuela.

try with the highest infant mortality rate (Haiti, with 74 per thousand live births in 1994-95) has numbers more than six times greater than those observed in the country with the lowest infant mortality rate (Costa Rica, with around 12 per thousand live births in 1996). In general terms, the large differentials in infant mortality rates that exist between the richer and poorer countries of the region have actually increased over time. In the early 1950s, the median infant mortality rate in the poorer countries was around twice of that observed in the more affluent ones, but by the early 1990s this ratio had increased to almost five times that of the more affluent ones (PAHO 1998).[3]

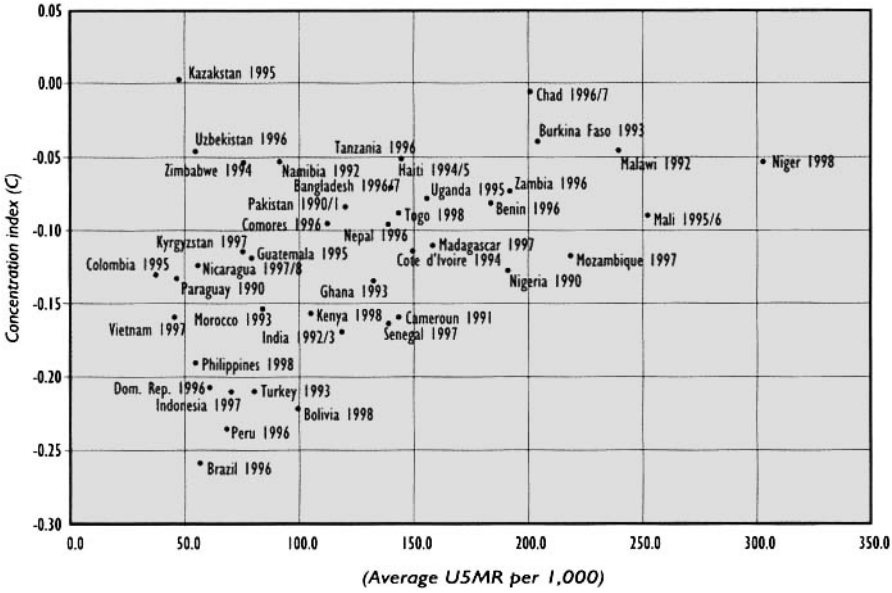
But income level is not an infallible predictor of infant mortality rates. Large differences in infant mortality rates can and do exist also among countries of similar per capita income levels. Relatively high infant mortality rates are not restricted to countries with the lowest levels of per capita income such as Haiti, Nicaragua (47 per thousand live births in 1997), or Honduras (42 per thousand live births in 1996) but are experienced also in relatively rich countries such as Peru (43 per thousand live births in 1996) and Brazil (40 per thousand live births in 1996). Meanwhile, Suriname, one of the poorer countries of the region, has an infant mortality rate (at 25 per thousand live births) similar to that of Mexico and much lower than that of Brazil—countries with per capita incomes four to five times larger than Suriname's.

Figure 13.2 (Gwatkin *et al.* 2000) displays the gaps existing in rates of under-five mortality between the poor and the non-poor in various developing countries. A greater (in absolute terms) negative concentration index for a particular country indicates a larger poor/non-poor inequality favoring the non-poor. The Latin American countries present in the figure tend to display lower mortality rates but larger inequalities, thus showing that the region presents larger within-country health inequities than do other parts of the world. In fact, the three countries with the largest health gaps are Latin American (Bolivia, Brazil, and Peru).

Large disparities and inequities also exist in rates of maternal mortality. Chile and Costa Rica, for instance, have maternal mortality rates in the range of 25 to 30 deaths per 100,000 live births, while Bolivia and Haiti have rates that are around 400 to 450 deaths per 100,000 live births. Furthermore, taking the figures for Canada as points of references or targets, the region has been more effective in reducing

[3] Aruba, the British Virgin Islands, the Cayman Islands, and The Bahamas are excluded from this comparison.

Figure 13.2. Within-Country Under-Five Mortality Inequality in Selected Developing Countries



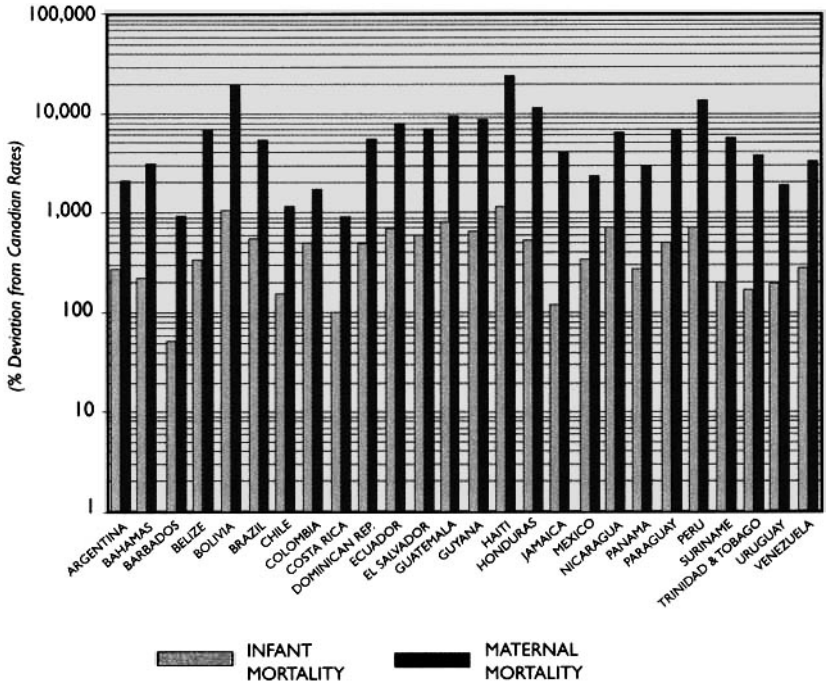
differentials in the case of infant mortality than in the case of maternal mortality, as shown in Figure 13.3 (PAHO 1998).

Health inequalities are discernible through indicators such as infant mortality that are highly correlated with socioeconomic status and living conditions. Health inequalities are also quite discernible through indicators such as under-five mortality and maternal mortality that are highly correlated with health system access and quality of care. This fact corroborates the hypothesis that health system structure and organization have indeed contributed to the pattern of health inequities observed in the region. Our conclusion must therefore be that health care systems do matter—and matter greatly.

The historic process of segmentation that shaped many of the Latin American and Caribbean health systems has been a contributing factor to the region's health inequalities. This segmentation is typically embodied in a three-tiered system composed of the following types of subsystem:

- The first type is a subsystem financed with resources from the Ministry of Health, offering services in public facilities to the general population. Large proportions of the population, particularly the

Figure 13.3. Infant and Maternal Mortality Differentials vis-à-vis Canada
(IDB Member Countries, 1996)



rural and urban poor, rely on these services as their only sources of care. The underfunding and financial instability of the public systems greatly impact the quality of the services provided by the government. Public facilities tend to be poorly staffed and to lack drugs and supplies, particularly in rural areas. National laws and constitutions give the public sector the responsibility for universal coverage, but inadequate management, underfinancing, and poor quality control have led to low coverage rates and limited access to care.

- The second type is a social security subsystem responsible for the provision of care to those employed by the formal (mostly urban) sector of the economy. Health service quality in the social security systems tends to be better than in the health services organizations of the Ministries of Health, but social security coverage often does not extend to the family members of the affiliated worker.
- The third type is a purely private subsystem covering those who can afford the relatively high out-of-pocket expenditures and/or

private insurance premiums. Many doctors combine public and private practices but tend to allocate most of their time to the private.

The English-speaking countries of the Caribbean have followed a different path. They have to a large extent maintained the structure and organization of the original system inherited from England, and their health indicators are generally better than those of the Latin nations of Latin America.[4]

Inefficiency and Ineffectiveness

The region directs significant amounts of resources to health. Health expenditures in Latin America and the Caribbean amount to almost 7 percent of the region's GDP, or approximately $240 per person per year. But high expenditure levels notwithstanding, the health conditions of Latin America and the Caribbean tend to be worse than those observed in other regions of the world with similar per capita income levels—indicating that the health systems of Latin America and the Caribbean tend to be extremely ineffective.[5]

If efficiency (or productive efficiency, or technical efficiency) is defined as the relation between input and output (that is, the output-to-input ratio), a health system will be said to have increased its efficiency if, everything else being equal, it produces the same level of health care services with fewer inputs or if it produces more services with the same resources. The presence of inefficiency in the health systems of the region is evidenced by factors such as the following:

- relatively long average lengths of hospital stays (around seven days in most countries) and low hospital occupancy rates (frequently around 50 percent)
- low "productivity" of physicians (particularly in the public sector), reflecting the discrepancy that tends to exist between hours contracted and hours effectively worked

[4] The same reasoning applies in many instances to Suriname, which has benefited from the Dutch system.

[5] Here we are defining effectiveness as the health outcome/input ratio. Thus, under this definition (which is one of several), a system is deemed to be more effective if, everything else constant, it can improve the health conditions of the population using the same level of resources (or conversely if it can maintain the current health status using fewer resources).

- relatively high numbers of physicians, such as in the Southern Cone, which has a rate of physicians per population that is close to the rate observed in Canada
- high administrative costs, sometimes consuming almost 25 percent of the system's budget.

Furthermore, the health systems of Latin America and the Caribbean tend to emphasize individual curative care more strongly than they emphasize such cost-effective approaches as primary care, collective public health actions, health promotion, and disease prevention. As a result, the lion's share of the health budget tends to be allocated to the country's major hospitals.

Another important evidence of allocative inefficiency[6] is the inverted human-resource pyramid observed in the region, particularly the suboptimal nurse-physician ratio. The region has a lack of adequately trained nurses and an extremely high number of physicians. Developed countries have relatively more nurses than physicians (four to one in Canada and the United States), but the opposite is observed in Latin America and the Caribbean, where on average there are only about 7.4 nurses but 15 physicians per 10,000 inhabitants, with an even smaller ratio in certain countries (Uruguay with 7 nurses and 37 physicians per 10,000 inhabitants and Venezuela with 2.4 nurses and 24 physicians per 10,000 inhabitants [PAHO 1998]).[7]

Would the pursuit of greater efficiency be an obstacle to equity improvements? Does a tradeoff exist between equity and efficiency in Latin America and the Caribbean? Formally, we would have to answer that a health system that is not technically efficient is not operating at the production frontier anyway and therefore does not really face any conflict between efficiency and equity. The pursuit of efficiency does not necessarily impede equity improvements. In fact, in many cases, resources released from or saved by efficiency gains could actually be allocated to the improvement of equity, although, of course, not necessarily. And sometimes, efforts to improve efficiency assume a given resource distribution, the absence of which could conceivably call for the implementation of equity-enhancing redistributive policies.

[6] Allocative efficiency implies producing the appropriate mix of outputs with the appropriate mix of inputs.

[7] In general, the countries of the English-speaking Caribbean tend not to present this "inverted" pyramid.

Finance Issues

The misallocation of resources is often made worse by health sector financing volatility. In response to this situation, most of the countries' health sector policymakers are seeking to design stable financing mechanisms that would ensure more budgetary predictability. And in general, the region's Ministers of Health tend to be very concerned with the "macro" aspects of financing—that is, with the amount and source of sector financing.

But there seems to occur relatively less discussion about the "micro" structure of financing and about such functions as the reimbursement of service providers. In fact, there seems to be little perception at all at the decision-making level of the link that exists between macro and micro financing. Decision makers apparently fail to notice that micro financing defines the economic incentives and disincentives that will drive the behavior of care suppliers, the *de facto* main determinants of the sector's overall level of expenditure. As a result, reimbursement mechanisms can undermine efforts aimed at increasing efficiency and at inducing cost-effective interventions.

For instance, the high prevalence of cesarean procedures observed throughout the region stems largely from the reimbursement differentials added to the cesarean procedures in relation to normal birth delivery. Because birth deliveries are often the largest item of health care expenditure, the budgetary impact of such a measure is generally significant, sometimes even compromising the government's capacity to achieve its targeted overall coverage levels of institutional deliveries.[8]

Institutional Weakness

It is widely recognized in the region that the health sector institutions are weak and that existing managerial capacity is inadequate at best. This debility permeates the major organizations of the sector, including Ministries of Health, social security institutions, and hospitals. In many cases, these organizations lack the data, the systems, and the human resources needed in order to fulfill their mandates properly and to operate efficiently—a situation compromising their key roles of policy setting, stewardship, and regulation.

[8] Not to mention the health impact in terms of increased risk to mothers and therefore on maternal mortality.

Health System Reorganization in Latin America and the Caribbean

As an attempt to tackle the issues described in the previous section, many of the countries of the region have embarked on processes aimed at improving and/or restructuring the health sector. This process has received wide support from multilateral technical and financing agencies, including the Inter-American Development Bank (IDB).

Actions of the Inter-American Development Bank in the Health Sector

The Inter-American Development Bank has always considered actions in the social sectors a priority, an emphasis greatly strengthened with the Bank's eighth replenishment (in 1994) when the Board of Governors determined that resources allocated to the social areas should gradually increase to reach 50 percent of all loans. During the 1990s the focus of IDB-financed health sector projects shifted from infrastructure development to the organization or reorganization of the system through actions and incentives designed to improve efficiency and equity and to strengthen sector institutions and managerial capacity.[9] The IDB has health projects under way in the vast majority of its member countries. Table 13.1 presents some key information on several of the recent health projects supported by the IDB.

The Bank's current health portfolio comprises 25 projects in execution totaling approximately $1.7 billion, which represents more than 3 percent of the IDB's total current portfolio. The five new health loans approved by the Bank in 1999 totaled almost $500 million—around 5 percent of the total amount lent to the countries of the region and 11 percent of all social sector projects approved.

An institution such as the IDB can examine the performance of a large variety of projects under execution and make recommendations to member countries based on what works well and what does not and what should be avoided, improved upon, or continued in future projects. Sector and country studies supported by the Bank analyze the development priorities of a country and the constraints facing a specific sector; this information is then used for the definition of sector strategies.

One of the key lessons learned by the Bank through these projects and the other attempts at reorganizing the health system is that

[9] See, for instance, Savedoff 1998.

Table 13.1. Selected IDB Health Projects

Country	Project	Amount (US$ Millions)	Key Areas
Argentina	Primary care reform	167	Targeting, family health (free selection, per capita), cost recovery from insured patients
Bolivia	Epidemiological shield and health reform support	53.7	Epidemiological shield and epidemiological surveillance, family health network
Brazil	REFORSUS	750[a]	Decentralization, hospital autonomy, family health and community agents
Colombia	Health sector reform support	63	Health policy, institutional strengthening, human resources, technical studies
Dominican Republic	Health sector modernization and restructuring	75	Policy development, restructuring and modernization of social insurance, strengthening basic health services, modernization of procurement systems
Guatemala	Health services improvement (second phase)	66.1	Institutional strengthening, decentralization, health services targeting, hospital management, financing
Jamaica	Health sector reform	25.7	Human resources management, health policy development, national health insurance, decentralization
Paraguay	Primary care reform	46.6	Decentralization, strengthening regulatory capacity, maternal and child care
Peru	Maternal and child health program	125	Maternal and child care and insurance, health policy development support, institutional modernization
Trinidad and Tobago	Health sector reform	192	Reform of the Ministry of Health, decentralization of services, human resources, financing, infrastructure rationalization

a. Cofinanced with the World Bank.

any corrective measure is likely to introduce a new set of distortions into the system and must therefore be *carefully and critically* evaluated before implementation. The diversity and complexity of the problems faced and the specific characteristics of each country imply that reorganization processes are never uniform or without costs. Let us examine some of the dilemmas and difficulties that countries of the region may face when attempting to correct the existing problems and to reorganize their health systems.

The Responses: Solutions? ...Or New Problems and Challenges?

Universal Insurance

As an attempt to solve the inequity problem—in particular the inequity of access and coverage—many countries are implementing mandatory universal insurance schemes financed by payroll taxes. A proportion of the taxes can be allocated, as in Colombia, for subsidization of the coverage of those who cannot afford to contribute to the system. The proposal of universal insurance schemes has important positive aspects but also entails many problems and risks.

The goal of universal coverage is undeniably a valuable one, and an explicit mechanism of "solidarity" is especially meaningful in the context of the social exclusion that has long marked the region and the sector. And indeed, the implementation of the insurance mechanism has increased affiliation and does move in the direction of universal coverage.

Nevertheless, these same payroll-tax-based universal insurance systems tend to maintain some form of segmentation—in this case, a two-tiered system wherein those users who directly contribute to the system enjoy a wider range of covered services. Such financing systems have some additional important long-term (or even medium-term) limitations, including the following:

- They tend to stimulate even further the growth of an already-large informal market economy, thus leaving large proportions of the population unprotected.
- The "distortion" in the relative price of labor relative to capital has a disproportionate negative effect in sectors that are labor intensive and therefore generators of employment.
- Payroll taxes are procyclical. This implies that in periods of economic recession, when the demand for health services tends to increase, the sector's main source of financing becomes severely com-

promised. This is an important issue in a region where the national economies have been shown to be very unstable.

- The Latin America and Caribbean region is opening its markets increasingly to external competition, and exports are a major part of the economy of many countries. The labor-intensive nature of the region's exports together with the pressures to maintain international competitiveness are likely to impose significant limits on the growth of payroll taxes. These restrictions and the needs of the health sector are likely to clash strongly in the medium to long term, as the effects of the unavoidable growth of medical costs are compounded by the aging of the population and by the attendant increase in the population's health care demand.
- The aging of the population poses another potential source of conflict, this time in regard to the financing of the pension side of the social security system. In the medium to long term, both the pension side and the health care side will be pressing for significant amounts of resources. Latin America's experience has shown that even when the two areas are managed separately, the health sector tends to be on the losing side in the battle for funds.

The modality of a payroll-based social insurance system has been utilized in the region mostly for its ability to bring about a rapid increase in the amount of (earmarked) resources available to finance the health sector. The use of payroll taxes to finance health care is not new to Latin America (for instance, in the form of social security systems), and the results obtained have clearly been less than satisfactory. Nevertheless, the modality's aforementioned ability to generate additional resources can become a tempting quick-fix solution for the financing problems of many countries.

This shortsightedness is indeed quite understandable. Health financing through general revenues has been widely susceptible to cuts and instabilities determined outside the sector (by the finance ministries). The health sector's combination of inefficiency, limited institutional and managerial capacity, and large expenditures makes it very weak during budgetary negotiations and extremely vulnerable to budgetary cuts. On the other hand, a general-revenue-based financing system tends to be more anticyclical and is more equitable than a financing system based on payroll taxes. Furthermore, the fight for resources can become an incentive for efficiency improvements and can increase transparency and accountability.

Such a scenario implies that there are no easy solutions for the "macro" financing of the sector. But it is also true that a successful

reorganization of the health care system would remove, or would substantially reduce, the determinants of the sector's financial vulnerability. Accordingly, the design of transition mechanisms that can ensure a relatively stable and predictable flow of resources during the reorganization process becomes necessary in order to avoid perverse processes of circular causation.

Separation of Provision and Financing

Health sector studies have shown that the inefficiencies of the health system are attributable largely to the public sector's inability to manage properly its network of health care facilities. Moreover, the service provider role has shifted the focus of the public sector away from its core functions—namely, regulation and policymaking. Such a diagnosis usually leads to a policy recommendation that the public sector's provision functions must be separated from its financing functions. But even if the diagnosis is correct, a mere separation of functions may not solve the problem and is actually likely to generate others.

In Brazil, for instance, the vast majority of inpatient services are provided outside the public sector and purchased by the government (over 70 percent of beds are in the private sector). Yet it cannot be said that inpatient services are provided more efficiently or more appropriately in Brazil than in other countries of the region.

There are various degrees to which the provision of health services can be separated from the function of financing. One extreme measure is the full transfer of health service provision over to private providers (radical privatization). Alternatively, if some degree of public ownership and public governance of service provision capability is still desired, then public facilities (usually hospitals) can be given some chosen degree of independence, up to full autonomy (corporatization).[10]

But in any of these scenarios, the behavior of the facilities will not change as desired if an appropriate mechanism for paying the providers is not implemented—meaning, if the incentives generated by the micro financing arrangement are not aligned with the new service delivery system. Changes in health services provision and the rethinking of payment mechanisms are complementary actions that must be implemented simultaneously.

Furthermore, the amount of institutional support, training, and managerial capacity building that is needed will increase with the de-

[10] What varies is the degree of exposure to market forces.

gree of autonomy expected to be given to providers. This process of organizational strengthening must be fully implemented before autonomy is granted, at the risk of service depletion and coverage reduction.

The separation of provision and financing seeks to increase the efficiency of the health sector. But in the United States, the efficiency gains brought about by the managed care system are explained by an exactly opposite scenario: managed care's integration of provision and financing, which exposed providers to financial risk and therefore stimulated their pursuit of efficiency.[11] A good efficiency result will not be achieved in the realm of the public sector by the mere separation of provision and financing. The achievement of efficiency may require actual changes in the financing mechanisms themselves. In summary, then, even though the separation of provision and financing may be a desirable objective, it is neither a necessary nor a sufficient condition for efficiency improvement.

Competition and Regulation

In the proposals to reorganize health systems, competition is expected to contribute to the efficiency of the system and to the improvement of the quality of the services provided. With this idea of enhanced efficiency and improved service quality in mind, regulated markets or quasi-markets are created or stimulated at the level of care and/or insurance.

Colombia was the first country in the region to introduce a universal and systemwide demand-driven managed-competition model in which every consumer carries with him/her an earmarked funding to pay for affiliation to the health insurer of his/her choice. In this system insurers would compete for consumers. If prices are set exogenously, as in Colombia, the competition is based entirely on quality. If prices are not set exogenously, the competition becomes based on a combination of price and quality.

The main conceptual issue with any competition-based model is the fact that the region's health sector has a serious information problem. Consumers generally lack the level of information necessary in order for a health care market to function properly. As a result, adequate regulatory systems and mechanisms become necessary in order to minimize the information problem and therefore improve the condi-

[11] In fact, the Health Insurance Association of America (1996) has its definition of managed care as "systems that integrate the financing and delivery of appropriate health care services to enrollees...."

tions for an appropriate environment for competition. The regulatory framework must collect, analyze, and disseminate information in areas such as the following: (1) quality, (2) access to care, (3) population coverage and affiliation, (4) case mix and epidemiological data, (5) service volume, (6) prices, and (7) cost. Of particular concern for regulators is the incentive that insurers have for risk-selecting—that is, for affiliating a relatively healthier population. Theoretically, a risk-adjusted premium would minimize this problem, but the definition of accurate risk adjustment mechanisms has proven very difficult.[12]

Another complex issue to be resolved in practice is the implementation of quasi-markets in remote or sparsely populated areas. The presence of administrative and fixed costs that are high with relation to market size tends to preclude the establishment of a sufficiently large number of providers and insurers to allow for competition.

In summary, the implementation of quasi-markets through managed-competition schemes can be an effective alternative to the full private system or the public monopoly system. Nevertheless, without the proper regulatory mechanisms, the efficiency gains expected from the competitive market may never materialize, and inequity may increase as a result of the limitations on access by rural populations, the elderly, and the chronically ill.

Decentralization

In many countries the health sector pioneered the transfer of public-sector responsibilities from the central government to zonal or local administrations. Decentralization in fact became thought of in parts of the region as a sort of panacea. But there are dangers in the uncritical adoption of a concept that, even though essentially correct, has its problems and limitations.

Small countries began to decentralize their health systems without taking into account that they would benefit very little, if at all, from the spatial benefits brought by the measure but would still have to pay the full cost of the associated multiplication of administrative and bureaucratic structures. Furthermore, technical capacity at the zonal or local level tends to be much more limited, and thus inefficiencies actually tend to increase instead of to diminish. Finally, if appropriate mechanisms for control and supervision by the community do not exist or are

[12] The adverse selection problem is relatively more readily minimized through reinsurance mechanisms.

ineffective, the probability increases for resource misallocation or for resource utilization for political purposes.

Other Problems and Challenges

Political Context

Many of the analyses of health system reorganization have concentrated on the technical aspects of the process and have failed to recognize that this process is intrinsically a political one. Professor Michael Reich of Harvard University has rightly pointed out on several occasions that even such major documents as the *1993 World Development Report* (World Bank) have failed to develop much political analysis and that political considerations have been restricted largely to the recognition of the need for political will.

But health systems and health system reorganization require more than political will. They require political *skills*, in the same way that they require managerial skills, in order to deal with the resistance that necessarily arises with any process of change and in order to negotiate financially stable transitional mechanisms. Unfortunately, these requirements are seldom perceived. In its discussion of stewardship, even the recently published *World Health Report 2000* (WHO) seems not to have appropriately recognized the importance of political skills.

The political instability that tends to characterize the Health Minister position in the countries of the region has also been another of the implementation obstacles faced by the proposals aimed at the reorganization of the sector. Because these projects are often linked to particular political parties or groups, they tend to be abandoned or profoundly altered with the changes in command.

Accordingly, the failure to recognize the political dimension of the health system reorganization processes may compromise their success or, at the very least, increase their social and economic costs.

Perceived Panacea of the "Health Reform" Concept

Health system discussions in Latin America and the Caribbean seem to be constantly dominated by some type of trend that almost becomes a "fad" or magic bullet. A few decades ago, situational and strategic planning—in particular the so-called "CENDES/OPS" methodology—dominated the work of health professionals engaged in system planning

in the region.[13] The region has also seen the issue of health districts or local health systems come and go as the prevailing focus of health system research and intervention.[14] The already-discussed decentralization trend was closely linked with the concept of local health systems. And now it seems that every single country of the region simply must have its own "health reform."[15]

Because of (1) the existence of a large number of complex problems in the health sector and (2) the exertion of pressures by the economic areas of the government and sometimes by international agencies, many health sector policymakers have felt compelled to propose major changes in the organization of the health system. But when such processes of change are undertaken without the proper prior critical assessment and without the necessary existing institutional and political capacity, the results are almost certain to be disappointing. The increasing opposition spawned by the lack of positive results threatens not only the current reorganization process but also quite possibly any future attempt at change.

Emphasis on Individual Care

Despite all the claims to the contrary, the proposals to restructure the health sector seem to concentrate almost exclusively on issues related to the provision of health services. These are the problems most visible and most felt by those who can more effectively exert political and social pressure, and so such emphasis is easily understood.

Unfortunately, these pressures seem to have diverted the well-intentioned goals of many reformers and to have ultimately led to significant diversion of the financial, technical, and organizational resources needed for dealing with the many public health issues requiring some vertical coordination, such as disease vector control and even immunization. Again, Colombia seems to be the case to be studied. Recent Colombian data seem to indicate dangerous and unprecedented declines in vaccination coverage in that country.

It remains to be seen whether such problems will put at risk the advances that can be achieved by the efforts under way to reorganize the region's health systems. It is clear in any case that differences in emphasis can well lead to increases in health inequities.

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[13] From the seminal work of Carlos Matus 1977.

[14] SILOS was the Spanish acronym used.

[15] The term "health reform" has been so loosely applied that its meaning is no longer clear—thus the reluctance to use it in the present study.

Final Reflections and Conclusions

Any view or model of the organization/reorganization of the health sector reflects in general a conception of the state and reflects in particular a conception of a social welfare function within that state. Health reforms are *means* to achieving the *goals* described by the social welfare function chosen by a particular country. As such, health reforms should be implemented on the basis of their capacity to achieve or maximize the given society's values and goals. Unfortunately, many reform proposals fail to embody a recognition of this distinction and are implemented instead as if they were ends in themselves. In fact, the detachment between means and goals is one of the main reasons for the difficulties faced by those entrusted with implementing these reforms.

The relationship between means and goals implies that any proposal aimed at reorganizing the health sector will not be value free. In this sense, external technical and financial assistance should be limited to supporting the recipient country in the selection of the alternative that is technically best suited for achievement of that country's own particular social desideratum.

The experiences of health system reorganization in Latin America and the Caribbean have demonstrated that there really exist no infallible general formulas or solutions to be followed. Even those measures for which there seems to exist some general technical consensus are not options without risks or costs. Those working in the health sector must accept the fact that health system reorganization is ultimately a social experiment in progress, for which many of the answers are simply not yet available.

The understanding of these limitations will help to minimize false expectations and will therefore help also to increase the likelihood that the main goals of health system reorganization will indeed be achieved.

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CHAPTER FOURTEEN

Health Sector Challenges in Asia and the Pacific: The Strategy of the Asian Development Bank

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This study presents the perspective of the Asian Development Bank (ADB) on major health sector challenges in the Asia and Pacific region and outlines ADB strategy for meeting them. Innovative health sector initiatives taken by Bank are also examined. The strategies outlined are based on the ADB's health sector policy paper.[1]

Health conditions in the Asia and Pacific region have dramatically improved during the course of the past 35 years. Life expectancy in the Asian Development Bank's developing member countries (DMCs) increased 39 percent during the 1960-1995 period, from 46 years to 64 years. The under-five mortality rate declined 60 percent during the same period, from 225 per thousand live births to 88 per thousand, a rate of decline unprecedented in the history of the region. Improved health status during the period, particularly the decline in under-five mortality, was accompanied by a 47 percent decrease in total fertility, from an average of 5.9 children per woman to an average of 3.1.

Much work remains to be done in the health sector, but earlier success—such as that enjoyed by Indonesia, the Republic of Korea, Sri Lanka, Thailand, and Vietnam—provides grounds for optimism that further health improvement is possible. We shall begin our analysis with a discussion of some of the major health challenges existing at present in the ADB's developing member countries.

Health Challenges for Population Groups with Special Needs

The Poor

The poor in the Asia and Pacific region, like the poor all over the world, tend to have much worse health than their wealthier compatriots. For

[1] Asian Development Bank 1999.

instance, the lowest income quintile in the Lao People's Democratic Republic experiences an infant mortality rate 2.8 times greater than that of the wealthiest income quintile. Similarly, in the People's Republic of China, the poorest income quartile has an infant mortality rate 2.4 times that of the wealthiest quartile. And again in the People's Republic of China, the poorest income quartile suffers from an incidence of infectious diseases 2.9 times that found among the wealthy.

Much of the difference stems from higher rates of infectious diseases among the poor and from the limited access of the poor to basic health services. The distance the poor have to travel to obtain modern health services is also greater. In Pakistan, people in the poorest income quintile have to travel on average 39 percent farther to get to a health facility than does the average citizen, and the coverage level of prenatal care for poor women is less than one-third that for wealthy women.

Not only do the poor suffer from adverse health conditions but also they face more serious personal and family consequences as a result of their ill health. The poor are more dependent on their physical labor and have fewer savings, and ill health's economic effects on them are more severe and more widespread. In Bangladesh, 27 percent of poor urban households indicated that they had faced a financial crisis during the previous year, and in 47 percent of the cases the crisis arose from the illness of a family member and from the resultant expenses. Similarly, the Grameen Bank has found that ill health is the single most important cause of default among its borrowers. Yet the economic consequences of illness on the poor are to a large extent preventable because the diseases they tend most to have are amenable to prevention or cure at low cost.

Despite the benefits to be derived from concentrating public health expenditures on the poor, the bulk of public subsidization in the Asian Development Bank's developing member countries' health sectors is actually being captured by the upper income groups. In Indonesia, for instance, the wealthiest and the poorest quintiles capture 28 and 10 percent, respectively, of all public subsidies for health and 41 and 5 percent of all subsidies for public hospitals. The Asian economic crisis may exacerbate this problem as the relatively well-off switch from private to public hospital care. Since hospital care accounts for the majority of the public health budget across Asia, increasing the proportion of hospital subsidies captured by the poor poses an important challenge and goal.

In most Asian countries the poor rely largely on out-of-pocket payments to meet their health care needs. Only rarely are they covered

by prepayment schemes. The mechanisms to protect the poor and to exempt them from user charges apparently have not worked very well. The cost of using health care services is often prohibitive for the indigent and dissuades them from using services until they have no alternative. In Vietnam, for instance, the price of each contact with the health care provider is equal to 22 percent of lowest-income-quintile households' annual per capita non-food expenditure. It is easy to see why cost constitutes the largest impediment to poor people's seeking health services.

Indigenous Peoples

Because of their geographical and social isolation and their usually poor economic conditions, ethnic minorities in the region have significantly poorer health status than other groups. In Vietnam, indigenous peoples suffer an infant mortality rate 1.75 to 2.75 times higher than that of the ethnic Kinh (Vietnamese). In the Lao People's Democratic Republic, the infant mortality rate among the indigenous Lao Theung and Lao Sung peoples is 30 percent higher than among the lowland Lao (Lao Loum) peoples, and chronic malnutrition (stunting) is also 31 percent more prevalent among the indigenous.

Part of the explanation for the poorer health status among the Asia and Pacific region's ethnic groups is that they tend to live in very remote rural areas with little physical access to health services. In Lao People's Democratic Republic, the Lao Theung and Lao Sung indigenous peoples have to spend 65 percent more time to get to a health facility than do the lowland Lao Loum.

Access to services is limited also by other impediments, such as the shortage of indigenous health workers, who have the advantage of being already familiar with the language and culture. Ethnic minorities also tend to rely more heavily on the traditional practitioner and have had less exposure to information about modern medicine. Fully 91 percent of lowland Lao women know about modern methods of contraception, but only 33 percent of that country's indigenous women have such knowledge.

Women

Throughout their lives, women face serious health issues. Yet specific efforts to improve females' health status are of recent origin and

have met with only limited success. The lack of progress in improving the health of women is exemplified by the absence of a significant downward trend in maternal mortality ratios (MMRs) in the ADB developing member countries. Under-five mortality rates and life expectancy rates have improved considerably, but little change has occurred in the maternal mortality ratios. For instance, in Bangladesh from 1972 to 1992, the under-five mortality rate was halved and the total fertility rate declined by one-third, but the maternal mortality ratio remained virtually unchanged. It is in this same category, decreasing the maternal mortality rate, that developing Asia is lagging farthest behind the industrial countries. With an average of 410 maternal deaths per 100,000 live births, the ADB's developing member countries have a maternal mortality ratio 32 times the average for developed countries. By comparison, the average under-five mortality rate in the same developing ADB countries, although still unacceptably high, is only 11 times that of the industrial economies. Women's health status is affected by complex biological, social, and cultural factors. Certain common issues, however, cut across most of the national borders of Asia and the Pacific.

- First, women suffer from widespread discrimination, as witnessed by the deficits in the female population arising from excessive female mortality. It is estimated that there are 29 million and 23 million such "missing" women in the People's Republic of China and India, respectively.[2] The problem is especially apparent among children in South Asia.
- Second, women have less access to family resources and generally are financially constrained when they become seriously ill.
- Third, women often find that the public health care system is insensitive to their needs in terms of privacy, access to female health workers, and availability of services that are particularly important to them such as family planning and maternal care.
- Fourth, women face distinct health problems throughout their lives that require carefully designed responses. For instance, women are more likely to get infected when exposed to sexually transmitted diseases (STDs), less likely to have identifiable symptoms, and thus more likely to suffer long-term consequences such as chronic infection and infertility. A similar problem arises with gender-based violence. Although assaults on males are usually by casual acquaintances, vio-

[2] Coale 1991.

lence against women is usually chronic and perpetrated by men well known to the victims. Hence, when dealing with women victims of violence, the health care system will need to ensure a secure environment and provide a means for addressing the underlying chronic problem. The health care system will also have to respond to the needs of older women, who may be particularly vulnerable to problems such as osteoporosis that limit their physical access to services.

- Fifth, women generally have less access to health services than men do. This situation results from the fact that women usually have to provide more care for other members of the family and also that females often lack financial resources and are more constrained by personal security considerations.

The consequences of ill health among women are felt not only by the individuals directly affected but also by their families. To a large extent, the well-being and proper development of children depend on the health of their mother. In Bangladesh, children (especially girls) are much more likely to die if their mother dies than if their father dies or neither parent dies.[3] Similarly, women in the region are often responsible for looking after the elderly, and the health and well-being of the latter are thus dependent on women's remaining healthy themselves.

Women's contribution to the economic well-being of the family is also substantial but is only partly reflected in the official statistics. Besides performing household work, women are often responsible for producing food. Loss of income resulting from a woman's illness may be particularly deleterious, because females tend to spend a much greater proportion of their earnings on consumption by dependent family members.

Changes in Asia's Health Care Picture

The Asia and Pacific region, like the rest of the world, is witnessing important trends in the changing pattern of diseases, health care needs, and technologies. These changes have profound implications for the way health care services are provided and financed. The health systems in the region must position themselves to take on these future challenges effectively. Let us examine a few of the areas of greatest change.

[3] Over and others 1992.

Epidemiological Transition

The epidemiological transition is the shift in the burden of disease from primarily communicable illnesses, such as diarrhea, pneumonia, and tuberculosis, to noncommunicable conditions such as heart attacks, depression, strokes, and cancer. Currently, the burden of disease in the region results principally from communicable diseases, maternal conditions, and nutritional disorders. By 2020, the proportion accounted for by noncommunicable diseases will nearly double, to about 67 percent.[4] Influencing the occurrence of noncommunicable diseases will require the encouragement of healthy behaviors such as avoidance of alcohol and drugs, consumption of a nutritious diet, regular exercise, and cessation of cigarette smoking. Tobacco consumption is high and increasing and will have devastating health and economic consequences in the developing member countries. One out of every six citizens of the People's Republic of China alive today will die as a result of smoking. For the region as a whole, 11 percent of the burden of disease will be attributable to cigarette smoking by the year 2020.

As important as the epidemiological transition is, infectious diseases will remain a critical threat to the health of all Asians. For the poor especially, communicable diseases will continue to be a major cause of mortality and morbidity. This implies that the developing member countries will have to confront infectious diseases and malnutrition at the same time as they attempt to deal with chronic illnesses. Tuberculosis, for example, will not significantly decline over the next two decades, and the emergence of strains of the disease that are resistant to available medicines has already occurred. The prevalence of these drug-resistant strains will increase substantially unless there is significant improvement in tuberculosis control efforts in the developing member countries. The 1994 outbreak of pneumonic plague in India and the 1997 avian flu problem in Hong Kong, China, are good examples of the constant health risk and economic dangers that infectious diseases represent to the whole of Asian society.

Infectious diseases' threat to the health of the region is best exemplified by HIV/AIDS. Its prevalence is increasing dramatically, and some of the developing member countries, such as Cambodia, India, Myanmar, Thailand, and Vietnam, are in the midst of large HIV/AIDS epidemics. Even those developing member countries with low

[4] Murray and López 1996.

HIV prevalence will need to promote safe sexual practices through intensive health education aimed at tangible changes in behavior. A high priority for all the developing member countries will be the aggressive treatment of sexually transmitted diseases in order to help prevent the dramatic spread of the disease. Transmission of HIV/AIDS through intravenous drug use also needs to be addressed if the disease is to be controlled. Like other infectious diseases, HIV/AIDS exacts a heavy toll among the most vulnerable. The poor have less access to information, are less able to afford the costs of prevention, have limited access to diagnosis and treatment, and are more financially vulnerable when they become sick. Women appear to be at a greater biological risk than men in terms of acquiring the infection, and in many cultural settings women are less able to negotiate with their partners for safer sex.

Demographic Transition

Improvements in health (with consequent increases in life expectancy) and declining fertility in all the developing member countries mean that the proportion of elderly will rapidly increase in coming years. The proportion of the population that is older than 60 will have increased from 7.5 percent in 1990 to almost 12 percent by the year 2020, and the absolute number of people older than 60 will have increased from 200 million to 455 million during the same period.

This rapid increase has important implications for the health policies of the Asian Development Bank and its developing member countries. Much of the disease burden among the elderly results from chronic noncommunicable diseases that are difficult and expensive to treat. Indeed, the shift toward noncommunicable diseases that will occur between 1990 and 2020 will stem almost entirely from demographic changes. Because the elderly need more and more expensive health care, the demand for health services and the cost of health services will increase dramatically as populations age.

Moreover, the increase in the size of the elderly population is being accompanied by the disintegration of family and community support systems for the aged, resulting from, among other factors, rapid urbanization and decreases in the ratio of workers to elderly dependents. With fewer traditional support systems available, developing member countries' governments will have to begin to evolve mechanisms to finance health care for the elderly. The challenge in designing these mechanisms will be to ensure that they do not reduce the re-

sources available for other priorities such as preventive health care and maternal and child health services.

Urbanization

Over the next three decades, the urban population of the region is expected to increase dramatically—from 1.2 billion in 1995 to 2.5 billion in 2025, with more than 400 million people residing in cities of 10 million or more.[5] Available data from household surveys indicate that, on average, urban populations enjoy better health than do populations in rural areas. For instance, in Papua New Guinea, the infant mortality rate is 34 per thousand live births in the cities but 87 in the countryside, a pattern observed in all the countries of the region. But this simple type of analysis does not reveal the large disparities that also exist between income classes in both urban and rural areas alike. A study in Manila showed that the infant mortality was 2.8 times higher in an urban slum area than in urban nonsquatter areas. Hence, the urban poor suffer from health conditions that are significantly worse than simple rural/urban comparisons suggest.

Much of the difference in health status between the urban poor and other sectors of society results from the greater prevalence of infectious diseases from high population densities, poor ventilation, and inadequate nutrition. Tuberculosis is prevalent among the urban poor because inadequate ventilation and lack of light allow the tuberculosis bacterium to survive longer in the air and spread the infection. Vaccine-preventable diseases such as polio and measles are also more prevalent in crowded cities, and efforts to control these diseases will flounder if the urban slums remain as large reservoirs of infection.

The urban environment in itself also significantly contributes to the health problems of the urban poor. The lack of safe water and the absence of adequate sanitation probably result in greater prevalence of diarrhea. In the slums of Dhaka, Bangladesh, for instance, diarrhea is twice as prevalent as it is in the rural areas of that same country.[6] In addition, lead poisoning and air pollution are more serious threats to city dwellers than to rural residents.

In the urban areas, people have access to a wide variety of health care providers, including for-profit modern hospitals, private practitioners, pharmacies, NGOs, public sector health facilities, and

[5] Asian Development Bank 1996.

[6] United Nations Children's Fund 1996.

traditional healers. This array of service providers compels governments to consider their optimal role in the health sector. Given the extensive network of providers, there is a less obvious need for the public sector to be involved in the direct provision of health care, particularly for the emerging middle class. But the public sector will still have to ensure (1) that the poor have adequate access to affordable services, (2) that there is delivery of public goods such as health education and vaccination, and (3) that there are coordination, support, and regulation of private sector activities, including the enforcement of environmental health regulations.

Technological Trends in Health Care

Technological advances in the last few years and exciting new developments on the horizon provide tremendous opportunities for the developing member countries to improve the health of their populations significantly. One of the outstanding successes in public health in developing countries in the last 20 years has been the advent of widespread child and maternal immunization. In the region as a whole, measles immunization coverage in 1995 reached 84 percent of children, resulting in the saving of almost 500,000 lives every year. Thus far, immunization efforts have focused on only six diseases for which low-cost vaccines are available: measles, polio, tuberculosis, diphtheria, pertussis, and tetanus. But with advances in biotechnology, the next 10 to 15 years will witness the introduction of powerful new vaccines against some of the most important infectious diseases affecting the people of the region. The most exciting developments are occurring in vaccines against rotavirus (a major cause of diarrheal deaths in children) and pneumococci (the leading cause of pneumonia, which is the principal cause of death in children under age five).

Two other promising areas of technological advance in the next decade will be (1) easier diagnosis of important diseases and (2) better access to information. Recent discoveries provide more accurate, cheaper, and very practical means for diagnosing illnesses, particularly infectious diseases. A newly developed test based on a fingerprick blood sample can accurately make the diagnosis of the most dangerous type of malaria.[7] This test will be of particular use in places without access to highly trained staff, without well-equipped laborato-

[7] Beadle and others 1994.

ries, and lacking electricity. Information technologies may also increase policymakers' access to high-quality information. The Internet increases policymakers' physical access to information, and systematic reviews of research studies will improve the quality of the available information. Researchers have formed the Cochrane Collaboration,[8] for instance, to summarize and disseminate over the Internet the results of trials in clinical medicine and public health. These summaries provide a powerful tool for policy analysis by allowing officials to view and understand the results of all relevant studies.

The Asian Development Bank's Involvement in the Health Sector

Trends in Asian Development Bank Lending

The Asian Development Bank's first loan in the health sector was approved in 1978, and through 1999 it has lent $1.3 billion for health and population projects. In real terms, the ADB's annual lending for health and population more than doubled from 1978 to 1998, but as a proportion of the ADB's total lending, this category's participation has not changed, and it has averaged 1.5 percent during the past ten years. This is a significantly lower proportion than in other multilateral development banks. The difference cannot be accounted for simply by the absence of concessional lending to India and the People's Republic of China. In 1996, the World Bank's health and population lending to Asia and the Pacific, excluding India and the People's Republic of China, accounted for 7.3 percent of total World Bank lending to that region, almost four times the proportion of the Asian Development Bank. Furthermore, there exists no obvious upward trend in the proportion of ADB lending for health.

The Asian Development Bank has not increased the proportion of its lending devoted to the health sector during the last 20 years, but the nature of its health lending has changed dramatically. From 1978 to 1991 primary health care accounted for only 36 percent, but since the publication of the ADB's 1991 study on *Health, Population, and Development in Asia and the Pacific*, primary health care has taken up almost 66 percent. Meanwhile, investment in district hospitals and tertiary-care hospitals has declined from 55 percent to 4 percent. Similarly, investment in population activities has increased from 2 percent to almost 20 percent.

[8] http://www.update-software.com/ccweb/cochrane/cdsr.htm.

A noticeable shift has occurred in the type of health expenditures financed by the ADB. Funding for training and management activities such as supervision, disease surveillance, and management information systems has increased from 27 to 47 percent of health sector lending. Meanwhile, financing of health-related civil works, which had accounted for 47 percent of total lending from 1978 to 1991, decreased to 19 percent from 1992 to 1997. Essentially, the Asian Development Bank has moved away from merely funding hardware and is investing more in the software aspects of health system development. This tendency has been strengthened by the use of sectoral development programs, which involve both policy lending and investment lending.

The Asian Development Bank's Health Sector Policy

The Asian Development Bank's overall approach to the health sector is to assist ADB developing member countries in ensuring that their citizens have broad access to basic preventive, health-promoting, and curative services that are cost-effective, efficacious, and affordable. Increased access to these basic services will have a significant downward impact on morbidity and mortality in the short to medium term and will provide the foundation for more-comprehensive health services in the long term.

The ADB's lending to the health sector still represents a relatively small proportion of the Bank's total portfolio. But now, as a result of the economic crisis and burgeoning health threats such as tuberculosis, HIV/AIDS, malaria, and smoking, the health needs of the region's poor are growing significantly. To keep pace with these substantially increasing health needs, the Bank is striving to increase its lending to the sector. In view of the stagnation in the level of official development assistance for the health sector over the last decade, the ADB must further strengthen its collaboration with partner institutions in the sector, including multilateral and bilateral institutions. The Bank also continues to collaborate closely with the United Nations agencies involved in health matters, including UNFPA, UNICEF, and WHO, making use of these agencies' great technical expertise. The ADB's activities in the health sector are guided by the following strategic considerations:

- continued focus on improving the health of the poor, of indigenous peoples, and of women and children
- investments that achieve tangible and measurable results

- support for rigorous testing of innovative approaches to the management and financing of the health sector and for the timely deployment of effective new technologies
- support for policy reform by encouraging the governments of developing member countries to take an appropriate and activist role in the health sector by increasing public investment in preventive health care, facilitating private sector involvement in health, and increasing the focus on public goods
- increased efficiency of ADB investments in the health sector through assisting developing member countries' governments to strengthen the health sector's managerial capacity, improve its economic and sectoral work, and strengthen its linkages with other sectors.

Strategies to Meet the Current Challenges

Protecting the Health of Vulnerable Groups

The Poor

The Asian Development Bank's projects in Cambodia, the Lao People's Democratic Republic, Pakistan, Vietnam, and other countries of the region have employed many different strategies to improve the health status of the poor. Let us enumerate several of the more significant approaches.

Increasing the low-income population's physical access to services. Despite significant improvement in this regard during the past 35 years, many of the poor in the region still lack physical access to health services. One way of improving their access is to establish more health centers and small health posts, particularly the latter, in rural areas. Another frequently overlooked tactic is the use of outreach activities. Having health workers travel regularly to distant villages to provide preventive and health-promoting care is a simple but effective means of increasing the coverage of services for the poor. Providing adequate travel allowances can act as a powerful incentive for health workers to visit outlying areas regularly.

Focusing on health problems of the poor. Much of the difference in mortality rates between the poor and non-poor is attributable to infectious diseases. Tuberculosis, for example, is almost exclusively a

disease of the poor, in part because of crowding and the lack of effective treatment of active cases. Disease control efforts directed at tuberculosis, malaria, and diarrhea have disproportionate benefits for the poor because the poor bear a larger burden of such diseases.

Increasing the resources available for health centers and health posts. Public subsidies for health centers and health posts are much more equitably captured than are public subsidies for hospitals. Hence, increasing the resources available for health centers and health posts will have a very large beneficial effect on the poor. Increasing the availability of supplies, improving the quality of care, and improving the working conditions of employees in health centers and health posts all constitute efficient means for improving the health of the poor.

Measuring the use of services by the poor. An important means for improving the health of the poor is regular measurement of the extent to which they are benefiting from specified health services. Until now, health statistics have rarely been disaggregated by income level or by other indicators of deprivation. Data collected at a health facility are usually difficult to break down by income categories, but such data disaggregation is possible during household surveys. If developing member countries routinely track income-disaggregated data on coverage as part of their information management systems, coverage discrepancies between the poor and the better-off can be recognized and addressed.

Employing participatory approaches. Employing participatory methods at the field level, such as the formation of village health committees and establishment of a system of community health volunteers, may help increase the health care system's responsiveness to the needs of its clients, particularly the poor. Unfortunately, implementing these participatory approaches on a large scale has proven difficult, although NGOs have enjoyed success in smaller-scale programs.

Targeting health services. Targeting health services is an attempt to increase the efficiency of the system by withholding subsidies from the non-poor in favor of the poorest sectors of the society. But there is little reason to believe that targeting by itself will increase access. Also, targeting presents several other difficulties. The way in which ill health and poverty cluster in distinct geographical locations or among identifiable groups is difficult to predict with com-

plete exactness. Data from Indonesia, for instance, indicate that targeting the poorest 30 percent of villages will reach only 56 percent of the poor. Excessive targeting might therefore miss a large proportion of the poor. Furthermore, potentially substantial programmatic and managerial costs are associated with targeting. The data used for targeting may not be accurate, resulting in misclassification. Collecting the data especially for targeting purposes may entail a significant cost. Self-targeting—through a focus on the health problems of the poor and on the facilities more frequently used by them—is usually a better and less costly approach.

Ensuring equitable health financing. The biggest constraint on the poor with regard to their utilization of health services is the services' lack of affordability. Therefore, a pro-poor health financing system is critical for improving the health status of the poor. This health financing must be equitable at both the macro level and the micro level. In a province or district, the incidence of poverty (rather than population alone) should be a major deciding factor for resource allocation. At the micro level, effective mechanisms should be in place for exempting the poor from user charges. Also, as in Thailand and Vietnam, targeted health financing programs providing free health insurance cards to the poor may increase their use of services.

Indigenous Peoples

Improving the health status of indigenous peoples will require a better basic understanding of these populations' current health status and health needs. Applied sociological and anthropological studies can play an important role in increasing the understanding about indigenous people's views on health and about how to respond sensitively to their felt needs. Based on currently available information, efforts to improve the health of indigenous peoples should focus on the following:

- establishing more health centers and health posts in areas populated by indigenous peoples, in order to improve their physical access to health care
- increasing indigenous people's financial access by reducing or waiving charges
- identifying, training, and recruiting ethnic-minority health workers to provide services in their own communities
- encouraging the use of beneficial traditional practices alongside modern health services

- using community-based approaches that include traditional leaders and healers.

Women

Developing member countries' governments can take a number of specific actions in the health sector to improve women's well being. First, they can ensure that women have access to a package of basic services that includes the following:

- family planning with a wide selection of contraceptive methods
- tetanus toxoid immunization
- supplementation with vitamin A, iron, folate, iodine, and, where appropriate, protein
- intensive efforts to control reproductive-tract infections
- systematic treatment of tuberculosis (more women of reproductive age die each year of tuberculosis than die of maternal causes)
- good-quality maternal health services.

Second, developing member countries' governments can improve women's access to these health services in a number of ways. Physical access can be improved by reducing the time women must travel to obtain services, either through improved outreach services or through establishment of additional health centers and health posts. Financial access can be improved by waiving or reducing user charges for women. "Cultural" access to services can be improved by increasing privacy in health facilities, recruiting and deploying more female health workers, and specifically targeting greater health education efforts at women. For instance, Indonesia and Malaysia have begun counseling adolescent women about family planning and other aspects of reproductive health.

Third, developing member countries' governments can ensure that the health care system, communities, and women themselves are more gender sensitive. It is important to train health workers and policymakers in the special needs of women and alert them to their own special role in helping improve the status of women. This effort should include training on recognizing and dealing with violence against women. In addition, health statistics should be routinely disaggregated by gender, where appropriate, so that gender disparities can be identified and addressed.

Resource Mobilization

The level of financing of public health activities in almost all the developing member countries is insufficient to address major problems or to make substantial improvements in the health of the population. Much of the problem lies in the low level of health investment by government. Even before the onset of the current economic and financial difficulties, government expenditure on health from 1990 to 1996 was lower in the Asia and Pacific region than in any other region of the world. Expressed as a percentage of total government budgets, the allocation for health in the developing member countries was only half of the average for all developing countries.[9] The lack of financial resources is evident in (1) the shortage of pharmaceuticals and equipment in public health facilities, (2) the demoralizingly low salaries paid (often late) to health workers, (3) the inadequate maintenance of buildings and equipment, and (4) the failure to deliver many feasible high-impact, low-cost services. With technological advances, the gap between what is being achieved and what else could be achieved (and at low cost) will most likely widen.

In increasing the funds available for public health services, a nation's policymakers face choices in the mechanisms they employ. These mechanisms need to be assessed in terms of ability to raise substantial revenues, ease of implementation, and equity issues such as the potential for risk pooling. Governments can generate additional funds for public health activities through (1) increased allocations in government budgets, (2) external borrowing and grants, (3) social insurance, and (4) user charges. In addition, governments can encourage or mandate increased private expenditures on health services.

Building Managerial Capacity

Even with carefully selected priorities and sufficient resources, achieving the desired results in the countries' health sectors will require strong management. Broad consensus exists that a shortage of management capacity within developing member countries' Ministries of Health has impeded the development of effective and efficient health care systems.

[9] United Nations Children's Fund 1998.

Efforts to build the needed managerial capacity must differentiate between the public sector's two broad functions within the countries' overall health care scenario—namely, (1) service provision and (2) policy development, financing, regulation, monitoring, and evaluation. Analyzing the capacities of government institutions to carry out these two different functions will be critical to successful management-strengthening activities.

Service Delivery

Previous activities for building managerial capacity in the Health Ministries have focused primarily on the ministries' service delivery function and have generally been limited to the provision of management training. Training may indeed be vital, but its effectiveness has not often been evaluated. More importantly, the training activities do not address a fundamental problem, which is that the region's Ministries of Health and the individual managers within them are rarely held accountable for the results of their efforts. Few rewards are given for success; almost no sanctions are imposed for poor performance, and little incentive exists for managers to increase their efficiency. In this context, the region's governments need to ask fundamental questions about how they can modify the relevant incentive structures.

Improving the management of publicly financed health care delivery systems will require innovative approaches that can increase accountability, modern management techniques for particular functions such as supervision and logistics, and careful monitoring of the quantity and quality of services delivered. Increasing the responsiveness and accountability of the health system calls for new organizational arrangements and approaches to management.

Purchasing health services or ancillary services from the private sector through contracting or other mechanisms may provide developing member countries' governments with a means to increase efficiency and should be explored more widely. Granting greater managerial autonomy to staff closer to the site of service delivery will also improve services as long as accountability for achieving results is ensured. Another possible approach to improving management is the more widespread use of innovative performance-based incentives, which in fact are currently being tested. Meanwhile a number of management techniques needed at the periphery have already demonstrated their effectiveness. For instance, a study in the Philippines has already demonstrated large benefits from regular and systematic supervision, and modern logistics management techniques

have already proven their ability to improve the availability of pharmaceuticals and supplies.

Regardless of who is responsible for service delivery, the bottom line for activities designed to strengthen health sector management capacity is the adequate provision of services at the periphery. Hence, assessment of the quantity and quality of the health services provided is vital. This assessment can be performed by strengthening management information systems through disease surveillance, health facility surveys, small household surveys, and consultations with clients about their level of satisfaction.

Disease surveillance is required in order to provide policymakers and managers with usable information about patterns of disease occurrence. Health facility surveys involve sampling relatively small numbers of peripheral facilities (typically 40 to 100) and collecting data on the availability of skilled staff, pharmaceuticals, supplies, operating funds, adequate records, regular supervision, and other aspects of quality of care. Small household cluster surveys, typically involving a few hundred respondents, provide crucial data on the quantity (coverage) of health services being provided. Client satisfaction surveys and focus group discussions are vital for ensuring that services are properly responsive to the needs of the community.

Policy Development, Financing, Regulation, Monitoring, and Evaluation

The Health Ministries must strengthen their capacity to carry out their "steering" functions. Despite recent efforts to improve policy formulation, many ministries do not have adequate resources to analyze health sector needs. Many have not yet dealt with such issues as decentralization or rationalization of the public health care system. A related problem is that most Ministries of Health in the Asia and Pacific region do an inadequate job of assessing expenditures in the health sector, leaving managers at all levels with little accurate information about costs and the availability of resources. Evaluation of health care system performance is another role that has presented difficulties for the developing member countries' governments.

The reasons for the poor performance of these functions vary from country to country but often include lack of attention from senior officials, shortage of specialized personnel in these areas (many managers are physicians with only clinical training), and inadequate systems and structures for carrying out these functions.

New and Affordable Technology

Implementation of effective and affordable new technologies in various sectors provides the developing member countries with many opportunities to leapfrog all sorts of problems that plagued rich countries during their own development. Unfortunately, the Asia and Pacific region has proven itself very slow to adopt such technological advances, especially in public health. Measles vaccine was licensed in the early 1960s, yet it took almost 30 years before children in the region routinely benefited from this safe, inexpensive, and cost-effective vaccine.

This story looks ready to be repeated with two relatively new vaccines, hepatitis B and hemophilus influenza B (Hib). Both have been proven effective and are in widespread use in developed countries but have barely been introduced in the Asian Development Bank's developing member countries. Hepatitis B vaccine prevents a disease that is widespread in the region. It is low in cost and easy to include in ongoing immunization activities. But it is still unavailable to more than 80 percent of the region's infants.

With continuing advances in biotechnology, many new technologies will be available in the next ten years that could be of huge benefit to the populations of the developing member countries. Seizing the opportunities that these technologies provide will require political support and adequate financing. The Asian Development Bank can play a leadership role by helping its developing member countries make timely investments in deploying these new technologies

Focusing on Public Goods

The DMC governments have not given much emphasis in the past to functions that are uniquely their responsibility and which constitute public goods, such as (i) research and information collection, (ii) modifying behaviors related to health and hygiene, and (iii) regulating private sector activities that impinge on health. Without government involvement many of these critical activities will simply not take place and the effects on the health of the population could be dramatic.

Investing in Research

During the past half century, tremendous progress has indeed been made in perfecting a variety of health technologies. This ability to prevent or

treat illnesses came about primarily as a result of the research investment by government and the private sector. But relatively little investment has yet been made in research focused specifically on the health problems that affect primarily the poor in developing countries. For instance, pneumonia, diarrhea, and tuberculosis constituted fully 18 percent of the global burden of disease in 1990, yet research in these areas received only 0.2 percent of the $56 billion spent that year on health research worldwide. Funds for research on diseases of the poor even appear to be declining. Between 1988 and 1993 bilateral official development assistance for health research and development decreased 37 percent.[10]

This small and declining investment in research and development on diseases of the world's poor is all the more tragic in view of the fact that whatever small amount of research and development there has been in these areas has yielded truly spectacular returns. All the research on the effectiveness of vitamin A in reducing child mortality cost less than $10 million, yet it has the potential to save more than 650,000 lives per year in Bangladesh, Indonesia, India, and the Philippines alone.[11]

Since 1978 the Asian Development Bank has invested less than $5 million in health research (less than 0.5 percent of total health sector lending), and much of this has occurred only in the past few years. WHO has performed a careful analysis of research priorities in developing countries and is helping to coordinate international efforts to increase the funds available for research and development.[12] In addition to helping finance this research, the ADB and the developing member countries should ensure that the results are widely disseminated. Useful criteria for the ADB and its developing member countries in prioritizing their investments in research and development include the following:

- The studies should directly relate to practical interventions applicable in developing member countries' settings—that is, downstream research, such as field trials of new medical services/interventions.
- The topics should be ones of little interest to the private sector because of the noncommercial nature of the intervention.

[10] World Health Organization 1996.
[11] Humphrey and others 1992.
[12] World Health Organization 1996.

- The research should relate to diseases or conditions that disproportionately affect poor people.
- The topics should be ones not currently being researched.

Modifying Health-Related Behaviors

Successful efforts to reduce the burden of disease are often dependent on affecting people's behavioral choices. Effective programs to decrease smoking, limit the spread of HIV/AIDS, improve personal hygiene, reduce the use of illegal drugs, or promote good nutrition are heavily dependent on influencing behaviors through health education, social marketing, and community mobilization.

These programs clearly are public goods and deserve to be publicly financed. The private sector will simply not invest in efforts to promote healthy behaviors that do not involve the sale of a particular product. Indeed the private sector sometimes promotes products, such as cigarettes, breast-milk substitutes, and alcohol, that can actually be injurious to health.

Despite the public-goods nature of modifying health-related behaviors, however, the developing member countries' governments are currently spending only a small proportion of their budgets on it. Few reliable estimates exist of public expenditure on health education, but it is rarely more than 1 percent of the public health budget, even in the era of HIV/AIDS.

Part of the reason for the lack of investment may be that changing people's behavior is difficult. In North America it took more than 30 years and billions of dollars to change people's attitudes toward smoking. In developing countries this difficulty is compounded by the shortage of rigorous studies that explore cost-effective means of affecting behavior. Nonetheless, modification of unhealthy behaviors is so pressing a need that the ADB and its developing member countries need to invest in discovering effective and efficient means of accomplishing it in the Asian context.

Regulation

One of the most difficult issues faced by developing member countries' governments is the challenge of regulating private sector activities that relate to health—and doing so effectively, efficiently, and transparently. Government is uniquely well placed to oversee the private sector's health-related activities. It should work with other stakeholders, but it must ultimately be the one to take responsibility.

This regulatory function by government is critical. Without it, the health of the population can be put at grave risk. For instance, according to an ADB study, in the Lao People's Democratic Republic, some 47 percent of medicines purchased in private pharmacies were substandard and around 30 percent were bogus. The developing member countries' governments have not yet devoted many resources to regulation, and any laws and regulations that do exist are seldom enforced—and then only inconsistently.

Besides regulating the region's large and booming pharmaceuticals market, governments will need to regulate the food supply, the handling of environmental health hazards, the education and licensing of health workers, and the provision of curative care. The obligation to regulate these activities should not be viewed as an unwelcome burden on government but instead as a meaningful opportunity for it to improve the health of the population. For instance, enforcing regulations that remove lead from the environment can be an extremely cost-effective means to foster the intellectual development of children. Similarly, ensuring that salt is iodized, that wheat flour is fortified with iron and vitamin A, and that breast milk substitutes are properly marketed can provide dramatic benefits for child health.

The single most important area for government regulatory efforts will be in tobacco control. Based on a careful analysis of the global experience with efforts to reduce tobacco consumption, WHO[13] has recommended that governments (1) raise taxes on tobacco such that prices increase significantly faster than inflation and than GDP growth (price elasticities in developing countries are about –0.6, indicating that increasing the taxes on tobacco boosts government revenues and decreases consumption, particularly by the poor). WHO has also recommended that developing-country governments (2) impose a total ban on all advertising and promotion of tobacco products, (3) mandate very large warnings in the local language on the front of each cigarette package, (4) ban smoking in public places and in the workplace (as the Asian Development Bank itself does), and (5) publicize the legislation on tobacco control.

Regulation of the private sector's health-related activities is an appropriate rôle for governments and affords opportunities to improve the health of the population, but it can also create serious problems. The chief potential dangers are (1) bureaucratic red tape, which can stifle enterprise, and (2) corruption, which increases costs throughout

[13] World Health Organization 1998.

the system. Although there is limited experience thus far with successful regulation in the developing member countries, a number of possible approaches should be tried more broadly.

Increasing Collaboration between the Public Sector and the Private Sector

The private health care sector is growing rapidly in the region and already accounts for the majority of total health care expenditures. Despite the private health care sector's considerable size, however, many developing member countries' governments have avoided working with it, in part because of a lack of familiarity with mechanisms for such cooperation. The collaboration between the public and private sectors can take many forms, including the following:

- contracting out the delivery of health services to private providers or NGOs
- contracting ancillary services such as equipment maintenance, food service, or laundry services in hospitals to for-profit firms
- training private pharmacy operators on the proper case management of important diseases such as tuberculosis
- working with traditional healers, such as traditional birth attendants
- employing private sector management approaches in public sector hospitals, such as establishing autonomous local boards of directors to oversee hospital operation.

Efforts at public-private collaboration may have far-reaching positive consequences. There exist many possible intersectorial synergies and cooperative approaches that can benefit consumers. Despite public-private partnerships' potential, however, the evidence for their effectiveness is thus far mostly anecdotal and of recent origin. This great potential still awaits transformation into reality.

Nongovernmental Organizations

Domestic and international nongovernmental organizations, or NGOs, provide a significant share of health services in developing countries. For instance, they supply more than 10 percent of clinical services in India and Indonesia. Collaboration between governments and NGOs

in the health sector has been expanding during the past decade, and many opportunities exist for coordinated action.

Because NGOs are already actively involved in providing services to poor communities, it is natural that governments should look to them to improve the coverage and quality of health services. This may take the form of governmental contracting with NGOs for the delivery of health care, an approach the Asian Development Bank is helping to test formally.

But NGOs should be seen not solely as substitute service providers for government. Given their experience in delivering services and their proximity to the community, NGOs, together with community-based organizations, can play a vital role in the area of regulation of private sector activities, the organization and operation of health financing programs, the development of innovative health activities, and policy formulation.

Private Pharmaceuticals Vendors

Expenditures on pharmaceuticals in the Asian Development Bank's developing member countries are very high, and in some countries sales are increasing rapidly. In Cambodia and the Philippines, pharmaceuticals account for nearly 80 percent of total health care expenditures. Throughout the region, people often bypass curative care providers and go directly to private pharmacies. Thus, the operators of private pharmacies, many of whom are untrained and unlicensed, are the first line of health care for much of the population.

This situation entails both risks and opportunities. The major risk is that the management of illnesses such as tuberculosis or sexually transmitted diseases may be mishandled, resulting in the evolution of organisms resistant to available drugs. An important opportunity is that if they are properly trained and alerted to diseases of public health importance, private pharmacists can serve as an effective means of disease control. The dynamic and extensive sales networks of the private sector can also be used to market important commodities such as contraceptives, oral rehydration salts for the treatment of diarrhea, and the like.

Private Providers

Individual private health care providers and private hospitals account for much of the growth in the health sector in the Asia and Pacific region. Despite the size of the modern private health care sector, little

collaboration has occurred thus far between it and the region's governments. Issues that need to be explored jointly include the following:

- methods for improving the quality of care, which is closely related to regulation and licensing
- incentives for the establishment of private facilities in underserviced areas
- government purchase of services from the private sector
- use of private hospitals as teaching facilities for training health professionals.

Traditional Healers

Traditional medicine remains an important part of the health care system in the Asian Development Bank's developing member countries. The number of traditional health care providers—including acupuncturists, bonesetters, ayurvedic and homeopathic doctors, and traditional birth attendants—is typically many times larger than the number of medically trained physicians, particularly in rural areas.

These traditional providers may represent an important opportunity for governments to improve the delivery of certain essential health services. Examples from the developing member countries include training and supporting traditional birth attendants to improve pregnancy outcomes in Indonesia and the Philippines and utilizing traditional healers to screen for malaria and distribute antimalarial drugs in Thailand. These programs appear to have been effective and were implemented at modest cost.

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PART VIII

The Health System in Japan

Chapter Fifteen

Public Health in Japan

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CHAPTER FIFTEEN

Public Health in Japan

General History of Japan's Health Administration

1945-54

The first half of the 1945-54 period witnessed the expansion of the Japanese public health administration and the growth of health sector activities, especially in relation to coping with the surge in acute diseases and with the country's persistent food supply problems. As part of Japan's overall social reform effort, health administration institutions at the national and local levels were reformed and the relevant laws and ordinances were streamlined. The nation's public health administration was increasingly guided by technical considerations, in contrast to its earlier posture, adopted during the Meiji Era, of giving priority to its function of administrative control. In particular, a wholesale revision of the Public Health Center Law in 1947 led to the development and replenishment of a nationwide network of public health centers, a significant move for the postwar development of public health.

The founding of the People's Republic of China (1949), the outbreak of the Korean War (1950), and the coming into effect of the San Francisco peace treaty (1952) all contributed to a sudden turnaround in the Far Eastern situation during the second half of the 1945-54 period, and signs of industrial rehabilitation appeared in Japan. The essential tasks in the health care of the country's population shifted toward such areas as maternal and child health, urban cleanup, and antituberculosis measures. Worthy of special note was the enactment of a new tuberculosis prevention law in 1951, which would lead to much progress in the implementation of measures to combat that illness.

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1955-64

In 1955, Japan's average standard of living returned to virtually the same level as during the prewar years. In the first half of the 1955-64 period, the continuing urbanization and industrialization of the country intensified the need for environmental hygiene efforts to provide city dwellers and the new industries with adequate water supply and drainage systems. And there began to be seen some early signs of the serious pollution problems that would eventually materialize.

A decline in the mortality rate brought changes in the pattern of death and disease, and measures to cope with chronic degenerative diseases appeared on the agenda of administrative authorities, with the Ministry of Health and Welfare citing cerebrovascular disease, cancer, and heart disease as the major chronic degenerative diseases peculiar to adults and designating them as the "three major adulthood diseases." Meanwhile, the rapid annexation of municipalities and the adoption of a system of health insurance covering the entire population brought about significant positive changes in the fundamental conditions for the pursuit of health-related activities.

With the National Income Doubling Program in 1960, the country's promotion of rapid economic growth and regional development produced tremendous social change in urban and rural areas alike. Major tasks under the national health insurance scheme began to include mental health measures and efforts to combat pollution and chronic degenerative diseases. The Soot and Smoke Control Law was enacted in 1963 to cope with the country's worsening pollution, and an Environmental Pollution Division was established in 1964 within the Ministry of Health and Welfare. In addition, a fact-finding survey was carried out in order to gather national data on chronic degenerative diseases and on joint municipal public health programs.

1965-74

The policy favoring rapid economic growth and industrial development remained unchanged through the early part of the 1965-74 period, and GNP continued to rise. Concomitantly with this industrial growth, however, tragic pollution-related incidents occurred one after another. The Basic Law for Environmental Pollution Control was enacted in 1967, and the Environment Agency was established one year later. The health sector began to focus more on intractable diseases (nanbyo) and on the health concerns of the elderly, and the

contradictions inherent to medical care and medical education came to the fore. Thus, in the midst of upheavals in the social environment, the central government was forced to come out with policy rectifications. Along with the first oil shock in 1973 came an abrupt change in the circumstances under which Japan had been working toward rapid economic growth.

1975-2000

The oil crunch in 1973 triggered worldwide recession and aggravated inflation. In Japan, the economic slowdown and deteriorating national and local finances put health care, medical care, and welfare into an austerity mode. National finances remained in critical condition for a long time, partially because of the accumulation of deficit-covering national bonds, compelling the central government to implement harsh financial rationalization measures.

With medical care for the elderly made free of charge as of 1973, outlays for medical care soared, creating a serious issue for the country's health and welfare administration. In 1982, the Law on Health Service for the Elderly was enacted, and efforts were subsequently made to rationalize outlays for medical care. In 1975, Japan joined the world's top group of nations in terms of life expectancy at birth and low infant mortality. Meanwhile, with the increase in the numbers of older people, there also came an increase in social concern about the health problems of the elderly and bedridden.

Given those developments, the country's administrative authorities for health care, medical care, and welfare were forced to come out with changes that would address the new health issues. In the health care sector, the Ministry of Health and Welfare published its Health Promotion Measures in 1978, and attempts were initiated to establish municipal health centers and to work out a more appropriate status classification for public health nurses.

The Law on Health Service for the Elderly (adopted in 1982 and promulgated in 1983) was designed to ensure the comprehensive execution of such health care projects as disease prevention and treatment and community rehabilitation, in order to maintain elderly people's health and provide them with appropriate medical care. Under this law, the responsibility for implementation of measures to cope with chronic degenerative diseases was assigned to municipalities. Under the Community Health Law of 1994, relations between municipalities and public health centers were formally defined.

In the medical care sector, the Medical Services Law (amended in 1985 and 1993) paved the way for the formulation of medical care programs and for the reform of the medical care system. In 1989, the Ten-Year Strategy for Promotion of Health and Welfare Services for the Elderly was outlined and agreed to by the ministries entrusted with health and welfare, domestic affairs, and finance. This strategy set targets for at-home and at-facility care and other measures for the elderly. In 1990, the eight welfare-related laws were amended in order to accelerate the formulation of health and welfare programs for the elderly.

The reorganization of health care, medical care, and welfare is currently under way in Japan under circumstances of the continuing aging of the population, deteriorating national finances, and an ongoing process of decentralization of government power. Now is clearly the time for local governments independently to come out with measures to cope with the country's aging society.

The Law on Public Health Centers

The original Public Health Centers Law was enacted in 1937 in response to calls for improvements in the population's health status and general sanitary conditions. In the following year, public health centers made their debut as institutions that would be entrusted with the health and sanitary conditions of specific individual neighborhoods by providing consultation, guidance, and preventive services for neighborhood inhabitants in all aspects of public health, including the dissemination of knowledge about hygiene, health care for mothers and children, improvements in nutrition, and prevention and treatment of tuberculosis, acute contagious diseases, and parasitic ailments.

World War II devastated the operation of these early public health centers, and shortly after the war's end, it was decided to redevelop and reorganize them. The 1937 Public Health Center Law was thoroughly revised and amended in 1947. The amended law defined public health centers as institutions to carry out preventive measures and administrative functions in public health matters within their own individual jurisdictions, thus paving the way for the evolution of the public health centers of today.

At each public health center, a public health center management council was established to ensure that management accurately reflected local conditions. A policy was adopted to facilitate the development of needed staff members and facilities such that, ideally, a public health center could care for a population of roughly 100,000. Of

course, it would have been impossible to develop the entire network of public health centers across the nation in one stroke, and so in the beginning they were developed empirically according to the scale of need of the local population.

With the worsening of environmental pollution and with the social and economic shift begun in the mid-1950s, there arose calls for higher technical levels in matters relating to the fulfillment of the population's health care needs. In response, the Administrative Management Agency in 1957 called for the definition of new guidelines for the existing public health centers' work and for the establishment of new centers. Accordingly, public health centers were divided into five types—U (urban), RF (rural), UR (intermediate), L (large), and S (branch office)—and the standards for facilities, equipment, and manpower were determined for each type. Officials of these public health centers were expected to coordinate and cooperate center operations with the operations of other related institutions and organizations. With the jurisdiction of each municipality serving as the basic unit, the public health center, the municipality, and other institutions and organizations were called on to formulate comprehensive public health programs for the municipality's inhabitants. The public health centers themselves were to provide technical advice and guidance on the formulation of these comprehensive health care programs and on the performance of studies and evaluations of the results of the programs' implementation.

Meanwhile, the period's rapid epidemiological and societal changes continued to foster diversification and intensification of citizens' demand for public health services. The Council on Public Health (established in the Ministry of Health and Welfare) and other related organizations carried on a spirited debate regarding the optimal ultimate form of the nation's public health centers. For instance, in 1968 the Ministry of Health and Welfare proposed the establishment of "key" public health centers. In 1972 a committee established by the Ministry published a comprehensive report on the problems of the nation's public health centers. And in 1987, the Workshop on the Future Concept of Community Health was convened, to clarify future images about community health and to define the ideal structure of the public health centers. After two years of study, this workshop came out with a report on the future form of the community health system centering on the public health center.

Given the changes occurring in social conditions, such as the emergence of a "super-aging" society, and given the diversification and sophistication of the people's demand for health services, the workshop's report suggested that personal health services should be

offered basically at the municipal level, which is close to community residents and is thus potentially more responsive to residents' specific needs. With respect to the role of the public health center, the report suggested that personal health services of the sort that the municipality cannot readily or efficiently deliver ought to be offered at the next higher level, multi-municipality based and capable of providing specialized responses such as in-patient care and the promotion of mental health. The report further called for the establishment of general consultation centers, the formulation and promotion of concrete community health and medical care programs, and the strengthening of information services on health and medical care under medical insurance systems. These different reports and ideas did not all reach effective fruition or total implementation, but they did serve the purpose of setting the stage for the eventual creation and adoption of Japan's pivotal 1994 Community Health Law.

Recent Developments in Community Health

In the past, the Public Health Center Law existed as a piece of general legislation on public health. In 1994, with the Ministry of Health and Welfare's comprehensive review of community health care, this law was amended across the board for the first time in nearly half a century, since 1947. There was a thorough-going revision of 45 related regulations on community health and adoption of provisions for streamlining and strengthening the country's many existing community health measures. In addition to revisions to the old Public Health Center Law, the amended law contains provisions on the allocation of power within the health sector. The provisions on the transfer of power and on the public health centers were to come into full force in fiscal 1997. The Public Health Center Law of 1947 was redesignated in 1994 as the Community Health Law, and the old law's provisions regarding objectives, ideals, and the roles of national and local governments in the health sector were revised and streamlined. It was decided that the Ministry of Health and Welfare would formulate basic guidelines for the sector, which were to cover the following aspects:

- promotion of community health measures
- development and management of public health centers and municipal health centers
- development of human resources and the required professional skills

- performance of surveys and research on community health
- coordination with other health-related activities, such as social welfare.

The new law consists essentially of two main elements. The first element is the structuring of a revised community-based system of public health centers that responds locally to the rapid aging of the population, to the country's changing disease structure, and to the particular health care needs of each individual municipality's inhabitants, in the sense that it is the inhabitants themselves who will actually be receiving the services to be provided by the municipality-based health care centers.

The second element of the new law is the redefinition of the distribution of administrative power and responsibility within the country's health care sector. The law revises the roles played by prefectures and municipalities, and within a framework of increasing decentralization of power, it entrusts municipalities with the responsibility for providing frequent and readily accessible health-related services for mothers and children and for developing a lifetime health promotion system integrated with the eldercare health services currently offered by municipalities. The items in the new law regarding the transfer of power consist of the parts of the Maternal and Child Health Law on the "transfer of power from prefectures to municipalities" and on the "transfer of power from the nation to prefectures and to cities with public health centers."

Changes in the Public Health Centers

In addition to prefectures and cities designated by administrative ordinance for establishment of public health centers, the new law contains provisions that core cities and special wards stipulated in the Local Autonomy Law must also establish such centers. When a prefecture establishes a public health center, the area of jurisdiction must be defined with consideration given to the secondary medical care area (there are 344 secondary medical care areas) and to the respective area of health services for the elderly, in order to ensure organic coordination among health promotion services, medical care services, and social welfare services.

The new law covers the planning and coordination of the administrative functions performed by public health centers, as well as certain medical and pharmaceutical matters managed by the centers. The

definitive parameters have yet to be established for the delivery of health services to persons requiring long-term medical care or therapy and for care of persons with specific illnesses such as AIDS, but the public health centers are currently responsible for the delivery of medical care in many of these cases. And with the revision of the Child Welfare Law in conjunction with the transfer of power, the centers have also been entrusted with providing services to children who require long-term treatment.

Public health centers may perform community health surveys and research and may freely collect, sort, analyze, and utilize such information. The public health centers established by the prefectures are to promote liaison and coordination among municipalities, provide technical advice, train municipal staff officials, and offer advice on the implementation of municipal community health measures in the areas of their jurisdiction in response to requests from municipalities. Public health center management councils may be established if so desired. The Ministry of Health and Welfare is to provide appropriate technical advice and recommendations on the establishment and management of public health centers to local governments establishing such centers. The old provisions no longer apply regarding grants-in-aid to cover expenses for the management of public health centers.

Municipal health centers are defined as facilities that provide municipality residents with health consultations, health guidance, and health screenings and perform other necessary health care projects and functions as established by municipalities. Subsidization for these activities may be received from the National Treasury. In specified municipalities, prefectures are to formulate support programs for enhancing the public health center personnel's work skills and for providing the centers with staff officials and other needed human resources—the latter with financial and technical support by the national government.

Redistribution of Administrative Power within the Health Care Sector

As regards the system of health administration in Japan, the line that extends from the national government (Ministry of Health and Welfare) to the prefectural government (department in charge of health) and to the municipality (division in charge of health) was already established, but the new law changed some aspects of that relationship.

Formerly, public health centers were established mainly by prefecture, but with the new law, certain newly adopted population criteria enable and indeed require the so-called core cities also to es-

tablish public health centers. The number of cities with public health centers will increase accordingly (33 cities and 23 special wards as of January 1, 1995). In fiscal 1997, as a result of the transfer of power from prefectures to cities with public health centers, there occurred a further shift in the power differential between prefecture public health centers and public health centers in cities designated under an administrative ordinance for the establishment of public health centers. As regards areas of health administration in the future, both cases—those in which decisions are made by municipalities on a basis of multijurisdictional response and cases in which decisions are still made by prefectures, as in the past—will occur, particularly for prefectures containing cities with a population upward of 300,000.

The role of municipalities will continue to grow as a result of the foregoing population factors, the transfer of power to municipalities, the current intensive development of prefecture public health centers for secondary medical care, and the establishment of multifaceted node centers such as comprehensive health and welfare centers, in keeping with current organizational reform oriented toward the comprehensive delivery of health services, medical care, and welfare services and toward harmonized policymaking at the national, prefectural, and municipal levels.

With respect to the national level, Japan's Ministry of Health and Welfare was established under the National Organization Law for the purpose of designing and implementing the administrative elements of the country's health and welfare legislation. The Law for the Founding of the Ministry of Health and Welfare defines the Ministry's mission and authority and the flow of administrative power among its internal bureaus and departments. The organization of the divisions inside the Ministry's various bureaus is outlined in the Ordinance for Organization of the Ministry of Health and Welfare. The bureaus and departments with particularly close ties to current health sector administration in the country are the following: the Health Policy Bureau; the Health Services Bureau; the Environmental Health Bureau; the Health and Welfare Bureau for the Elderly; the Children and Families Bureau; the Ministry's Secretariat; the Statistics and Information Department; and of late, the Social Welfare and War Victims' Relief Bureau, in view of the current trend toward integrating health care, medical care, and social welfare.

With respect to the prefecture level, there usually exist five to eight divisions covering administration for medical affairs, health care and disease prevention, environmental hygiene, food sanitation, and other matters as required. The specific appellation of each division dif-

Table 15.1. Main Activities of Public Health Centers, 1993

Activity	Project Volume	Average Per Public Health Center
Frequency of Mass Health Screenings	319,473	377
Activities of Environmental Hygiene Surveillance Officials, etc.		
Aggregate of Facilities for Surveys, Surveillance and Guidance	839,499	754
Aggregate of Facilities for Surveillance over Facilities in Need of Permission for Food Sanitation	3,484,858	4,088
Aggregate of Facilities for Surveillance and Guidance on Facilities not in Need of Permission for Food Sanitation	1,907,937	2,324
Aggregate of Surveillance Officials Moved Out for Guidance to Food Sanitation (Persons t x Business Unit)	818,021	728
Number of Samples Collected and Removed for Food Sanitation	217,911	257
Aggregate of Persons Given Preventive Inoculation	2,373,173	2,799
Actual Number of Persons Provided with Guidance on Premature Babies at Their Homes	37,595	44
Actual Frequency of Health Guidance Provided to Expectant and Nursing Mothers	370,787	437
Aggregate Number of Expectant and Nursing Mothers Provided with Health Guidance	434,159	512
Actual Number of Persons Provided with Guidance on Infants and Children	2,494,008	2,941
Aggregate of Persons Provided with Health Guidance on Infants and Children	2,895,780	3,415
Actual Number of Persons Provided with Health Guidance on Handicapped Children	58,203	88
Actual Number of Women Provided with Guidance on Toxemia of Pregnancy on Home Visits	9,328	11
Actual Number of Persons Provided with Guidance on Neonates	221,090	281
Aggregate of Persons Provided with Dental Screenings and Health Guidance	2,833,025	3,341
Guidance on Nutritional Improvements	4,470,798	5,272
Aggregate of School Lunch Facilities Provided with Guidance	130,893	154
Frequency of Classes on Health Education Opened	294,503	347
Aggregate of Facilities by Public Health Centers' Public Health Nurses	980,538	1,133
Frequency of Activities Made, other than Home Visits	554,109	853
Aggregate of Interviews and Home Visits on Medical Care and Social Projects	310,025	388
Number of Samples for Tests and Inspections	32,782,484	38,859
Number of Cases for Consultation on AIDS (Newly Started in 1993)	233,830	278
Number of Cases with Blood Sampling for AIDS (Newly Started in 1993)	117,334	138

Note: The "average per public health center" is obtained by dividing by the number of public health centers, 848 as of the end of 1993.
Source: Ministry of Health and Welfare. Report on Management of Public Health Centers.

fers from prefecture to prefecture, showing a variety of around 60 different names. The work of the prefecture public health centers is tied in with each of these divisions, and so the office in charge of the management and coordination of work in the entire prefecture health administration department (the Medical Affairs Division, in many instances) takes charge of these public health centers as a whole. Besides prefecture public health centers, health administration-related prefecture institutions include hygienic, pollution, and other test and research institutions, mental health and welfare centers, and health promotion centers, to name a few.

With respect to the level of cities/municipalities and special wards designated for establishment of public health centers, the 1994 Community Health Law provides for establishing public health centers in (1) prefectures, (2) special wards in the Tokyo metropolitan area, and (3) core cities designated by administrative ordinance—namely, those cities with a population of 300,000 or more, as ordained by the law, based on the notion that a population of that size is sufficient to allow for the smooth establishment and management of public health centers and should become the unit of local health administration. Under this system, a designated core city may deliver comprehensive public health services to its population as long as it is willing and able to do so. It is hoped that this system will greatly expand in the years to come.

Today's Public Health Centers

As of 1995, there existed 847 public health centers in Japan. Disaggregated by type of base unit for their establishment, they included 625 by prefecture governments, 169 by cities designated for the establishment of public health centers, and 53 by special wards. The main lines of work done by public health centers are shown in Table 15.1. The Community Health Law's provisions on public health centers were put into force on April 1, 1997. The centers' functions are defined in Articles 6, 7, and 8 of the aforementioned law.

Article 6 covers basic functions common to all public health centers, and it states that public health centers shall carry out planning, coordination, guidance, and other functions in regard to the following:

- dissemination and enhancement of thought about community health
- gathering and analysis of vital statistics and other data associated with community health

- improvement of the covered population's nutritional status
- improvement of the covered population's environmental sanitation conditions in regard to housing, sewerage and water systems, drainage systems, waste disposal, cleaning, and the like
- management of indicated medical and pharmaceutical matters
- administration of services and occupational matters regarding public health nurses and other public health workers
- enhancement and promotion of public medical care projects
- provision of health services for mothers, children, and the elderly
- administration of dental care standards and services within the area
- administration of mental health concerns and activities within the area
- administration of health services for persons in need of long-term medical care for diseases for which no therapies are established or for other specific diseases
- prevention of AIDS, tuberculosis, STD, and other contagious and noncontagious diseases
- execution of health care service inspections, surveys, and research
- performance of other functions relating to the maintenance and promotion of community residents' health.

Article 7 covers optional projects based on the characteristics of each public health center's own jurisdiction. The article calls for the centers to make an accurate assessment of the health-related needs of community residents and to fortify health service projects responsive to these needs so as to ensure that appropriate community health measures are evolved and that the public health center may effectively carry out its new role. In addition to disease treatment, tests, and inspections as prescribed in the earlier Public Health Center Law, public health centers are to carry out other surveys and research projects and to sort, analyze, and effectively utilize the information obtained. Article 7 provides for a public health center to carry out the following activities as necessary for maintaining and promoting the health of community residents:

- collect, sort, and utilize community health data
- perform community health surveys and research projects

- treat dental and other diseases specified by the Ministry of Health and Welfare
- perform tests and inspections and have physicians, dentists, pharmacists, and other professionals utilize center facilities for tests and inspections when necessary.

According to Article 8, the public health centers established by the prefectures are to promote liaison and coordination for the implementation of community health measures by municipalities in their jurisdiction. In addition, in response to requests from municipalities, the prefecture public health centers are to offer technical advice, to train staff officials of municipalities, and to provide other desired assistance.

Each public health center is assigned a director and staff officials. The public health center director must be a physician who has had experience in the practical work of public health for more than three years, or a person who has finished the training course of the Institute of Public Health, or a person who has comparable skill and experience. Public health centers are to employ physicians, dentists, pharmacists, veterinarians, clinical radiographers, clinical laboratory technicians, nutritionists, public health nurses, and other staff officials necessary to carry out the required administrative work, as enumerated in Table 15.2.

For the personnel expenses of public health centers, subsidies had been available from the National Treasury until 1984, when it was decided in regard to personnel costs and other expenses relating to the management of public health centers that grants should instead be offered to cover such expenses, in accordance with the criteria established by administrative ordinances. In fiscal 1987, 1990, and 1993, a part of those public health center management grants-in-aid that would correspond to personnel expenses was incorporated into the category of general financial resources. National subsidization for the work of public health centers now includes subsidies for the costs of administrative work for the centers as well as subsidies for special pilot projects for the promotion of community health and for other health service projects.

As regards the establishment of public health centers with new functions, studies are under way regarding the possibility of developing public health centers larger in scale than the conventional ones. In the future, the functional reinforcement of public health centers must be accelerated, as indicated in the basic guidelines established by the Ministry of Health and Welfare in 1994.

Table 15.2. Staff Officials of Public Health Centers, 1992

Line of Work	Prefecture	Administrative Ordinance Designated City	Special Ward	Total
Physician	830	323	135	1,288
Dentist	44	22	6	72
Subtotal	874	345	141	1,360
Pharmacist	1,094	93	0	1,187
Veterinarian	797	59	0	858
Radiology Technician	785	276	134	1,195
Clinical X-Ray Technician	54	6	2	62
Clinical Laboratory Technician	880	191	92	1,163
Sanitation Technician	261	42	67	370
Supervising Nutritionist	723	262	130	1,115
Nutritionist	144	37	7	188
Dental Hygienist	140	114	95	349
Physical Therapist	4	10	4	18
Occupational Therapist	5	2	3	10
Subtotal	4,887	1,092	534	6,513
Public Health Nurse	5,244	2,325	839	8,408
Midwife	21	58	0	79
Registered Nurse	37	241	0	278
Subtotal	5,302	2,624	839	8,765
Worker for Medical and Social Projects	36	98	3	137
Mental Health Counselor	272	162	19	453
Health Educator	405	121	39	565
Sanitary Engineering Instructor	8	0	0	8
Health Statistician	545	174	37	756
Card Keeper	128	51	58	237
Official in Charge of Preventive Work	668	370	148	1,186
Official in Charge of Tuberculosis Prevention	588	318	106	1,012
Official in Charge of Administrative Work for Coordination	2,780	1,033	607	4,420
Official in Charge of Pollution	426	136	30	592
Subtotal	5,856	2,463	1,047	9,366
Food Sanitation Inspector, etc.	2,916	1,724	640	5,280
Other Officials in Charge of Office Work and Drivers	986	338	60	1,384
Butchery Inspector	616	152	8	776
Others	724	240	55	1,109
Subtotal	5,242	2,454	763	8,459
Grand Total	22,161	8,978	3,324	34,463

Source: Surveyed by Planning Division, Health Policy Bureau, Ministry of Health and Welfare.

Local Institutes of Health Sciences

Seventy local institutes of health sciences have been established in prefectures, in specified cities (including some of the designated core cities), and in special wards across the nation to serve as core institutions for health sector tests and research. Along with all the recent technical innovations and other new developments in the medical sciences there have also occurred remarkable developments in each aspect of health administration, and the role of the local institutes of health sciences has accordingly become all the more important as the technical source for information on optimal local health administration. In almost all cases, the institutes' appellation is "local institutes of health sciences," but in some prefectures, names such as "hygiene and pollution research institutes" are used instead, in order to emphasize the institutes' function as a source of ideas on measures to cope with pollution.

The main line of administrative work for the local health institutes of health sciences consists of the following: (1) surveys and research, (2) tests and inspections, (3) training and guidance for the health care and hygiene staff officials of the public health centers and municipal governments, and (4) analysis and provision of public health information as required for the scientific and technological components of health administration.

Viral and rickettsia examinations, pathological and biochemical tests, examinations associated with food sanitation and pollution, and other high-tech examinations are apparently on the increase in general, centering around the increase in examinations associated with environmental conservation measures. Local institutes of health sciences have fully displayed their capacity to handle food and household utensil safety tests, tuberculosis surveillance, tests on congenital metabolic abnormalities, and anti-AIDS measures. Presumably, the institutes' role will become even more significant in the future. About 35,000 staff officials are assigned to local institutes of health sciences across the nation, 75 percent of them being physicians, veterinarians, technicians in applied chemistry and agronomy, clinical laboratory technicians, and other technicians.

Municipal Health Care Centers

Public health activities in Japan have been intensified, with the public health centers playing a central role. Along with epidemiological and other changes, the Japanese population's awareness of health matters

has also increased, and in order to serve more fully the population's demand, public health centers' work is often shared by another type of health care facility—the municipal health care center. The Ministry of Health and Welfare actually began as early as 1978 to promote the development of the first municipal health care centers as new facilities for reinforcement of personal health services at the municipal level. As of the end of fiscal 1993, there existed 1,212 municipal health care centers in the nation. Municipal health care centers are to foster inhabitants' overall long-term health and welfare by offering health care and other services that are readily accessible and highly usable.

In accordance with the 1994 Community Health Law, municipalities are eligible for subsidization from the National Treasury in developing their municipal health care centers. For the development of these centers, various different forms are authorized, and it is legally possible for municipalities to get together in establishing a center or to set up more than one center in a city (or core city). It is also possible to remodel existing municipal health care centers. In municipalities in which similar facilities are developed, it is expected that the centers will coordinate their efforts in order to offer a full range of services for users in the most efficient and cost-effective way.

Municipalities will implement systematic projects at municipal health care centers and other sites in response to the needs of residents, by formulating programs for community health and other related programs. Municipal health care centers are projected to evolve into broad-based centers offering a full range of health and welfare services. Eventually they are expected to establish a system for coordination and cooperation with in-home care support centers, with other social welfare facilities, with the network of general "over-the-counter" consultation providers at various installations in the municipality, with local medical associations, and with other related organizations.

For the management of municipal health care centers, specialized assistance and cooperation will be sought from existing public health centers. In addition, under the Community Health Law, prefectures will formulate programs to support the municipal health care centers in obtaining skilled human resources and will carry out necessary projects in response to calls from those municipalities to assist them in securing such personnel. In order to transfer to municipalities the responsibility and authority for health care service provision, as ordained in the Maternal and Child Health Law, it is essential for municipalities to secure skilled health care personnel. As of the mid-1990s, there remained 73 municipalities (about 2.3 percent of the total) that had yet to hire public health nurses, leading the national government to call for

doubling the number of public health nurses serving in the municipal health care centers by the end of the decade.

Finances for Health Administration

National Budget for Health and Welfare Administration

The nation's annual general-accounts budget during the mid-1990s was upward of 71,000,000 million yen for both annual revenue and expenditure. This general-accounts budget provides almost the entire national budget for health administration, which organizationally encompasses the country's environment agency and the ministries entrusted with health and welfare, education (school health), labor (labor sanitation), and construction (public drainage and sewerage systems).

The health administration budget covers expenditures for human resources, supplies, facilities, and the like as required for the national government itself to carry out its health sector administrative activities.

The health administration budget also covers budgetary consignments, grants, allocations, subsidization, and the like as channeled to the health-related operations of local governments. The budgetary consignments to local governments consist of the expenses necessary to mandate to them any health-related administrative work tied in exclusively with the overall national interest. Grants are the funds channeled to local governments by the national government for the encouragement and development of specific health-related projects or facilities or for purposes of general financing and are further classified into grants-in-aid and allocations or subsidies, depending on whether the granting is obligatory.

The portion of the nation's general-accounts budget going to the Ministry of Health and Welfare (in fiscal 1995, this portion amounted to 14,011,400 million yen, or some 19.7 percent of the national general-accounts budget) is used by the Ministry for a variety of administrative work for social security, social welfare, and health (Table 15.3). Of the Ministry's own budget, the 1995 budgetary allocation for health administration was 994,900 million yen (the total amount of expenditure for public health and hygiene measures and for the development of sanitation facilities and the like), amounting to about 7.1 percent of the Ministry budget. Between 1980 and 1997, the Ministry's share of the nation's general-accounts budget grew by a factor of 1.7. Within this, the expenditure for social welfare increased by a factor of 2.5, for

Table 15.3. Trends in Budgetary Amounts of General-Accounts Expenditure under Jurisdiction of the Ministry of Health and Welfare

(In Million Yen)

Item	*1994FY*	*1995FY*
Livelihood Protection	1,052,382	1,053,179
Social Welfare	3,187,471	3,472,811
Social Insurance	8,135,920	8,312,698
Public Health and Hygienic Measures	659,939	634,187
Tuberculosis Treatment	27,409	16,134
Mental Hygiene	41,472	31,771
Measures to Cope with Disorders from Atomic Bombs	139,470	145,601
Miscellaneous for Public Health and Hygiene	110,599	109,619
Development of Facilities for Public Health and Hygiene	34,221	34,921
Miscellaneous for Management of National Hospitals	258,797	248,604
National Leprosaria	39,193	39,702
Quarantine Stations	8,772	7,798
Promotion of Science and Technology	54,171	54,920
Aid to Bereaved Families with Members Yet to be Repatriated, etc.	118,037	119,714
Development of Facilities, Such as Sanitation of Drainage	302,441	264,283
Others	97,304	99,489
Total of General-Accounts Budget Under Jurisdiction of Ministry of Health and Welfare	13,610,880	14,011,475
Total of General-Accounts Budget	73,081,669	70,987,120

Note: Totals may not add up due to rounding.
Source: Surveyed by the Accounting Division, Ministry of Health and Welfare.

social insurance by a factor of 1.6, for improvement of the environment and living conditions by a factor of 1.7, and for public health and hygiene by a factor of 1.6.

For the development of facilities for improvement of local environment and living conditions, funds can also be obtained through the country's financial investment and loan program, the financial sources of which are postal savings, welfare and other pensions, and other government funds. The funds in this national financing program are utilized for the purchase of local bonds (public bonds) sold by municipal and other governments in order to finance the development of facilities for improvement of the local health environment and living conditions.

Local Government's Health Administration Budget

The local government's overall general-accounts budget provides almost the entire health-related budget for that local area. These local

health expenditures cover the administrative work done by local governments both in their own health-related projects and in projects stemming from the implementation of laws and ordinances and from requests submitted by various local health-related institutions and organizations. Nearly the entire general-accounts budget of the national government is derived from income taxes, corporation taxes, and the like, and in parallel fashion, nearly the entire general-accounts budget of the local government is derived from local taxes (residential taxes, local grant taxes, and others), from National Treasury outlays, and from the sale of local bonds.

The local grant tax system provides that 32 percent of the amount collected from three national taxes (income, corporation, and liquor taxes) will be distributed according to a sliding-scale formula to local governments experiencing a lack of financial resources. This policy is an attempt to lessen the differences in financial capacity among local governments and as a way of maintaining a standard level of administration. The beneficiary local governments are at liberty to use these granted allotments in the same way they would use revenue from local taxes.

The local health outlay from the National Treasury is designed to cover the expenses incurred by local government in carrying out administrative work assigned to it by the national government in the national interest (consignments). This outlay also comprises the aforementioned grants, allocations, and subsidies made to local government by the national government for the encouragement and development of specific health-related projects or facilities or for purposes of general financing.

Local governments' total general-accounts expenditures for fiscal 1993 came to nearly 100,000,000 million yen, of which more than 6,000,000 million yen went for health-related expenditures (an average of nearly 7 percent—or 4.1 percent in prefectures and 9.0 percent in municipalities). Disaggregated by objective, local governments' total 1993 health-related expenditures were as follows: 49.5 percent on public health (carry-over from expenditure for public health and hospital accounting projects not elsewhere appropriated); 44.6 percent on cleaning, hygiene, and sanitation; 4.9 percent on public health centers; and 1.0 percent on tuberculosis prevention (expenses for health screenings and treatments, among others, under the tuberculosis prevention law).

Prefectures show a relatively high proportion of their total health expenditures going for public health centers (69 percent), largely because it is the prefectures that do most of the administrative work for

local medical care, such as mental health. When it comes to municipalities, the expenditure for cleaning, hygiene, and sanitation is relatively high (55 percent), as the municipalities engage primarily in cleaning and in projects for environmental sanitation. (Interestingly, nearly all of the cleaning-related expenditure made by prefectures is attributable to Tokyo, which carries out cleaning projects in its special wards.)

As illustrated in Table 15.4, the financial sources for local government's expenditures on health consist largely of general financial resources (primarily the local residential and other taxes and the local grant taxes), funds from the National Treasury, and local bonds. Now that health administration is a basic part of local government administration, the portion (65.1 percent) of local health-related expenditures covered by general financial resources is substantial.

Medical Care Delivery System

The Medical Services Law of 1948 was designed to ensure a good standard of medical care for the population and to serve as Japan's basic code on medical institutions. The law contains regulations on the appropriate placement, staffing, structure, and management of public sector medical institutions and provides for official supervision and control over many other medical and health care organizations.

The Medical Services Law defines a hospital as a health care institution having twenty sickbeds or more and meeting specific institutional, staffing, and equipment standards. The clinic is defined as a health care institution having nineteen sickbeds or fewer (even zero) and can be established by a physician by notifying the appropriate public health center. The Medical Services Law also defines "special functioning hospitals" (meaning university and national center hospitals), hospitals with a "group of beds for patients' long-term care," and "skilled nursing homes." Additional information on the country's hospitals and clinics is given in Tables 15.5, 15.6, and 15.7.

In 1985, a bill was approved for the revision of two main areas of the 1948 Medical Services Law—namely, planning and management. In regard to planning, community medicine was to be fostered by formulation of a well-defined medical care plan in each prefecture to ensure the efficient coordination of functions among medical institutions, the systematic development of other necessary functions of the medical care sector, and the exercise of control over the number and location of new hospital sickbeds. In regard to management, in order to reflect more accurately the situation and needs of the populations be-

Table 15.4. Breakdown of Financial Sources for Expenditure for Health and Welfare in Prefectures and Municipalities

(In Million Yen, %, FY1993)

Item	Prefecture	%	Municipality	%	Total	%
Outlay from National Treasury	199,661	9.8	247,361	5.6	444,022	7.1
Outlay from Prefectures	-	-	114,045	2.6	-	-
Charge for Use, Commission Fees	73,490	3.6	182,514	4.1	256,004	4.1
Allotted Charge, Share, Contribution	4,913	0.2	71,428	1.6	55,308	0.9
Local Bond	306,138	15.2	729,324	16.6	1,018,825	16.3
Other Specific Financial Sources	190.596	9.5	226,069	5.2	412,248	6.5
General Financial Source, etc.	1,243,017	61.7	2,830,892	64.3	4,081,044	65.1
Total	2,014,815	100	4,401,633	100	6,267,451	100

Source: Ministry of Home Affairs: Conditions of Local Finances, 1995.

Table 15.5. Type-Specific Medical Institutions, 1993

Medical Institutions	Number
Total	149,878
Hospitals	9,844
Mental Hospitals	1,059
Communicable Hospitals	7
TB Sanatoriums	11
Leprosaria	15
General Hospitals	8,752
General Clinics	84,128
With Beds	22,383
Without Beds	61,745
Dental Clinics	55,906
With Beds	49
Without Beds	55,857

Source: Statistical Information Department, Ministry of Health and Welfare. Report on Survey of Medical Care Institutions.

ing served, the management of health care organizations was to be made more effective and more efficient.

The following are items of necessary description:

- Area of medical care (unit area for the planning for medical care). The secondary area of medical care is the area to be classified as a district unit for the development primarily of general sickbeds (excluding special ones)—that is, the everyday life sphere (with multi-jurisdictional spheres of mu-

Table 15.6. Hospitals and Hospital Beds by Type of Founder, 1993

Type	*Hospitals*	*Hospital beds*
Total	9,844	1,680,952
Nation	394	157,526
Ministry of Health and Welfare	247	102,886
Ministry of Education	66	33,319
Labor Welfare Corporation	39	15,470
Others	42	5,851
Public Medical Care Institutions	1,378	354,420
Prefecture	310	87,910
Municipality	773	165,682
Japan Red Cross Society	97	40,083
Others	208	60,745
Organizations Associated with Social Insurance	137	38,977
Nonprofit Corporations	404	95,484
Corporate Bodies for Medical Care	4,550	696,346
School Corporations	94	50,110
Companies	84	16,966
Other Corporate Bodies	273	49,770
Individuals	2,530	221,353

Source: Statistical Information Department, Ministry of Health and Welfare. Report on Survey of Medical Care Institutions.

Table 15.7. Number and Type of Sickbeds per 100,000 Population, 1993

Type	*Number*	*Number per 100,000 Pop.*
Total	1,946,255	1,559.9
Hospital	1,680,952	1,347.3
Sickbed for Psychiatric Diseases	362,436	290.5
Sickbed for Contagious Diseases	11,061	8.9
Sickbed for Tuberculosis	37,043	29.7
Sickbed for Leprosy	8,833	7.1
General Sickbed	1,261,579	1,011.2
Hospital in General (Enumerated Once Again)	1,405,568	1,126.6
General Clinic	265,083	212.5
Dental Clinic	220	0.2

Source: Statistical Information Department, Ministry of Health and Welfare. Report on Survey of Medical Care Institutions.

nicipalities taken into account). The tertiary area of medical care is the area to be classified as a district unit for the development primarily of general sickbeds associated with special medical care—that is, ordinary prefecture jurisdiction.

- Number of sickbeds required. Sickbeds in general are installed in the secondary area of medical care. Sickbeds other than those in general (psychiatry and tuberculosis floors) are installed in the tertiary area of medical care.

The following are items of optional description:

- development of objectives, with the functions of hospitals taken into account
- provision of remote-area medical care and emergency care
- mutual coordination of functions and administrative work among hospitals, clinics, and pharmacies
- performance of other tasks necessary to strengthen the medical care delivery system.

The definition of health care areas and the nature of the services provided are to be based on geographical and other natural conditions, traffic and other socially created conditions, the level of the population's average demand for health care on a day-to-day basis, and other such local variables. In this regard, the Ministry of Health and Welfare has issued a formula for determining the number of sickbeds required, based on local population numbers, patients' average age, and other specific realities, authorizing additional sickbeds in locales of potentially rapid population growth. The prefecture is required to attempt to develop a secondary medical care delivery system and tertiary medical care delivery system in conformity with the functional classification of medical care. The planning is also to include the strengthening of functional coordination among hospitals, clinics, and pharmacies and the securing of medical care workers and establishment of training systems.

Many issues have yet to be resolved in order to ensure the provision of needed health care services to inhabitants of districts with special geographical or climatic conditions, such as isolated islands, remote or mountainous areas, and areas with heavy snowfall. Since fiscal 1956, the Ministry of Health and Welfare has been implementing special measures for districts without physicians. The Ministry's seventh annual program (fiscal 1992 to 1995) called for the development and refurbishment of clinics and central hospitals and the provision of

Table 15.8. Medical Care Workers by Line of Work, 1992

Medical Care Workers	*Number*
Physician	219,704
Dentist	77,416
Pharmacist	162,021
Public Health Nurse	29,345
Midwife	23,263
Nurse	827,608
Physical Therapist	12,039
Occupational Therapist	5,826
Orthoptist	2,060
Dental Hygienist	44,219
Dental Technician	32,629
Radiology Technician	25,060
Clinical Laboratory Technician	41,344
Health Laboratory Technician	704
Practitioners of Anma-Massage Acupressure	94,150
Acupuncture	63,543
Practitioners of Moxibustion	62,428
Judo Therapist	24,776

Source: Ministry of Health and Welfare.

clinic physicians in remote communities. It called also for the development of patient transport systems, caravan medical care systems, and linkages to medical care programs for such communities.

Medical Care Workers

The qualifications required by law of persons engaging in health care work are diversified (see Table 15.8). Practitioners of anma-massage-acupressure, moxibustion, and judo therapy do not fall into the category of health care workers and are defined instead as practitioners of "activities similar to the delivery of health care."

Physicians

The 1948 Law on Physicians was designed to ensure the highest possible professional quality in Japan's physicians so that presumably, any physician meeting the law's exacting standards could safely be entrusted with matters of great seriousness. With the establishment of systems of

health insurance for the entire Japanese population, demand for medical care during the past decades has rapidly increased. With the 1960 adoption of the administrative target of 150 physicians per 100,000 inhabitants by 1985, efforts were made to increase the prescribed number of students at medical universities. Thus, the basic social and economic program provided by the Cabinet in 1973 included the concept of at least one medical university for each prefecture, and the establishment of national medical universities was accelerated. In 1981, some 80 medical universities (faculties of medicine) were established in the different prefectures, and the official number of students entering them came to 8,260 that year. The target of 150 physicians per 100,000 inhabitants was achieved in 1994, but conversely, there then occurred a crisis because of the fact that as a result, the number of physicians would become excessive in the future. At year-end 1992, the number of physicians reported stood at 219,704 (176.5 physicians per 100,000 inhabitants). Of these, some 211,498 physicians (169.9 physicians per 100,000 inhabitants) were working at health care facilities.

Dentists, Pharmacists, Nurses, Midwives, and Other Health Care Workers

The Law on Dentists was enacted in 1948. The number of dentists reported as of the end of 1992 was 77,416 (some 62.2 dentists per 100,000 inhabitants), and the 1970 target of 50 dentists per 100,000 inhabitants has been attained.

The number of pharmacists as of the end of 1992 stood at 162,021. This figure represents an average of 130.2 pharmacists per 100,000 inhabitants.

The 1948 Law on Nurses, Midwives, and Public Health Nurses decreed that in order to secure a license as a nurse, it would be necessary for the applicant to have completed three years of professional nursing education after graduation from high school. The nurse is a person with a nursing license secured from the Ministry of Health and Welfare, and the licensed practical nurse is a person with a practical-nursing license secured from the prefecture governor's office. Such nurses care for the sick and injured and assist in medical treatment. For public health nurses and midwives, the same law specified post-high-school professional education of more than half a year. The public health nurse is a woman who engages in health guidance after she has secured a license from the Ministry of Health and Welfare. The number of women working as public health nurses as of the end of 1992 was

26,909, increasing to some extent year by year. The law was partially amended in 1993 to make it possible for males to take the national examination for public health nursing and the entrance exam for public health nurse training school. The midwife is a woman who offers midwifery services and provides guidance regarding health care of newborns and expectant or new mothers. The number of midwives engaged in those services as of the end of 1992 was 22,690. As delivery at medical care institutions has become popular, the number of women actually working as midwives now is decreasing.

The dental hygienist is a woman who, under direct instructions from a dentist, removes patients' dental tartar, performs other decay prevention measures, renders assistance in dental treatment, and provides guidance on dental health and hygiene. As of the end of 1992, some 44,219 dental hygienists were employed in Japan.

The dental technician is a person who has secured the corresponding license from the Ministry of Health and Welfare and who prepares, repairs, and fabricates prosthetic dental devices, among other things. As of year-end 1992, some 32,629 dental technicians were employed in the country.

The radiology technician is a person who has secured the relevant license from the Ministry of Health and Welfare to X-ray the human body under instructions from a physician or dentist. As of the end of 1993, some 37,801 persons were licensed as radiology technicians.

The clinical laboratory technician is a person with the corresponding license from the Ministry of Health and Welfare who conducts physiological tests such as electrocardiograms, electroencephalograms, electromyograms, and basic metabolism and respiratory function tests under the direction and supervision of physicians, in addition to the usual tasks performed by health laboratory technicians. As of the end of 1993, some 117,449 persons were licensed as clinical laboratory technicians.

The health laboratory technician is a person who, having received a license from the Ministry of Health and Welfare, conducts microbiological, serological, pathological, parasitological, and biochemical tests. As of the end of 1993, some 126,330 persons held licenses as health laboratory technicians. The qualifications of these laboratory technicians have been established in response to an increase in demand for medical rehabilitation.

The physical therapist is a licensed professional who performs physical therapy under instructions from a physician. As of the end of 1993, some 13,114 persons were licensed.

The occupational therapist is a person who delivers occupational therapy under instructions from a physician. As of the end of 1993, some 6,401 persons were licensed.

The orthoptist is a person who provides orthoptic training and performs tests necessary for the recovery of the binocular visual function, under instructions from a physician. As of the end of 1993, some 2,202 persons were licensed.

The artificial-limb fitter is a person who molds and builds artificial limbs and ensures their body adaptability. A new law in this field was enacted in 1987. As of the end of 1993, some 2,117 persons were licensed.

The clinical engineer is a person with a license secured from the Ministry of Health and Welfare who manipulates, maintains, and checks life maintenance and control devices (artificial respirators, auxiliary therapeutic devices, and blood dialyzers) under instructions from a physician. A new law in this area was enacted in 1987. As of the end of 1993, some 9,673 persons were licensed.

The emergency care transport technician is a person with a license secured from the Ministry of Health and Welfare and who performs emergency care and lifesaving measures, such as the freeing of the airway and the restoration of the heartbeat, while a sick or injured person is transported to a hospital or some other facility under instructions from a physician. A new law for this profession was enacted in 1991. As of the end of 1993, some 6,058 persons were licensed.

Medical Insurance

Following World War I, the Health Insurance Law of 1923 was enacted, and the National Health Insurance Scheme was established in 1938 for people in rural areas, small business, and industry. After World War II, each system was streamlined, and there arose increasing calls for medical insurance for the entire population. The broadening of the health insurance base as established by the existing National Health Insurance Law paved the way for the 1961 creation of a system of insurance for all inhabitants. The scope of medical care insurance payment was broadened, the payment rate was raised, a system for payment of high medical care expenses was created, and efforts were made to reduce the burden of users' medical care outlays.

Along with the aging of the population, medical technology advanced and benefit levels rose, but insurance financing also became more difficult, raising premium amounts and user payment shares. A

turning point came with the adoption of the measures contained in the 1973 Law on Welfare for the Elderly designed to provide medical care to the elderly free of charge. Outlays for medical care to the elderly rapidly and significantly overtook the aforementioned rise in the population's medical insurance outlays, owing in part to the concentration of medical attention needs and costs in old age as the human life span draws to a close.

Thus, the Law on Health Services for the Elderly was approved by the Diet in 1982, primarily to distribute the burden of medical care outlays for the elderly more evenly among the different medical insurance systems and to foster medical care systems especially for the elderly, with emphasis put on medical versus preventive care. One characteristic of this medical insurance system is that costs for the delivery of medical care to persons 70 years old and older are now covered by the national, prefecture, and municipal governments and by the insured subscribers of each medical care insurance system. By so doing, the heavy pressure of medical care outlays for the elderly under the 1938 National Health Insurance Scheme was spread out to other systems, thereby increasing the equity of burden sharing among the various medical care insurance programs.

Nevertheless, in conjunction with the aging of the population and continuing epidemiological changes, medical care outlays will presumably continue to rise at a rapid rate. In particular, the burden on the National Treasury, which supplies about a quarter of the country's total medical care outlays, will remain a very serious issue while national finances are strained.

Medical insurance benefits are paid when an insured person has fallen ill, sustained injuries from nonoccupational causes, given birth, or died from a non-job-related illness or injury. Benefits are paid also when an insured person's dependent has fallen ill, sustained injuries, given birth, or died. The types and contents of benefits are shown in Table 15.9. The core benefits under a medical care system consist of medical consultations, medicines or other needed materials, surgery and other treatments, and delivery of medical care, including hospital or clinic accommodations.

Under a medical care insurance system, insurance-approved medical care institutions and other similar organizations deliver medical attention to the insured. Institutions qualify as insurance-approved care organizations when their founders have filed an application with the prefectural governor's office and the corresponding designation has been made by that office. The provider physicians engaged in delivering insurance-approved medical care at insurance-approved medical

Table 15.9. Types and Contents of Benefits

Classification		*Kind of Benefits*	
		Person Insured	***Dependent***
When a person has taken ill or been injured	When a person has undergone treatment with his or her insurance certificate	Delivery of medical care Expense for meals while in hospital	Expense for medical care to family member
		Expense for specified medical care Expense for medical care and nursing home visit	Expense for specified medical care Expense for medical care and nursing home visit
		Expense for medical care Expense for medical care at high cost	Expense for medical care Expense for medical care at high cost
	Absence from work for medical care	Illness/injury allowance	
When a woman delivers a baby		One-time allowance for childbirth and nursing Childbirth allowance	One-time allowance for nursing by spouse
When a person is dead		Expense for burial	Expense for burial of family member
When a patient is transported		Expense for transportation	Expense for transportation
When a person has resigned from office (benefit, continuous or for a specified period)		Benefit for continuous medical care Illness/injury allowance One-time allowance for childbirth and nursing Childbirth allowance Expense for burial Expense for transportation	Payment of expense for continuous medical care

care institutions must be the same physicians whose names have been registered with the prefecture governor's office. Otherwise, there will be no coverage, as stated in the Regulations on the Delivery of Medical Care by Insurance-Approved Medical Institutions and Physicians.

Medical care expenses to be paid out by insurance are computed according to the numerical rating system for medical care remunerations determined by the Ministry of Health and Welfare. The prices insurance programs will pay for the medicines administered are likewise computed according to the standards for the prices of medications

determined by the Ministry, and these medication price standards are made to coincide as much as possible with market prices on the basis of a survey on the current price of medicines.

The Health Insurance Law provides for a system of fixed rates. With the benefit rate set at 90 percent for the insured, the insured parties' payment rate is 10 percent of the medical expenses incurred. The benefit rate for insured parties' dependents is 70 percent for outpatients and 80 percent for inpatients. (Under the National Health Insurance Scheme, the rate is 70 percent both for inpatients and outpatients) Medical care insurance systems other than the National Health Insurance Scheme exist for salaried workers, farmers, self-supporting businesspersons, and others, such as the Mutual Aid Associations for national and local public servants and the Seamen's Insurance Program for seamen, all with benefits similar to those provided by the National Health Insurance Scheme.

When the amount of payments by patients for medical care under an insurance system exceeds a specified level, the excess is covered in the name of "outlays for high-cost medical care." When an insured person in unable to go to work and has to receive medical care, in order to provide all or part of that person's salary the payment of an illness/injury allowance starts on the fourth day away from the job, for up to one and a half years for the same illness or injury. In addition, charges for burial, a one-time allowance for childbirth, and certain other benefits are paid in cash.

Financing Medical Care for the Elderly

The subjects for medical care under the Law on Health Services for the Elderly are persons who subscribe to an insurance policy under some medical insurance law and whose age is 70 or more (or between 65 and 70, if the person has been recognized by the municipal mayor's office as having some specified disorder). Medical care to the elderly is supplied in the name of the municipal mayor, and the person who is to receive such care must produce at the counter of the visited medical care institution (1) the "health pocketbook" prescribed in the Law on Health Services for the Elderly and (2) the "insured-person certification" issued by the system of medical insurance to which he or she subscribes.

Covered medical care expenses for the elderly are computed according to the specific numerical rating system determined by the Ministry of Health and Welfare, and the covered prices of medicines

administered to the elderly are the same as in the National Health Insurance Scheme. The patients themselves are responsible for paying the remainder.

In conjunction with the aging of population, the changes in the country's epidemiological profile, and the dissemination of high-cost technology for medical care, medical care expenditures continue to increase faster than national income, with the resultant heavy burden on the national economy. There exists serious concern that these costs will sooner or later exceed the population's ability to pay.

In order to contain medical care costs within a reasonable range and yet still maintain the high standard of medical care necessary for the people, the Ministry of Health and Welfare is stepping up comprehensive cost containment and quality assurance measures in the sector. On the demand side, costs can be controlled through health promotion, disease prevention, family physicians, and down-to-earth cost consciousness on the part of the insured. On the supply side, costs can be controlled through the development of effective systems for the delivery of medical care and the cooperative rationalization and streamlining of health care services provided in the sector. And the institutions of each prefecture can screen the detailed statements of medical care remuneration requests submitted by physicians in order to ensure the equitability of claims submitted for payment.

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STATISTICAL ANNEX

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Annex Table 1. Total Population in Selected Countries of Latin America and Asia, 1980-97

(millions)

Country	1980	1985	1990	1995	1996	1997
Bolivia	5	6	7	7	8	8
Brazil	122	135	148	159	162	164
Chile	11	12	13	14	14	15
Colombia	28	32	35	39	39	40
El Salvador	5	5	5	6	6	6
China	981	1,051	1,135	1,203	1,215	1,227
Japan	117	121	124	125	126	126
Malaysia	14	16	18	21	21	22
Philippines	48	55	63	70	72	74
Thailand	47	51	56	59	60	61
Vietnam	54	59	66	74	75	77

Source: 1999 World Development Indicators, World Bank.

Annex Table 2. Annual Population Growth Rates in Selected Countries of Latin America and Asia, 1980-97

(annual %)

Country	1980	1985	1990	1995	1996	1997
Brazil	2.28	1.99	1.67	1.36	1.35	1.34
Bolivia	2.16	1.96	2.31	2.42	2.32	2.33
Chile	1.50	1.60	1.73	1.53	1.46	1.40
Colombia	2.22	2.07	1.97	1.95	1.91	1.91
El Salvador	1.53	0.82	1.76	2.29	2.25	2.21
China	1.25	1.36	1.47	1.04	1.00	0.96
Japan	0.78	0.61	0.34	0.38	0.26	0.26
Malaysia	2.35	2.76	2.97	2.49	2.49	2.51
Philippines	2.10	2.64	2.58	2.31	2.30	2.24
Thailand	2.18	1.51	1.77	1.16	1.01	0.99
Vietnam	2.12	2.02	2.23	1.98	1.87	1.78

Source: 1999 World Development Indicators, World Bank.

Annex Table 3. Urban Population, 1970-97
(% of population)

Country	1970-75	1980-85	1992-97
Brazil	61.2	70.7	79.5
Bolivia	41.5	50.5	62.2
Chile	78.4	82.6	84.2
Colombia	60.7	67	73.5
El Salvador	40.4	42.7	45.6
China	17.3	22.6	31.8
Japan	75.7	76.7	78.4
Malaysia	37.7	45.9	55.1
Philippines	35.6	43	55.8
Thailand	15.1	17.9	20.6
Vietnam	18.8	19.6	19.5

Source: 1999 World Development Indicators, World Bank.

Annex Table 4. Gross Domestic Product at Market Prices, 1980-97
(millions of constant 1995 US$)

Country	1980	1985	1990	1995	1996	1997
Bolivia	5,442	4,924	5,494	6,716	6,991	7,284
Brazil	517,477	546,175	603,319	703,912	723,622	746,778
Chile	27,034	28,256	39,130	59,348	63,720	68,220
Colombia	45,979	51,377	64,140	80,533	82,179	84,695
El Salvador	7,319	6,357	7,040	9,501	9,674	10,058
China	166,662	272,278	397,602	700,219	767,448	834,973
Japan	3,231,639	3,814,444	4,782,491	5,137,385	5,338,923	5,384,154
Malaysia	32,313	41,446	57,588	87,337	94,828	102,258
Philippines	56,370	52,868	66,624	74,162	78,497	82,555
Thailand	52,375	68,283	111,508	168,129	177,407	176,648
Vietnam	..	10,802	13,645	20,240	22,130	24,081

Source: 1999 World Development Indicators, World Bank.

Annex Table 5. Gross Domestic Product Per Capita, Purchasing Power Parity, 1980-97
(current international $)

Country	1980	1985	1990	1995	1996	1997
Brazil	3,680	4,170	5,020	6,170	6,360	6,480
Bolivia	..	..	2,220	2,770	2,840	2,880
Chile	3,920	4,540	7,230	11,340	12,160	12,730
Colombia	2,980	3,570	5,100	6,700	6,770	6,810
El Salvador	1,550	1,550	2,020	2,830	2,850	2,880
China	450	810	1,390	2,660	2,910	3,130
Japan	8,860	12,070	18,700	22,790	23,860	24,070
Malaysia	2,340	3,130	4,760	7,290	7,780	8,140
Philippines	2,090	2,070	2,880	3,290	3,440	3,520
Thailand	1,480	2,090	3,970	6,470	6,840	6,690
Vietnam	..	..	..	1,450	1,570	1,630

Source: 1999 World Development Indicators, World Bank.

Annex Table 6. Inflation, Consumer Prices, 1980-97
(annual %)

Country	1980	1985	1990	1995	1996	1997
Brazil	..	225.99	2,947.7	66.01	15.76	6.93
Bolivia	47.24	11,749.61	17.1	10.19	12.43	4.71
Chile	35.14	30.70	26.0	8.23	7.39	6.10
Colombia	26.54	24.04	29.1	20.96	20.24	18.52
El Salvador	17.37	22.33	24.0	10.03	9.79	4.49
China	..	..	3.06	16.90	8.32	2.81
Japan	7.78	2.04	3.06	-0.09	0.13	1.71
Malaysia	6.67	0.35	2.62	5.30	3.49	2.66
Philippines	18.20	23.10	14.14	8.09	8.41	5.05
Thailand	19.70	2.43	5.98	5.80	5.81	5.61

Source: 1999 World Development Indicators, World Bank.

Annex Table 7. Total Unemployment, 1980-97
(% of total labor force)

Country	1980	1985	1990	1995	1996	1997
Brazil	..	3.4	3.7	6.1	6.9	..
Bolivia	..	..	7.3	3.6	4.2	..
Chile	10.4	12.1	5.6	4.7	5.4	5.3
Colombia	9.1	14	10.2	8.7	11.9	12.1
El Salvador	12.9	16.9	10	7.7	7.7	8.0
China	4.9	1.8	2.5	2.9	3.0	3.0
Japan	2.0	2.6	2.1	3.2	3.4	3.2
Malaysia	..	6.9	5.1	2.8	2.5	2.5
Philippines	4.8	6.1	8.1	8.4	7.4	7.9
Thailand	0.8	3.7	2.2	1.1	1.1	0.9

Source: 1999 World Development Indicators, World Bank.

Annex Table 8. Social Security Taxes, 1980-97
(% of current revenue)

Country	1980	1985	1990	1995	1996	1997
Brazil	25.00	20.55	22.36	..	..	..
Bolivia	..	9.63	8.80	6.52	13.24	14.25
Chile	16.94	7.26	8.32	6.07	6.08	6.10
Colombia	11.25	9.53	0.00	..	..	..
China	..	..	0	0	0	..
Japan	0	0	0	..	..	..
Malaysia	0.39	0.53	0.76	1.24	1.12	1.23
Philippines	0	0	0	0	0	0
Thailand	0.16	0.16	0.11	1.27	1.37	1.50

Source: 1999 World Development Indicators, World Bank.

Annex Table 9. Public Health Expenditure, 1990-97
(% of GDP)

Country	1990	1995	1996	1997
Brazil	3.01	..	..	..
Bolivia	1.18	..	..	..
Chile	1.96	2.30	..	..
Colombia	2.50	..	..	..
El Salvador	1.40	..	..	..
China	2.15	..	..	..
Japan	4.68	5.58	5.68	5.67
Malaysia	1.53	1.26	1.38	..
Philippines	0	..	..	..
Thailand	0.95	..	..	..
Vietnam	0.87	..	..	..

Source: 1999 World Development Indicators, World Bank.

Annex Table 10. Health Expenditure by Region and Income Level, 1994

Region, income level	Per capita health expenditure (US$)	Health expenditure as % of GDP	Public share as % of total health expenditure
Region			
East Asia and Pacific	38	4.1	52
Europe and Central Asia	154	7.2	72
Latin America and Caribbean	200	6.1	49
Middle East and North Africa	116	5.2	50
South Asia	12	3.7	39
Sub-Saharan Africa	38	4.0	54
Income			
Low	16	4.3	47
Middle	168	5.3	57
High	1,468	6.9	67

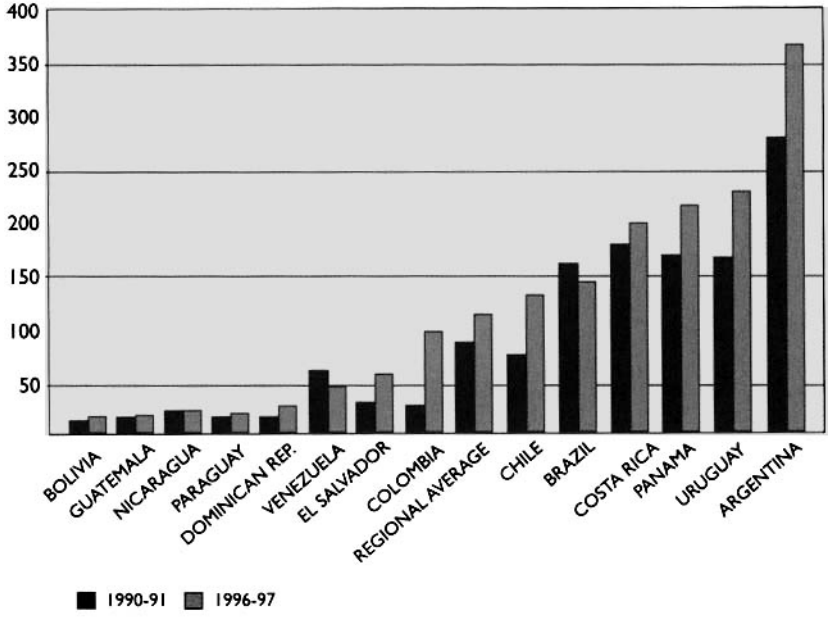
Source: Informing and Reforming Jan/Jun 1999 #10/11.

Annex Table 11. Total Health Expenditure, 1990-97
(% of GDP)

Country	1990	1995	1996	1997
Brazil	7	..	..	..
Bolivia	4.3	..	..	..
Chile	6.2	..	..	..
Colombia	6.9	..	..	..
El Salvador	5.1	..	..	..
China	3.5	..	..	..
Japan	6.1	7.2	7.2	7.3
Malaysia	..	..	2.9	..
Philippines	..	..	..	..
Thailand	..	..	..	..
Vietnam	2.8	..	..	..

Source: 1999 World Development Indicators, World Bank.

Annex Figure 1. Public Expenditure Per Capita on Health and Nutrition, 1990-91 and 1996-97
(1997 dollars)



Source: CEPAL, 1998.

Annex Table 12. Total Public Spending on Education, 1980-96
(% of GNP)

Country	1980	1985	1990	1995	1996
Brazil	3.6	3.8	..	5.5	..
Bolivia	4.4	2. 1	2.7	6.6	5.6
Chile	4.6	4.4	2.7	3.0	3.1
Colombia	2.4	2.8	2.6	4.0	4.4
El Salvador	3.9	..	2.0	2.2	..
China	2.5	2.5	2.3	2.3	2.3
Japan	5.8	5.0	..	..	..
Malaysia	6	6.6	5.4	..	5.2
Philippines	1.7	1.4	2.9	2.2	..
Thailand	3.4	3.7	3.6	4.1	..
Vietnam	..	..	..	..	..

Source: 1999 UNESCO.

Annex Table 13. Total Fertility Rate, 1980-97
(births per woman)

Country	1980	1985	1990	1995	1996	1997
Brazil	3.9	..	2.7	..	..	2.2
Bolivia	5.5	..	4.9	..	..	4.4
Chile	2.8	..	2.6	..	..	2.4
Colombia	4.0	..	3.1	..	..	2.8
El Salvador	5.0	..	3.7	..	..	3.2
China	2.5	..	2.1	..	..	1.9
Japan	1.8	1.8	1.5	1.4	1.4	1.4
Malaysia	4.2	..	3.8	..	..	3.2
Philippines	4.8	..	4.1	..	..	3.6
Thailand	3.5	..	2.2	..	..	1.7
Vietnam	5.0	..	3.6	..	2.7	2.4

Source: 1999 World Development Indicators, World Bank.

Annex Table 14. Crude Birth Rate, 1980-97
(per 1,000 people)

Country	1980	1985	1990	1995	1996	1997
Brazil	30.7	..	23.6	..	..	20.6
Bolivia	39.3	..	36.0	..	..	33.2
Chile	22.8	21.6	23.5	19.7	19.3	19.6
Colombia	31.0	..	27.3	..	..	24.5
El Salvador	36.2	..	30.0	..	..	27.8
China	18.2	17.8	20.2	17.1	..	16.8
Japan	13.5	11.9	10.0	9.5	9.6	9.5
Malaysia	31.4	..	28.9	27.0	26.8	25.8
Philippines	35.3	..	31.1	..	..	28.6
Thailand	27.7	..	20.1	..	..	16.7
Vietnam	36.1	..	28.8	..	..	20.8

Source: 1999 World Development Indicators, World Bank.

Annex Table 15. Life Expectancy at Birth, 1970-97
(years)

Country	1970-1975	1980-1985	1992-1997
Brazil	60	63	67
Bolivia	47	54	61
Chile	64	71	75
Colombia	62	67	70
El Salvador	58	57	69
China	64	68	70
Japan	74	78	80
Malaysia	63	68	72
Philippines	58	62	68
Thailand	60	65	69
Vietnam	58	64	68

Source: 1999 World Development Indicators, World Bank.

Annex Table 16. Crude Death Rate, 1980-97
(per 1,000 people)

Country	1980	1985	1990	1995	1996	1997
Brazil	8.7	..	7.5	..	..	7.3
Bolivia	14.5	..	10.7	..	..	9.1
Chile	6.6	6.1	6.0	5.5	5.5	5.5
Colombia	7.1	..	6.4	..	..	5.8
El Salvador	11.2	..	7.2	..	..	6.01
China	6.3	6.6	7.0	6.6	..	7.5
Japan	6.1	6.2	6.7	7.4	7.1	7.3
Malaysia	6.5	..	4.8	4.6	4.5	4.5
Philippines	8.5	..	7.2	..	..	5.8
Thailand	7.5	..	6.2	..	..	6.7
Vietnam	8.4	..	7.3	..	..	6.5

Source: 1999 World Development Indicators, World Bank.

Annex Table 17. Access to Safe Water, 1970-97
(% of population)

Country	1970-1975	1980-1985	1992-1997
Brazil	55	75	69
Bolivia	34	53	70
Chile	70	86	91
Colombia	64	91	75
El Salvador	53	51	53
China			83
Japan		99	96
Malaysia	34	71	89
Philippines	50	65	83
Thailand	25	66	89
Vietnam			47

Source: 1999 World Development Indicators, World Bank.

Annex Table 18. Immunization Rate for Measles, 1980-85 and 1992-97
(% under 12 months)

Country	*1980-1985*	*1992-1997*
Brazil	67	99
Bolivia	21	98
Chile	92	92
Colombia	53	89
El Salvador	71	97
China	88	96
Japan	73	94
Malaysia	20	83
Philippines	49	83
Thailand	22	92
Vietnam	19	96

Source: 1999 World Development Indicators, World Bank.

Annex Table 19. Immunization Rate for DPT, 1980-85 and 1992-97
(% under 12 months)

Country	*1980-1985*	*1992-1997*
Brazil	65	79
Bolivia	33	82
Chile	91	91
Colombia	60	81
El Salvador	54	97
China	78	96
Japan	83	100
Malaysia	59	91
Philippines	59	83
Thailand	47	96
Vietnam	42	95

Source: 1999 World Development Indicators, World Bank.

Annex Table 20. Primary School Enrollment, 1980-96
(% net)

Country	1980	1985	1990	1995	1996
Brazil	80.0	81.2	86.4	..	...
Bolivia	78.9	..	90.6	..	..
Chile	..	..	87.7	85.8	88.0
Colombia	..	65.5	..	80.7	84.7
El Salvador	..	..	..	78.1	..
China	..	..	97.4	97.9	101.5
Japan	101.1	101.7	100.0	..	..
Malaysia	..	..	..	..	..
Philippines	93.6	96.2	..	100.6	..
Thailand	..	..	..	..	..
Vietnam	94.9	..	..	..	..

Source: 1999 World Development Indicators, World Bank.

Annex Table 21. Secondary School Enrollment, 1980-96
(% net)

Country	1980	1985	1990	1995	1996
Brazil	14	14	16	..	..
Bolivia	16	..	29	..	..
Chile	..	..	55	55	58
Colombia	..	..	..	50	..
El Salvador	..	..	..	21	..
China	..	..	..	..	..
Japan	93	95	97	..	..
Malaysia	..	..	..	..	..
Philippines	45	50	..	60	..
Thailand	..	..	..	..	..
Vietnam	..	..	..	..	..

Source: 1999 World Development Indicators, World Bank.

Annex Table 22. Poverty and Income Distribution, 1992-97

Country	Poverty Headcount Index (% of population)	Gini Index
Brazil	..	60.1
Chile	20.5	56.3
Colombia	17.7	57.2
El Salvador	48.3	49.9
China	6.0	41.5
Philippines	37.5	42.9
Thailand	13.1	46.2
Vietnam	50.9	35.7

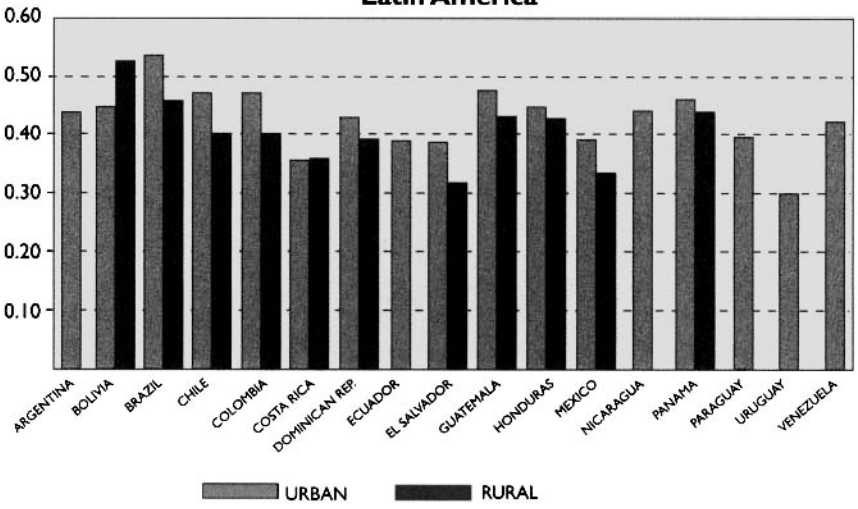
Source: World Development Indicators, World Bank.

Annex Table 23. Human Development Index, 1999

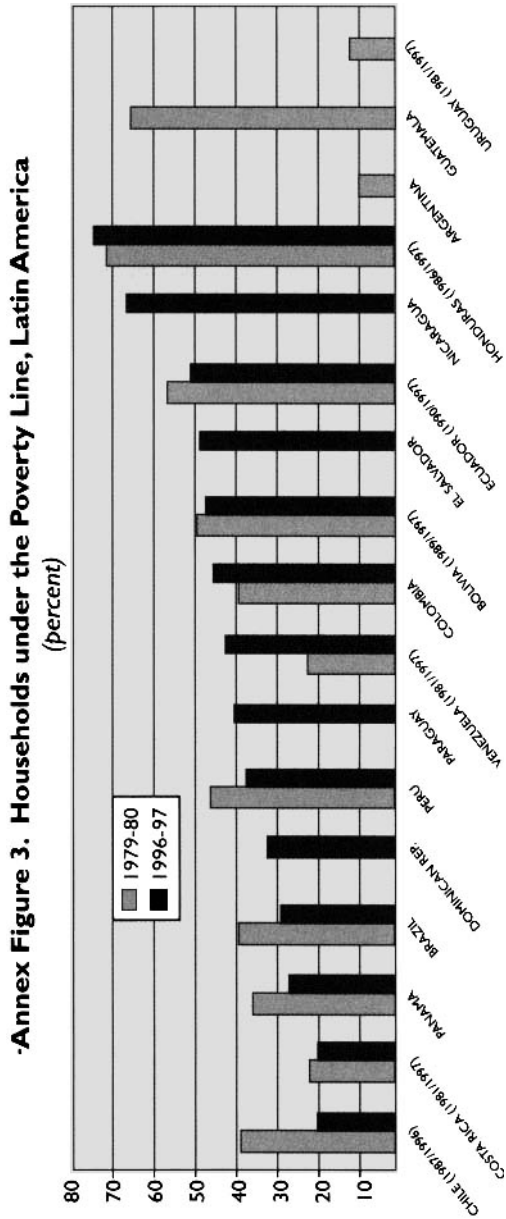
Country	HDI Value	Ranking
Japan	0.924	4
Chile	0.844	34
Malaysia	0.768	56
Colombia	0.768	57
Thailand	0.753	67
Philippines	0.740	77
Brazil	0.739	79
China	0.701	98
El Salvador	0.674	107
Vietnam	0.664	110
Bolivia	0.652	112

Source: UNDP, Human Development Report, 1999.

Annex Figure 2. Gini Coefficient in Most Recent Available Year, Latin America



Source: CEPAL, Panorama Social en Am rica Latina, 1998.



Source: CEPAL, 1998.

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