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# **Financing Reproductive Health in Bolivia**

by

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# Executive Summary

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There is an urgent need to understand the dimensions and significance of the gap in funding to finance the Cairo Agenda. Within this context, the POLICY Project is pursuing a group of activities known as Costing Cairo,” to illuminate the finance issues affecting the planning and implementation of an expanded reproductive health (RH) program.

Prepared within that framework, the principal objective of this paper is to synthesize past and ongoing RH financing and cost studies in Bolivia and to relate the findings to policy issues of efficiency, equity, and effectiveness.

During the last decade, Bolivia, like the majority of the countries in the world, has seen considerable improvement in its social development indicators. Child mortality decreased from a rate of 169 per 1,000 in 1976 to 67 per 1,000 in 1998. Nevertheless, the current rate remains higher than the world average of 59 per 1,000 and is one of the highest in the Latin America and Caribbean (LAC) region.

The RH indicators reflect the aforementioned substandard health conditions of the Bolivian population. Maternal mortality decreased only slightly in the last decade to a rate of 371 deaths per 100,000 births, remaining one of the highest in the Americas. The total fertility rate (TFR) fell from 5.6 in 1989 to 4.2 in 1998, while the percentage of pregnant women receiving institutional prenatal care increased from 44 to 59 percent in the same period. In 1998, the contraceptive prevalence rate for all methods was 48.3 percent, while the rate for modern methods was 25.2 percent.

Investment in health by the Bolivian government increased by 80 percent from 1987 to 1995. During that period, the percentage of health investment fluctuated, averaging at about 10 percent of total public expenditures and 30 percent of social sector expenditures. In 1995, these expenditures represented 2.16 percent of the gross domestic product (GDP).

Public funds provide a significant, but not exclusive, source of funds for health. A recent study distinguishes four possible sources of finance: (1) government tax revenues (20% of the total); (2) social security payments for health services drawn from wage-based taxes paid by firms (39%); (3) direct out-of-pocket payments by households to service providers (31%); and (4) loans and donations from foreign agencies (10%).

These funds flow to the following service providers: (1) public services provided by public health authorities; (2) the Social Security (SS) system’s own clinics and hospitals setup for its beneficiaries; (3) private providers through insurance organizations, including the newly formed HMOs; (4) nongovernmental organizations (NGOs), usually not-for-profit entities that provide services directly to households; and (5) private providers, including physicians and private pharmacies. Some of the physicians are public employees who maintain private practices in their off-hours.

To estimate the degree of equity in the total allocation of funds for RH, an attempt was made to compare available financing by sector with the distribution of visits among sectors for prenatal consultations, institutional deliveries and new family planning users.<sup>1</sup>

Results of the comparison between available financing by sector with the distribution of prenatal consultations are shown in Table ES-1, in which the inequity of current resource allocation is apparent. The Ministry of Health (MOH), serving the poorest groups, accounts for 63.2 percent of the new prenatal consultations; however, it receives only 28.6 percent of available resources. With 4.1 percent of the available resources, NGOs provide 21 percent of the consultations, and the SS absorbs 38.2 percent of the available financing while serving 14.5 percent. The private sector accounts for just 1.1 percent of new prenatal consultations with 11.2 percent of the available financing.

**Table ES-1**  
**Distribution of Resources**

<b>Provider</b>	<b>Population Served (income quintile)</b>	<b>Resources Available (%)*</b>	<b>Prenatal Visit Coverage (%)</b>
MOH	Third and Fourth	29	65
NGOs	Third and Fourth	4	23
SS	Second	38	11
Private	Upper	11**	1

Sources: Elaborated with data from SNIS, 1997, and Cárdenas, Esquivel & Morales, 1998.

\* Distribution of resources available for health.

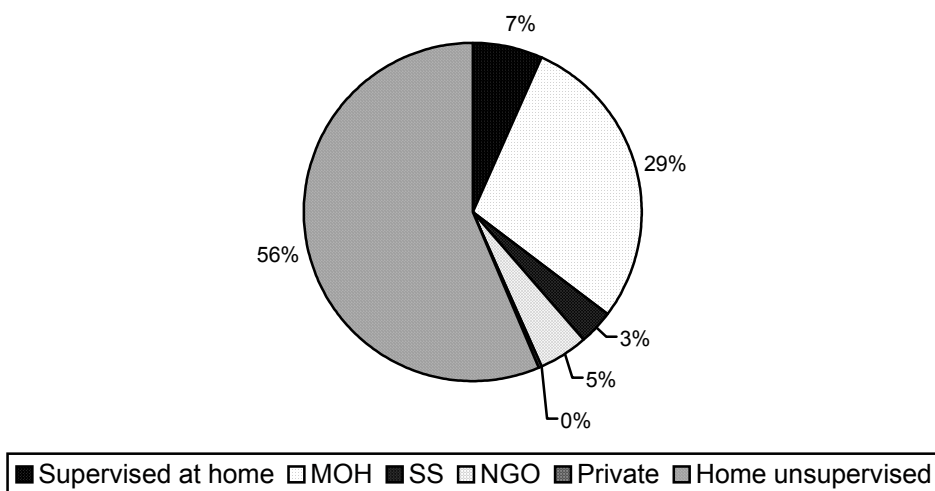
\*\* Does not include expenditures in pharmacies and traditional medicine (18%).

While most urban women receive at least one prenatal consultation, the demand for family planning (FP) is limited and the majority of rural women receive little or no RH care. Institutional births are the privilege of only 44 percent of pregnant women, as shown below.<sup>2</sup>

<sup>1</sup> Assuming that financing for RH is the same as the sector distribution of total financing for health.

<sup>2</sup> Institutional births are those at MOH facilities or at home supervised by a skilled attendant.

**Chart ES-1: Deliveries by Source**



Source: SNIS, 1997

The cost of an institutional birth in an MOH facility was calculated to be about \$14. On the other hand, the cost of a delivery at an HMO was about \$700. A very small segment of the population receives high quality care, paying prices close to those in developed economies (Table ES-2).

Twelve percent of the population receives quality services at reasonable prices; however, a large segment receives services of apparent lower quality, albeit free or at low cost. It is also evident that the majority of the population does not have access to services at all. The entire range of the cost-price relationship is summarized in Table ES-2.

**Table ES-2  
Vaginal Deliveries: Price–Cost Coverage**

Institution	Price to Consumer	Cost of Provider	Coverage of Institutional deliveries (%)
MOH	Free	\$14*	77
ProSalud	\$45	\$53**	~12
San Gabriel (PROCOSI)***	\$71	\$50	
CIES (PROCOSI)***	\$26.80	\$71	
SERVISALUD (HMO)	\$486 per year	\$702 ****	Less than 1

\*Based on Mothercare's MBP estimates.

\*\*Assuming 85% cost recovery.

\*\*\*Abastoflor, 1998.

\*\*\*\* SERVISALUD presentation at the POLICY seminar on RH costs and financing, September 1998.



To address the RH problems facing the Bolivian population, the MOH established the National Program for Sexual and Reproductive Health (NPSRH) with the stated objective of improving universal access to high-quality SRH services.

The NPSRH, the National Maternal Child Insurance (NMCI) Program, expanded in 1998 to the Basic Insurance Program (Seguro Básico de Salud, or SBDS) and the Resource Allocation Mechanism (Mecanismo de Asignación de Recursos, or MAR), are the primary components of the government's efforts to improve access to SRH services for the majority of the economically disadvantaged members of the Bolivian population.

Budget restrictions of the last few years indicate that increasing public funding for health will not be feasible in the near future. The growth trend in the supply of external funds has reached a plateau and apparently will not increase in the next few years. This situation poses daunting challenges to policymakers in Bolivia. Will their policy instruments solve the following triple equity gap?

- Demand Gap: How to respond to unmet demand.
- Quality Gap: How to improve the quality of the services.
- Equity Gap: How to provide services to persons from the economically disadvantaged sectors of the population.

Are the programs established to fill the gaps financially feasible and sustainable, and are they sending the correct signals for optimal resource utilization?

The studies reviewed in this paper provide some indications to answer these questions.

A recent evaluation of the NMCI program found that it increased coverage levels, but reimbursements covered only approximately 50 percent of the variable costs lowering the probability of attaining program sustainability. Because of this disparity, NGOs refused to participate in the program.

Another study showed that by increasing coverage to optimal levels, from the current 60-percent level of pregnant women receiving medical attention to an idealized 100-percent coverage, the total package cost for the standard practice model would be US\$4,515. This amount is more than double the \$1,876 cost calculated for the current practice model. Extrapolating this effect nationally, it appears that increasing coverage to ideal levels would require financing that the public sector simply cannot support.

The question regarding the use of facilities was analyzed with the results of the two aforementioned studies. They show that the zero-price strategy (used in the NMCI and SBDS) produced effects on consumer behavior that go against the optimal use of physical resources.

Evaluators found that the NMCI program encourages consumers to seek services in hospitals, the most sophisticated and costly facilities. Since the NMCI provides the same complete coverage, regardless of facility or provider, consumers naturally will go to the

facility with the highest resolution. This is particularly true since they feel that services at the health centers and posts are inadequate (lack of medicines and trained personnel).

The question of improving services for the poorest segments of society is still an open one. Does removing economic barriers by providing free services increase access to health services?

The increase in deliveries at the public hospitals and the decrease at NGOs, while prenatal visits continue to increase at NGOs, indicate that people are opting to pay and receive the higher quality prenatal service and are getting the free deliveries at public facilities. The high ratio of deliveries to first prenatal visits in third-level facilities compared with the low ratios for the first two levels indicate that consumers are rationally opting for the free, higher resolution and, consequently, higher cost services at the specialized hospitals.

It is still too early to assess the impact or the functioning of the MAR and SBDS; however, the following items deserve the attention of policymakers and should be included in future evaluation studies:

- Why are NGOs not participating in the plan?
- Are the mechanisms for reimbursement (Fondos Locales de Compensación) adequate to motivate providers?
- Although the reimbursement fees are higher than the ones set by the NMCI program, are they adequate to motivate providers?
- Is the provision of free services increasing the demand for services and/or increasing the overall use of institutional facilities?

## List of Abbreviations

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ADD	acute diarrheal disease
ARI	acute respiratory infections
Bs.	bolivianos
CIES	Centro de Investigacion, Educacion y Serivios
DDM	Data for Decision Making
DGI	Development Group, Inc.
FP	family planning
GDP	gross domestic product
HMO	Hospital Maintenance Organization
ICPD	International Conference on Population and Development
IMR	infant mortality rate
INE	National Statistics Institute
LAC	Latin America and Caribbean
MAR	Mecanismo de Asignación de Recursos (Resource Allocation Mechanism)
MBP	Mother–Baby Package
MC/B	Mother Care/Bolivia
MOH	Ministry of Health
NGO	nongovernmental organization
NIHI	National Institute of Health Insurers
NMCI	National Maternal Child Insurance Program
NPSRH	National Program for Sexual and Reproductive Health
PHR	Partners for Health Reform
PROCOSI	Programa de Coordinación en Supervivencia Infantil
RH	reproductive health
SBDS	Seguro Básico de Salud (Basic Insurance Program)
SNIS	Sistema Nacional de Información de Salud
SRH	sexual and reproductive health
SS	Social Security
TFGI	The Futures Group International
TFR	total fertility rate
WHO	World Health Organization



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## Introduction

### 1.1 Objectives

In recent years, weakening economic capacity of many developing countries and the shortage of foreign assistance funds have combined to limit the resources available for expanding, or even maintaining, the quantity and quality of health services. Given the scarcity of resources in the health sector, there is growing concern about the ability of less developed countries to fulfill the commitments contained in the *Programme of Action* signed by 180 governments at the 1994 International Conference on Population and Development (ICPD). Several studies indicate a large gap between available funds and financing requirements to meet the goals set in Cairo for expanding international reproductive health (RH) care (Conly, 1997). In 1995, approximately US\$9 billion were actually available from governments and international donors, in contrast to required expenditures of US\$17.8 billion. Since then, the funding gap has continued to grow.

There is an urgent need to understand the significance of the observed large gap in funding for the Cairo Agenda. Within this context, the POLICY Project is pursuing a group of activities known as Costing Cairo to illuminate the finance issues affecting the planning and implementation of an expanded reproductive health program. Within this context, this paper uses data and information from past and ongoing studies on RH finance to discuss and analyze key RH finance issues and challenges in Bolivia.

### 1.2 Methodology and Scope

This paper is based on the following elements:

1. Literature survey of RH financing and cost studies in Bolivia, followed by an analysis of the results of the major RH financing papers.
2. Discussion of research results by the authors of the selected studies, presented at a national meeting of public sector decision makers, public and private RH service providers, and representatives from the international donor community.
3. Interviews with selected service providers and with representatives from the international donor agencies.

The results presented here will be based primarily on the cost and financing studies performed by institutions and individuals in the last five years. The most relevant papers were selected and presented at the POLICY Reproductive Health Cost and Financing Seminar in September 1998 (Informe del Seminario de Financiamiento y Costos de Salud, 1998).

This paper opens with an overview of Bolivia's economy, and the general health and RH situation in the country, followed by a description of how funds flow to the social, health, and RH sectors. The next section presents a brief description of the provision of RH services, by provider, and the cost-price-coverage relationships for those services. The paper concludes with a presentation of the principal challenges of financing RH services in Bolivia.

## Context

### 2.1 Economic Context

Bolivia is a landlocked country situated in the middle of South America, covering 1.1 million square kilometers. Its population, which reached 8 million in 1998, is relatively younger and more rural than its Latin American neighbors. Of the total population, 41.2 percent is under age 15, and 39 percent resides in rural areas. Almost one-third is functionally illiterate. Illiteracy is concentrated among rural women. In addition, 20 percent of the population has never had formal schooling.

The 1997 Human Development Report places Bolivia among the world's poorest countries, ranking it 116 among the 174 countries. This ranking takes into account life expectancy, adult literacy, and school enrollment. Table 1 contrasts Bolivia's ranking with its neighbors and the poorer LAC region countries.

**Table 1**  
**Comparative Poverty Rankings**

Country	Poverty ranking	Relation to Bolivia
Chile	31	Neighbor
Argentina	36	Neighbor
Brazil	62	Neighbor
Peru	86	Neighbor
El Salvador	114	Poorer in LAC region
<b>Bolivia</b>	<b>116</b>	
Honduras	119	Poorer in LAC region
Haiti	159	Poorer in LAC region

Bolivia's low per capita gross domestic product (GDP) (US\$1,005) is coupled with inequitable income distribution patterns. Although the standard of living continues to improve, the 1992 census revealed that 70 percent of the households remained below the poverty line (51 percent urban households and 94 percent rural households).

Bolivia's transition democracy in 1982 brought with it the worst economic crisis in the country's history, with the annual inflation rate reaching 24,000 percent in 1985. In August of 1985, a newly elected government successfully implemented a series of macroeconomic stabilization and structural adjustment policies that reduced public sector expenditures and stimulated the private sector. Since then, successive governments have maintained single digit inflation rates and have gradually reduced the role of the public sector in the economy. The deficit of the nonfinancial public sector remained below 6 percent during each of the last six years, falling to 3.4 percent in 1997.

From 1993–1997, the production of goods and services grew at an average rate of 4.4 percent, with annual inflation averaging 4.7 percent. Tax revenues increased gradually from 13 percent of GDP in 1989 to 14.9 percent in 1997, largely because of economic stability, tax reform, and increased administrative efficiency.

Foreign investment increased from US\$35 million in 1985 to US\$608 million in 1997.<sup>1</sup> The total public expenditure in the social sector for 1995 was US\$49.4 million, representing 6.3 percent of GDP and 32 percent of public expenditures.

Between 1993 and 1995, the Bolivian government carried out a second set of reforms—privatizing the most important public enterprises, reforming the archaic educational system, and initiating an administrative decentralization process. The latter effort was propelled by the congressional passage of two essential laws: Popular Participation (1994) and Administrative Decentralization (1995).

The Popular Participation Law established the role of municipal governments in managing social sector activities, particularly health and education. The Administrative Decentralization Law delegated responsibilities from the central level of the executive branch to the regional governments of Bolivia's nine departments. These regional governments were assigned the responsibility of managing all social investment projects, and supervising and controlling personnel involved in the delivery of health and educational services.

## 2.2 Health Context

### 2.2.1 Health Indicators

Bolivia's health conditions are typical for a country ranked among the poorest in the Americas. The pathology patterns indicate a high incidence of respiratory (ARI) and intestinal infections (ADD); in addition, 75 percent of the territory is subject to vector transmitted diseases, such as malaria, chagas and leishmaniasis. Nearly one-third of children under age three suffer from chronic malnourishment. The infant mortality rate (IMR), although greatly reduced from

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<sup>1</sup> M. Cárdenas, Estudio de Cuentas Nacionales de Financiamiento y Gasto en Salud. Information provided by UDAPE.



the 169 per 1,000 rate of 1976, remains one of the highest in the LAC region, at 67 per 1,000 in 1998.

Principal health indicators listed in Table 2 corroborate the poor health status of the majority of Bolivians; however, the indicators also reflect improvements from 1989 to 1996. Infant mortality decreased by 35 percent while life expectancy increased by 13 percent. Full vaccination coverage for children under five increased by 175 percent, due primarily to the priority given to this activity by successive administrations at the Ministry of Health (MOH).

**Table 2**  
**Health Indicators 1989–1996**

<b>Indicator</b>	<b>1989</b>	<b>1996</b>	<b>Difference</b>
IMR (per 1,000)	99	68.4	-30.9%
IMR–Urban	78	60	-23.1%
IMR–Rural	121	92	-24%
Life Expectancy	53	60	13.2%
Prevalence ARI Children under 3	25	18	-28%
Prevalence ADD Children under 3	37	30	-18.9%
Percentage of Moderate Malnourished Children under 5	13.3	15	12.8%
Percentage of children under 5 with full vaccination coverage	13.3	36.6	175.2%
Maternal Mortality Rate (per 1,000 live births)	416	390	-6.2%

Source: Cárdenas, 1996.

## **2.2.2 Health Infrastructure or Health Delivery System**

To address these serious health problems, the Bolivian health system is organized into three major subsystems: the MOH, national health insurance, and private providers, which include both for-profit providers and nonprofit NGOs.

The MOH performs both a supervisory and a normative role, managing a network of 1,877 health facilities throughout the country and a workforce of 13,876 health workers. The National Institute of Health Insurers (NIHI) heads the national health insurance subsystem and provides services through specific individual insurance agencies for banking, oil, and other large employee groups. The NIHI operates a total of 210 health facilities, staffed by 8,773 employees. Private for-profit providers account for only 63 health facilities, NGOs 237, and the Catholic Church 93.

Of the 2,492 health facilities in the country, 91 percent belong to the primary level of service (health centers and posts), 6 percent are general district hospitals, and 3 percent are specialized hospitals.

## 2.3 RH Context

RH indicators reflect the generally poor health conditions of the Bolivian population. The maternal mortality rate has decreased only slightly in the last decade to 371 deaths per 100,000 births, and remains one of the highest in the Americas. The total fertility rate (TFR) dropped from 5.6 in 1989 to 4.2 in 1998, while the percentage of pregnant women receiving institutional prenatal care increased from 44 to 59 percent. Also in 1998, the contraceptive prevalence rate for all methods was 48.3 percent, whereas the rate for modern methods was 25.2 percent.

Bolivia's present commitment to improve RH services contrasts sharply with the early 1970s, when Peace Corps volunteers were expelled from the country by the military government for allegedly sterilizing rural women without their consent. During the same period, ProFamilia's family planning (FP) clinics were closed, and the FP component of the MOH's maternal and child program eliminated by ministerial decree.

Throughout the 1970s and 1980s, amid the most adverse policy conditions, timid efforts were made by private clinics to provide contraceptives to the well-to-do, and by some NGOs to low-income clients. A groundbreaking "Workshop to Fight Against Abortion" took place in 1989, with the support and participation of the Catholic Church, the leftist National Workers' Union, women's organizations, and the political parties. Against the opposition of conservative groups, the workshop's recommendations led to (1) the insertion of an FP component in the National Plan for Child Survival and Maternal Health (NMCI), and (2) official approval for the provision of voluntary FP services.

From its inception, the NMCI had as its objective the reduction of maternal and child morbidity and mortality indicators, rather than demographic targets. The 1990s witnessed rapid advances in the consolidation of the RH strategy, with successive governments pledging their support. International donor agencies played essential roles in funding and organizing RH programs within all three subsystems of the Bolivian health system.

The Basic Insurance Program (SBDS), instituted by government decree in 1998, includes FP and focuses on health services for children under five, RH for pregnant women, and endemic disease control.

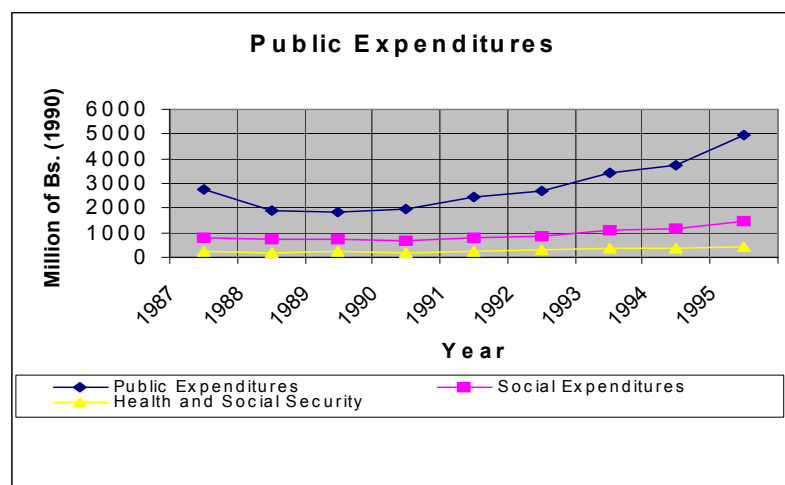
## Social Investment

### 3.1 Investment in the Social Sector

Between 1980 and 1987, the GDP contracted by 9 percent and public expenditures fell by 22 percent. This trend reversed with restructuring measures instituted in 1985 and, as shown in Chart 1, public expenditures have steadily increased from 2,447 million in constant 1990 Bolivianos (Bs.) to 4,956 million Bs. in 1995.

During the 1980s, the social sector was particularly hard hit. Public spending for the sector decreased by 93 percent between 1980 and 1988, while spending on health and social security dropped by 36 percent. Since 1988, slow but continuous growth in social sector expenditures has occurred. Thus, by 1995, social sector spending reached 1,486 million in constant Bs., nearly double the 1988 level. Similarly, government investment in health increased from 201.1 million in 1990 Bs. in 1988 to 401.3 million Bs. in 1995.<sup>2</sup>

Chart 1



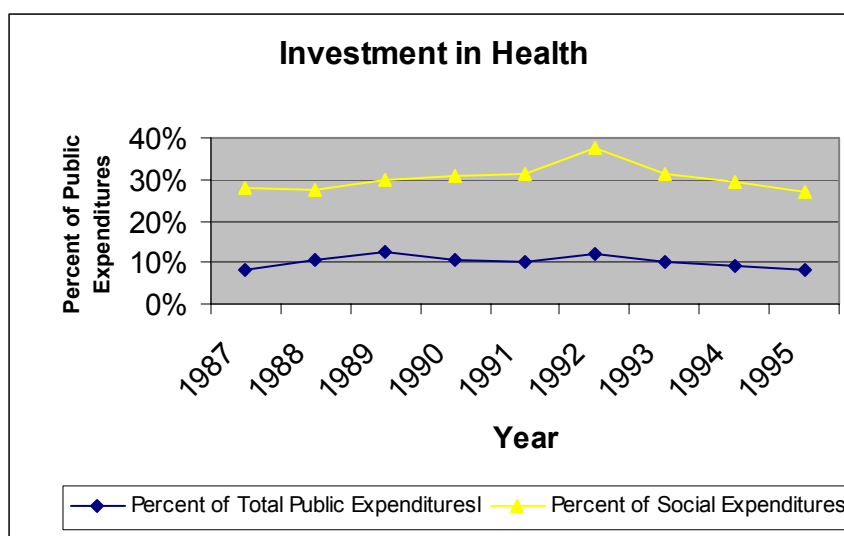
Adapted from Cárdenas et al., 1997; original source: Contaduría General de la Nación.

<sup>2</sup> In 1995, the average exchange rate was 3.21 Bs. per US\$.

## 3.2 Investment in Health

Investment in health by the Bolivian government increased by 80 percent from 1987 to 1995. During that period, the percentage of health investment fluctuated, averaging about 10 percent of total public expenditures and 30 percent of social sector expenditures (see Chart 2). In 1995, these expenditures represented 2.16 percent of the GDP, and the total amount of health expenditures in 1996 represented 4.3 percent of GDP or the equivalent of a US\$40 per capita expenditure in health for that year (Ministerio de Desarrollo Humano, 1996).

**Chart 2**



Adapted from Cárdenas et al., 1997; original source: Contaduría General de la Nación.

The public treasury represents a significant, but not exclusive, source of funds for health. A recent study helps clarify the flow of funds that finance health care, (Cárdenas, Esquirel & Morales, 1998) identifying four financial sources: (1) government tax revenues; (2) social security payments for health services drawn from wage-based taxes paid by firms; (3) direct, out-of-pocket payments by households to service providers; and (4) grants and loans from foreign agencies in support of health care services. The flow of funds is traced from these sources to fund managers and final service providers. In Bolivia, these two categories are indistinguishable (except for private insurance), since there are no intermediate fund managers. Final service providers include the following five categories:

1. Services provided by public health authorities, both national and local.
2. Services provided by the public insurance system of clinics and hospitals (Caja Nacional de Salud and others) to their beneficiaries.
3. Private providers via insurance organizations, including the newly formed HMOs that provide services directly to participants.

4. NGOs, usually not-for-profit entities that provide services directly to households, partly financed by donor assistance.
5. Private providers, including physicians and private pharmacies. Some of the physicians are public employees who maintain private practices in their off-hours. Pharmacies sell drugs directly to purchasers, who may have been prescribed the products by either public or private diagnosticians.

Table 3 presents a snapshot of the source and destination of funds for health. The private sector (households and firms) provides 70 percent of the total funds to purchase health services, the public sector 20 percent, and foreign donations 10 percent. Of the funds spent by households on private providers, 57 percent (approximately \$44 million) are destined for pharmaceuticals. In addition, the MOH, which provides services to the majority of the population (70 percent of the health facilities in Bolivia belong to the MOH), receives less than one-third of the funds available for health.

**Table 3**  
**Source and Destination of Funds for Health 1995**  
**(US\$ Thousands)**

<b>Providers/Source</b>	<b>Government</b>	<b>Firms</b>	<b>Households</b>	<b>External</b>	<b>Total</b>
MOH hospitals, health centers and posts	57,693	830	3,818	21,072	83,413 (29%)
Public Insurance operated facilities (Caja Nacional de Salud)*		109,640	1628	201	111,469 (38%)
Private providers via insurance programs		3,714	3,520		7,234 (2%)
NGOs			4,563	7,082	11,645 (4%)
Private providers paid by individuals**			77,735		77,735 (27%)
<b>Total</b>	<b>57,693</b> (20%)	<b>114,184</b> (39%)	<b>91,478</b> (31%)	<b>28,355</b> (10%)	<b>291,709</b> (100%)

Source: Adapted from Cárdenas, Esquivel & Morales, 1998.

\* It also includes some private, military and university insurance plans (5.1%).

\*\* Includes expenditures in pharmacies and traditional medicine.

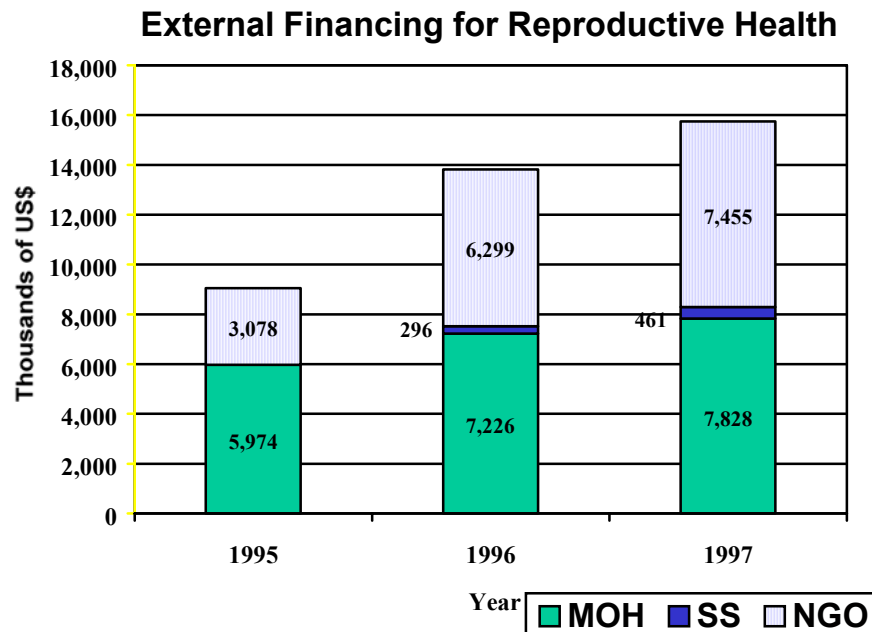
### 3.3 Investment in RH

Since 1991, financing for RH activities has come principally from the national budget and bilateral and multilateral donor assistance, and, to a lesser degree, private households. However, it is nearly impossible to disaggregate the amounts dedicated

to RH within the MOH and Social Security (SS) budgets. Donor funding in 1997 amounted to US\$15.7 million from US\$9 million in 1995. Chart 3 illustrates the trend of this funding and its allocation among the RH programs operated by the MOH, SS, and NGOs. In 1997, NGOs absorbed almost 50 percent of donated resources.

A significant portion of donor assistance is provided by USAID/La Paz, which has been supporting RH activities through an eight-year cooperative agreement with the government of Bolivia, signed in 1991. By the end of 1997, USAID had disbursed approximately US\$30.9 million of the US\$ 40.3 million obligated in the agreement.

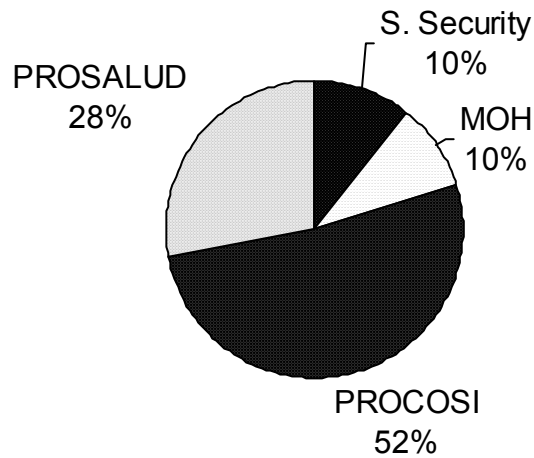
**Chart 3**



Source: Ministerio de Salud y Previsión Social, n.d.

During 1997, USAID disbursed US\$461,494 to the RH program at the SS, US\$436,696 to the MOH program, US\$2.28 million to PROCOSI, and US\$1.24 million to ProSalud. Thus, 80 percent of USAID support went to NGOs and 20 percent to the MOH and SS (see Chart 4).

**Chart 4: Distribution of USAID Support for RH, 1997**



To estimate the degree of equity in the total allocation of funds for RH, a comparison was made between available financing by sector and the distribution of visits among sectors for prenatal consultations, institutional deliveries, and FP new users. The comparison was based on the following assumptions:

1. Distribution by sector of financing for RH is assumed the same as the sector distribution of total financing for health.
2. If the population of Bolivia is classified by income, the upper quintile will go to private services, the second quintile to the SS, and the third and fourth quintiles to the MOH and NGOs. The last quintile probably is not accessing RH services at all.<sup>3</sup>
3. Number of prenatal consultations, institutional deliveries, and FP new users are proxy indicators of total RH services coverage.

The results of this comparison are presented in Table 4. The inequitable allocation of resources is apparent. The MOH, which serves the poorest groups and receives 29 percent of the available resources, accounts for 65 percent of the new prenatal consultations, 78 percent of institutional deliveries, and 64 percent of new FP users. NGOs, with 4 percent of the available resources, cover 23 percent of prenatal consultations, 13 percent of institutional deliveries, and 27 percent of new FP users. The SS, with 38 percent of the available financing, accounts for 11 percent of new prenatal consultations, 8 percent of institutional deliveries, and 9 percent of new FP users. The private sector covers 1 percent of new prenatal consultations, 1 percent of deliveries, and .3 percent of new FP users, with 11.18 percent of the available financing.

<sup>3</sup> These estimates are based on the results of a survey of family budgets by the INE in 1990.

**Table 4**  
**Distribution of Resources**

<b>Provider</b>	<b>Population Served (income quintile)</b>	<b>Resources Available (%)</b>	<b>Prenatal Visits (%)</b>	<b>Institutional Deliveries (%)</b>	<b>FP New Users (%)</b>
MOH	Third and Fourth	29	65	78	64
NGOs	Third and Fourth	4	23	13	27
SS	Second	38	11	8	9
Private	Upper	11*	1	1	0.3

*Sources:* Adapted from SNIS, 1998, and Cardenas, Esquivel & Morales, 1998.

\*Does not include expenditures in pharmacies and traditional medicine (18%).

The severe restrictions in public expenditures exercised by the Ministry of Finance to maintain macro-economic stability make it improbable that the MOH would get additional funds to increase its coverage and improve the quality of its services. Foreign assistance will probably continue to flow in the same amount. These conditions, moreover, impede the attainment of a clear solution to the structural inequities of resource allocation.

Aware of these conditions, the Bolivian government included as an important element of the health reform program a mechanism to assign resources to institutions and community groups in order to cofinance efforts to promote preventive and curative health. This program attempts to foster demand and increase the supply of quality services to the poorer segments of the Bolivian population.

A precondition to assign these funds is that the projects must help reduce maternal and child mortality rates, thus improving the health conditions of women and children under five years. This effort should have an impact in increasing the flow of resources to improve RH in Bolivia. A tracking mechanism should be implemented to evaluate its impact on the availability of resources for RH and on the attainment of its health objectives.



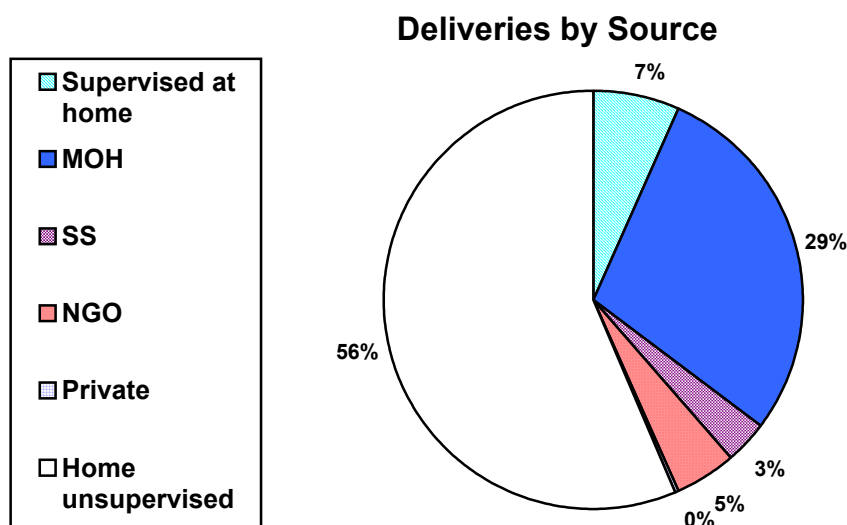
## RH Service Provision

### 4.1 Public Sector

The MOH and SS have 2,262 health facilities combined, 3,844 physicians, 2,026 registered nurses, and 5,150 auxiliary nurses providing services to the Bolivian population.

Both institutions have RH programs subsidized by foreign donors, particularly by USAID and UNFPA. As shown in Chart 5, in 1997 the majority of births (63%) took place at home, with only 10.4 percent of them (7% of the total) under the supervision of trained attendants.

Chart 5



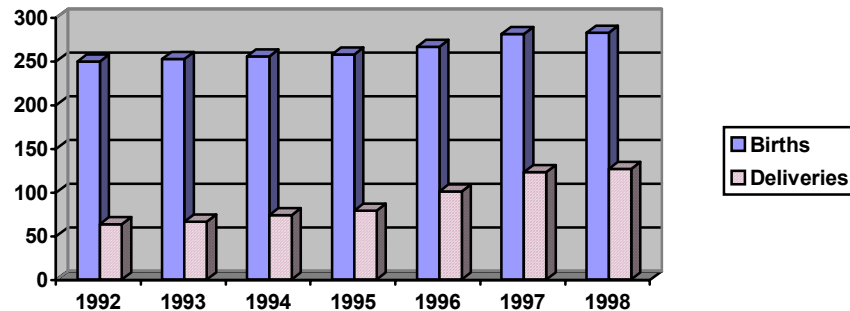
Source: SNIS, 1997.

The majority of institutional deliveries in Bolivia take place in MOH and SS hospitals and health centers.<sup>4</sup> Of the 126,314 institutional deliveries that took place in 1998, the public sector accounted for 78 percent, the SS 8 percent, NGOs 13 percent, and the private for-profit sector 1 percent.

<sup>4</sup> Includes births at home supervised by skilled attendants.

As shown in Chart 6, there is an increasing but slow trend in the percentage of institutional deliveries in the public sector, which depicts the number of annual institutional deliveries at MOH and SS facilities compared with the total number of births.

**Chart 6**  
**Births vs. Institutional Deliveries**  
**(thousands)**



Source: Ministerio de Salud y Previsión Social, N.d.

The cooperative agreement between the MOH and USAID/La Paz requires the setting and monitoring of targets for RH activities as an inducement to increase the level and quality of services. Although target setting has been questioned as too mechanical and formal, in Bolivia the link between target accomplishment and financial availability appears to be working. Tables 6 and 7 summarize the most important 1997 MOH and SS targets and accomplishments for RH activities, in specific USAID objective areas.

Both institutions show impressive accomplishments. In addition, institutional deliveries and prenatal controls increased considerably because of the implementation of the NMCI that provides free maternal services in both MOH and SS facilities. The lower target accomplishments in MOH facilities are in the FP and other RH services, which were not included in the NMCI program. FP has been included in the SBDS, which was instituted in 1998, and, it is hoped, will increase target accomplishments in that important element of RH.

**Table 5**  
**SS—RH Activity Indicators**

<b>Indicator</b>	<b>Target</b>	<b>Actual</b>	<b>Target Accomplishment</b>
Institutional deliveries*/total deliveries in target population	38.3%	37.2%	97%
Pregnant women with four or more pre-natal controls/total pregnant women in target population	25.0%	18.7%	75%
Women with at least one pre-natal control/total pregnant women in target population	45.0%	39.9%	89%
Number of users of RH services	121,118	114,047	94%
New users of modern FP methods	10,364	10,121	98%

*Source:* Elaborated on the basis of Pathfinder's Information Monitoring Tool, 1998.

\*The institutional delivery target defines as institutional deliveries those attended by trained personnel at home or in health establishments.

**Table 6**  
**MOH—RH Activity Indicators**

<b>Indicator</b>	<b>Target</b>	<b>Actual</b>	<b>Target Accomplishment</b>
Institutional deliveries*/total deliveries in target population	33.7%	43.6%	129%
Pregnant women with four or more prenatal controls/total pregnant women in target population	28.6%	30.6%	107%
Women with at least one pre-natal control/total pregnant women in target population	41.4%	38.9%	94%
Number of users of RH services	179,090	82,638	46%
New users of modern FP methods	10,880	6,159	57%

*Source:* Elaborated on the basis of Pathfinder's Information Monitoring Tool, 1998.

\*The institutional delivery target defines as institutional deliveries those attended by trained personnel at home or in health establishments.

## 4.2 Private Sector

The private sector is composed of a for-profit sector and a nonprofit sector, which includes NGOs and facilities run by the Catholic Church. In this section, the role of the for-profit sector will be analyzed using the newly formed HMOs as reference. The ever-increasing role of NGOs in the provision of RH services will also be presented. The section ends with a comparison of the price-cost relationship of the private sector with the MOH.

### 4.2.1 Private For-profit

According to the matrix for the source and destination of funds for health for 1995 depicted in Table 3, Chapter 3 of this paper, 31 percent of the expenditures in health came from households. These funds were allocated in the following manner:

- 85 percent for the purchase of medicines from pharmacies and for private providers (including traditional medicine).
- 5 percent to the nonprofit NGOs.
- 4 percent to private providers through insurance programs.
- 2 percent to the SS.
- 4 percent for fees collected by MOH facilities.

In 1995, households paid US\$29 million to private for-profit providers (excludes purchase of pharmaceuticals and traditional medicine). Of this number, \$3.5 million were paid through private insurance (\$2.4 million through HMOs and \$1.2 million to insurance companies.), and the remaining \$25.5 million directly to providers. It is difficult to estimate the amount spent on RH. These expenditures come largely from the upper income brackets, and the amount spent on deliveries can be estimated using information provided by ServiSalud, one of Bolivia's most successful HMOs.

In 1997, ServiSalud reported that it provided 3,015 consultations, of which 22.8 percent were in the Ob-Gyn category. The fees charged depend on the kind of policy to which one subscribes. Table 8 shows the price variance for a vaginal delivery, including seven prenatal control visits, three ultrasound scans and three laboratory examinations. For purposes of comparison, prices charged by the same clinics for customers outside of the prepayment scheme are also shown.

**Table 7**  
**Normal Delivery, Private Sector Prices (US\$)**

<b>Type of Clinic*</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>
HMO price	532.50	648.50	676.50	719.50
Walk-in price	766.50	951.50	1007.50	1104.50

\*The clinics are classified according to the reputation for quality services, D clinics offer the best services in La Paz.

Using the price paid by individuals for clinics of the C category, \$676 under HMO and \$1,007 for walk-in prices, the expenditure range was calculated for the 915 private sector deliveries registered in the MOH 1997 report. The total expenditure by this sector on deliveries alone would range from \$ 618,540 to \$701,000 for 1 percent of the total 1997 institutional deliveries.

#### **4.2.2 NGOs**

NGOs play a small but significant role by providing quality services at low prices to the poorer segments of the population. NGOs provide 12 percent of the total institutional deliveries, with two of them, ProSalud and PROCOSI (network of 25 NGOs), accounting for 7 percent of the national total. Tables 9 and 10 show the supply of services provided by these two institutions. The information was compiled from the Pathfinder Fund's Information Monitoring Tool.

**Table 8**  
**PROCOSI Activity Indicators**

<b>Indicator</b>	<b>Target</b>	<b>Actual</b>	<b>Target Accomplishment</b>
Institutional deliveries*/total deliveries in target population	38.47%	10.33%	27%
Pregnant women with four or more pre-natal controls/total pregnant women in target population	33.20%	28.2%	85%
Women with at least one prenatal control/total pregnant women in target population	58.38%	34.1%	58%
Number of users of RH services	22,656	41,536	183%
New users of modern FP methods	17,375	4,473	26%

\*The institutional delivery target defines as institutional deliveries those attended by trained personnel at home or in health establishments.

**Table 9**  
**PROSALUD Activity Indicators**

<b>Indicator</b>	<b>Target</b>	<b>Actual</b>	<b>Target Accomplishment</b>
Institutional deliveries*/total deliveries in target population	56.15%	38.6%	69%
Pregnant women with four or more pre-natal controls/total pregnant women in target population	30.0%	59.2%	197%
Women with at least one prenatal control/total pregnant women in target population	55.0%	45.6%	83%
Number of users of RH services	86,173	96,840	112%
New users of modern FP methods	25,542	16,646	65%

\*The institutional delivery target defines as institutional deliveries those attended by trained personnel at home or in health establishments.

Both institutions clearly excel in the provision of RH services, which include community visits, counseling, IEC campaigns, and so forth. However, the level of institutional deliveries is far below targets. Managers from both institutions stated to the report's author that these numbers reflect the impact of the NMCi that now provides these services free of charge.

The decrease in deliveries by NGOs is also reflected in the NGO's low delivery to new prenatal visit ratio of 22.6 percent in 1997 and 21.9 in 1998 (Ministerio de Salud y Previsión Social, 1997, 1998). This is reinforced by the high delivery to first prenatal visit ratio at the MOH: 59 percent and 130 percent for the second and third level facilities in 1998. It appears that women go to the NGO for prenatal control and, in the absence of complications, go to a public hospital for delivery.

The price–cost–coverage equation in Bolivia depicted in Table 11 for the MOH, an HMO and the most important NGOs, reveals the inequities in the provision of RH services. A very small segment of the population (1 percent) receives high-quality care at prices close to private services in developed economies. Twelve percent of the population receives quality services at NGOs (San Gabriel and Centro de Investigación, Educación y Servicios (CIES) are the major contributors) at prices which are close to the actual cost of the service.

The majority of the population (77%) receives free services whose cost of production is one third of the unit cost at NGOs. Considering that institutional deliveries only accounted for 44 percent of the total number of births in 1997, the challenge for policymakers is enormous. Efforts have been made by the MOH to reach the population by IEC campaigns and trying to increase the number of births at home attended by trained personnel. In 1997, 15 percent of the

institutional deliveries were in that category. Both the NMCI and the new Basic Insurance Program have as a main objective to increase the effective demand for services and to expand the supply.

**Table 10**  
**Vaginal Deliveries: Price–Cost Coverage**

<b>Institution</b>	<b>Price to the Consumer</b>	<b>Cost of the Provider</b>	<b>Coverage of Institutional Deliveries</b>
MOH	Free	\$14*	77%
ProSalud	\$45	\$ 52.94**	~12%
San Gabriel*** (PROCOSI)	\$ 71.43	\$ 50.54	
CIES (PROCOSI)***	\$ 26.79	\$ 71.07	
SERVISALUD (HMO)	\$486 per year	\$702 ****	Less than 1 %

\*Based on MotherCare's MBP estimates.

\*\*Assuming 85% cost recovery.

\*\*\*Abastoflor, 1998.

\*\*\*\*SERVISALUD presentation at the POLICY seminar on RH costs and financing, September 1998.

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## Challenges of Financing RH Services in Bolivia

This chapter discusses some of the most salient issues and challenges facing policymakers in charge of managing RH in Bolivia. The analysis is based on data presented in the previous sections and, in particular, will use the results of two recently published studies, which have relevance to the analysis of RH costs and availability of financing. Both studies used the World Health Organization's (WHO's) Mother-Baby Package (MBP) costing spreadsheet to (1) estimate the cost of providing a set of maternal and neonatal interventions in a sample of MOH health districts and (2) evaluate the NMCI reimbursements.

The first study, "Costing the Mother Baby Package (MBP) in Bolivia," (Capra et al., 1998) was published in 1998 by Mother Care/Bolivia (MC/B) in cooperation with Partners for Health Reform (PHR) and the WHO. Primary, the study compares the costs of the current practice model with the MBP standard practice model (optimal coverage performed at standard costs), and estimates expenditures required to fill the gap. A secondary objective of the study is to compare the variable costs of the different interventions with the NMCI program reimbursements.

The second study evaluates the NMCI program conducted in May 1998, elaborated by the USAID-funded PHR Project (Abt Associates, Harvard School of Public Health, and DDM) (Dmytraczenko et al., 1998). The evaluation was to

1. Measure the impact of the program on the quality and utilization of services;
2. Assess the existing institutional capabilities to manage the NMCI program; and
3. Evaluate the program's financial sustainability.

### 5.1 Policy Issues

In a recent seminar to evaluate the implementation of the recommendations made at the ICPD and Beijing Conference, Bolivia's Vice-Minister of Planning and Territorial Organization expressed the government's commitment to meet the goals and objectives agreed upon at the conferences (Ministerio de Desarrollo Sostenible y Planificación Informe, 1998). He emphasized that they are coherent with Bolivia's Economic and Social Development Plan.

Bolivia's Economic and Social Development Plan for 1997–2002 is based on four major elements: Equity, Opportunity, Institutional Strengthening, and Elimination of



Drug Traffic. Equity implies not only improvement in the distribution of wealth, but also equality without distinction of gender or age.

The plan has a chapter that deals specifically with sexual and reproductive health (SRH) as a component of primary health care. It states that a major health objective is to improve access to SRH services, adjusting them to the social and cultural context of the target population. These conditions should contribute to the strengthening of gender-oriented policies, reaffirming women's rights to make decisions concerning sexuality and reproduction. They should also improve maternal health conditions.

The plan also establishes a goal to emphasize SRH within the basic primary health care package, while focusing IEC toward adolescents and providing counseling and services to ensure that women are guaranteed their sexual and reproductive rights.

As a subcomponent of the plan, the MOH drafted the National Program for Sexual and Reproductive Health (NPSRH). The first strategic objective of this program is to improve the present situation of SRH of adolescents, women, and children in the country, providing an integrated supply of services and respecting the gender, cultural, generational, and region-specific differences and particularities.

At the seminar, the coordinator of the NPSRH listed the following targets for the program, all with respect to the 1994 DHS estimates:

- To reduce maternal mortality by 50 percent.
- To reduce the incidence of cervical-uterine cancer by 20 percent.
- To reduce the proportion of undesired pregnancies by 20 percent.
- To increase the prevalence of modern contraceptive utilization in 100 percent.
- To decrease the proportion of adolescent pregnancies by 20 percent.
- To diminish the prevalence of STD in adolescents and adults.

It was also mentioned that the MOH is aware that to meet the target it must increase its management capabilities and improve the quantity and quality in the provision of services at every level.

## 5.2 Financing Challenges

The preceding chapters of this paper show that the trend in allocation of public financial resources for health averaged 10 percent of GDP. Given the slow growth of the economy and the macroeconomic requirements to decrease public spending, it would be unrealistic to think of increased public investment in the foreseeable future.

External funds have played a key role in helping to finance RH services in Bolivia. At the September 1998 POLICY seminar, the UNFPA representative portrayed a somber view about the future availability of foreign funds, indicating that in the best scenario the funds will continue to flow at the same rate. According to the

presentation, Bolivia should not expect continuance of the growth experienced in the last few years.

A major challenge for health officials is to assess the financial impact of their strategy. The strategic approach to improve RH in Bolivia can be summarized as an attempt to reduce the following gaps:

- Demand Gap: How to respond to unmet demand.
- Quality Gap: How to improve the quality of the services.
- Equity Gap: How to provide services to persons from the economically disadvantaged sectors of the population.

The main instruments used by the Bolivian authorities to fill these gaps are the SBDS and the Resource Allocation Mechanism (Mecanismo de Asignación de Recursos, MAR). These programs have financial implications that go beyond their immediate objectives.

The SBDS is based on the premise that the main obstacle to closing the demand gap is to lower prices, while the MAR is trying to increase the supply of services by setting financial incentives to lure private providers to invest in high-risk areas.

To assess the impact of these programs, considering the information summarized in this paper, the following questions will be considered:

1. *Feasibility*: Are the current programs financially feasible and sustainable in the long and short run?
2. *Optimal use of facilities*: Are the current program strategies promoting the optimal use of existing facilities?
3. *Optimal use of financial resources*: Are the current programs sending the correct signals to help consumers make rational decisions to optimize the use of available financial resources for RH?

To answer these questions, specific studies would have to be undertaken, at the earliest, after one year of operation of each program. A first attempt to analyze trends would be performed based on the results of the studies reviewed in this report. Since the MAR has not been evaluated and there is no similar previous program to refer, most of the comments herein will refer to the SBDS.

*Feasibility*: Financial feasibility implies that there will be enough funds to accomplish program objectives. A successful attempt to increase the demand for public services, by offering RH services at zero price to the consumer, has some feasible implications that policymakers must consider.

The zero-price strategy appears to have produced an increase in demand from the first semester of 1995 to the same semester in 1996. Prenatal-care consultations increased by 97 percent and vaginal deliveries by 63 percent. However, in 1997, the MOH reported average maternity bed utilization rates of 27.6 percent in first level

facilities, 53 percent at the second level, and 79 percent for the third level. In 1998, utilization rates dropped to 17.3, 35.7 and 54.8 percent, respectively, for the three levels.

The evaluation did not measure the impact of the NMCI program on increasing the number of women currently delivering with the help of a skilled birth attendant. Official statistics show that between 1995 and 1998 the percentage of women attended institutionally (both at home and at health facilities) remained at about 44 percent.

The financial impact of a large increase in coverage for a selected number of RH services can be induced from the results of the MBP Cost Study performed for a small sample of health centers and posts.

The study shows that by increasing the coverage from the current 60-percent level of pregnant women receiving medical attention to an idealized 100-percent coverage, the total package cost for the standard practice model would be US\$4,515. This amount is more than double the US\$1,876 cost calculated for the current practice model. Extrapolating this effect nationally, it appears that increasing coverage to ideal levels would require financing that the public sector simply could not support.

Long-term program economic feasibility implies that revenues should at least cover variable costs. The results of the two studies presented in this report show that they were insufficient reimbursements in the NMCI. The variable unit costs of each major intervention for El Alto District compared to the NMCI reimbursements (MBP Cost Study) are presented in Table 12.

Reimbursement fees for the SBDS were increased with respect to the NMCI: however, it would require a similar evaluation to the one performed for the NMCI in order to assess SBDS's financial feasibility. Also, refusal by NGOs to join both programs gives an indication of under-reimbursement by the SBDC program and/or concerns about the efficiency of the reimbursement mechanism.

**Table 11**  
**Costs and Reimbursements for Selected Interventions**

<b>Intervention</b>	<b>NMCI Reimbursement (US\$)</b>	<b>Cost of Intervention per MBP Study (US\$)</b>
Eclampsia	19	31
Hemorrhage	39	47
Maternity	14	14
Neonatal attention	51	42
Cesarean section	48	62
Sepsis	69	67

Source: Capra et al., 1998.

*Optimal use of facilities:* The question regarding the use of facilities can also be analyzed with the results of the two aforementioned studies. They show that the zero-price strategy has produced effects on consumer behavior that go against the optimal use of physical resources.

The evaluators found that the NMCI program encourages consumers to seek services in hospitals, the most sophisticated and costly facilities. Since the NMCI provides the same complete coverage, regardless of facility or provider, consumers naturally will go to the facility with the highest resolution. This is particularly true since they feel that services at the health centers and posts are inadequate (lack of medicines and trained personnel). As shown in Table 13, hospitals have the highest variable costs per intervention. The NMCI program, coupled with customer perceptions, was causing an inefficient allocation of resources.

**Table 12**  
**Average Direct Variable Costs and Reimbursement Fees (US\$)**

<b>Health Posts</b>	<b>Hospitals</b>	<b>Specialized Hospitals</b>	<b>Reimbursement NMCI</b>	<b>Differences Specialized Hospitals</b>
16	53	63	39	<b>24</b>
6	7	11	4	<b>7</b>
12	14	14	9	<b>5</b>
31	37	43	20	<b>23</b>
62	56	56	47	<b>9</b>

Source: Presentations by Scarlett Escalante and Katherina Capra, POLICY Seminar, La Paz, September 1998.

*Optimal use of financial resources:* In the preceding chapters, it was shown that the private sector provided the greatest share of financial resources for health and that the trend in the supply of public and donor funding had reached a plateau. Also, consumers will make the rational decision to obtain services at the lowest possible cost. An important question for policy dialogue is whether the SBDS and MAR are sending the correct signals to use financial resources in an optimal manner. Is the free provision of services crowding out the private sector? Are people who were willing and able to pay for health services at the commercial and not-for-profit sectors pushed into public facilities crowding out the poor?

The question of improving services for the poorest segments of society is still an open one. Does removing economic barriers by providing free services increase

access to health services? The increase in deliveries at the public hospitals and the decrease at NGOs, while prenatal visits continue to increase at NGOs, tend to indicate that people are opting to pay and get the higher quality prenatal service and receiving the free deliveries at public facilities. The high ratio of deliveries to first prenatal visits in third level facilities compared to the low ratios for the first two levels indicate that consumers are rationally opting for the free, higher resolution and consequently higher cost services at the specialized hospitals.

That NGOs refused to participate in the NMCI and SBDS should provide authorities an interesting policy topic. Could they be included in the program if they can charge a co-payment fee? The introduction of a copayment has some interesting possibilities. If the co-payment is differentiated as a function of the facility's level of service capacity, distortions in the use of services could be corrected. The lower level and less costly health centers and posts could have a minimal copayment fee thus increasing their low utilization rates.

The fee can be increased on a sliding scale, with the maximum charged for the specialized hospitals. The idea of a copayment, however, is counter to the political orientation of insurance programs. Two successive governments publicized the provision of free services to the poor, yet it appears that there are at least two perverse impacts that should be considered:

1. Added coverage in the provision of services is going to people who are willing and able to pay at the NGO hospitals and health centers, and
2. People are getting RH services at facilities with the highest level of resolution and highest cost.

The MAR is clearly pointing in the right direction, allocating funds to promote an increase in the supply of services by the private sector. It appears, on a first simplistic analysis, that the free provision of services by the SBDS sends signals that are counter to achieving the objectives set for the MAR.

Closing the equity, demand, and quality gaps in the provision of RH services is a daunting task for health officials, particularly given the financial restrictions discussed above. Continuous policy dialogue involving the private and public sector with the support of analytical studies, such as the ones reviewed in this paper, should help policymakers face the financial challenges of improving the SRH of the Bolivian population.

## References

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- Abastoflor, Elizabeth. 1998. Unpublished Thesis, Universidad Catolica Boliviana.
- Beasley, Anne. 1995. Evaluación sobre el Costo y la Sostenibilidad del Centro Piloto para el SIDA respaldado por el Proyecto de Prevención y Control del SIDA.USAID/ La Paz.
- Capra, Katherina, Craig Lissner, Guillermo Seoane, Eva Weissman, and Jack Fiedler. 1998. *Costing Study of the Mother Baby Package*. La Paz, Bolivia: MotherCare.
- Cárdenas, M Idem, ENDSA 1994, Ministerio de Desarrollo Humano, Indicadores Basicos 1996.
- Cárdenas, M., M. Chawla, J. Madden, J. Muñoz. 1997. Movilización de Recursos para el Sector Salud en Bolivia. UDAPSO, Bolivia.
- Cárdenas, Esquivel & Morales. 1998. Estudio sobre Cuentas Nacionales de Financiamiento y Gasto en Salud.
- Contreras, Sonia; Marina Cárdenas, Jeanne, Madden. 1998. Resumen preliminar del análisis costo efectividad de intervenciones de salud en Bolivia. MotherCare.
- Conly, S. 1997. "Missing Billions." *People and the Planet*. 6(1) 12-13.
- Consideraciones Reproductivas de la Población Boliviana, Ministerio de Desarrollo Sostenible, Unidad de Políticas de Población. 1997.
- Dmytraczenko, T. et al. 1998. "Evaluacion del Seguro Nacional de Maternidad Y Niñez en Bolivia, PHR Informe Técnico No. 28.
- Informe del Seminario de Financiamiento y Costos de Salud Reproductiva. 1998. Bolivia: Proyecto Políticas.
- Lafuente, R., J., Linares, , F., Rivero, C., Juanes, and S. Mercado. 1997. Seguro Materno Infantil–Estimación de Costos Unitarios. Ministerio de Salud Pública y Previsión Social. La Paz, Bolivia: Unidad Reforma de Salud.
- Ministerio de Desarrollo Humano, Secretaría Nacional de Salud. 1996. "Indicadores Básicos 1996."
- Ministerio de Desarrollo Sostenible y Planificación Informe. 1998. Seminario Programación del Comité de Enlace y Evaluación Nacional de las Recomendaciones de las Cumbres del Cairo y Beijing. La Paz.

Ministerio de Salud y Previsión Social. N.d. Unidad de Reforma de Salud.

Montaño, Zulma. 1994. *Estudio de Costo de los Distritos Altiplano ValleSur, Carrasco, y Chiquitania Sur*, Bolivia: CCH.

*Mother-Baby Package Costing Spreadsheet, User's Guide*. 1998. Geneva, Switzerland: WHO.

Olave, M., D. Gimenez, R. Meerhoff, J. Fiedler, J. Holley, J. Galloway, and T. Bossert. 1992. Costos Operativos de los Servicios de Atención Primaria de Salud en una Muestra de Establecimientos del MSPPS. Health Nutrition and Sustainability Project, Bolivia.

Partnerships for Health Reform (PHR), Abt Associates, Harvard School of Public Health. 1998. Evaluación del Seguro Nacional de Maternidad y Niñez.

Richardson, P., J. Galloway, M. Olave, P. Terrazas, and T. Bossert. 1992. Calidad, Costos y Recuperación de Costos: Estudio Comparativo de la Unidad Sanitaria del MSPPS y ProSalud en Santa Cruz Bolivia. Health Nutrition and Sustainability Project, Bolivia.

Sistema Nacional de Información de Salud (SNIS). 1997. Estadísticas de Salud.

Sistema Nacional de Información de Salud (SNIS). 1998. Estadísticas de Salud.

"Value for Money in Reproductive Health." Unpublished draft. The POLICY Project.

Valdés, C., R. Molina, J. Grandi, A. Saravia, E. Ayala, and E. Olivares. 1996. Estudio del Sistema de Aranceles de los Servicios de Salud. La Paz, Bolivia: Ministerio de Desarrollo Humano, Secretaria Nacional de Salud.