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| Centro de Investigación de la Universidad del Pacífico |
| Program budgeting and benefit incidence analysis: Health Sector |
| Peru |

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# Introduction

Improvements in health conditions of the population are shown in a better quality of life, in individual welfare, and also in the development of the society. The economic growth in the past decades (5% average in the last 15 years; BCR) allowed important advances in the Peruvian health sector. As consequence, key indicators of the sector’s development such as child and maternal mortality, and chronic malnutrition, shows a decreasing trend. Furthermore, in the last decades, progress related to the health services access has been made, as well as increasing the health insurances rates. These programs increase the welfare of the population.

In spite of the advances, Peru still presents high indicators of health deficiency in comparison with other countries, in part due to the low budget assignation that the health sector manages. Even though the sector budget has increased in the past years, it’s still limited (2’263 millions of Nuevos Soles, meaning the 5.9% of the Total Budget-SIAF, 2008; and a public health budget slightly above 1% of the GDP), which restricts the necessary advances in effective coverage and even more, limits the advance in reducing the gap between rural and urban areas. Clearly, this is added to the inefficiencies of the system that doesn’t allow for an optimized use of the resources. That’s the reason why, in spite of the progress accomplished, in the year 2008, 50% of the people that had a disease couldn’t have access to medical consult and 46% didn’t have health insurance.

The budget assigned is particularly low considering that Peruvian government is implementing a policy of universal insurance. No country has been able to apply a universal insurance policy with a public health budget less than at least 6% of their GDP.

Moreover, even though policies in the last years intent to focus in the poorest, the inequality is still an important problem the sector must resolve. For example, there have been great advances related to institutional deliveries which allowed that 81% of pregnant women access them in 2008. Nevertheless, this result is a national average that hides strong inequalities between rural and urban areas. The Health Demographic Survey (ENDES, 2008) shows that while in the urban area 95% of pregnant women received professional medical attention, in the rural area, just 58% access them.

Health care requires government intervention in order to guarantee the population well being at minimum cost. However, in Peru, household financing of the medical services occupied the first financing source (37% in 2005, OPS/OMS Peru, 2005). Government is just the third source of financing the medical expenses (24% in 2005). Households’ contribution is made, mainly, through pocket expenditure in a country where more than one third of the population is poor. This fact limits access to health services only to those who can afford it, while low income households have a higher risk of being excluded from access to these services. In developed countries, financing depend mostly from public treasury or social security for health funds; thus, payment is made before the occurrence of the attention though insurance mechanisms and the configurations of funds that allow risk-diversification (OPS/OMS Peru, 2005).

This document analyses the health sector, in terms of program budgeting (PBA) as well as benefit incidence (BIA). Thus, the document analyses first how the health budget has been distributed among its different functions and programs in the 2006-2009 period. Second, this document discusses how much does government subsidizes health attentions in order to assert the real family burden to face health problems.

In terms of the PBA results, it is important to realize that the financing of the public sector has been determined historically by the Ministry of Economy and Finance (MEF) and has maintained, as already mentioned, slightly above 1% of the GDP which has been around the 5% of the government total expenditure.

The expenditure concentrates in the Individual Health program (74.5% in 2008), which represents all attentions in hospitals, health centers and posts, both basic and specialized attentions. Although individual health is the main program, capital expenditure in this category is significantly low, moreover given the scarce investment in capital during the last past decades. The relative importance of collective health, including collective preventive actions and information to families, schools and communities, seems to be low. However, since 2007 the importance of Collective Health has been raising.

Other relevant issue is that regional government are beginning to execute directly increasing proportions of resources from the Public Treasury, keeping their execution autonomy regard to the Ministry of Health (MINSA), because the MEF deliveries directly to them. This is an important result of decentralization, with consequences in the MINSA directorate and implications on the coordination between the MINSA and the MEF.

In the BIA, we found that government subsidy is, in per capita terms, regressive for health centers and posts but progressive for hospitals, meaning that richer households receive a greater hospital subsidy. This result calls the attention on the underprivileged access to specialized health services by poor households, especially in rural areas and in part due to an infrastructure and human resources supply gap.

As a specific program, we analyze the Strategic Program of Maternal and Neonatal Health (PSMN), one of the five budgetary programs created in the Performance Based Budget framework. Within the program, we are focusing on the institutional delivery budget. Peruvian Government has prioritized institutional birth when considered reducing maternal mortality as the first National Sanitary Objective in its National Coordinated Health Plan (2007-2020). This strategic program received 361’623,892 Nuevos soles in 2008, which represents 0.5% of Peruvian Government Budget and 4% of the MINSA budget. Deliveries imply around 42% of the total PSNM program, making it the most important single component.

Three things raise our concern related to the PSMN. First, while budget should be assigned according to the performance of the previous year, MEF is still assigning it on a historical basis. Second, in general terms there is no coherence between what was originally planned for 2008 and what was actually executed. In terms of the institutional delivery component, the results indicate a higher level of execution and it seems to be more correspondence among what was budgeted and what was executed. In fact, most physical goals related to deliveries are being fulfilled. Finally, not only the efficacy to carry out investment projects is quite low, but the budget destined to capital is, in general, little relative to the needs; given the infrastructure and equipment deficit.

In terms of access and equity for institutional deliveries, gaps are significant. For instance, when considering wealth, 34% of the women in the poorest wealth quintile have an institutional delivery, while in the richest one 98% have it. Considering area of residence, almost half of the women living in urban zones give birth in MINSA’s hospitals and only 7% do it in their own homes. The situation is completely different for rural areas, where only 1 of every 5 women gives birth in MINSA’s hospitals and half of them do so in their own homes. Another relevant difference is the attention in health posts: one out of every ten women in rural areas attends to health posts for their deliveries, three times more than women in urban areas. Moreover, for institutional deliveries, rural women are more likely to be attended by a nurse or a health specialist, rather than a doctor or an obstetrician.

The reminder of the study is organized as follows. Section 1 presents a general description of the health sector, including the sector organization, agents and providers, and a health sector diagnose. Given this document includes analysis on the PSMN, we present a description of the institutional birth services in Peru as well as a description of the PSMN. Section 2 contains information on the Program Budgeting Analysis. Section 3 presents the Benefit Incidence Analysis. Section 4 presents the PSMN results, both for the budget analysis and the benefit incidence. Section 5 concludes. Finally, the document ends with the challenges, the possible extensions and the diffusion plans.

# General description of the Health Sector

## Sector organization[[1]](#footnote-1)

The health sector is the social environment where people, organizations and institutions carry out different activities related directly or indirectly with the individual or collective health in the country. In Peru, health services are provided by two subsectors: the public and the private sector (see Graphic 1). The public sector is composed by the Ministry of Health (MINSA) and its decentralized institutions such as the Regional Health Directorates (DIRESA); the Health Social Security Insurance (EsSalud) under the Ministry of Labor, and the Police, Army and Navy Health Instances. On the other hand, the private sector is composed by the private firms (providers and insurance companies), the non-profit entities, the private professional doctors and paramedics that provide health services, as well as the suppliers of traditional or indigenous medicine.

### Public Subsector

The public subsector is divided in three geographic levels: national, regional and local. The first one is lead by the MINSA, who is responsible for the policy guidelines of the health sector, and for the regulation and process that controls the health activities. Besides, MINSA is the most important provider entity of health services, fact that is changing with the consolidation of the decentralization process (see Graphic 1).

The normative scope, competence, purpose and organization of the MINSA, of its decentralized institutions and of its support entities, are defined in the MINSA Law and its Statutory, which assigns it the sectors management of the National Health System.

The public subsector has gone through two important processes. The first one is the process of decentralization of the health services, initiated in 2003. This process is defined as the reallocation of the power from the central level to the regional and local levels. For being national and government policies, the decentralization process has became a way of organization for the national government and its institutions, stimulating strongly the MINSA, and although in a lesser extent, the other public actors in the health sector, such as EsSalud and the Police, Army and Navy Health Instances. The process is now in the phase of delegating the health duties to the regional health authorities in a formal way.

The second process, just recently approved by Congress in March of 2009, is the Universal Insurance, in charge of the Integrated Health Insurance (SIS). SIS (standing Seguro Integral de Salud in Spanish) is a government’s health insurance program directed to poor people with less access to medical services. The SIS was created in 2002 absorbing the Child and Maternal Health Insurance. Since then, it has then broadened its coverage. It counts, by the end of 2008, with 10’358,793 insured (SIS, 2008).

According to the framework law, Ley 29344 of Universal Insurance, the main goal of the Universal Insurance is to cover all Peruvian residents a minimum of health services (including prevention, promotion, recovery and rehabilitation); these services are determined in the Essential Health Insurance Plan (PEAS). The PEAS was established based on the disease burden, and accounts for 185 benefits, that include obstetric, gynecologic, pediatric, oncologic, contagious and non-contagious conditions. The law was published in April of 2009 to be progressively applied, starting in the country’s poorer regions. The pilot project is programmed to start in 2010 in Apurimac, Ayacucho and Huancavelica, the three poorest regions in Peru. The government plan, a very ambitious one, is to start guarantying 140 benefits, around 65% of the PEAS burden.

Graphic 1: Agents in Health Services Assistance

**

Source: MINSA/CIES, 2008

The DIRESAs are the sector health organizations in the regional governments. These governments enjoy limited independent in a politic, economic and administrative way, and provide health services through their establishment’s net which is organized in three levels of assistance accordance to the complexity of the case.

In the local field, the City Halls and charity organizations are the responsible for the administration and for the budget of some health establishments.

The Police, Army and Navy Health instances provide health services to its members, direct family and workers through their own health establishments. They mainly finance with treasury funds, and in a lesser extent with the co-payments.

The institution responsible for the social security of the health sector is EsSalud, which depends on the Ministry of Labor. In accordance to its law of creation, this institution provides health, economic and social services, which complements its insurance role. In EsSalud are affiliated mainly the workers of the formal sector of the economy, and its direct relatives. This entity is financed with contributions from the payroll, and provides health services through its specialized institutions, and a net of hospitals, polyclinics, medical and emergency centers. The modernization process of the social security in health has consisted in the partial break-up of the monopoly of EsSalud provider’s system. Now, the social security complements with the Health Providers Entities (EPS), properly accredited in the Superintendence of Health Providers Entities, which provide health services of a lower complexity in private establishments. The EPS appearance, in the year 2005, achieved 9.3% of the total financial resources gather in two and then three finance funds. That percentage begins to approach to the 11% that manage the private insurances. The benefits of the EPS system are basically three:

* Knowledge of the operative mechanisms of the private providers sector, on behalf of the MINSA.
* Speed in the adoption of methods and mechanisms suggested by the MINSA.
* Transparency and accountability.

According to Graphic 1, it’s clear how fragmented and segmented is the health sector in Peru. This means a poor functional coordination among the different public institutions, and among the public and private ones to adopt common strategies and share financial, infrastructure and human resources. The coexistence of the social security, the private, and public sector, causes disintegration of the financial funds and of the provider structure. These condition the solidarity mechanisms and the capacities to rationalize and coordinate the providers supply (CEPAL, 2006). As well, it leads to effectiveness problems in the system as a whole, due to the inefficiency in the allocation of the resources. The newly assigned rolls of the national, regional and local levels in the decentralization process and in the framework law of Universal Insurance will force a deep realignment in the organization of the different levels of government.

### Private Subsector

The formal private health services providers are the private specialized and non specialized clinics, the medical centers and polyclinics, the medical and dental offices, the laboratories, image diagnostic services. As informal providers, can name the providers of traditional medicine, quack doctors, midwifes, amongst others.

## Agents, fonts and providers

The entities that are related with the health services are organized in accordance with their financial functions (fonts), intermediaries (funds) and health services providers.

### Entities and Fonts

**Government:** Is the entity responsible for the allocation of the fiscal budget. Its financial sources are the Ordinary Resources (they come mainly from tax income), Directly Collected Resources, Indebtedness and Determined Resources (come mainly from mining canon and customs).

**Employers in general (public and private):** They allocate to the health social security the contributions from payrolls. In Peru, it is 9% of the remuneration. They can also allocate voluntary contributions to private health insurance.

**Households:** They finance their health services through the “pocket payment”, paying for health services and medicines, and purchasing health insurances. They can also participate with their employers in the financing of their insurances (insurance premium, deductible copayments) and acquire by their own a facultative insurance with the social security.

**External Aid Workers:** Allocate resources received as donations from the several international entities.

**Others:** Entities that make internal donations; income gained as the result from the sale of obsolete and wasted equipment from the health services providers; income generated from the rents of assets (financial deposits and real estate) of the social insurance.

### Health Providers

**Ministry of Health and Regional Health Directorates:** They cover all the net of establishments that provide health services. They receive financial resources from the Government, the households, external aid workers, and from the internal donors.

**Police, Army and Navy Health Instances:** They cover all the net of establishments that provide health services of these institutions. They receive financial resources from the Government, contributions from payrolls and from the households.

**Other public providers:** This category gathers the establishments that provide health services of the charity organizations and City Halls. They receive financial resources from the Government, the households and external aid workers.

**EsSalud:** Includes all its net of establishments that provide health services. Receives financial resources from the employers, and in a lesser extent, from the purchase of independent workers insurance plans acquire by the households.

**Private Profit:** Category conformed by the specialized and non specialized private clinics, medical centers and polyclinics, medical and dental offices, laboratories, image diagnostic services, and also by health establishments of some companies (mining, oil and sugar refineries mainly). This category also includes the providers of traditional and alternative medicine. They receive financial resources from the households and from the private insurance companies.

**Private Non Profit:** This category includes the emergency and medical centers of parish churches and missionary associations, Caritas, Peruvian League Against Cancer, Peruvian Institute of Responsible Paternity, PLANIFAM, therapeutic communities, Peruvian Red Cross, firemen companies and other non-governmental organizations that spend in health services. They receive financial resources from external aid workers, internal donors, Government and households.

**Pharmacies:** Includes the pharmacies and drugstores, located near an institutional provider of health services. They finance with households purchases.

## Health sector diagnose

### Main health indicators

Although Peru has been experiencing important economic growth for the last fifteen years[[2]](#footnote-2), development indicators, especially the ones related to poverty and health, have not experienced enough improvements. This is particularly true for the maternal and child health indicators (see Table 1).

Maternal mortality rate (MMR) and proportions of professionally attended deliveries are widely accepted indicators for maternal health. In Peru, the maternal mortality rate in year 2005 was 164 per 100,000 live births and the proportion of deliveries that received assistance from specialized sanitary staff was 72%. Both indicators are well above those from developed countries and even the Latin America & Caribbean average. Moreover, there are dramatic differences between Peruvian regions (see Table 2).

In developed countries, in year 2006, the MMR was 9 per 100,000 live births and the proportion of deliveries attended by skilled health care personnel was 99% (United Nations, 2008). According to the same source, MMR for Latin America & Caribbean, on average, is 130 per 100,000 live births, and 86% of deliveries are attended by skilled health care personnel.

Birth attention is highly important to reduce MMR; proper care during delivery has a relevant impact in overall maternal and infant health. Complications during delivery are an important cause of maternal mortality. According to MINSA (MEF, 2008), in 2003, hemorrhage was the first cause of maternal death (43%) followed by hypertensive diseases of pregnancy (14%), sepsis (8%) and unsafe abortion (8%); and these reasons have not change in the last years. All these complications have a higher probability of being solved if the delivery takes place in an adequate place with skilled health staff.

Table 1: Health Indicators



Source: INEI

Regarding neonatal and child health, and according to studies in Peru, the principal causes of neonatal deaths are the respiratory disorders proper of the neonatal period (in the rural areas the 60% of the neonatal deaths are attributed to asphyxia), the low birth weight, neonatal sepsis, and congenital malformations. The respiratory disorders are related to two factors: the labor and obstetric complications, and the low weight birth and prematurity.

However, as it is common in Latin American countries (OPS-OMS, 2007), national averages hide important differences among regions and socioeconomic sectors. One of the most important differences is among rural and urban population. Table 2 presents health indicators by area of residence.

Table 2: Health indicators by area of residence



Source: INEI

Differences are relevant. For instance, institutional delivery rates are quite different: in 2009, while 93% of deliveries are institutional in urban areas, only 55% are institutional in rural areas. Women in urban areas attend more prenatal checkups, receive more assistance by health staff during deliveries, and use more birth control methods as well as.

Peruvian Government has prioritize institutional birth when considered reducing maternal mortality as the first National Sanitary Objective in its National Coordinated Health Plan (2007-2020), with the specific goals of reducing teenage pregnancy; complications during pregnancy, delivery and post delivery; and broadening access to different birth control methods. More specifically, the indicators for this goal are[[3]](#footnote-3):

1. To reduce MMR from 185 to 120 per 100,000 live births by 2011.
2. To reduce MMR to 66 per 100,000 live births by 2020.
3. To increase the rate of institutional delivery coverage in rural areas from 42.9% to 70% by 2011, with quality and within the cultural context of the population.

Given the importance of maternal and neonatal health for Peruvian society, we analyze the main budget program, a performance based budget for maternal and neonatal health (see sub-section 4) as part of the program budgeting analysis of the health sector.

### Usage of health services

The size of the public sector in Peru is larger than the private one, not only considering the participation in the production structure, but also by the available infrastructure resources (Table 3), with a high weight of MINSA as a supplier. According to ENAHO 2008, of the total of individuals that had health consults, 40% went to MINSA’s establishments, while 11% and 15% went to Essalud and private practices, respectively. The situation in the infrastructure stock is similar, where MINSA has 86% of health posts and 67% of beds. For hospitals and clinics it’s the second provider[[4]](#footnote-4).

**Table 3: Relative importance of public and private suppliers (according to participation in production and infrastructure)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Provider** | | **2008** | **1996** | | |
| **Consults** | **Posts-Centers and Private practices** | **Beds** | **Hospitals/ clinics** |
|
|
| Institutional |  | 67 | 100.00% | 100.00% | 100.00% |
|  | MINSA | 40 | 86 | 67 | 30.1 |
|  | EsSalud | 11 | 3 | 14 | 15 |
|  | Armed and Police Forces | 1 | 2 | 6 | 4 |
|  | Private | 15 | 9 | 13 | 50.9 |
| Non institutional | | 34 |  |  |  |
|  | Pharmacy | 31 |  |  |  |
|  | Other | 3 |  |  |  |
|  |  | 100.00% |  |  |  |

Sources: ENAHO 2008 and Infrastructure Census-MINSA 1996

In terms of usage of medical services, in year 2008, of the 100% of population that were reported ill, 64% considered a medical consult as necessarily, and just 32% managed to accomplish an institutional appointment. Even though this figure had improved between 1985 and 2000, since then the trend has been decreasing (see Table 4). 16% of the population was limited to a non-institutional consult and the rest (17%) didn’t make any consult at all. Considering the population volume that received medical attention, and taking as 100% the institutional attention, MINSA occupies the first place of attention (60%), while EsSalud and the private providers attend 17% and 23%, respectively. The non institutional consult, mainly pharmacies and drugstores, is more important than the consult to private providers.

**Table 4: Trends in usage of health services (of the 100% of people that reported illness)**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1985 | 1994 | 1997 | 2000 | 2003 | 2005 | 2006 | 2008 |
| Consulted | 40.3 | 40.8 | 54 | 55.9 | 46.6 | 36.3 | 40.6 | 47.5 |
| Institutional | 30.7 | 31.5 | 43.5 | 47.5 | 36.3 | 28 | 29.3 | 31.7 |
| MINSA | 19.3 | 15.8 | 25 | 29.2 | 22.6 | 17.1 | 17.1 | 18.8 |
| Essalud |  | 8 | 9.5 | 10 | 8 | 5.9 | 5.7 | 5.3 |
| FFAA |  | 0.9 | 1 | 0.5 | 0.8 | 0.5 | 0.5 | 0.4 |
| Private | 11.4 | 6.8 | 8 | 7.8 | 5 | 5.1 | 6.1 | 7.2 |
| Non Institutional | 9.6 | 9.3 | 10.5 | 8.4 | 9.6 | 7.7 | 11.3 | 15.8 |
| Pharmacy | 4.4 | 4.5 | 7.6 | 5.3 | 8.2 | 6.5 | 10.2 | 14.5 |
| Other | 5.2 | 4.8 | 2.9 | 3.1 | 1.4 | 1.2 | 1.0 | 1.3 |
| Didn't consult | 59.7 | 59.2 | 46 | 44.1 | 54.1 | 63.7 | 59.4 | 52.5 |
| Couldn't consult |  |  | 19.5 | 25.6 | 40.3 | 39.6 | 25.1 | 16.8 |
| It wasn't necessary |  |  | 26.5 | 18.5 | 13.8 | 24.2 | 34.4 | 35.8 |
| TOTAL | 100 | 100 | 100 | 100 | 100 | 100 | 100 | 100 |

Sources: ENNIV 1985-2000, ENAHO 2003, 2005, 2006, 2008

Moreover, when considering institutional attention by income levels, ENAHO 2008 shows strong differences. While 43% of the richest income quintile did not access to medical services when sick, 67% did not consult in the poorest income quintile.

Table 5 presents the reasons of no access to medical services by income levels in 2008. The economic barrier is still significant. While in the first income quintile, the poorest quintile, 27% considered not to have enough money to access medical consult, the 7% of the richest quintile considered it as an important reason for no access. The cultural fact, been for limited integration and/or by exclusion, continues been also a challenge. And indirect indicator is the selection of the home medicine made by the poor part of the population, where the 24% chose it in comparison with the 6% of the higher incomes quintile. The remoteness and the distrust factors are also higher among the poorest.

**Table 5: Reasons of no access by income quintile, 2008**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Reasons | First Quintile | Second Quintile | Third Quintile | Fourth Quintile | Fifth Quintile | Total |
| Didn't have the money | 26.8 | 26.4 | 21.9 | 15.0 | 6.7 | 19.0 |
| It's too far | 8.8 | 4.8 | 2.7 | 1.3 | 1.1 | 3.6 |
| It takes a lot of time | 2.9 | 4.0 | 5.2 | 5.3 | 5.0 | 4.5 |
| Don't trust in doctors | 5.8 | 5.6 | 4.5 | 4.1 | 3.3 | 4.6 |
| It wasn't severe/ wasn't necessary | 28.7 | 31.4 | 35.3 | 38.4 | 43.7 | 35.8 |
| Prefers to use homemade remedies | 24.4 | 17.2 | 11.1 | 9.2 | 6.3 | 13.3 |
| Isn't insured | 2.2 | 1.5 | 1.5 | 1.2 | 0.6 | 1.4 |
| Self medicated or repeated previous recipe | 13.7 | 18.5 | 20.1 | 21.2 | 27.5 | 20.4 |
| Didn't have enough time | 11.3 | 12.7 | 14.8 | 15.7 | 14.7 | 13.9 |
| Because of the mistreat of the health staff | 1.7 | 1.3 | 1.0 | 0.6 | 0.6 | 1.0 |
| Other | 4.0 | 3.9 | 3.9 | 4.0 | 4.9 | 4.1 |

Sources: ENAHO 2008

On the other side, poor population that have access to a MINSA consult, mainly do it in the first level of attention (centers and health care facilities) (see Table 6). The limitations of the population to have access to specialized health services are related to the limited purchasing capacity of the population, and to the type of health establishment that is nearby. For reasons of economies of scale, the health centers are located in rural areas (between 72% and 74%), while most of the hospitals are located in urban areas (between 97% and 98%). (Du Bois, Chávez and Cusato, 2004). The discrimination appears when the establishment of first level attention doesn’t have required resolving capacity, or an efficient reference net with hospitals and specialized institutions.

**Table 6: Institutional consult by expenditure quintiles, 2008**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Place of attention | First Quintile | Second Quintile | Third Quintile | Fourth Quintile | Fifth Quintile | Total |
| Health Post | 64.6 | 53.7 | 38.1 | 22.9 | 7.7 | 32.2 |
| Health Center | 25.8 | 25.7 | 18.7 | 13.8 | 7.3 | 16.4 |
| MINSA Hospital | 5.1 | 8.0 | 13.6 | 13.1 | 11.6 | 10.8 |
| Essalud | 0.7 | 4.4 | 11.7 | 22.6 | 29.6 | 16.6 |
| Armed Forces | 0.2 | 0.1 | 0.2 | 2.0 | 2.8 | 1.4 |
| Private Practice | 3.6 | 8.2 | 17.8 | 25.5 | 41.0 | 22.7 |
| Total | 100 | 100 | 100 | 100 | 100 | 100 |

Source: ENAHO 2008

However, the analysis of the figures showed in Tables 3 to 6, requires considering the next things:

* The data obtained from the ENAHO is not comparable with the trend 1985-2003 because of changes in methodology.
* A continue lost in response in the health module of the population surveyed in the ENAHO is observed, which could compromises its results. While in 2002 the lack of response was just the 0.6% of the subjects surveyed, in 2003 it grew to 3.5%, in 2004 to 6.47% and in 2005 11.4% of the subjects surveyed didn’t answer the health module. The 2008 ENAHO seems to be correcting this problem, as it has a non responsive rate of 4.7%, lower than the one in 2004 and 2005.
* ENDES data shows an important raise in the maternal and child attention occurred between the years 2000 and 2004, which evidences an opposed trend of the ENAHO, as it will be show later. The ENDES survey takes into account demographic and social characteristics of women in childbearing age and of children younger than 5 years old. It is a data set with detailed information regarding pregnancy, delivery and post delivery characteristics and it is representative on a national, regional and by area of residence (urban/rural) level.
* The fall in the different providers of institutional attention showed by the ENAHO is not compatible with the expansion of the economy or with the levels of consumption registered between the years 2002 and 2008.

### Health insurance

Insurance and proportion of insured population is also an indicator of health services coverage and access. Table 7 shows the trend since 1985 per insurance type.

**Table 7: Health insurance trends**



Source: ENAHO

Between 1985 and 2008, the outlook of insurance in health has changed remarkably with the stagnation of EsSalud and the development of public insurance. While the population coverage of social security in health (EsSalud) has hold back, the public subsidized insurance, SIS, of partial coverage, had presented an important development. In fact, it accounted for 31% of the insured population in 2008. SIS started as a maternal and infant insurance and has evolved to a more complete insurance that covers all ages, focused on poor and extreme poor families. Affiliations to SIS have doubled in the period 2005-2008, which reflects the success of the insurance (at least in terms of population insured). Thus, the affiliation to the SIS has become an important way to access health services for the poor population. In the poorest quintile, the 41% members of SIS were attended at health services in sickness, while only the 20% of the same quintile that are no SIS members did, mainly concentrated in the rural populations.

In order to make progress towards universal of health insurance, a prioritized list of sanitary interventions, PEAS, has been designed (Supreme Decree 004 2007-SA), the ones that are expected to be able to form part of a package in expansion of necessary and explicit universal guarantees. This package must be offer to the entire population, regardless of the risk and income level. The important thing is that the assistance that must be given has already been establish, based in sanitary priorities of the population. These allow, in a way, the specification of benefits to be finance, and also help to establish the price list of the assistances.

**Table 8: Health Insurance trends by area of residence**



Source: ENAHO

Urban and rural differences show the uneven importance of EsSalud (basically a health insurance for formal workers). SIS accounts for almost all insured population in rural areas and more than half of total rural population. SIS has also contributed to change the urban/rural insured population composition, as can be seen in Table 8.

Moreover, when considering expenditure quintiles, it is important to realize that among the poorest population, 63% are affiliated to SIS (ENAHO, 2008). SIS is the only insurance alternative for the poorest population.

It is in this way, and with the perspective of the universal insurance, that the public budget’s General Direction of the MEF has increased the budget assigned to the SIS, although this budget is still not enough given the goals and mandates not financed.

**Table 9: Integral Health Insurance (SIS) expenditure evolution (2002-2008)**

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
|  | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 |
| Value of production (in Nuevos Soles) | 228,936,715 | 275,709,570 | 205,961,722 | 237,332,136 | 266,458,536 | 300,254,743 | 411,255,050 |
| Transfers (in Nuevos Soles) | 166,229,736 | 207,290,816 | 280,366,257 | 251,053,416 | 266,481,036 | 283,366,532 | 419,586,451 |
| Attentions | 15,170,607 | 18,603,827 | 13,068,769 | 14,915,217 | 17,430,217 | 21,537,406 | 27,615,099 |
| Transfers per attention (in Nuevos Soles) | 11.0 | 11.1 | 21.5 | 16.8 | 15.3 | 13.2 | 15.2 |

Source: SIS

### Institutional delivery[[5]](#footnote-5),[[6]](#footnote-6)

This study also considers the analysis of one of the five budgetary programs created in the performance based budget framework. This refers to the strategic Program of Maternal and Neonatal Health (PSMN according to its initials in Spanish), which objectives are explained in Table 19. With regard to the PSMN, the objective related to the increase of institutional birth is considered in a special way. That is the reason why a description of the institutional delivery situation in Peru is detailed next. Diagnosing and reviewing the current state of birth attention is important in order to execute interventions directed to broaden birth institutional attention, and specially, focusing on the poorest population.

The official figures for institutional deliveries from Peruvian National Statistics Institute (INEI) show an increasing trend of institutional deliveries for the last years (see Graphic 2).

**Graphic 2: Proportion of deliveries in health establishments**



Source: INEI-ENDES

The latest estimation shows a rate of 80.5% institutional births, which is a significant progress from the 1996 level of less than 50%.

However, again, there are wide disparities among different places of residence. Table 10 shows the differences among rural and urban households. According to ENDES, while more than 9 of every ten women have an institutionally attended delivery in urban areas, less than half of the women in rural areas have one.

**Table 10: Distribution of the types of delivery by area of residence[[7]](#footnote-7)**

|  |  |
| --- | --- |
|  | **ENDES** |
| *Total* | 100% |
| Non Institutional Delivery | 26.6 |
| Institutional Delivery | 73.5 |
| *Urban* | 100% |
| Non Institutional Delivery | 7.6 |
| Institutional Delivery | 92.4 |
| *Rural* | 100% |
| Non Institutional Delivery | 51.5 |
| Institutional Delivery | 48.5 |

Source: ENDES Continua 2004-2007, ENAHO 2007

However, the situation in the rural area has improved compared to year 2000, where, according to ENDES, only 24% of rural deliveries were made at institutional establishments. Nevertheless, still, four to five of every ten women in this zone don’t have and institutional delivery and the urban/rural gap are yet far from being closed. Table 11 differentiates deliveries by the specific place of birth by area of residence.

**Table 11: Deliveries by place of birth and by place of residence**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **ENDES** | | |
|  | **Total** | **Urban** | **Rural** |
| Hospital MINSA | 35.0 | 46.3 | 20.2 |
| Hospital Essalud | 9.8 | 14.8 | 3.3 |
| Hospital FFAA/PNP | 0.8 | 1.5 | 0.0 |
| Health Center MINSA | 13.8 | 13.9 | 13.7 |
| Health Post MINSA | 5.6 | 3.1 | 8.9 |
| Center/Post CLAS | - | - | - |
| Center/Post Essalud | 1.4 | 2.3 | 0.3 |
| Private Practice | 7.0 | 10.7 | 2.2 |
| Respondent or Midwife's Home | 25.7 | 7.0 | 50.2 |
| Other | 0.9 | 0.6 | 1.3 |
| **TOTAL** | **100%** | **100%** | **100%** |

Source: ENDES Continua 2004-2007.

According to ENDES 2004-2007, 35 women of every 100 deliver their children in MINSA hospitals; the second most important place is, however, women or midwife’s homes, where 25 of every 100 women give birth. This fact implies a high risk for women and their babies because of complications not attended by professional staff in an adequate environment. Notice also that 6 of every 100 women give birth in MINSA´s health posts establishments which, catalogued by MINSA, are incapable to attend this type of interventions because of their low level of complexity and low capacity of resolution.

Differentiating according to places of delivery by area of residence, Table 11 also shows that almost half of the women living in urban zones give birth in MINSA’s hospitals and only 7% do it in their own homes. The situation is completely different for rural areas, where only 20% of women give birth in MINSA’s hospitals and half of them do so in their own homes. Another relevant difference is the attention in health posts: one out of every ten women in rural areas attends to health posts for their deliveries, three times more than women in urban areas.

The delivery establishment is useful as a proxy to quality of attention received in institutional deliveries. Assuming that the best place to give birth at is a hospital, and the worst, your own house or other place, then urban household not only have more access to delivery health services, but also they have better access in terms of quality than rural households.

Another proxy to quality is the caregiver capability to lead the delivery. Doctors and obstetricians are the first in the ranking, followed by nurses, health specialists (sanitary), traditional birth attendants and the rest of possible caregivers, including health auxiliary personnel, technicians, friends or family, among others.[[8]](#footnote-8)

**Table 12: Type of delivery by caregiver distribution**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | **Doctor** | **Obstetrician** | **Nurse** | **Health Specialist** | **Traditional Birth attendant** | **Other** | **No one** | **Total** |
| ENDES | Non Institutional Delivery | Total | 3.7 | 4.8 | 4.6 | 0.4 | 45.9 | 39 | 1.7 | 100 |
| Urban | 7.55 | 8.35 | 3.21 | 1.51 | 47.6 | 30.25 | 1.54 | 100 |
| Rural | 2.92 | 4.15 | 4.88 | 0.18 | 45.56 | 40.63 | 1.69 | 100 |
| Institutional Delivery | Total | 61.2 | 35.6 | 2.3 | 0.1 | 0 | 0.8 | 0 | 100 |
| Urban | 66.2 | 32.7 | 0.9 | 0.02 | 0 | 0.2 | 0 | 100 |
| Rural | 48.6 | 43 | 6 | 0.2 | 0.1 | 2.1 | 0 | 100 |

Source: ENDES Continua 2004-2007

Table 12 shows an expected higher participation of doctors and obstetricians for institutional deliveries. The importance of the category “others” is quite relevant among non institutional deliveries; even though there is nothing certain about the level of skills and type of care caregivers in the “others” category[[9]](#footnote-9).

Table 12 shows that even when the delivery is institutional, rural women are more likely to be attended by a nurse or a health specialist, rather than a doctor or an obstetrician. If the delivery is non institutional, the proportions are similar but urban women are more likely to be attended by a doctor or obstetrician (twice than rural women), while the “others” category is greater for rural women.

Tables 13 to 15 sum up the situation of delivery among three features: mother`s highest completed level of education, mother tongue, and household’s wealth quintile.

#### Educative level

**Table 13: Type of delivery by women's highest completed level of education**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Non Institutional Delivery | | | Institutional Delivery | | |
|  | Total | Urban | Rural | Total | Urban | Rural |
| No education, Preschool | 50.9 | 30.8 | 54.8 | 15.8 | 8.4 | 34.3 |
| Primary | 38.1 | 42.0 | 37.4 | 27.6 | 23.4 | 38.3 |
| Secondary | 8.7 | 18.0 | 6.9 | 29.3 | 33.3 | 19.4 |
| Higher | 2.3 | 9.2 | 0.9 | 27.3 | 35.0 | 8.0 |
|  | 100 | 100 | 100 | 100 | 100 | 100 |

Source: ENDES Continua 2004-2007

Most of women giving birth in an institutional facility have completed secondary or superior education (57% of institutional deliveries), while 51% of women giving birth in non institutional places have no education at all, according to ENDES. This shows a clear correlation between educative level and type of delivery, where, the more educated the woman, the more likely she is to have an institutional delivery.

#### Mother’s tongue

**Table 14: Type of delivery by mother tongue**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Total** | | **Urban** | | **Rural** | |
|  | **NID** | **ID** | **NID** | **ID** | **NID** |  |
| Spanish | 21.6 | 78.4 | 6.4 | 93.6 | 46.8 | 53.2 |
| Quechua | 32.3 | 67.7 | 13.6 | 86.4 | 39.2 | 60.8 |
| Aymara | 60.3 | 39.7 | 0.0 | 100.0 | 74.6 | 25.4 |
| Other indigeneous language | 89.9 | 10.1 | 65.0 | 35.0 | 100.0 | 0.0 |

\*NID= Non Institutional Delivery

\*ID= Institutional Delivery

Source: ENDES Continua 2004-2007

An important characteristic is mother’s tongue due the large number of different cultures living in the country. Table 14 shows the proportion of institutional and non institutional deliveries for several language categories. With ENDES data, women speaking Spanish as their first language are most likely to give birth in an institutional facility (78%); likewise, for those speaking quechua, although in a minor proportion (68%); however, the situation is different for the aymara speaking women (only 40% has an institutional delivery), and women speaking other native tongues (usually sylvan languages), whom 90% of them don’t have an institutional delivery. A possible explanation is that selvatic regions have the lowest ratio of doctors and obstetricians per 10000 habitants; there aren’t enough health professionals to tackle demand. Moreover, establishments in Aymara and Sylvan languages areas count, mostly, with health technicians and auxiliaries in health posts. Even though they do speak native languages, they are neither qualified nor authorized to conduct deliveries. Even though there is a clear supply side problem to handle institutional deliveries for these population, customarily, aymara and selvatic women also prefer to give birth on their own and aren’t used to going to health establishments.

#### Income quintile

**Table 15: Type of by household's wealth**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Total** | | **Urban** | | **Rural** | |
|  | **NID** | **ID** | **NID** | **ID** | **NID** | **ID** |
| Poorest Quintile | 66.1 | 33.9 | 45.4 | 54.6 | 67.9 | 32.1 |
| Poorer Quintile | 46.2 | 53.8 | *28.4* | 71.6 | 50.8 | 49.2 |
| Middle Quintile | 12.0 | 88.0 | 8.6 | 91.4 | 21.5 | 78.5 |
| Richer Quintile | 4.0 | 96.0 | 3.0 | 97.0 | 15.3 | 84.7 |
| Richest Quintile | 1.6 | 98.4 | 1.6 | 98.5 | 8.4 | 91.6 |

\*NID= Non Institutional Delivery

\*ID= Institutional Delivery

Source: ENDES Continua 2004-2007

To capture exclusion and inequalities in access to institutional delivery, we consider the wealth quintile distribution among institutional and non institutional delivery (Table 15).

When considering wealth, differences between the richest and the poorest quintiles are broad. In the poorest quintile, 34% have an institutional delivery, while in the richest one, 98% of women have it.

#### Affiliation to SIS

In terms of SIS effectiveness to broaden institutional delivery coverage, Table 16 shows the type of delivery women affiliated to SIS by area of residence.

**Table 16: Type of delivery of women affiliated to SIS**

|  |  |
| --- | --- |
|  | ENDES |
| *Total* |  |
| Non Institutional Delivery | 36.8 |
| Institutional Delivery | 63.2 |
| *Urban* |  |
| Non Institutional Delivery | 10.7 |
| Institutional Delivery | 89.3 |
| *Rural* |  |
| Non Institutional Delivery | 52.8 |
| Institutional Delivery | 47.2 |

Source: ENDES Continua 2004-2007, ENAHO 2007

In aggregate, despite the majority of women affiliated to SIS (63%) have an institutional delivery, more than one out of three affiliated prefer to give birth at home by themselves or with a traditional birth attendant. The situation is particularly critical in rural areas, where more than half women affiliated to SIS have a non institutional delivery. SIS attentions related to maternal health services from year 2005 to 2007 are shown in Table 17.

**Table 17: SIS attentions 2005-2007**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Year** | | |
| **SIS attentions** | **2005** | **2006** | **2007** |
| Deliveries | 290,476 | 281,123 | 275,782 |
| Cesarean sections | 51,762 | 56,671 | 58,752 |
| Prenatal attentions | 1,587,762 | 1,710,545 | 1,779,591 |
| Intensive Care Attentions | 722 | 696 | 663 |
| Transfers | 22,742 | 24,313 | 25,787 |
| Iron for pregnant women | 905,939 | 1,171,043 | 1,277,151 |
| Complicated pregnancy or post-delivery | 160,993 | 179,747 | 188,428 |
| Post-delivery attentions | 294,221 | 304,296 | 310,590 |

Source: SIS

Even though the delivery attentions have drop since 2005, the number of cesarean sections has increased importantly, as well as the number of prenatal attentions and the provision of iron for pregnant women. This is probably showing that the maternal care has become more complete in a sense that it attends women not only during delivery but during the entire process of pregnancy, delivery and post-delivery. Prenatal checkups could be more important now because of the Juntos program, the government’s conditional cash transfer program, has the attendance to these checkups as mandatory to receive the benefits of the program. Juntos started in 2006.

1. Supply RESOURCES

To analyze the availability of MINSA´s infrastructure specialized in maternal care, Table 18 presents the latest FON evaluation. FON stands for Obstetrical and Neonatal Functions (Funciones Obstétricas y Neonatales in Spanish). MINSA performs evaluations of the capacity of resolution for establishments with FON since 2007 (authorized to perform obstetric and neonatal interventions).

There are four types of FON according to their level of complexity, from the simpler to the most complex one: Primary Obstetrical and Neonatal Functions (FONP), Basic Obstetrical and Neonatal Functions (FONB), Essential Obstetrical and Neonatal Functions (FONE) and Intensive Obstetrical and Neonatal Functions (FONI)[[10]](#footnote-10).

Table 18 presents the results from the FON evaluation for Capacity of Resolution (CR) at a national level for all available MINSA’s Health Directions.

Table 18: Results from FON evaluation all available Health Directions 1/

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | | **2007** | **2008** | |
| *Total MINSA’s establishments* | | 6486 | | |
| *Number of evaluated establishments with FON* | *FONP* | 3611 | | 3773 |
| *FONB* | 455 | | 472 |
| *FONE* | 72 | | 85 |
| *FONI* | 1 | | 1 |
| *TOTAL* | 4139 | | 4331 |
| *Capacity of Resolution (CR)* | *CR larger than 80% for FONP* | 852 | | 955 |
| *CR larger than 80% for FONB* | 164 | | 187 |
| *CR larger than 80% for FONE* | 38 | | 49 |
| *CR larger than 80% for FONI* | 1 | | 1 |
| *CR larger than 80% for FON* | 1055 | | 1192 |
| *% of FON Health Establishments with adequate CR* | *FONP* |  | | 25.31 |
| *FONB* |  | | 39.62 |
| *FONE* |  | | 57.65 |
| *% of Health Establishments that applied FON evaluation* | | 63.80 | | 66.77 |
| *% of Health Establishments with more than 80% of CR* | | 25.50 | | 27.50 |
| *Percentage of Advance in FON Application* | | 2.98 | | |
| *Increment percentage of Health Establishment with adequate CR* | | 2.00 | | |

1/ Tumbes, Lima Norte and Ayacucho Health Directions didn’t present the information

Source: MINSA

At a national level, the percentage of health establishments with a CR for FON higher than 80% is 27.5%, which implies that almost three of every four health establishments that can, legally, attend deliveries, doesn’t have enough CR to do so[[11]](#footnote-11). This situation is predominant among the Primary FON establishments, which are the most numerous and, generally, the closest to poor people or those with limited access to more complex or alternative health institutional services.

These results show the deficient services and infrastructure supply Peruvian government has to offer in maternal care. Some improvements have been made in the last years, even from 2007 to 2008, when the proportions of establishments with an adequate CR increased 2 percentage points. However, more improvements should be performed if the National Sanitary Objectives and the Millennium Development Goals are to be fulfilled on time, so maternal and infant deaths can be significantly reduced.

In terms of human resources, two problems are important. The first one is the deficiencies in the number of professionals needed to fulfill the demand requirements. The second one is an allocation problem: there is a bad distribution of professionals and this is a management and a legal problem. At this point, the public sector laws regarding human resources, is inadequate. For instance, it is not possible to move professionals from one place (district or region) to another without professionals’ contentment.

## Performance Based Budget: Maternal and Neonatal Health

In 2008, one of the five budgetary programs created in the Performance Based Budget framework, was the Strategic Program of Maternal and Neonatal Health, which continues for 2009 and 2010. This strategic program received 361’623,892 nuevos soles in 2008, which represents 0.5% of Peruvian Government Budget and 4% of the budget for the Ministry of Health for that year. This budget was distributed among the Ministry of Health (34%), the Integral Health Insurance (23%) and the regional authorities to perform specific activities to accomplish the goals stated above (43%). The activities of the program include broadening the attention of deliveries in institutional establishments, improvements in hemotherapy, increase childbearing women affiliated to SIS and the elaboration of technical guides in maternal and neonatal attention.

The Strategic Program of Maternal and Neonatal Health (PSMN) seeks to improve women and children’s health. The principal interventions of this program focus in three different moments of life cycle[[12]](#footnote-12):

Before pregnancy: The program looks to increase the population with knowledge in sexual and reproductive health, and that have access to birth control methods through:

* Setting up healthy town councils, communities, schools and families that stimulate sexual and reproductive health.
* Increasing the availability and access to sexual and reproductive health counseling, and to birth control methods.

During pregnancy and labor: The program seeks to reduce maternal mortality and morbidity through:

* Increase the access to quality prenatal services for pregnant women. These include the diagnose and appropriate treatment for the complications that appear during pregnancy, like anemia, sexually transmitted diseases, and urinal infections.
* Increase the proportion of deliveries in qualified health establishments.
* Increase the access to establishments with the right capacity to solve basic, essential and intensives obstetric emergencies.
* Raise the access to the net of hemotherapy centers.
* Strengthen the reference system concerned with its organization, operations and financing.

During neonatal period (the first 28 days of the newborn): The program looks to reduce neonatal mortality and morbidity through:

* Increase the proportion of deliveries in qualifies health establishments.
* Increase the access to establishments with the adequate capacity to solve basic, essential and intensive neonatal emergencies.

### Goals

The four principal goals of this program are (see Table 19):

***Conduction of the management of the strategy***

This objective can be considered as the link between the government and society. As long as the program is moving forward, the information of the respective progress must be available to the population. For this program, the information is been gather in three different ways: reports of the responsible institutions for the execution of activities and services related to the advances and problems that are facing up for the program implementation, reports of the MEF related to the budget implementation and the accomplishment of the specific goals established in the strategic program, and reports of the effectiveness performance of the local services in the chosen territories.

***Population with knowledge on sexual and reproductive health, and with access to birth control methods***

The ENDES 2000 reported that in Peru:

* Almost all the women know or have heard about at least one birth control method, being the most known the pill (95%) and the injection (96%).
* The lowest percentages of users of birth control methods are located in rural areas, in the departments of Huancavelica and Ayacucho, where hardly half of the women use a birth control method.
* One of every ten women has a necessity of knowledge about birth control methods. The mayor part of the necessity refers in order to limit the family size, the one that is more frequent in rural areas (15%).

***Reduction of maternal mortality and morbidity***

Peruvian Government has prioritize institutional birth when considered reducing maternal mortality as the first National Sanitary Objective in its National Coordinated Health Plan (2007-2020), with the specific goals of reducing teenage pregnancy; complications during pregnancy, delivery and post delivery; and broadening access to different birth control methods.

***Reduction of neonatal mortality and morbidity[[13]](#footnote-13)***

According to data from MEF, the neonatal mortality rate (produced in the first month of life) is 10.6 per a thousand live births for the urban areas and 18.7 for the rural areas. The MEF and MINSA have proposed to take as indicators the neonatal mortality rate per thousand of live births and the institutional birth coverage in pregnancy women from rural areas.

Table 19: Main goals of the Maternal and Neonatal Health Program

 Source: MEF

Because of the importance of the PSMN and the institutional deliveries, a PBA and a BIA will be conducted to complement the ones for the public health sector. The PBA regards to the PSMN’s budget facts related to the goal of “reduction of maternal mortality and morbidity”. The BIA will specifically consider the input of “pregnant women have access to qualified delivery attention and normal and complicated puerperium services according to capacity of resolution”.

The indicators considered are:

1. Proportion of attended deliveries in health establishments that fulfill obstetric and neonatal functions, and
2. Proportion of complicated deliveries attended in health establishments that fulfill obstetric and neonatal functions.

# Program budgeting analysis

## Analysis of Health Sector Budget (2006-2009)

After the health expenditure slowdown experienced at the end of the eighties (which went from 4.5% of GDP between 1980-1983 to 3.1% in 1990), a gradual recovery of the health expenditure level began, reaching the 4.5% of GDP in 2005[[14]](#footnote-14), or approximately US$ 3.500 million[[15]](#footnote-15). The percentage of this expense is still below the Latin-American average (around the 8%) and is not enough considering the size of the economy and the necessities for medical care that the country is facing up.

We present in Table 20 results from National Accountings of Health (MINSA & CIES, 2008) for the period 1995-2005. The public expenditure in health services grew 115.6%. This increase must be analyzed in terms of the GDP and of the purchasing capacity per capita of health services.

Table 20: Main indicators of health expenditure, 1995-2005



Source: MINSA/CIES, 2008

Expressed in terms of GDP, we can appreciate an upward trend in the middle of the period, explained by the lower growth in real GDP; afterwards, this trend decreases as the real GDP increases, obtaining at the end of the period almost the same results from the beginning: 4.48% in 1995; 4,46% in 2005.

In real terms, compared with the beginning of the period, the expenditure per capita in health services didn’t raise. That was mostly attributed to the rise of the Health Price Index and the growth population (14.5%). If we compare the prices evolution during the period, the Healthcare Price Index growth nearly doubled (86.1%) the general price increase growth (48.2%), expressed by the Consumer Price Index (IPC).

For the period 2006-2009 there is no information on general health national accounting (as MINSA & CIES present for the period 1995-2005). We analyze the budget based on information from SIAF. More specifically, budgeting information has been retrieved from the Peruvian MEF; from the online program managed by SIAF (Financial Administration Integrated System). We used SIAF’s database for the specific Health Sector.

## Methodology and assumptions

To classify the different types of government intervention we chose the Budget Programs. To differentiate the level of facilities, we used the type of Executing Unit. The Executing Units of the Public Health Sector are the same ones located under the MINSA in Graphic 1. This analysis allows differentiating the ends of the expenditure by level of complexity of the establishments and institutions that execute it.

We consider the following budget programs as part of the Public Health Sector:

* Collective Health: defined as actions oriented to health promotion and risk prevention for the population. Among the main categories within this group are: Training of human resources (32% of Collective Health expenditure in 2008), Control of health risks and damages (26%) and sanitary regulation and control (15%).
* Individual Health: actions oriented to individual health recovery and rehabilitation. Within this group of expenditure, Specialized and Basic Medical Attention are, by far, the main categories (41% and 43% respectively, of the total of Individual Health for 2008).
* Other expenditure: includes the programs referred to the expenses to sustain the public health administration. The main source of expenditure is the Administration Program, with 93% of this category. It also includes Government Planning (Superior Supervision and Coordination, and Internal Control) and Science and Technology (Research and Development financed by MINSA; 0.7% of the other expenditure).

For each program, we classify the type of establishment and institution where the expenditure is destined:

* Health Center and Dispensary: which are proxies of first and second level of attention; the non complex interventions.
* Hospitals: includes Institutes. It includes the more complex level of intervention (these establishments are specialized and have more resolutive capacity)
* OPDs (Decentralized Public Organisms): we include the Superintendence of Health Providers Entities (EPS), Integrated Health Insurance (SIS, representing 87% of the OPDs budget for 2008), Human Resources Development Institute and National Health Institute.
* Ministerial Administration: includes MINSA’s administration expenditures in its Head Office in Lima and PARSALUD’s budget[[16]](#footnote-16).

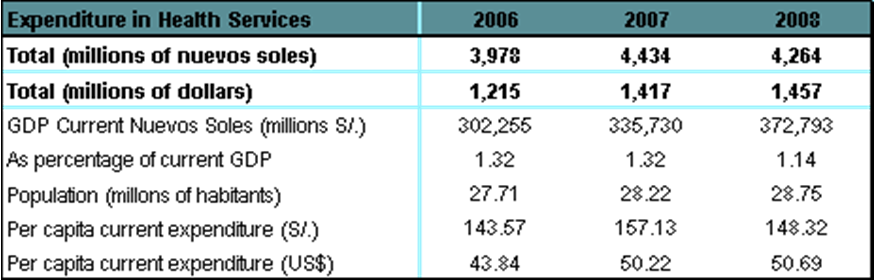
For the Health Public sector we only consider the Ministry’s expenses. The analysis doesn’t include EsSalud, which is an important part of the health expenses but is not considered in the Public Budget (as it’s financed entirely by directly collected resources). We also left out Armed and Police Forces health expenses and the expenditure that public universities execute in health (as support to their students).

On the other hand, we consider the Non Personal Services as part of wages (originally in Goods and Services).

## Tables for Program Budgeting Analysis

Table 21 shows the main health expenditure indicators for the period 2006-2008. Since it has been constructed considering only MINSA´s expenditure, it is not comparable with Table 20.

Table 21: Principal indicators of health expenditure, 2006-2008



Source: INEI, SIAF

MINSA’s health expenditure for the period 2006-2008 doesn’t present a positive trend in its growth rate; on the contrary, expenditure falls in 2008. The per capita expenditure was 50 dollars. However, it is important to realize that Table 21 doesn’t include EsSalud or private expenditure. EsSalud alone represents a higher number than MINSA’s total expenditure (for 2006, EsSalud executed 4,191 millions of Nuevos Soles). However information regarding EsSalud expenditure isn’t up to date.

Table 22 presents the public health budget as a percentage of the total public budget. The proportion of expenditure in health is low. As a fact, developed countries spend around 10%-14% of the total government expenditure in health.

Regional governments are beginning to execute directly increasing proportions of resources from the Public Treasury, keeping their execution autonomy regard to MINSA, because the MEF deliveries directly to them. This is an important result of decentralization, which has consequences in the MINSA directorate and shows the need of a more coordinated roll between MINSA and MEF.

**Table 22: Public Health Budget as a percentage of the Total Public Budget**

**(Millions of Nuevos Soles)**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **2004** | **2005** | **2006** | **2007** | **2008\*** |
| General Public Budget | **44,113** | **44,728** | **50,692** | **61,627** | **71,657** |
| Health Budget | **3,215** | **3,338** | **3,763** | **4,078** | **4,264** |
| % of the General Public Budget | **7.3** | **7.5** | **7.5** | **6.6** | **5.9** |
| Health Ministry Budget | **2,041** | **2,226** | **2,448** | **2,665** | **2,348** |
| % of the General Public Budget | **4.6** | **5.0** | **4.8** | **4.3** | **3.3** |
| Regional Governments-Health Budget | **1,174** | **1,112** | **1,335** | **1,413** | **1,916** |
| % of the General Public Budget | **2.7** | **2.5** | **2.7** | **2.3** | **2.7** |

Source: Developed by O. Ugarte with MEF y MINSA data, Institutional Opening Budget 2008. Includes updates based on the executed expenditure.

But, in spite of MINSA financing reduction to the regions, an important level of atomization of the MINSA remittances still remains. These should be organized and gather according to functions, which will permit to improve the negotiation capacity of a budget expansion. More specifically, one of the objectives that haven’t been reached yet is the integral restructuration of the administrative and operative systems of MINSA.

On the other hand, a general concern relates to the region´s capacity of execution in health. Poorest regions might have a lower capacity of execution. Also, the capacity of the regions to transfer their own incomes coming from mining or agricultural projects depends mostly on the development conception of the regional president and of its environment.

**Some general comments on the public health budget[[17]](#footnote-17):**

* The financing of the public sector has been historically established by the MEF. In the last years, public health expenditure has maintained slightly above 1% and the total GDP and around 5% of the government total expenditure. In the year 2004, 86% of health expenditure made by the MINSA was financed with resources from the Public Treasury, while 14% was financed with resources raised directly. In 2008, 12% of MINSA expenditures were financed by households.
* The organizational structure is not well related with the budget structure. The planning ends up being adjusted to the budget`s logic, meaning, by executing units[[18]](#footnote-18), and not the other way around. For example, a DISA has the same budget level than a hospital, when the second one depends on the DISA in terms of organization[[19]](#footnote-19). It also makes it difficult to track the health expenditures in regional governments because the executing units are the Regional Government’s Head Office and the Regional Government’s Health Office; both of them assign a budget to DIRESAs and hospitals. In the end, it could be that the resources don’t make it to the health establishments, or dilutes in the way.
* MINSA can’t identify the expenditure made in specific items that allow the estimation of the performance of basic functions of production. The management of the Integrated and Financial Administration System (SIAF) allows getting information up to the level of activity or project, which is not always detailed and doesn’t show clearly in what was the spend made. One problem that is detected is that the items in the SIAF, in spite they are supposed to be standardized, are mostly discretionary, especially for the Regional Governments.
* Even though the human resource is one of the strategic resources for health assistance, their performance relies on the availability and quality of other inputs (mainly medicine and medical inputs) and the infrastructure. Given the union movements and some inflexibility in the growth of public health expenditure, the budget allocation has changed its composition, increasing the human resource participation, gathering 60% of the total health expenditure in the regions. It is also important to point out that the regulation for the public sector does not leave margin to a good management of human resources. The DL 276 does not allow, for example, to transfer labor without consent of the worker, does not allow to reduce work positions in one place to increase it in another, and the process to penalize bad practices are extremely complicated. That is why a Development Plan in Human Resources is required, in order to establish what type of specialist are required and where.

Table 23 present Health Expenditures divided in Recurrent and Capital expenditures. For recurrent expenditures, we divide the resources to finance wages and to finance non wages (mostly goods). For capital expenditures, we consider:

* Domestic: resources assigned from the Public Treasury.
* DCR (Directly Collected Resources): household financing.
* Loans: external and internal loans.
* Donor: international and national sources. It also includes transfers from one executing unit to another (don’t imply a consideration in return).
* DR (Determined Resources): Mining Canon and special fees (i.e. from customs in harbor regions).

Table 23: Recurrent and capital spending, amount in real Nuevos Soles (2006=100): Health

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **HEALTH** | **2006 (Amount)** | **2006 (%)** | **2007 (Amount)** | **2007 (%)** | **2008 (Amount)** | **2008 (%)** | **2009 (Budgeted Amount)** | **2009 (%)** |
| **TOTAL** | **3,977,774,324** | **100%** | **4,266,627,328** | **100%** | **3,846,609,377** | **100%** | **4,515,021,912** | **100%** |
| ***Recurrent*** | ***3,698,635,537*** | ***93%*** | ***3,806,228,133*** | ***89%*** | ***3,389,235,895*** | ***88%*** | ***3,949,869,897*** | ***87%*** |
| Wages | 2,296,545,402 | 62% | 2,287,630,068 | 60% | 2,057,727,952 | 61% | 2,275,599,026 | 58% |
| Non-Wages | 1,402,090,135 | 38% | 1,518,598,064 | 40% | 1,331,507,942 | 39% | 1,674,270,871 | 42% |
| ***Capital*** | ***279,138,787*** | ***7%*** | ***460,399,195*** | ***11%*** | ***457,373,482*** | ***12%*** | ***565,152,015*** | ***13%*** |
| Domestic | 113,077,926 | 41% | 363,454,732 | 79% | 294,614,100 | 64% | 413,938,378 | 73% |
| DCR | 41,068,016 | 15% | 23,565,043 | 5% | 17,728,878 | 4% | 58,620,827 | 10% |
| Loans | 31,009,337 | 11% | 3,841,166 | 1% | 0 | 0% | 0 | 0% |
| Donor | 36,669,909 | 13% | 34,275,648 | 7% | 41,724,450 | 9% | 0 | 0% |
| DR | 57,313,599 | 21% | 35,262,606 | 8% | 103,306,055 | 23% | 92,592,810 | 16% |

Source: SIAF

* Health expenditure rose in 2007, but fell in 2008. The budget for 2009, however, shows a significant raise. Almost 90% of the resources concentrate in recurrent expenditures. Most of it finances wages (60%). The proportion seems to be slightly reducing through the years while investment and other capital expenses are increasing slowly in importance. However, given the little investment in infrastructure and equipment in the last decades, this raise seems insufficient. In fact, the infrastructure is old and insufficient (places for physic medical centers are not well preserved, the installations of water and drain networks are deficient, the medical residues don’t receive the right treatment, among others). At the same time, the equipment is old and insufficient (59% is operative, from which the 33% operates but requires to be replace and the 8% must be repaired). A National Plan of Investment and Maintenance is required for infrastructure and equipment, requiring a coordinated plan between the central government and the regions. Capital expenditure should tend to double in importance in the health budget.

Table 24 presents the expenditure organized by programs.

Table 24: Health expenditures by expenditure program, amount in real Nuevos Soles (2006=100)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **HEALTH** | **2006 (Amount)** | **2006 (%)** | **2007 (Amount)** | **2007 (%)** | **2007 (Amount)** | **2008 (%)** | **2007 (Budgeted Amount)** | **2009 (%)** |
| **Collective Health** | **376,779,253** | **9%** | **503,199,954** | **12%** | **469,536,699** | **12%** | **490,056,681** | **11%** |
| ***Recurrent*** | 359,700,986 | ***95%*** | 439,544,309 | ***87%*** | 437,473,297 | ***93%*** | 466,226,426 | ***95%*** |
| Wages | 219,701,743 | 61% | 272,175,047 | 62% | 276,007,022 | 63% | 165,469,859 | 35% |
| Non-Wages | 139,999,242 | 39% | 167,369,262 | 38% | 161,466,275 | 37% | 300,756,567 | 65% |
| ***Capital*** | 17,078,267 | ***5%*** | 63,655,645 | ***13%*** | 32,063,402 | ***7%*** | 23,830,255 | ***5%*** |
| Domestic | 5,491,561 | 32% | 48,928,275 | 77% | 13,034,816 | 41% | 10,286,117 | 43% |
| DCR | 8,169,101 | 48% | 584,985 | 1% | 1,875,243 | 6% | 4,893,745 | 21% |
| Loans | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| Donor | 2,799,869 | 16% | 11,226,738 | 18% | 14,888,661 | 46% | 0 | 0% |
| DR | 617,737 | 4% | 2,915,648 | 5% | 2,264,683 | 7% | 8,650,393 | 36% |
| **Individual Health** | **3,068,720,100** | **77%** | **3,236,093,094** | **76%** | **2,880,853,578** | **75%** | **3,363,501,218** | **74%** |
| ***Recurrent*** | 2,822,301,866 | ***92%*** | 2,850,356,749 | ***88%*** | 2,469,470,915 | ***86%*** | 2,855,231,227 | ***85%*** |
| Wages | 1,704,206,615 | 60% | 1,638,788,562 | 57% | 1,425,570,717 | 58% | 1,633,124,088 | 57% |
| Non-Wages | 1,118,095,252 | 40% | 1,211,568,187 | 43% | 1,043,900,198 | 42% | 1,222,107,140 | 43% |
| ***Capital*** | 246,418,234 | ***8%*** | 385,736,345 | ***12%*** | 411,382,664 | ***14%*** | 508,269,990 | ***15%*** |
| Domestic | 102,081,452 | 41% | 308,147,014 | 80% | 273,072,754 | 66% | 391,973,510 | 77% |
| DCR | 22,808,154 | 9% | 18,803,712 | 5% | 12,551,583 | 3% | 32,465,910 | 6% |
| Loans | 31,009,337 | 13% | 3,841,166 | 1% | 0 | 0% | 0 | 0% |
| Donor | 33,847,929 | 14% | 22,660,538 | 6% | 26,589,577 | 6% | 0 | 0% |
| DR | 56,671,362 | 23% | 32,283,915 | 8% | 99,168,750 | 24% | 83,830,570 | 16% |
| **Other Expenditure\*** | **532,274,970** | **13%** | **527,334,280** | **12%** | **496,219,100** | **13%** | **661,464,013** | **15%** |
| ***Recurrent*** | 516,632,685 | ***97%*** | 516,327,075 | ***98%*** | 482,291,683 | ***97%*** | 628,412,244 | ***95%*** |
| Wages | 372,637,044 | 72% | 376,666,459 | 73% | 356,150,213 | 74% | 477,005,079 | 76% |
| Non-Wages | 143,995,641 | 28% | 139,660,616 | 27% | 126,141,470 | 26% | 151,407,164 | 24% |
| ***Capital*** | 15,642,285 | ***3%*** | 11,007,205 | ***2%*** | 13,927,417 | ***3%*** | 33,051,770 | ***5%*** |
| Domestic | 5,504,914 | 35% | 6,379,443 | 58% | 8,506,530 | 61% | 11,678,751 | 35% |
| DCR | 10,090,760 | 65% | 4,176,346 | 38% | 3,302,052 | 24% | 21,261,172 | 64% |
| Loans | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| Donor | 22,111 | 0% | 388,373 | 4% | 246,213 | 2% | 0 | 0% |
| DR | 24,500 | 0% | 63,043 | 1% | 1,872,622 | 13% | 111,846 | 0% |
| **TOTAL EXPENDITURE** | **3,977,774,324** | **100%** | **4,266,627,328** | **100%** | **3,846,609,377** | **100%** | **4,515,021,912** | **100%** |

Source: SIAF

Most part of the expenditure concentrates in the Individual Health program (74.5% in 2008), which represents all attentions in hospitals, health centers and posts, both basic and specialized attentions. The relative importance of collective health (the program that includes collective preventive actions) appears to be low. However, since 2007 the importance of Collective Health is raising, not only in the budget but also in the sector’s planning. The inclusion of performance based budget programs that encourage collective actions to improve health, as well as the modification of SIS tariffs to favor prevention[[20]](#footnote-20) imply more importance (and more future budget) in collective health. Collective Health goals are preventing and controlling possible threats to public health, give advice and information to families, schools and communities to improve members’ health. Given these goals, MINSA´s officers estimate an increase in collective health budget until it reaches 25% of the total public sector budget.

Although individual health is the main program, capital expenditure in this category is significantly low. As suggested before, Peruvian government has not being investing enough in capital during the last decades. Thus, the capital expenditure needed to close the infrastructure and equipment gap is higher.

In Table 25, expenditures by program and health facility type are listed for 2008. Hospitals execute, in general, more resources than any other type of facility; in second place, and not far away, come health centers, hospital of minor complexity and health posts. According to ENAHO 2008, 20% of people who were attended in MINSA establishments did it in hospitals. However, hospitals have more expensive costs of attention because of its higher administrative and infrastructure costs. Additionally, hospitals do attend more complex health problems, which are more expensive to cure.

Table 25: Health expenditure by type of establishment and budget program, amount in current Nuevos Soles, 2008

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Health** | **Collective Health (Amount)** | **Collective Health (%)** | **Individual Health (Amount)** | **Individual Health (%)** | **Other Expenditure\* (Amount)** | **Other Expenditure\* (%)** | **TOTAL (Amount)** | **TOTAL (%)** |
| **TOTAL** | **520,430,185** | **100%** | **3,193,111,770** | **100%** | **550,004,714** | **100%** | **4,263,546,668** | **100%** |
| **Health Center/Dispensary** | 149,963,173 | 29% | 1,114,152,182 | 35% | 243,950,131 | 44% | 1,508,065,486 | 35% |
| **Hospital** | 28,474,946 | 5% | 1,432,908,418 | 45% | 200,591,341 | 36% | 1,661,974,704 | 39% |
| **OPDs** | 43,932,940 | 8% | 264,354,059 | 8% | 32,191,151 | 6% | 340,478,149 | 8% |
| **Ministerial Administration** | 291,151,646 | 56% | 131,732,381 | 4% | 73,272,091 | 13% | 496,156,118 | 12% |
| **Regional Government** | 6,907,480 | 1% | 249,964,730 | 8% | 0 | 0% | 256,872,210 | 6% |

Source: SIAF

In the case of OPDs, SIS takes the bigger part, 87%, which means that around 7% of the total health expenditure goes to SIS. This proportion, given the objectives of SIS and its broad coverage, is still low and should be at least 10% in order to secure enough financing to all SIS insured.

## Tables of Health Services Financing

Table 26 shows the health assistance financing structure for the period 1995-2005. Households continue to represent the principal source of financing health services. Nevertheless, along the period, the financing made by the Government with the public treasury resources shows an important increase (from 25.2% to 30.7%). Meanwhile, the households financing share had decreased from 45.8% to 34.2%. In the last years, this effect could be related to the SIS program.

Table 26: Health assistance financing structure, 1995-2005 (Percentages)

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Agents** | **1995** | **1996** | **1997** | **1998** | **1999** | **2000** | **2002** | **2003** | **2004** | **2005** |
| Government | 25.2 | 26.0 | 23.1 | 24.3 | 24.3 | 24.1 | 28.1 | 28.7 | 28.9 | 30.7 |
| External Aid Workers | 1.4 | 1.1 | 1.2 | 1.2 | 1.3 | 1.1 | 0.9 | 2.1 | 2.8 | 2.6 |
| Internal donations | 0.7 | 0.7 | 0.6 | 0.7 | 0.8 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 |
| Households | 45.80 | 39.90 | 40.10 | 37.70 | 38.50 | 37.90 | 38.40 | 35.90 | 35.50 | 34.20 |
| Employers | 25.60 | 29.70 | 32.40 | 31.80 | 32.40 | 35.00 | 30.90 | 31.80 | 30.90 | 30.50 |
| Others | 1.30 | 2.60 | 2.60 | 4.30 | 2.90 | 1.90 | 0.90 | 0.80 | 1.10 | 1.30 |
| Total | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| Total Millions of Nuevos Soles | 5,917 | 6,799 | 7,803 | 8,444 | 8,851 | 10,122 | 10,332 | 11,243 | 12,195 | 12,195 |
| Total Millions of Nuevos Soles of 1995 | 5,917 | 5,992 | 6,096 | 6,070 | 5,800 | 5,720 | 5,619 | 5,973 | 6,371 | 6,371 |
| Total Millions of American Dollars | 2,627 | 2,776 | 2,933 | 2,886 | 2,618 | 2,885 | 2,977 | 3,301 | 3,708 | 3,708 |

Source: MINSA/CIES, 2008

Now, about the households’ expenses, 45% is made in the purchase of medicine bought in a direct way, in pharmacies and drugstores. The important expenditure in medicine stands out, because the households don’t only acquired them in pharmacies and drugstores, but also within the public and private services, so the total expense in medicine, according to ENAHO 2008, reaches the 82% of household health expenditures. Just the 5% of the expenditure is assigned to several modes of insurance in health (Table 27).

**Table 27: Destiny of household funding, 2005 (in percentages)**

|  |  |
| --- | --- |
| Directly in pharmacies | 45,1 |
| Private suppliers | 37,9 |
| Public suppliers | 12,0 |
| Acquisition of private insurances | 2,1 |
| EPS (private suppliers) | 1,9 |
| Esalud contributions | 1,0 |
| **Total** | **100%** |
| **Total (millions of Nuevos Soles)** | **3430** |
| **Total (millons of dollars)** | **985** |

Fuente: MINSA-OPS/OMS Perú

Table 28 shows the sources of spending of the health sector by MINSA. 77% of the expenditure is done with resources assigned from the Public Treasury. Household expenditure is lower, around 12%. However, these figures do not include private and EsSalud health services expenditure. Thus, Table 28 is not comparable with the previous Table 27.

Table 28: Sources of spending of the Health Sector

|  |  |  |
| --- | --- | --- |
| **HEALTH** | **Expenditures (amount)** | **Percent of Sector Expenses** |
|
| **TOTAL** | **4,263,546,668** | **100** |
| Domestic | 3,292,185,258 | 77.2 |
| Household | 498,590,807 | 11.7 |
| Donor | 354,650,934 | 8.3 |
| Mining Canon and similar | 118,119,669 | 2.8 |

Source: SIAF

Cotlear (2006) argue that even within MINSA´s establishments, the relative importance of household financing varies. For instance, the budget of the hospitals from Lima strongly depend on the resources gather by the tariffs, which on average represent 25% of their income. There are, however, extreme cases, like the specialized institutions and larger hospitals, where the directly collected resources reached more than 60% of their incomes.

# Benefit incidence analysis

## Unitary Subsidy

An important measure of how public spending effectively gets to each individual is the amount of the subsidy per user of the public system. This is a way of determining how much the government contributes to household spending in health and if the distribution is even among different expenditure quintiles and facility’s levels. Through the Benefit Incidence Analysis it is possible to approximate how the expenditure of the government benefices certain groups.

### Methodology and Assumptions

In order to calculate the subsidy per user, we used two procedures:

* + - 1. From the Health Information System (HIS) we have the number of attended individuals and hospital discharges for MINSA establishments divided in three categories, related to the attention level of complexity: hospitals, health centers and health posts. We added hospital discharges to the number of attended individuals to have the total number of individuals attended by MINSA. Given the available data, we assume the same per-user subsidy for a hospital discharge than for other consults at a hospital.

With SIAF information we have MINSA’s budget by type of executing unit. For hospital subsidy, the expenditure of hospitals that are executing units (higher level of complexity) is used. For health centers and posts subsidy, we use the Regional Directorates (which are executing units) to approximate the expenditure in these facilities.

All other public health expenditures (administrative MINSA, SIS, regional governments) are distributed following the same proportion of the expenditure, by type of health facility. Thus, if hospitals expenditure is three times the other level facilities’ expenditure (lesser level of complexity), then the rest of the public budget is distributed among these two categories following the three to one ratio.

* + - 1. In order to calculate subsidies by income level, we use Peruvian Household Survey -ENAHO. In the health module, individuals are asked about the type of health facility they were attended at for their last injury or disease. Using this information it is possible to approximate how many of the attentions in each health facility are given to individuals of each income quintile. Quintiles were constructed using data from the household expending provided in the ENAHO. ENAHO provides information on both households’ total yearly income and expenditure; the quintiles were constructed using expenditure instead of income because the methodology that ENAHO uses to estimate expenditure is similar to the one it uses to estimate expenditure in Health. This methodology assumes that individuals from different wealth quintiles receive attention at a health facility with the same frequency. In addition, it is assumed that individuals from different quintiles receive the same subsidy in each attention.

Alternatively, the ENAHO also asks the individuals how much did their last attention cost, or when they did not pay for it directly, how much they think it would have cost. With this information and information regarding who provides the financing, we estimate the subsidy by income quintile for the SIS.

An important assumption made in these estimations is considering that the amount declared by individuals on how much they think the service would have cost them, is a good estimation of how much the service actually costs.

### Subsidies per user

Table 29 presents estimated per user subsidy using the HIS data. We included budget from hospitals, regional directorates (DISAs) and SIS. These three categories are the more accurately assigned to each level of attentions: hospitals, and first and second level of complexity. Hospitals meant 25% of the total attentions and get 48% of total expenditure. Per user subsidy is 2.7 times larger in hospitals than in less complex establishments. However, hospitals have more expensive costs of attention because of its higher administrative and infrastructure costs. Additionally, hospitals do attend more complex health problems, which are more expensive to cure.

**Table 29:** **Per user subsidy (Hospitals, regional directorates and SIS) by facility level, 2008**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Unit Subsidy (in Nuevos Soles) | Attended | Budget (in Nuevos Soles) |
| Hospital | 493.8 | 3,326,078 | 1,642,278,310 |
| First and Second Level | 183.5 | 9,861,384 | 1,809,884,938 |
| TOTAL | 261.8 | 13,187,462 | 3,452,163,248 |

Sources: HIS and SIAF

Table 30 shows the same subsidy per user but including all MINSA budget; thus, including administrative costs, regional government and the other OPD’s expenditure, distributed as stated before.

**Table 30: Per user subsidy (Hospitals, regional directorates, OPDs, regional government and administrative expenditure) by facility level, 2008**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Unit Subsidy | Attended | Budget (in Nuevos Soles) |
| Hospital | 609.8 | 3,326,078 | 2,028,273,206 |
| First and Second Level | 226.7 | 9,861,384 | 2,235,273,462 |
| TOTAL | 323.3 | 13,187,462 | 4,263,546,668 |

Sources: HIS and SIAF

The number of attentions (including hospital discharges) sums up to over 13 million. The average subsidy is 323.3 Nuevos Soles (almost 110 dollars). While the subsidy for hospital attentions is 609.8 Nuevos Soles (almost 210 dollars), the health centers and posts subsidy is 226.7 Nuevos Soles (closer to 75 dollars) for attention.

Table 31 shows the distribution of attentions by expenditure quintiles. Table 32 shows the distribution of benefits by expenditure quintiles and facility levels.

**Table 31: Estimated health facility usage by expenditure quintile and facility, 2008**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Expenditure Quintile | | | | |
|  | 1  (lowest) | 2 | 3 | 4 | 5  (highest) |
| Hospital | 250,975 | 534,844 | 848,083 | 842,513 | 849,663 |
| First and Second Level | 2,994,396 | 2,751,181 | 2,042,421 | 1,452,805 | 671,342 |
| TOTAL | 3,195,371 | 3,286,025 | 2,890,504 | 2,294,557 | 1,521,005 |

Sources: HIS and SIAF

**Table 32: Distribution of benefits of health expenditure by expenditure quintiles and facility, 2008**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Expenditure Quintile | | | | |
|  | 1  (lowest) | 2 | 3 | 4 | 5  (highest) |
| Hospital | 7.55% | 16.08% | 25.50% | 25.33% | 25.55% |
| First and Second Level | 29.86% | 27.90% | 20.71% | 14.72% | 6.81% |
| TOTAL | 19.24% | 22.28% | 22.99% | 19.77% | 15.72% |

Sources: HIS and SIAF

Even though the number of attentions and the distribution of benefits appear to be regressive, meaning that poor population is benefiting more than the richer, Tables 31 and 32 show and important difference when consider hospital versus first and second level facilities. While the attentions and the amount spent are regressive in the simplest levels of attention, for hospitals the situation varies; the attentions and the distribution of benefits appear to be progressive. This is probably due to the fact that most hospitals are located in urban areas, while first and second level facilities are both in rural and urban areas. This difference implicates that hospitals are used by the much higher income inhabitants of the urban areas, and by contrast, health posts and centers attend the poorer population which lives in rural areas.

Table 33 presents the disaggregation by expenditure quintiles for the SIS insurance program.

**Table 33: SIS per user expenditure by expenditure** **quintiles in Nuevos Soles, 2008**

|  |  |  |
| --- | --- | --- |
|  | Per user expenditure | Estimated attentions |
| SIS | 175 | 5,800,831 |
| First Quintile | 108 | 2,412,514 |
| Second Quintile | 165 | 1,692,496 |
| Third Quintile | 211 | 1,030,379 |
| Fourth Quintile | 303 | 496,223 |
| Fifth Quintile | 640 | 169,219 |

Source: ENAHO

The SIS presents a regressive structure in the number of attentions according to Table 33. Attentions in the richer quintile (fifth quintile) however, receive a six times higher subsidy than attentions to households of the poorest quintile. To determine the nature of this higher subsidy the ENAHO data is disaggregated by health products and services in Table 34.

**Table 34: SIS per user expenditure by expenditure** **quintiles and usage in Nuevos Soles, 2008**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | **Expenditure Quintiles** | | | | |  |
| **1** | **2** | **3** | **4** | **5** | **Average** |
| **SIS (total)** | 108 | 165 | 211 | 303 | 640 | 175 |
| Consultations | 15.02 | 23.58 | 26.97 | 30.15 | 36.07 | 21.55 |
| Medicines | 29.81 | 46.22 | 54.52 | 83.41 | 163.80 | 47.48 |
| Analyses | 1.34 | 4.61 | 7.93 | 16.50 | 63.61 | 6.58 |
| X-rays | 0.48 | 0.96 | 1.91 | 13.52 | 28.78 | 2.82 |
| Other tests | 0.08 | 0.03 | 0.09 | 0.63 | 80.11 | 2.45 |
| Dental Services | 1.67 | 2.72 | 4.15 | 4.73 | 4.65 | 2.77 |
| Ophthalmological Services | 0.19 | 0.22 | 0.21 | 0.31 | 0.48 | 0.22 |
| Purchase of Glasses | 0.15 | 0.14 | 0.03 | 0.26 | 0 | 0.13 |
| Vaccines | 34.35 | 45.79 | 56.37 | 72.89 | 67.01 | 45.85 |
| Children Health Controls | 7.52 | 7.35 | 7.72 | 7.14 | 6.88 | 7.45 |
| Contraceptive | 3.58 | 5.65 | 6.63 | 6.93 | 15.41 | 5.36 |
| Other expending | 3.85 | 4.20 | 6.11 | 5.82 | 13.81 | 4.81 |
| Hospitalization and Surgeries | 5.71 | 19.03 | 28.89 | 52.14 | 145.50 | 21.76 |
| Prenatal controls | 1.65 | 1.55 | 3.22 | 3.51 | 2.95 | 2.09 |
| Delivery attention | 2.42 | 2.83 | 5.91 | 5.35 | 11.50 | 3.67 |

Table 34 shows that the most important differences between the richest and the poorest quintiles come from hospitalization and surgeries, medicines, analyses and other tests. Poor population with access to MINSA consults, do it mainly in the first level of attention (post and health centers), and demand simpler services.

Differences are supported by Table 35, where SIS expenditure is analyzed by area of residence. SIS´s subsidy is 1.05 times more in urban areas than in rural ones. It is important to note that many of the areas labeled urban are in fact urban marginal areas, which usually are located far from hospitals but near other heath facilities.

**Table 35: SIS and public donations per user expenditure by area of residence in Nuevos soles, 2008**

|  |  |  |
| --- | --- | --- |
|  | Per user expenditure | Estimated attentions |
| SIS | 175 | 5,800,831 |
| Urban | 133 | 2,576,423 |
| Rural | 126 | 3,224,408 |

Source: ENAHO, 2008

# Analysis of Maternal and Neonatal Health program

The neonatal mortality rate estimated using data from ENDES in the period 2000-2008, continues decreasing at the rate of one less death per year, estimating in ten deaths of newborns (with less than a month of life) per 10,000 live births. Meanwhile, the access of health services for pregnancy women continues increasing. According to ENDES 2008 (1st Quarter), almost 73% of pregnancy women received their first prenatal control during the first quarter of their pregnancy period, which shows an annual average increase of 1% compared to ENDES 2007. In terms of access to health services, 82% of pregnant women attend to six or more prenatal controls, 1.5% more than the one appreciate in ENDES 2007.

In this context, the Strategic Program of Maternal and Neonatal Health involve working with MINSA, SIS and regional governments. The specific goals are listed in Table 19. The budget was distributed among MINSA, SIS and the regional authorities, so they can perform their specific activities to accomplish their stated goals.

Ministry of Health: 135.1 millions of Nuevos Soles were assigned in 2008. Only 106.8 were effectively executed (80%). The purposes of this budget was to:

* Give access to qualify prenatal attention services and attended the complications implicated, through the assistance of 69,675 normal deliveries, 14,257 complicated deliveries, amongst others.
* Have a well informed population in sexual and reproductive matters, for which plan to work consensually with 81 town councils, 125 communities, 529 educative institutions and 5,084 families.

Integrated Health Insurance: In order to offer attention to 191,799 pregnant women, nationwide, 82.9 millions of Nuevos Soles were assigned to SIS in 2008 (however, by the end of the year, SIS had exceeded the original budget, spending 90.5 millions of Nuevos Soles). The program also planed to give assistance to 277,969 newborns with complications and to neonatal in emergency rooms.

Regional Authorities: In 2008 the total resources allocated to Regional Governments was 122.2 million; the executed amount was 162.5. 41 millions of Nuevos Soles were allocated in the construction and equipment of:

* Three “Centros Hemodadores Macroregionales” of the Hemotherapy National Network in Lima, La Libertad and Arequipa.
* Ten centers of hemotherapy and blood banks in the departments of Loreto, Madre de Dios, Ucayali, San Martin, Amazonas, Cusco, Junin and Ancash. There will be a mayor availability of safe blood for the assistance of labor nationwide with these establishments, reducing in this way the risk of the first cause of maternal death (hemorrhage).

## Program Budgeting Analysis: PSMN Program

Table 36 raises two important issues. First, there is no coherence between what was originally planned for 2008 and what was actually executed. The budget was expanded and yet the execution was even lower than what was originally planned, especially in capital components which brings out the poor efficacy of the government to actually carry out investment projects. Second, not only the efficacy to carry out investment projects is quite low, the budget destined to capital is, in general, small relative to the needs; given the infrastructure and equipment deficit.

The government has calculated the amount of investment needed to close the health infrastructure gap in at least the districts where the universal insurance is to be implemented: 178,337 thousand dollars are needed in a 10 year investment plan to improve existing and to build new health establishments.

Table 36: Maternal and Neonatal Program spending, real Nuevos Soles (2006=100)

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Health** | **2008 (budgeted) Amount** | **2008 (modified budget) - Amount** | **2008 (executed) - Amount** | **2008 (executed) - %** |  | **2009 (budgeted) Amount** | **2009 (modified budget) - Amount** | **2009 (modified budget) - %** |
| **PSMN TOTAL** | **307,288,967** | **386,821,530** | **325,782,980** | **100%** |  | **320,727,174** | **442,482,946** | **100%** |
| **Recurrent** | **274,245,643** | **354,506,593** | **318,000,815** | **98%** |  | **308,911,192** | **421,003,254** | **95%** |
| Wages | 140,927,136 | 166,628,273 | 161,415,516 | 51% |  | 163,423,528 | 206,833,546 | 49% |
| Non-Wages | 133,318,508 | 187,878,320 | 156,585,299 | 49% |  | 145,487,664 | 214,169,707 | 51% |
| **Capital** | **33,043,324** | **32,314,937** | **7,842,294** | **2%** |  | **11,815,981** | **21,479,693** | **5%** |
| Domestic | 31,727,903 | 26,346,188 | 4,618,194 | 59% |  | 10,956,188 | 20,025,894 | 93% |
| Donor | 0 | 4821896.5 | 3163971.42 | 40% |  | 0 | 329539.362 | 2% |
| RDR | 1,315,420 | 1,146,853 | 60,129 | 1% |  | 859,793 | 1,124,259 | 5% |

Source: SIAF

Table 37: Maternal and Neonatal Program Budget by Program, real Nuevos Soles amount (2006=100)

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **PSMN** | **2009 (budgeted)- Amount** | **2009 (budgeted)- %** | **2009 (modified budget)- Amount** | **2009 (modified budget) - %** |
| **Collective Health** | **10,147,631** | **100%** | **15,317,083** | **100%** |
| **Recurrent** | **10,133,339** | **100%** | **15,243,717** | **100%** |
| Wages | 7,285,144 | 72% | 10,923,590 | 72% |
| Non-Wages | 2,848,195 | 28% | 4,320,127 | 28% |
| **Capital** | **14,292** | **0%** | **73,367** | **0%** |
| Domestic | 14,292 | 100% | 9,814 | 13% |
| Donor | 0 | 0% | 63552.1247 | 87% |
| Loans | 0 | 0% | 0 | 0% |
| RDR | 107,193 | 750% | 107,193 | 146% |
| **Individual Health** | **299,594,566** | **100%** | **413,557,529** | **100%** |
| **Recurrent** | **288,663,169** | **96%** | **393,535,652** | **95%** |
| Wages | 150,661,918 | 52% | 189,684,091 | 48% |
| Non-Wages | 138,001,252 | 48% | 203,851,561 | 52% |
| **Capital** | **10,931,397** | **4%** | **20,021,877** | **5%** |
| Domestic | 10,931,397 | 100% | 15,315,116 | 76% |
| Donor | 0 | 0% | 4706760.85 | 24% |
| Loans | 0 | 0% | 0 | 0% |
| RDR | 681,138 | 6% | 631,931 | 3% |
| **Other Expenditure** | **10,196,645** | **100%** | **12,484,075** | **100%** |
| **Recurrent** | **10,114,684** | **99%** | **12,223,885** | **98%** |
| Wages | 5,476,466 | 54% | 6,225,866 | 51% |
| Non-Wages | 4,638,218 | 46% | 5,998,019 | 49% |
| **Capital** | **81,961** | **1%** | **260,190** | **2%** |
| Domestic | 10,499 | 13% | 21,665 | 8% |
| Donor | 0 | 0% | 238525.251 | 92% |
| Loans | 0 | 0% | 0 | 0% |
| RDR | 71,462 | 87% | 385,135 | 148% |

Source: SIAF

According to MEF, the Strategic Program of Maternal and Neonatal Health executed 67%, of its physical goals, a pretty low level of general advance, especially when compared to the 91% advance of the execution of the assigned budget. This implies that the money is being expended, yet the goals aren’t being completely accomplished.

Given that the program has been divided among its main components and each component has been assigned different goals, in Table 38 we present the budget execution for each main component. In general, as has been shown before, the budget was sub-executed.

Table 38: Modified and executed budget by component of the PSMN

|  |  |  |
| --- | --- | --- |
|  | **2008**  **Modified Budget** | **2008 Executed Budget** |
| Conduction of the Management of the strategy | 16,155,768 | 14,184,116 |
| Population with knowledge on sexual and reproductive health and that have access to birth control methods | 37,346,614 | 30,393,982 |
| Reduction of Maternal mortality and morbidity | 262,784,972 | 239,560,909 |
| Reduction of neonatal mortality and morbidity | 86,256,816 | 77,276,867 |
| TOTAL | 402,544,170 | 361,415,874 |

Source: SIAF

Table 39 shows execution and budget for 2008 just for deliveries and puerperal attentions, related to the indicators needed to accomplish the reduction of the maternal mortality and morbidity (see Table 19).

Table 39: Budget of the PSNM- Institutional deliveries and puerperal attention, 2008

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Health** | **PIA (Amount)** | **PIA (%)** | **PIM (Amount)** | **PIM (%)** | **Executed (Amount)** | **Executed (%)** |
| **PSMN** | **106,736,739** | **100%** | **151,475,172** | **100%** | **137,406,206** | **100%** |
| **Recurrent** | **104,993,487** | **98%** | **147,444,786** | **97%** | **134,587,012** | **98%** |
| Wages | 60,827,794 | 58% | 67,558,475 | 46% | 65,880,427 | 49% |
| Non-Wages | 44,165,693 | 42% | 79,886,311 | 54% | 68,706,585 | 51% |
| **Capital** | **1,743,252** | **2%** | **4,030,386** | **3%** | **2,819,194** | **2%** |
| Domestic | 926,753 | 53% | 1,715,607 | 43% | 1,583,734 | 56% |
| Donor | 0 | 0% | 1,500,067 | 37% | 1,189,075 | 42% |
| Loans | 0 | 0% | 0 | 0% | 0 | 0% |
| RDR | 816,499 | 47% | 814,713 | 20% | 46,385 | 2% |

Source: SIAF

The overall results indicate that, for this component of the program, execution is higher and it seems to be more correspondence among what was budgeted and what was executed. Deliveries imply around 42% of the total PSNM program, making it the most important single component. More specifically, as can be seen in Table 40, the physical goals execution for the subcomponents related to maternal attention is high. The bolded subcomponents are the ones related to deliveries.

Table 40: Physical goals and execution for each specific goal and modified and executed budget, 2008

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Goal of Reduction of Maternal Morbidity and Mortality** | **Physical goals** | **Executed goals** | **2008 Modified Budget** | **2008 Executed Budget** |
| Refocused Prenatal Attention | 3,285,148 | 1,554,877 | 44,962,894 | 40,775,956 |
| Attention of Pregnant women with Complications | 677,870 | 641,090 | 38,489,127 | 35,844,032 |
| 33295 Normal Delivery Attention | **525,753** | **545,925** | **73,696,668** | **67,432,891** |
| Non Chirurgical Attention of Delivery with Complications | **76,734** | **72,870** | **25,085,917** | **23,508,800** |
| Chirurgical Attention of Delivery with Complications | **112,138** | **129,681** | **40,613,941** | **36,811,186** |
| Puerperium Attention | 537,467 | 628,998 | 16,549,035 | 14,633,494 |
| Puerperium Attention with Complications | 39,924 | 22,653 | 6,590,445 | 5,799,257 |
| Obstetric Attention in the Intensive Care Unit | 7,386 | 1,578 | 5,357,690 | 4,684,919 |
| Pre-Investment in the Implementation of the Type I and Type II Hemotherapy Centers Network | 1,312 | 43 | 1,386,645 | 1,341,363 |
| Access to the Institutional Reference Center | 291,181 | 127,561 | 10,052,610 | 8,729,009 |
| **Total** | 5,554,913 | 3,725,275 | 262,784,972 | 239,560,909 |

Source: MEF

As can be seen in Table 40, most physical goals related to deliveries are being fulfilled and surpass goals. For example, normal delivery attentions’ goal was 525,753 deliveries, while by the end of 2008, 545,925 deliveries were actually attended. The program seems to have problems related to other ends, such as the low execution of prenatal checkups.

## benefit incidence Analysis: PSMN Program

We estimate the per user subsidy using two different procedures:

1. Using the accomplishment of physical goals and the execution of expenditure we obtain the number of deliveries conducted in the framework of the PSMN. With this information, we calculated the average user subsidy per intervention for different kinds of interventions. This information however, is not enough to classify subsidies by expenditure quintiles or health facility.

2. To calculate subsidies by income level, we use the ENAHO, in a similar way we used it for the per user health subsidy for the SIS. As in the Benefit Incidence Analysis for the sector, using survey data to estimate per user subsidy can lead to inaccuracies if the individuals have little information on the costs of health and even more if their misestimating is related to their expenditure quintile.

In Table 41 we present the PMNS subsidy for 2008 by types of delivery intervention: normal and complicated deliveries, with and without chirurgical interventions.

**Table 41: Per user expenditure for Maternal Neonatal Health Program, by type of delivery intervention, 2008**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **Number of Attentions** | **Executed Budget (Amount in nuevos soles)** | **Per user expenditure (Amount in nuevos soles)** |
| Normal Delivery Attentions | 545,925 | 67,432,891 | 123.52 |
| Non Chirurgical Complicated Delivery Attentions | 72,870 | 23,508,800 | 322.61 |
| Chirurgical Complicated Delivery Attentions | 129,681 | 36,811,186 | 283.86 |
| **TOTAL for all types of Deliveries** | **748,476** | **127,752,878** | **170.68** |

Source: MEF

On average, the program is subsidizing 170.68 nuevos soles per user (almost 60 dollars per user). In the case of complicated deliveries, the non chirurgical complications deliveries get a subsidy of 322 nuevos soles (more than 100 dollars) while the chirurgical complications get 283 nuevos soles (almost 95 dollars). There seems to be an inconsistency in the subsidy policy.

According to PEAS/PRAES information, a normal delivery should cost around 80 nuevos soles, significantly less than the actual subsidy of 123 nuevos soles. However, when more services are included, deliveries can cost up to 250 nuevos soles. A cesarean section should cost 182 nuevos soles while a complicated delivery, including all services, should cost up to 420 nuevos soles. This useful information should be considered by MINSA in order to reorganize their deliveries subsidy.

**Table 42: Per user expenditure for deliveries by expenditure quintile, 2008**

|  |  |  |
| --- | --- | --- |
|  | **Per user expenditure (in nuevos soles)** | **Estimated attentions** |
| **SIS** | **195** | **181,758** |
| First Quintile | 126 | 48,082 |
| Second Quintile | 157 | 55,037 |
| Third Quintile | 222 | 40,707 |
| Fourth Quintile | 246 | 30,905 |
| Fifth Quintile | 597 | 7,027 |

Source: ENAHO

Table 42 shows an average expenditure calculated with ENAHO of 195 nuevos soles. Table 42 also shows that the richest quintile’s subsidy is almost five times larger than the poorest quintile subsidy, maybe, again, because higher quintiles have access to more complex facilities and have access to better information. Regrettably, deliveries` data cannot be disaggregated any further to determine the reasons for this difference en unitary subsidy. The ENAHO is not a specialized health survey so information on the types of delivery is unavailable. Possible causes for this difference is the utilization of different facilities, a bias in estimation of costs by users of different quintiles or a mayor incidence of treatment for complicated deliveries in higher complexity facilities, capable of following this procedures.

In fact, institutional deliveries by wealth quintiles show significant differences between the richest and the poorest quintile. While in the poorest quintile, 34% have an institutional delivery, 98% have it in the richest quintile. Analysis distinguishing area of residence for deliveries stated that almost half of the women living in urban zones give birth in MINSA’s hospitals and only 7% do it in their own homes. In rural areas, only 1 of every 5 women gives birth in MINSA’s hospitals and half of them do so in their own homes. Correspondingly, one out of every ten women in rural areas attends to health posts for their deliveries, three times more than women in urban areas. Moreover, for institutional deliveries, rural women are more likely to be attended by a nurse or a health specialist, rather than a doctor or an obstetrician.

# Conclussions

* The economic growth in the past decades (5% average in the last 15 years; BCR) allowed important advances in the Peruvian health sector. Not only overall health indicators have improved but there is also progress related to health services and health insurance. However, two facts raise concerns about these improvements:

1. Despite the advances since 1985, there seems to be stagnation in some of the indicators, especially in terms of health services usage: In year 2008, of the 100% of population that considers the medical consult as necessarily, just the 31.7% managed to accomplish an institutional appointment. Even though this figure had clearly improved between 1985 and 2001, since 2001 the trend has been decreasing. The 16% limited to a non-institutional consult and the rest (53%) didn’t make any consult at all.
2. National averages hide important differences among regions and socioeconomic sectors. One of the most important differences is among rural and urban population. For instance, in institutional delivery rates, while 93% of deliveries are institutional in urban areas, only 55% are institutional in rural areas.

* The usage of health facilities varies greatly between expenditure quintiles. Individuals in richer quintiles are usually attended in higher complexity facilities and have generally better access than poorer individuals to medical consults. This is not only a supply problem. Table 5 shows that mistrust in doctors and usage of homemade remedies make people in the lower quintile less likely to demand an institutional consult.
* Peru still presents high indicators of health deficiency in comparison to other countries, in part due to the low budget assignation that the public health sector manages: 4’264 millions of nuevos soles in 2008, 5% of the Total Budget (SIAF) and 1% of national GDP. This fact restricts the necessary advances in effective coverage and, even more, limits the advance in reducing the gap between rural and urban areas.
* Even though health care requires government intervention in order to guarantee the population well being, in Peru, household financing of the medical services occupies the first position as financing source (37% in 2005). Households’ contribution is made, mainly, through pocket expenditure in a country where more than one third of the population is poor. This fact limits access to health services only to those who can afford it, while low income households have a higher risk of being excluded from access to these services.
* MINSA’s health expenditure for the period 2006-2008 doesn’t present a positive trend in the expenditure growth rate; on the contrary, expenditure falls in 2008. The per capita expenditure was 50 dollars for 2008.
* Insufficient budget is added to the inefficiencies that take place in the system. Some of the inefficiencies are:

1. The financing of the public sector has been historically established by the MEF. This institution allocates the resources following historical trends, even for the newly introduced programs of Performance Based Budget; there isn’t a correspondence between efficiency to execute the resources and assigned budget.
2. The organizational structure is not well related with the budget structure. The planning ends up being adjusted to the budget logical, meaning, by executing units, and not the other way round. It also makes difficult to track the health expenditures in regional governments because the executing units are the Regional Government’s Head Office and the Regional Government’s Health Office, both of them assign budget to DIRESAs and hospitals. In the end, it could be that the resources don’t make it to the health establishments, or dilutes in the way.
3. Even though the human resource is one of the strategic resources for health assistance, its good performance relies on the available and right inputs (mainly medicine and medical inputs) and infrastructure. Given the union movements and some inflexibility in the growth of public health expenditure, the human resource participation in the budget is 60% of the total health expenditure in the regions.

* When differentiated by expenditure programs, most of the health expenditure concentrates in the Individual Health program (74.5% in 2008), which represents all attentions in hospitals, health centers and posts, both basic and specialized attentions. Although individual health is the main program, capital expenditure in this category is very low.
* The relative importance of Collective Health appears to be low (12% in 2008). Collective Health goals are preventing and controlling possible threats to public health, give advice and information to families, schools and communities to improve their members’ health. Given these goals, MINSA´s officers estimate an increase in collective health until reach 25% of the total public sector budget.
* When reviewing budget by health facility, it results that hospitals execute, in general, more resources than any other type of facility; in second place, and not far away, come health centers, hospital of minor complexity and health posts. According to ENAHO, 20% of people who attend MINSA establishments do it in hospitals (approximately 610 thousands of individuals). However, hospitals have more expensive costs of attention because of its higher administrative and infrastructure costs. Additionally, hospitals do attend more complex health problems, which are more expensive to cure.
* Regional governments are beginning to execute directly increasing proportions of resources from the Public Treasury. This is an important result of decentralization that emphasizes the need of a more coordinated relation between the MINSA and MEF.
* To have a better understanding on how the public expenditure is reaching Peruvian population, we calculated unitary subsidies. Total attentions (including hospital discharges) sum up more than 13 million. The average subsidy is 323.3 Nuevos Soles (almost 110 dollars). While the subsidy for hospital attentions is 609.8 Nuevos Soles (almost 210 dollars), the health centers and posts subsidy is 226.7 Nuevos Soles (closer to 75 dollars) for attention.
* The distribution of this subsidy depends on the number of attentions by expenditure quintile. While the richer quintiles have higher usage of the hospitals subsidy, the lower quintile has a much higher usage of the health posts and health centers.
* The same analysis was made for the SIS using users’ valuations of the subsidy as collected by the ENAHO. While the SIS coverage is far greater in lower expenditure quintiles, the users from higher expenditure quintiles receive a much higher subsidy per user.
* We analyze the PSMN, one of the five budgetary programs created in the Performance Based Budget framework. Within the program, we are focusing on the institutional delivery budget and attentions.
* Three things raise our concern related to the PSMN: first, while budget should be assigned according to the performance of the previous year, MEF is still assigning it on a historical basis. Second, there is no coherence between what was originally planned for 2008 and what was actually executed. Finally, not only the efficacy to carry out investment projects is quite low, but the budget destined to capital is, in general, little relative to the needs; given the infrastructure and equipment deficit.
* For the institutional delivery component of the PSMN, the results indicate that execution is higher and it seems to be more correspondence among what was budgeted and what was executed. Most physical goals related to deliveries are being fulfilled.
* When considering only the PSMN, on average, the program is subsidizing 170.68 nuevos soles per delivery (almost 60 dollars per user). In the case of complicated deliveries’, the non chirurgical complications deliveries get a subsidy of 322 nuevos soles (more than 100 dollars) while the chirurgical complications get 283 nuevos soles (almost 95 dollars). There seems to be an inconsistency in the subsidy policy.
* According to PEAS/PRAES information, a normal delivery should cost around 80 nuevos soles, significantly less than the actual subsidy of 123 nuevos soles. However, when more services are included, deliveries can cost up to 250 nuevos soles. A cesarean section should cost 182 nuevos soles while a complicated delivery, including all services, should cost up to 420 nuevos soles.

# Challenges

Throughout the study, a number of challenges have arisen:

* The main source of budget information, the SIAF, presents a number of problems. The main one is that information is not sorted by type of service provider. For example, to determine the expenditure in hospitals, it is necessary to add the budget for hospitals in each program, like individual, collective health and regional governments.
* In fact, the organizational structure is not well related with the budget structure. The planning ends up being adjusted to the budget´s logic, meaning, by executing units, and not the other way around. For example, a DISA has the same budget level than a hospital, when the second one depends on the DISA in terms of organization.
* Given SIAF budget structure, it is also difficult to track the health expenditures in regional governments because the executing units are the Regional Government’s Head Office and the Regional Government’s Health Office; both of them assign a budget to DIRESAs and hospitals.
* Many expenditure indicators have been discontinued or the methodology to estimate them has changed. For example, there is no data on private expenditure in health from 2006 onwards. This makes it hard to define long term tendencies of expenditure.
* Similarly, even though EsSalud represents a higher number than MINSA´s total expenditure, information regarding EsSalud expenditure was not up to date.
* Estimating unitary subsidy is complex. Required a number of assumptions because the MINSA either does not possess information on per user expenditure or it does not publishes it together with other statistics.
* In the ENAHO, financing by SIS and Public donations can not be set apart easily. For the BIA we used affiliation to the SIS as a way to separate financing but using this methodology can hide the nature of problems such as program filtration or ineffective unitary subsidy.

# Possible extensions

#### PBA

The presented analysis has been made using, as a starting point, the analysis made in MINSA & CIES (2008), which reviews health expenditure for the period 1985-2005. It analyses both public and private expenditure, which is useful to determine the overall health condition, especially in a country where most of the financing comes from pocket expenditure, rather than public expenditure. It would be, therefore, useful to have an updated analysis of this type. As in the original work, direct collaboration from the MINSA would be necessary. If this is the case, EsSalud expenditure should also being included.

SIAF, our main information source, is available through its website; however, the way of presenting the information is not flexible enough to make a more in depth analysis. A possible extension could help ascertain the costs by type of input, for example, medicines, medical supplies, office supplies, doctors, technician, nurses, etc. This task would be more accessible if all regions would register evenly the same categories of expenditure.

Our analysis followed SIAF organization, by executing units: health centers and posts, hospitals, ministerial administration, OPDs and regional government. A more clear analysis could be done by classifying only by health establishments: hospitals, health centers and health posts. Even the Ministry’s administration expenditure has a direct impact in how hospitals and health centers and health posts work. A more extensive research could help make such a classification. Regional government and SIS expenditure can be divided into hospitals, health centers and health posts if each investment project is classified.

Finally, for the PSMN, a research on why is the execution surpassing the original goals (for the delivery components) and why the other components are still so lacking is something that should be included in future research. This information should be acquired directly from the MEF or the executing units of the PSMN.

#### BIA

For the general subsidy case, more refinements could still be made, especially when dividing the expenditure of the executing units. Because the information for certain executing units, other than hospitals, are not easily divided by facilities, simplifying assumptions had to be made.

Data on what type of attentions is made in MINSA establishments (by specialty and objective, preventive or healing) could also help differentiate the attentions that receive more support from the government. Moreover, ENAHO allows subsidy calculation by item bought (among 15 items), which could be use to compare subsidy per service and by expenditure quintiles.

Furthermore, it is possible to determine government expenditure impact on household’s welfare through a model on how specific subsidy enlightens the burden of health expenditure on an average household.

Finally, for the PSMN subsidy, a regional division could be more useful in order to ascertain whether the subsidy is being equally distributed among Peruvian regions, or some receive more than others. It is also important to clarify differences between standard costs and actual expenses, as well as differences between ENAHO’s estimation and actual PSMN result.

# Plans for dissemination

The dissemination of the study considers three spheres: academia, public opinion and public sector.

* In the academia level, it is planned to publish the results in the university’s journal and magazine. This will be complemented with an exposition of the results in the universities research center (CIUP) with the attendance of researchers and research assistance. The results of these meetings will probably stimulate further research on the effectiveness of public expending in the health sector.
* In the public opinion level, meetings with national non-governmental organizations directors will be scheduled when the final version of the PBA and the BIA have been accepted. This will be done with the intention not only to inform about the results of the research but also to promote their diffusion through their information network and publications.
* In the public sector level, meetings will be scheduled with MINSA´s officers to discuss the results of the research. Especially important will be the results regarding the PSMN because even the MINSA´s directors are still getting used to this system. Information they can get towards improving the results of their expenditure could be significant. Another possible way to help the diffusion of the results would be to inform directly regional governments, the other important executor of the PSMN. This possibility, though rather remote, is very interesting because of the regional governments’ current inability to execute their budget effectively. In this context, assistance towards improving the effectiveness of expenditure could be very valuable.

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**Data Sets**

* Census of Population and Households, 2007
* ENAHO, 2007. INEI.
* ENDES Continua 2004-2007. INEI.
* FONCODES classification of district’s quintiles (District’s poverty map)
* MEF’s Physical Goals for the Programs of the Performance Based Budget (2008)
* MINSA’s data set on health establishments, 2006.
* MINSA’s data set on health human resources, 2006 and 2007

# Appendixes

## **Appendix 1 - Obstetric and Neonatal Functions specifications**

**Obstetric and Neonatal Functions (FON)**

FON are activities related with identifying, attending, monitoring and care of gestation, delivery and of the newborn’s health, according to the level of complexity of health establishments and to the role these accomplish in local health system. They are typified as following:

**Primary Obstetric and Neonatal Functions (FONP)**

They comprehend activities in the maternal, perinatal and birth control that can be done by establishments that count with health technical staff and that may or may not count with health professionals. These health establishments generally give 12 hours attention and eventually 24 hours, they don’t have a delivery room, laboratory, newborn immediate attention area or hospitalization area (they are mostly health posts)

Those activities are:

* Basic prenatal and birth control attention.
* Imminent delivery and basic attention of the vigorous newborn.
* Identification and timely transfer of pregnant and puerperian women, and of complicated newborns.
* Obstetric and neonatal emergencies (DST)[[21]](#footnote-21).
* Post-delivery birth control (orientation/council, provision of barrier, hormonal, oral or injectable methods- transfers should be made for other methods)

**Basic Obstetric and Neonatal Functions (FONB)**

Comprehend activities in the maternal and perinatal interventions that must be done by all health establishments that count with medical professional staff; obstetrician and nurse. These health establishments generally bring 24 hours attention and have a delivery room, laboratory, newborn immediate attention area and hospitalization area; they don’t have surgical centers. (Mostly Health Centers)

Those activities are:

* Prenatal focalized attention and birth control.
* Eutocic delivery and basic normal or with minor problems newborn attention.
* Dystocic delivery or complicated delivery (DST).
* Newborn with complications (DST)
* Not complicated placenta retention.
* Complicated placenta retention (DST).
* Pregnancy induced slight hypertension.
* Pregnancy induced severe hypertension (DST).
* Slight hemorrhage.
* Severe hemorrhage and hypovolemic shock (DST).
* Maternal or neonatal sepsis (DST).
* Incomplete abortion (DST) [[22]](#footnote-22).
* Vaginal tear level I and II.
* Vaginal tear level II and IV (DST).
* Repair of cervix tear.
* Obstetric surgery (DST).
* Post-delivery / post abortion birth control (orientation/council, provision of barrier, hormonal, oral or injectable methods and DIU- transfers should be made for other methods)

**Essential Obstetric and Neonatal Functions (FONE)**

Comprehend activities in the maternal and perinatal interventions that must be done by all health establishments that count with specialized professional staff in gynecologic-obstetrics; pediatrics, surgery, anesthesiology, interns and other specialties such as neonatal nursing. These health establishments generally bring 24 hours specialized attention and have a delivery room, laboratory, newborn immediate attention area, hospitalization area and surgical centers. (Mostly Hospitals)

Those activities are:

* Prenatal focalized attention and birth control.
* Dystocic delivery or complicated delivery (DST).
* Newborn with complications.
* Complicated placenta retention.
* Incomplete abortion.
* Pregnancy induced moderate-severe hypertension and eclampsia.
* Severe hemorrhage and hypovolemic shock.
* Maternal or neonatal sepsis.
* Vaginal tear level II and IV.
* Cesarean
* Laparotomy
* Abdominal Hysterectomy.
* Not complicated surgical neonatal pathology.
* Post-delivery / post abortion birth control (orientation/council, provision of all methods, including voluntary surgical birth control).

**Intensive Obstetric and Neonatal Functions (FONI)**

Comprehend activities in the maternal and perinatal interventions that must be done by all health establishments that count with specialized professional staff in gynecologic-obstetrics; pediatrics, surgery, anesthesiology, interns, intensivists and other specialties such as neonatal nursing. These health establishments bring 24 hours specialized attention and have a delivery room, laboratory, newborn immediate attention area, hospitalization area, surgical centers and have an *Intensive Care Unit* (ICU) implemented.

Those activities are:

* Prenatal intensive re-focalized attention (APRI).
* Delivery of women with APRI.
* Newborn with complications requiring ICU.
* Complicated incomplete abortion.
* Hypertension induced by delivery, HELLP syndrome attended in ICU.
* Severe hemorrhage and hypovolemic shock requiring ICU.
* Maternal or neonatal sepsis requiring ICU.
* Cesarean of women with APRI.
* Complicated Laparotomy.
* Complicated Abdominal Hysterectomy.
* Complicated surgical neonatal pathology requiring ICU.
* Post-delivery / post abortion birth control (orientation/council, provision of all methods, including voluntary surgical birth control according to patient’s condition)

Source: MINSA-2007

## **Appendix 2 – Supply Gap in Infrastructure**

Regarding infrastructure and supply of health services, Peruvian government has an initiative of launching universal insurance, for which prepared a technical report of supply deficit in health human resources and infrastructure focusing in the 880 poorest districts of the country. The results indicated that, instead of increasing the number of health establishments, the already existing ones should be improved with better equipment and categorized to attend more complicated needs. There is also an important deficit in the cold chain and in the number of health professional in these districts. The report estimated that an investment of 517.18 millions of nuevos soles was needed in a 10 years period to close the estimated gap (ST-CIAS, 2009).

## **Appendix 3: Health Budget in real nuevos soles (2006=100) and percentage, Peru 2006-2009**

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **2006 (Amount)** | **2006 (%)** | **2007 (Amount)** | **2007(%)** | **2008 (Amount)** | **2008 (%)** | **2009 (budgeted Amount)** | **2009 (%)** |
| **Health** | **3,977,774,324** |  | **4,266,627,328** |  | **3,846,609,377** |  | **4,515,021,912** |  |
| **Collective Health** | **376,779,253** |  | **503,199,954** |  | **469,536,699** |  | **490,056,681** |  |
| **Health Center/Dispensary** | **118,931,107** | **31.6%** | **148,221,409** | **29.5%** | **135,298,096** | **28.8%** | **134,825,129** | **27.5%** |
| ***Recurrent*** | 118,486,145 | ***99.6%*** | 147,861,609 | ***99.8%*** | 132,457,378 | ***97.9%*** | 132,133,718 | ***98.0%*** |
| Wages | 99,143,826 | 84% | 125,930,485 | 85% | 105,085,625 | 79% | 102,182,351 | 77% |
| Non-Wages | 19,342,319 | 16% | 21,931,124 | 15% | 27,371,752 | 21% | 29,951,366 | 23% |
| ***Capital*** | 444,962 | ***0.4%*** | 359,800 | ***0.2%*** | 2,840,719 | ***2.1%*** | 2,691,411 | ***2.0%*** |
| Domestic | 227,789 | 51% | 251,537 | 70% | 2,504,927 | 88% | 2,354,646 | 87% |
| RDR | 128,673 | 29% | 108,263 | 30% | 335,791 | 12% | 336,765 | 13% |
| Loans | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| Donor | 88,500 | 20% | 0 | 0% | 0 | 0% | 0 | 0% |
| RD | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| **Hospital** | **22,512,657** | **6.0%** | **25,483,448** | **5.1%** | **25,690,347** | **5.5%** | **36,941,639** | **7.5%** |
| ***Recurrent*** | 22,303,317 | ***99%*** | 24,539,502 | ***96%*** | 23,287,446 | ***91%*** | 35,877,881 | ***97%*** |
| Wages | 17,195,350 | 77% | 18,949,089 | 77% | 17,625,523 | 76% | 25,559,101 | 71% |
| Non-Wages | 5,107,967 | 23% | 5,590,414 | 23% | 5,661,923 | 24% | 10,318,780 | 29% |
| ***Capital*** | 209,339 | ***1%*** | 943,946 | ***4%*** | 2,402,901 | ***9%*** | 1,063,758 | ***3%*** |
| Domestic | 16,346 | 8% | 807,588 | 86% | 2,379,663 | 99% | 481,856 | 45% |
| RDR | 54,599 | 26% | 13,744 | 1% | 23,238 | 1% | 581,901 | 55% |
| Loans | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| Donor | 138,394 | 66% | 122,614 | 13% | 0 | 0% | 0 | 0% |
| RD | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| **OPDs** | **118,448,814** | **31.4%** | **64,607,248** | **12.8%** | **39,636,685** | **8.4%** | **52,492,239** | **10.7%** |
| ***Recurrent*** | 104,727,883 | ***88%*** | 61,355,644 | ***95%*** | 36,917,614 | ***93%*** | 43,514,815 | ***83%*** |
| Wages | 78,061,897 | 75% | 39,465,309 | 64% | 18,147,067 | 49% | 15,212,567 | 35% |
| Non-Wages | 26,665,986 | 25% | 21,890,335 | 36% | 18,770,547 | 51% | 28,302,248 | 65% |
| ***Capital*** | 13,720,930 | ***12%*** | 3,251,604 | ***5%*** | 2,719,071 | ***7%*** | 8,977,424 | ***17%*** |
| Domestic | 4,024,458 | 29% | 405,059 | 12% | 341,065 | 13% | 5,538,312 | 62% |
| RDR | 7,583,847 | 55% | 434,300 | 13% | 1,300,485 | 48% | 3,439,113 | 38% |
| Loans | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| Donor | 2,112,625 | 15% | 2,412,245 | 74% | 1,077,522 | 40% | 0 | 0% |
| RD | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| **Ministerial Administration** | **115,676,527** | **30.7%** | **257,116,813** | **51.1%** | **262,679,581** | **55.9%** | **251,829,646** | **51.4%** |
| ***Recurrent*** | 114,067,393 | ***99%*** | 205,038,635 | ***80%*** | 242,815,101 | ***92%*** | 251,397,300 | ***100%*** |
| Wages | 25,184,424 | 22% | 87,554,649 | 43% | 134,693,070 | 55% | 20,465,007 | 8% |
| Non-Wages | 88,882,970 | 78% | 117,483,986 | 57% | 108,122,031 | 45% | 230,932,293 | 92% |
| ***Capital*** | 1,609,134 | ***1%*** | 52,078,177 | ***20%*** | 19,864,480 | ***8%*** | 432,346 | ***0%*** |
| Domestic | 746,802 | 46% | 43,357,621 | 83% | 5,837,612 | 29% | 432,346 | 100% |
| RDR | 401,982 | 25% | 28,678 | 0% | 215,729 | 1% | 0 | 0% |
| Loans | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| Donor | 460,350 | 29% | 8,691,878 | 17% | 13,811,139 | 70% | 0 | 0% |
| RD | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| **Regional Government** | **1,210,149** | **0.3%** | **7,771,036** | **1.5%** | **6,231,989** | **1.3%** | **13,968,028** | **2.9%** |
| ***Recurrent*** | 116,247 | ***10%*** | 748,918 | ***10%*** | 1,995,758 | ***32%*** | 3,302,712 | ***24%*** |
| Wages | 116,247 | 100% | 275,516 | 37% | 455,737 | 23% | 2,050,832 | 62% |
| Non-Wages | 0 | 0% | 473,403 | 63% | 1,540,022 | 77% | 1,251,880 | 38% |
| ***Capital*** | 1,093,902 | ***90%*** | 7,022,118 | ***90%*** | 4,236,231 | ***68%*** | 10,665,316 | ***76%*** |
| Domestic | 476,165 | 44% | 4,106,470 | 58% | 1,971,548 | 47% | 1,478,957 | 14% |
| RDR | 0 | 0% | 0 | 0% | 0 | 0% | 535,966 | 5% |
| Loans | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| Donor | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| RD | 617,737 | 56% | 2,915,648 | 42% | 2,264,683 | 53% | 8,650,393 | 81% |
| **Individual Health** | **3,068,720,100** |  | **3,236,093,094** |  | **2,880,853,578** |  | **3,363,501,218** |  |
| **Health Center/Dispensary** | **1,079,258,055** | **35.2%** | **1,146,321,202** | **35.4%** | **1,005,197,917** | **34.9%** | **1,014,618,377** | **30.2%** |
| ***Recurrent*** | 1,035,129,823 | ***96%*** | 1,047,763,938 | ***91%*** | 966,062,232 | ***96%*** | 977,432,816 | ***96%*** |
| Wages | 730,472,549 | 71% | 687,774,743 | 66% | 621,488,780 | 64% | 736,685,043 | 75% |
| Non-Wages | 304,657,274 | 29% | 359,989,195 | 34% | 344,573,452 | 36% | 240,747,773 | 25% |
| ***Capital*** | 44,128,232 | ***4%*** | 98,557,264 | ***9%*** | 39,135,686 | ***4%*** | 37,185,561 | ***4%*** |
| Domestic | 24,842,587 | 56% | 83,994,765 | 85% | 24,026,159 | 61% | 27,507,131 | 74% |
| RDR | 5,151,496 | 12% | 3,221,156 | 3% | 1,844,147 | 5% | 7,811,483 | 21% |
| Loans | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| Donor | 14,134,150 | 32% | 11,341,344 | 12% | 11,059,257 | 28% | 0 | 0% |
| RD | 0 | 0% | 0 | 0% | 2,206,122 | 6% | 1,866,947 | 5% |
| **Hospital** | **1,309,351,331** | **42.7%** | **1,386,742,938** | **42.9%** | **1,292,782,602** | **44.9%** | **1,422,916,761** | **42.3%** |
| ***Recurrent*** | 1,250,265,123 | ***95%*** | 1,303,717,509 | ***94%*** | 1,187,461,850 | ***92%*** | 1,264,400,068 | ***89%*** |
| Wages | 872,809,858 | 70% | 877,273,244 | 67% | 788,376,973 | 66% | 850,193,590 | 67% |
| Non-Wages | 377,455,265 | 30% | 426,444,265 | 33% | 399,084,877 | 34% | 414,206,478 | 33% |
| ***Capital*** | 59,086,207 | ***5%*** | 83,025,429 | ***6%*** | 105,320,753 | ***8%*** | 158,516,693 | ***11%*** |
| Domestic | 32,471,335 | 55% | 60,775,236 | 73% | 81,168,857 | 77% | 134,308,904 | 85% |
| RDR | 16,348,800 | 28% | 15,060,873 | 18% | 10,707,436 | 10% | 24,207,789 | 15% |
| Loans | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| Donor | 10,266,073 | 17% | 6,202,745 | 7% | 13,444,459 | 13% | 0 | 0% |
| RD | 0 | 0% | 986,575 | 1% | 0 | 0% | 0 | 0% |
| **OPDs** | **290,866,221** | **9.5%** | **289,177,052** | **8.9%** | **238,502,562** | **8.3%** | **367,754,004** | **10.9%** |
| ***Recurrent*** | 290,827,092 | ***100%*** | 289,177,052 | ***100%*** | 238,502,562 | ***100%*** | 367,307,366 | ***100%*** |
| Wages | 20,086,435 | 7% | 2,488,146 | 1% | 732,945 | 0% | 1,517,586 | 0% |
| Non-Wages | 270,740,657 | 93% | 286,688,907 | 99% | 237,769,617 | 100% | 365,789,780 | 100% |
| ***Capital*** | 39,129 | ***0%*** | 0 | ***0%*** | 0 | ***0%*** | 446,638 | ***0%*** |
| Domestic | 39,129 | 100% | 0 |  | 0 |  | 0 | 0% |
| RDR | 0 | 0% | 0 |  | 0 |  | 446,638 | 100% |
| Loans | 0 | 0% | 0 |  | 0 |  | 0 | 0% |
| Donor | 0 | 0% | 0 |  | 0 |  | 0 | 0% |
| RD | 0 | 0% | 0 |  | 0 |  | 0 | 0% |
| **Ministerial Administration** | **280,424,655** | **9.1%** | **286,820,938** | **8.9%** | **118,850,115** | **4.1%** | **364,999,995** | **10.9%** |
| ***Recurrent*** | 228,618,547 | ***82%*** | 207,904,688 | ***72%*** | 74,544,549 | ***63%*** | 238,183,466 | ***65%*** |
| Wages | 66,938,526 | 29% | 70,002,315 | 34% | 12,773,510 | 17% | 40,616,845 | 17% |
| Non-Wages | 161,680,021 | 71% | 137,902,373 | 66% | 61,771,039 | 83% | 197,566,621 | 83% |
| ***Capital*** | 51,806,108 | ***18%*** | 78,916,250 | ***28%*** | 44,305,565 | ***37%*** | 126,816,529 | ***35%*** |
| Domestic | 20,958,530 | 40% | 71,253,909 | 90% | 43,853,660 | 99% | 126,816,529 | 100% |
| RDR | 1,306,359 | 3% | 520,144 | 1% | 0 | 0% | 0 | 0% |
| Loans | 24,039,529 | 46% | 3,685,555 | 5% | 0 | 0% | 0 | 0% |
| Donor | 5,501,691 | 11% | 3,456,642 | 4% | 451,905 | 1% | 0 | 0% |
| RD | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| **Regional Government** | **108,819,838** | **3.5%** | **127,030,963** | **3.9%** | **225,520,382** | **7.8%** | **193,212,081** | **5.7%** |
| ***Recurrent*** | 17,461,281 | ***16%*** | 1,793,562 | ***1%*** | 2,899,722 | ***1%*** | 7,907,511 | ***4%*** |
| Wages | 13,899,247 | 80% | 1,250,115 | 70% | 2,198,509 | 76% | 4,111,023 | 52% |
| Non-Wages | 3,562,034 | 20% | 543,447 | 30% | 701,213 | 24% | 3,796,488 | 48% |
| ***Capital*** | 91,358,557 | ***84%*** | 125,237,401 | ***99%*** | 222,620,660 | ***99%*** | 185,304,570 | ***96%*** |
| Domestic | 23,769,871 | 26% | 92,123,105 | 74% | 124,024,078 | 56% | 103,340,947 | 56% |
| RDR | 1,500 | 0% | 1,540 | 0% | 0 | 0% | 0 | 0% |
| Loans | 6,969,808 | 8% | 155,610 | 0% | 0 | 0% | 0 | 0% |
| Donor | 3,946,015 | 4% | 1,659,808 | 1% | 1,633,955 | 1% | 0 | 0% |
| RD | 56,671,362 | 62% | 31,297,339 | 25% | 96,962,627 | 44% | 81,963,623 | 44% |
| **Other Expenditure\*** | **532,274,970** |  | **527,334,280** |  | **496,219,100** |  | **661,464,013** |  |
| **Health Center/Dispensary** | **237,113,806** | **44.5%** | **237,366,311** | **45.0%** | **220,093,958** | **44.4%** | **227,280,914** | **34.4%** |
| ***Recurrent*** | 232,701,539 | ***98%*** | 233,777,827 | ***98%*** | 214,097,051 | ***97%*** | 221,982,303 | ***98%*** |
| Wages | 171,819,072 | 74% | 172,968,056 | 74% | 162,413,558 | 76% | 168,215,131 | 76% |
| Non-Wages | 60,882,468 | 26% | 60,809,771 | 26% | 51,683,493 | 24% | 53,767,173 | 24% |
| ***Capital*** | 4,412,267 | ***2%*** | 3,588,484 | ***2%*** | 5,996,908 | ***3%*** | 5,298,611 | ***2%*** |
| Domestic | 2,016,436 | 46% | 1,922,070 | 54% | 2,494,512 | 42% | 1,675,568 | 32% |
| RDR | 2,370,621 | 54% | 1,574,532 | 44% | 1,629,774 | 27% | 3,623,043 | 68% |
| Loans | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| Donor | 800 | 0% | 28,839 | 1% | 0 | 0% | 0 | 0% |
| RD | 24,410 | 1% | 63,043 | 2% | 1,872,622 | 31% | 0 | 0% |
| **Hospital** | **199,822,698** | **37.5%** | **190,377,287** | **36.1%** | **180,975,275** | **36.5%** | **179,133,390** | **27.1%** |
| ***Recurrent*** | 195,883,772 | ***98%*** | 185,700,849 | ***98%*** | 174,858,826 | ***97%*** | 166,611,049 | ***93%*** |
| Wages | 150,319,363 | 77% | 143,309,904 | 77% | 135,664,341 | 78% | 129,453,210 | 78% |
| Non-Wages | 45,564,409 | 23% | 42,390,945 | 23% | 39,194,484 | 22% | 37,157,839 | 22% |
| ***Capital*** | 3,938,925 | ***2%*** | 4,676,438 | ***2%*** | 6,116,450 | ***3%*** | 12,522,341 | ***7%*** |
| Domestic | 796,780 | 20% | 2,739,318 | 59% | 4,597,248 | 75% | 8,406,294 | 67% |
| RDR | 3,142,145 | 80% | 1,580,477 | 34% | 1,272,989 | 21% | 4,116,047 | 33% |
| Loans | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| Donor | 0 | 0% | 356,644 | 8% | 246,213 | 4% | 0 | 0% |
| RD | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| **OPDs** | **15,275,072** | **2.9%** | **28,224,788** | **5.4%** | **29,043,140** | **5.9%** | **43,894,010** | **6.6%** |
| ***Recurrent*** | 14,626,636 | ***96%*** | 28,023,038 | ***99%*** | 28,173,789 | ***97%*** | 41,779,219 | ***95%*** |
| Wages | 8,938,115 | 61% | 21,551,640 | 77% | 20,143,644 | 71% | 26,113,878 | 63% |
| Non-Wages | 5,688,521 | 39% | 6,471,398 | 23% | 8,030,145 | 29% | 15,665,341 | 37% |
| ***Capital*** | 648,436 | ***4%*** | 201,749 | ***1%*** | 869,351 | ***3%*** | 2,114,792 | ***5%*** |
| Domestic | 466 | 0% | 58,740 | 29% | 588,629 | 68% | 1,355,507 | 64% |
| RDR | 647,970 | 100% | 143,009 | 71% | 280,722 | 32% | 759,285 | 36% |
| Loans | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| Donor | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| RD | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| **Ministerial Administration** | **76,519,900** | **14.4%** | **71,365,895** | **13.5%** | **66,106,726** | **13.3%** | **190,523,210** | **28.8%** |
| ***Recurrent*** | 69,906,209 | ***91%*** | 68,825,361 | ***96%*** | 65,162,018 | ***99%*** | 177,760,412 | ***93%*** |
| Wages | 39,099,552 | 56% | 38,836,859 | 56% | 37,928,670 | 58% | 141,193,249 | 79% |
| Non-Wages | 30,806,657 | 44% | 29,988,502 | 44% | 27,233,348 | 42% | 36,567,163 | 21% |
| ***Capital*** | 6,613,691 | ***9%*** | 2,540,534 | ***4%*** | 944,708 | ***1%*** | 12,762,798 | ***7%*** |
| Domestic | 2,681,232 | 41% | 1,659,315 | 65% | 826,141 | 87% | 0 | 0% |
| RDR | 3,911,148 | 59% | 878,329 | 35% | 118,567 | 13% | 12,762,798 | 100% |
| Loans | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| Donor | 21,311 | 0% | 2,890 | 0% | 0 | 0% | 0 | 0% |
| RD | 0 | 0% | 0 | 0% | 0 | 0% | 0 | 0% |
| **Regional Government** | **3,543,494** | **0.7%** | **0** | **0.0%** | **0** | **0.0%** | **20,632,489** | **3.1%** |
| ***Recurrent*** | 3,514,529 | ***99%*** | 0 |  | 0 |  | 20,279,261 | ***98%*** |
| Wages | 2,460,943 | 70% | 0 |  | 0 |  | 12,029,612 | 59% |
| Non-Wages | 1,053,586 | 30% | 0 |  | 0 |  | 8,249,649 | 41% |
| ***Capital*** | 28,966 | ***1%*** | 0 |  | 0 |  | 353,228 | ***2%*** |
| Domestic | 10,000 | 35% | 0 |  | 0 |  | 241,382 | 68% |
| RDR | 18,876 | 65% | 0 |  | 0 |  | 0 | 0% |
| Loans | 0 | 0% | 0 |  | 0 |  | 0 | 0% |
| Donor | 0 | 0% | 0 |  | 0 |  | 0 | 0% |
| RD | 90 | 0% | 0 |  | 0 |  | 111,846 | 32% |

1. The sector organization section is based on MINSA & CIES (2008). [↑](#footnote-ref-1)
2. The country’s GDP has grown 4.15% in average since 1990 and 6.2% in the 2002-2007 period. [↑](#footnote-ref-2)
3. Peruvian Ministry of Health. (2007). *National Coordinated Health Plan.* MINSA, Lima. Page 21. [↑](#footnote-ref-3)
4. The reason why these information is out of date is related to the absence of a more actual national census, been the last available data from 1996. [↑](#footnote-ref-4)
5. Institutional delivery is considered when the birth takes place in a hospital, a health center or post, a private clinic or practice. Non institutional delivery is considered when it takes place at home (women’s or midwives’) or at other places. [↑](#footnote-ref-5)
6. The Institutional Delivery Section is based on the document “Recent trends on Institutional Birth services in Peru”, 2009. [↑](#footnote-ref-6)
7. 57% of total deliveries are urban, while 43% are rural. [↑](#footnote-ref-7)
8. If the woman reported more than one caregiver for her delivery (in ENDES), it is considered that the delivery was in charge of the most qualified type of caregiver listed. [↑](#footnote-ref-8)
9. The “Others” category considers deliveries attended by a “health worker” (not an specialist), a friend or relative or any uncoded person. [↑](#footnote-ref-9)
10. See Appendix 1 for a more complete description of the FON levels. [↑](#footnote-ref-10)
11. As can be seen in Table 18, the cut point to determine “adequate” CR is 80%, meaning that if an establishment has a Capacity of Resolution (CR) of more than 80%, then it’s considered able to perform adequately institutional deliveries. The cut point is the standard that MINSA works with. [↑](#footnote-ref-11)
12. MEF. Maternal and Neonatal Health Strategic Program [↑](#footnote-ref-12)
13. Cooperative Roundtable on the Fight against Poverty (Mesa de Concentración para la Lucha contra la Pobreza). Following Monitoring Maternal and Neonatal Health Strategic Program. June Report 2008. [↑](#footnote-ref-13)
14. The last consistent information regard to the financing flows and expenses is from 2005: National Accountings (MINSA-OPS/OMS Peru 2004). [↑](#footnote-ref-14)
15. Table 20 considers health expenditure as all expenditure made for the provision of health services, public, private and informal. It gathers all the resources (facts and inputs) that participated, including investment on infrastructure. Regard to the public financing component, this is always lower than the executed budget, not only because they just account the public treasury funds and indebtedness, but also because pension’s payments of the ex workers are deduct. Further definitions and methodology can be found in the text “National Accountings in Health” (MINSA-OPS/OMS Peru 2004). [↑](#footnote-ref-15)
16. PARSALUD is the Program of Support for the Health Sector Reform. It’s managed by MINSA. [↑](#footnote-ref-16)
17. Based on Petrera and Seinfeld (2007). Repensando la Salud en el Perú. [↑](#footnote-ref-17)
18. Minimum Unit of disintegration in the allocation and execution of the public budget. [↑](#footnote-ref-18)
19. Even though a guideline related to the development of Operational Plans was made in the year 2004, where is required that the approvals for this ones are given in agreement with the organizational structure, the logical budget has been prioritized. [↑](#footnote-ref-19)
20. SIS refunds health establishments approximately 30% of the attentions to its insured individuals. The proportion of the refund has reduced in orcder to encourage more preventive actions. Additionally, more money is assigned to preventive care. [↑](#footnote-ref-20)
21. DST: Diagnosing - Stabilization – Transfer. [↑](#footnote-ref-21)
22. 2 It’s not DST if the FONB establishment counts with equipment and staff with competences to perform the Manual Vacuum Aspiration (MVA). [↑](#footnote-ref-22)