

SECOND GAVI EVALUATION

GAVI ALLIANCE

13 September 2010

SUPPORTING PAPER 4.4:

BOLIVIA COUNTRY STUDY REPORT

Submitted by:

CEPA LLP



CONTENTS

Acronyms and abbreviations	4
Executive Summary	6
1. Introduction	9
1.1. Background and purpose	9
1.2. Methodology.....	9
1.3. Structure of the report.....	9
2. Overview of country context	10
2.1. Background: demographic, social, and economic profile	10
2.2. Background to the health sector.....	11
3. Immunisation sector	16
3.1 Policy developments and key actors.....	16
3.2 Funding and support for the immunisation sector.....	16
3.3 Performance of immunisation sector.....	16
4. Overview of GAVI support in Bolivia	18
4.1. Program approvals and disbursements.....	18
4.2. General program application, approval and disbursement and monitoring processes	20
5. Assessment of GAVI Health System Strengthening support (SG1)	21
5.1. Assessment of GAVI INS support	21
5.2. Assessment of GAVI HSS support.....	23
5.3. Assessment of GAVI ISS support	25
5.4. GAVI CSO support	28
6. Assessment of GAVI vaccine support to Bolivia (SG2).....	29
6.1. Description of GAVI support for vaccines.....	29
6.2. Assessment of GAVI vaccine support	30
7. Sustainability of GAVI funding at the country level (SG3).....	33
7.1. Review of cMYPs.....	33
7.2. Stakeholder views on the sustainability of GAVI funding	33
8. GAVI's structures and processes in Bolivia (SG4).....	34
8.1. Institutional structures.....	34
8.2. Stakeholder views on the 'Alliance' model at the country level.....	34
8.3. Country level advocacy	35
9. Conclusions	36
Annex A: Demographic profile	38
Annex B: Structure of the health sector.....	39

Provision of Health Services and Demand.....	39
The 2006–2010 Strategic Health Plan	41
Annex C: Health sector expenditure and financing	42
Health sector expenditure	42
Health Financial scheme in Bolivia.....	43
Annex D: Main health policy developments	45
Annex E: Key health sector donors	48
Annex F: Observations about strengths and weakness of EPI.....	51
Strengths	51
Weaknesses.....	51
Annex G: Performance of the Immunisation Sector	52
Annex H: Bibliography.....	54
Annex I: List of Consultees	56

ACRONYMS AND ABBREVIATIONS

AD	Auto-disable
AECID	Spanish International Cooperation Agency for Development
AFD	French Development Agency
APR	Annual Progress Report
BCG	Bacille-Calmette-Guerin
CIDA	Canadian International Development Agency
cMYP	comprehensive Multi-Year Plan
CSO	Civil Society Organisation
DILOS	Local Health Directory
DHS	Demographic and Health Survey
DPT	Diphtheria, Pertussis and Tetanus
DQA	Data Quality Audit
DQS	Data Quality Self-assessment
EPI	Expanded Program on Immunization
GDP	Gross Domestic Product
GF	Global Fund
HDI	Human Development Index
HIV/AIDS	Human Immunodeficiency Virus/Acquired Immunodeficiency Syndrome
HPI	Human Poverty Index
HSS	Health System Strengthening
ICC	Inter-agency Coordination Committee
IMR	Infant Mortality Rate
INS	Injection Safety Support
ISS	Immunisation Services Support
JICA	Japan International Cooperation Agency
MDG	Millennium Development Goal
MSD	Ministry of Health and Sport (Ministerio de Salud y Deporte)
NGO	Non-governmental Organisation
NVS	New and underused Vaccines Support
OPV	Oral Polio Vaccine
PAHO	Pan-American Health Organization
PND	National Development Plan
PPP	Purchasing Power Parity
PROCOSI	The Integral Health Coordination Program
SBS	Basic Health Insurance
SG	Strategic Goal
SEDES	Departmental Health Services (Servicios Departamentales de Salud)
SUMI	Universal Maternal and Child Insurance

THE	Total Health Expenditure
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
WHO	World Health Organisation

EXECUTIVE SUMMARY

This executive summary summarises key findings from our report on the performance evaluation of GAVI programs in Bolivia, conducted as part of the GAVI Second Evaluation assignment.¹

The report provides contextual information on Bolivia's health and immunisation sector, and assesses the results and value add of GAVI programs from country stakeholders' perspectives. The key conclusions are based on evidence gathered during a field visit to Bolivia in the week of 1st June 2010, as well as desk research of relevant GAVI material and wider health / immunisation literature and data.

GAVI's performance in Bolivia has varied across the four Strategic Goals (SGs)² of the Alliance. Below are our overall judgements on results and value add with respect to each of the SGs, drawing on feedback from the country visit and available data.

- **Health System Strengthening (HSS) (SG1):** Bolivia receives three types of support, Immunisation Services Support (ISS), Injection Safety Support (INS) and HSS.
 - ISS funds were used mainly for capital purchases such as vehicles and computers (some obtained through 'rewards') which are intended to improve monitoring and evaluation capabilities not only in vaccine evaluation, but the broader Expanded Program on Immunization (EPI). Although coverage rates have increased, there is a perception that policy prioritisation is the driver as opposed to the ISS funding.
 - Progress on INS has been mixed. Stakeholders believe that INS acted as an impetus for the country to introduce safety equipment for all of its immunisation programs – and speeded the process of introduction. However, miscommunication meant that in practice, the Bolivia Government has actually purchased the syringes with its own resources, meaning that a substantial proportion of the INS grant remains unspent. In addition, there has been limited success in safe waste disposal, implementation of safe injection policy or safe practice outside immunisation.
 - Bolivia was approved for HSS support over the 2008-10 period. To date, only 2008 funds have been disbursed and implementation has not yet begun. Stakeholders have noted a number a small number of areas of value-add that relate to the planning phase for the grant – including the establishment of a baseline information on target municipalities, increased country ownership and alignment (in both GAVI and broader activities), and innovation in ways of working.

¹ A CEPA (Cambridge Economic Policy Associates; www.cepa.co.uk) led Consortium was appointed for this evaluation, undertaken between November 2009 and July 2010.

² GAVI's four SGs for 2007-10 are: (1) Contribute to strengthening the capacity of the health system to deliver immunisation and other health services in a sustainable manner; (2) Accelerating the uptake and use of underused and new vaccines and associated technologies and improve vaccine supply security; (3) Increase the predictability and sustainability of long-term financing for national immunisation programs; and (4) Increase and assess the added-value of GAVI as a public private global health partnership through improved, efficiency, increased advocacy, and continued innovation.

- Although Bolivia is eligible for both Type A and B Civil Society Organisation (CSO) funds, it has not received funding from either. We understand that Bolivia's Type A application has stalled and there has been no application under Type B. Confusion relating to the term 'Civil Society Organisation' has hindered the CSO application.
- **Vaccine Support (SG2):** New and underused Vaccines Support (NVS) funding is perceived as the most important aspect of GAVI support provided to Bolivia. It has supported the introduction of the rotavirus vaccine to the country, for which implementation appears to be going relatively well. Adoption rates are high for first and second doses (particularly since the vaccine was only recently introduced) and are increasing. When asked the EPI team indicated that they thought the existence of GAVI had brought forward the introduction of rotavirus vaccine by at least 5 years. Other points to note are as follows:
 - The provision of support for the rotavirus vaccine unambiguously supported the ability of EPI managers to make the case for immunisation within the country more generally. For example, the introduction of the vaccine supported the ability of EPI to make the case for increased investment to strengthen the cold chain.
 - Promotional activities around the introduction of the vaccine have led to increased awareness in communities about the value of immunisation in general.
- However, because of delays in disbursement (between GAVI and the Pan-American Health Organization (PAHO)) the country had to use other funds for procurement of the vaccine. The consequence of going into temporary arrears with PAHO's Revolving Fund was that Bolivia was excluded from the Revolving Fund for three months. We understand that this, combined with the use of resources earmarked for existing vaccines, meant that the country experienced shortage in its other vaccine supplies.
- **Financing (SG3):** Bolivia has demonstrated significant commitment to financing vaccines – which is consistent with the high priority given to maternal and new born health and to immunisation in the country. It is co-financing 50% of the rotavirus vaccine cost – significantly more than GAVI minimum requirements. Following the introduction of the rotavirus vaccine, Bolivia introduced the National Vaccination Law which aims to guarantee public financial support for all vaccines in the country through the creation of a national fund for vaccine purchase / activity support. This is on top of the resources made available for immunisation through the public health insurance fund.
- **Added value as a global PPP (SG4):** GAVI's alliance model is perceived as positive for three key reasons:
 - Efficient and effective collaboration – the general opinion of several partners of the Alliance is that the Inter-agency Coordination Committee (ICC) works well. GAVI has also achieved value add by improving the way in which the delivery partners work together

- Alignment with country activity – it is recognised that GAVI’s Alliance model has aligned itself with government objectives. One favourable characteristic of GAVI’s support compared to other donors is that it is more strategic in terms of having a national vision and utilising existing networks in its approach.
- Increased country ownership – GAVI’s model has been important in obtaining country / Ministry of Health and Sport (MSD) ownership. The responsibility and accountability clearly sits with the government – albeit with support from the multilaterals.

1. INTRODUCTION

1.1. Background and purpose

This report has been prepared by CEPA in partnership with the Departamento de Salud Pública, Universidad Nacional de Colombia³, as part of the Second Evaluation of GAVI.

The purpose of the report is to provide an evaluation of the results and value add of GAVI in Bolivia, drawing on country stakeholder perspectives.

1.2. Methodology

This report has been informed by the following sources of evidence:

- Analysis of country data on health and immunisation. Annex A-G present the data.⁴
- A review of relevant literature including country reports, academic papers, country health plans, and GAVI documentation. Annex H sets out the bibliography.
- Interviews with relevant country stakeholders during a short field trip to Bolivia in the week of 1st June 2010. Annex I lists the consultees.

1.3. Structure of the report

The report is structured as follows:

- Section 2 provides background in terms of an overview of the key political and economic developments, and the health sector in the country.
- Section 3 provides a synthesis of our understanding of the history and current state of the country's immunisation sector.
- Section 4 provides an overview of GAVI support to Bolivia to date.
- Section 5 provides an assessment of GAVI's support for HSS programs in the country (SG1).
- Section 6 assesses GAVI's support for vaccines in country (SG2).
- Section 7 discusses the sustainability of GAVI funding in Bolivia (SG3).
- Section 8 reviews the effectiveness of GAVI structures and processes in country (SG4).
- Section 9 presents a summary evaluation of GAVI's results and value added in Bolivia across the programs.

³ Led by Professor Fernando de la Hoz Restrepo.

⁴ We note that a number of sources of data are relatively out of date, however more recent information is not available.

2. OVERVIEW OF COUNTRY CONTEXT

2.1. Background: demographic, social, and economic profile

Bolivia has a population of almost 10 million (2009). Although the majority (66%) live in urban areas, Bolivia is one of the least densely populated countries of South America. Its population growth rate of 1.7% was one of the highest in the region.⁵

The poorest country of South America, Bolivian's Gross Domestic Product (GDP) was \$9.3 billion in 2005⁶ and per capita income was \$1,260 (\$4,150 when adjusted for purchasing power parity (PPP), 2007).⁷

As demonstrated in Figure 2.1a, the economy grew by 6.1% in real terms in 2009 (the rate of inflation was 11.8% in the same year).⁸ Figure 2.1b illustrates the significant growth in GDP over the three decades up until 2009.

Figure 2.1a: Real GDP growth rate (%)

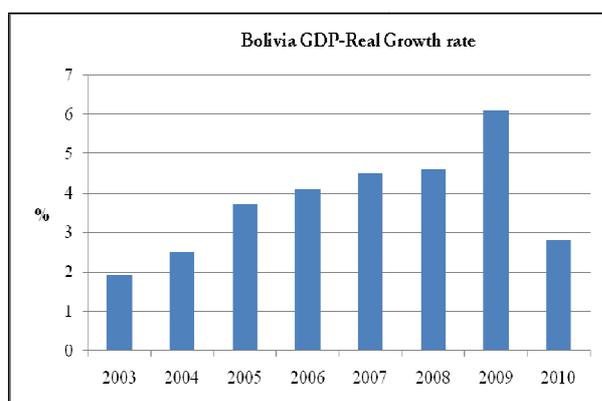
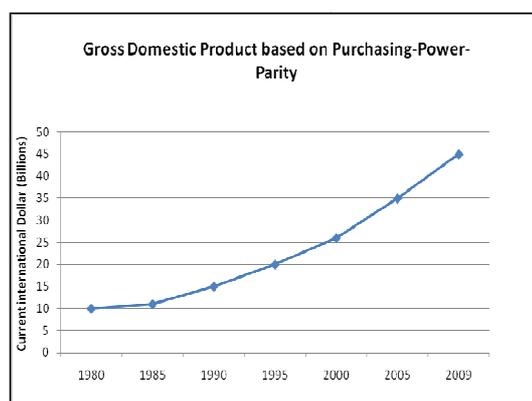


Figure 2.1b: PPP adjusted GDP (\$ billions)



Source: *Indexmundi*

Although GDP has grown in the last decade, Human Development Index (HDI) increases in Bolivia have been comparatively marginal. Bolivia is ranked only 113 of 182 countries for HDI, the same as for Guyana, despite having a level of GDP per capita that is 50% higher than Guyana.⁹

⁵ Organización Panamericana de la Salud/Organización Mundial de la Salud. Situación de Salud en las Américas. Indicadores básicos 2009 P.3

⁶ European Commission. Bolivia. Country Strategy Paper.2007-2013. P.10

⁷ Organización Panamericana de la Salud/Organización Mundial de la Salud. Situación de Salud en las Américas. Indicadores básicos 2009 P.3

⁸ 2009 Bolivia Análisis e Informe de Benchmarking de las Microfinanzas. 2010

⁹ Human Development Report 2009, UNDP

2.2. Background to the health sector

2.2.1. Structure of the health sector

Bolivia's health care system is in the midst of reform – we were not able to establish a particularly clear picture as part of our visit.

The system includes four key subsectors:

- Public – headed by the MSD, responsible for regulating and managing national policies and strategies. At the regional level, through the Departmental Health Services (SEDES), prefectures are responsible for managing human resources. At the local level, municipal governments manage health facilities through Local Health Directories (DILOS).
- Social security – this subsector serves organised, salaried workers. It provides health services in the areas of general disease, maternity, paediatrics, and occupational hazards. This subsector is comprised of nine managing bodies (Health Funds) and authorised insurance companies and is overseen by the National Health Insurance Institute. Formal salaried workers and employers contribute to this subsector with a percent of salaries.
- Private – includes insurance companies, prepaid medicine companies, and non-governmental organisations (NGOs).
- Traditional medicine – the Vice-Ministry of Traditional medicine and Inter-culturalism was created to improve access to health programs and projects among the indigenous, native, rural, and Afro-Bolivian populations.¹⁰

With the aim of improving maternal and child health, successive Bolivian governments have implemented three successive free health insurance plans since 1994, namely the National Maternal and Child Insurance, Basic Health Insurance (SBS) and Universal Maternal and Child Insurance (SUMI). We have not been able to conduct a full review of these initiatives. However, we understand that:

- SBS included sexual reproductive health and family planning services for all women of childbearing age, as well as the treatment and prevention of endemic diseases for the entire population. This was the most effective insurance plan. It had a significant impact on maternal and neonatal mortality, particularly in rural areas and among the indigenous population.
- We have received positive feedback from stakeholders about SUMI. However in rural areas in particular the country has observed worsening health indicators for endemic diseases as well as reproductive health and family planning services for non-pregnant women.¹¹ Inequity in health outcomes also grew as some of the more complex services

¹⁰ USAID-PAHO. Health Systems Profile Bolivia. Monitoring and analysis health systems change/reform. Third edition. Dec 2007

¹¹ We understand that this is disputed by the Ministry of Health and Sports

in the SUMI plan were made available in urban areas, but not in rural populations, where need is highest.¹²

2.2.2. Health sector policy and financing

The government's approach to social protection is based on the welfare state model. Bolivia has institutions designed to protect vulnerable sections of the population in the form of prevention programmes in the health sector, old-age insurance, regulations against domestic violence and health insurance schemes through pension funds. However the extent to which these forms of protection are available to the poor is very limited.¹³

National Health Policy Goals are:

- Expansion of health coverage: services to reach the most scattered and unprotected populations through fixed and mobile health units.
- Strengthening of health networks: infrastructure, equipment, inputs, drugs, and country wide managerial training to be strengthened.
- Quality management: intercultural and community approach to health care to generate better services provided to the community by the system.
- Respect for indigenous populations rights: promoting the recovery of traditional practices and knowledge of native people.¹⁴

In order to achieve these objectives, the government is expected to introduce a new health policy shortly. It has two basic components:

1. To have a single, universal health provision. At present there are health providers (with hospital facilities) funded through social security system for those in work, and a public system in principle funded by government.
2. To create a health insurance system for public health outside of the social security systems. But the problem here is 70% of the population are in the informal economy, so in practice the system will need to be tax funded.

There are concerns amongst some about the capacity that the country has to implement this ambitious reform. This is exacerbated by frequent changes in Ministry of Health staff at all levels. We understand that there are very high levels of staff turnover in the Ministry since most positions are political appointments.

Health expenditure and financing

Bolivia's per capita Total Health Expenditure (THE) in 2006 was \$79 or 6.4% of GDP (see Annex C for more detail).¹⁵

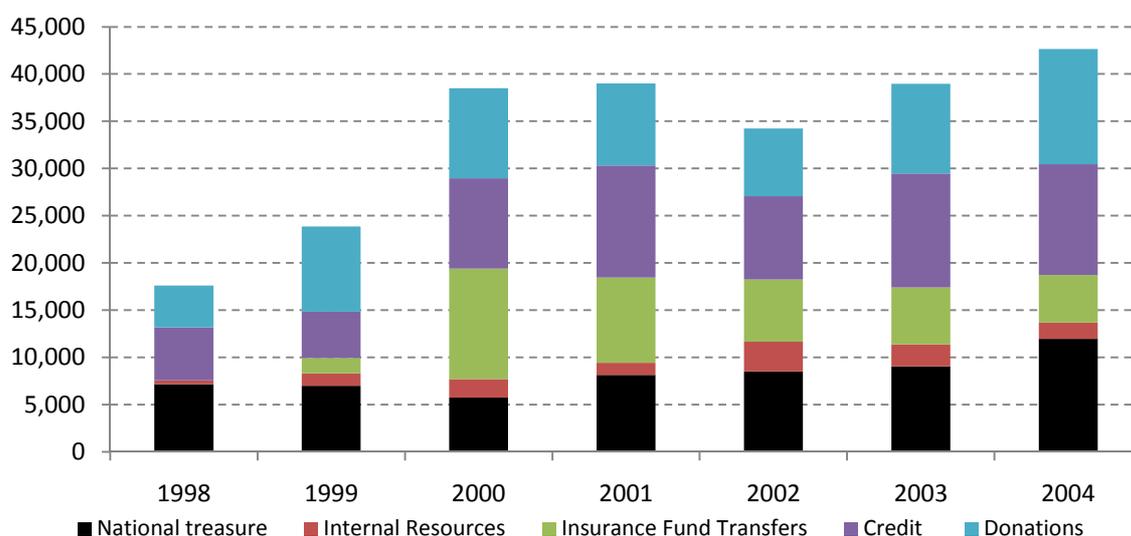
¹² Silva E, Batista R. Bolivian Maternal Health Policies: Successes and Failures. Focal policy paper. May 2010.

¹³ EU Country strategy paper. Brussels, 17 May 2002

¹⁴ GAVI Alliance. Bolivia. Health System Strengthening. Update May 2009

There are four major players in the health sector of Bolivia in the provision of financing: household, government, enterprise/institutions, and external sources (donors and payment of services). Figure 2.2 provides a breakdown of THE by funding source – it shows credit as the largest source of health finance in 2003 and 2004. More recent information is not available, however Bolivian officials noted that health expenditure has remained relatively constant over recent years (Annex C provides further detail).

Figure 2.2 Bolivia Health Expenditure, 1998-2004 (in \$ thousands)¹⁶



Sources: USAID-PAHO. Health Systems Profile Bolivia.

Key health indicators

After Haiti, Bolivian maternal and child mortality rates are the highest in Latin America and the Caribbean. The situation is particularly acute for the most vulnerable citizens in the population.

Over the last decade, national maternal-child health indicators have shown significant improvements, though these are still well below the United Nations Millennium Development Goals (MDGs) set for 2015. For indigenous and rural populations, which represent 60% and 37% of the Bolivian population respectively, progress has been even slower due to a lack of effective, equity-driven public policies with respect to health.

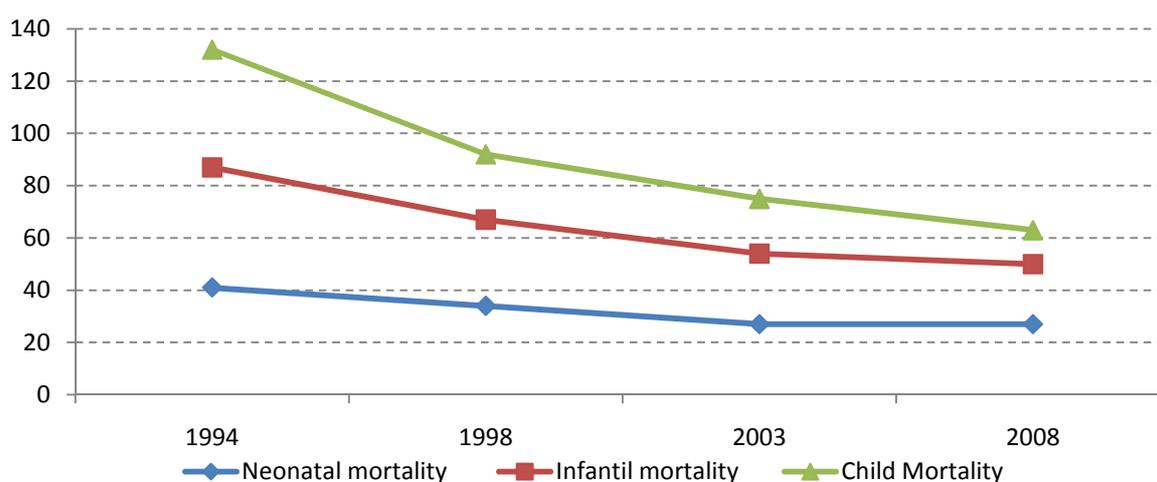
The immunisation program has contributed significantly to the decline in the Infant Mortality Rate (IMR). The IMR was 87 and 50 per 1000 live births in 1994 and 2008 respectively. The Child Mortality rate was 132 and 63 per 1000 live births in 1994 and 2008 respectively.¹⁷ (Figure 2.2)

¹⁵ World Health Organization. World Health Statistics 2009, Ministerio de Salud y Deporte. Situación de Salud. Bolivia 2004. Serie: Documentos de Divulgación Científica. Enero-2006, The World Factbook THE as % of GDP, 2002-2005 - Country Rankings, World Health Organization. World Health statistics 2009. WHO Library Cataloguing-in-Publication Data. Francia 2009.

¹⁶ USAID-PAHO. Health Systems Profile Bolivia. Monitoring and analysis health systems change/reform. Third edition. Dec 2007

¹⁷ Silva E, Batista R. Bolivian Maternal Health Policies: Successes and Failures. Focal policy paper. May 2010

Figure 2.2: Neonatal, Infant and Child Deaths per 1,000 live births 1994-2008



Sources: Silva E, Batista R. *Bolivian Maternal Health Policies: Successes and Failures*. Focal

2.2.3. Key donors and development partners

Bolivia has a diverse portfolio of bilateral donors who support health. They include development agencies within the European Union and Scandinavian countries, the United States Agency for International Development (USAID), the Canadian International Development Agency (CIDA), and Japan International Cooperation Agency (JICA). It is also supported through multilaterals including the PAHO, United Nations Children’s Fund (UNICEF), United Nations Population Fund (UNFPA), United Nations World Food Program, in addition to Development Banks (World Bank and Inter-American Development Bank).

The composition of the sources of funding for ‘development assistance’ are bilateral aid (65%), technical multilateral aid from the United Nations (20%) and development banks (15%).¹⁸ Note that in the period 2001 to 2003, credits and donations to the MSD budget represented 76% of the total of the budget.

Annex E describe the activities of some of these key donors in health. However, key points to note are as follows:

- Most projects at the regional level are supported by countries including Belgium, Spain, Japan and France.
- National projects are managed by multilateral organisations such as UNICEF, PAHO, etc.¹⁹
- PAHO supports Bolivia in donations administration processes. For example, the funds for GAVI projects in Bolivia have been deposited and strictly administered through PAHO in Bolivia, with support from the Department of Finance of the Central Office of

¹⁸ Organización Panamericana de la Salud. Perfil del sistema del servicio de salud Bolivia. 2ª edición. P.5

¹⁹ USAID-PAHO. Health Systems Profile Bolivia. Monitoring and analysis health systems change/reform. Third edition. Dec 2007

PAHO/the World Health Organisation (WHO), and in coordination with the MSD of Bolivia.²⁰

²⁰ GAVI Alliance. Bolivia. APR. 2008

3. IMMUNISATION SECTOR

3.1 Policy developments and key actors

Bolivia conducted its first polio vaccination activity in 1962.²¹ The EPI began in 1979 with the objective of reducing child mortality and morbidity by providing vaccines against six preventable diseases: Bacille-Calmette-Guerin (BCG), Oral Polio Vaccine (OPV), Diphtheria, Pertussis and Tetanus (DPT) and measles. Over time, this was broadened to cover infectious diseases in infants and women of child bearing age. In 1987 polio was eradicated in Bolivia, and by 1992 the EPI had achieved 80% coverage of the target population.²²

More recently, Bolivia has introduced vaccines against yellow fever and congenital rubella syndrome, and introduced second generation vaccines to the EPI including updating DPT and the measles vaccine with the pentavalent vaccine and triple viral vaccine respectively.²³ With support from GAVI, the rotavirus vaccine was introduced in 2008. Literature also refers to the introduction of HPV and H1N1 pandemic influenza vaccines.²⁴

3.2 Funding and support for the immunisation sector

3.3 Performance of immunisation sector

The objective of Bolivia's EPI is to achieve at least 95% coverage for key vaccines. The EPI program has had significant success in coverage for most vaccines. Figure 3.1 illustrates this success for DPT3 coverage rates in Bolivia. Both official figures and WHO / UNICEF estimates demonstrate significantly increased coverage since the introduction of EPI.

Official figures appear to drop from a peak of 100% in 2003, to just over 80% in more recent years. We understand that this is due to the denominator in official figures being based on 2000 census data, which is outdated and has led to underestimation in actual coverage levels (see Section 5.3.2 for more details).

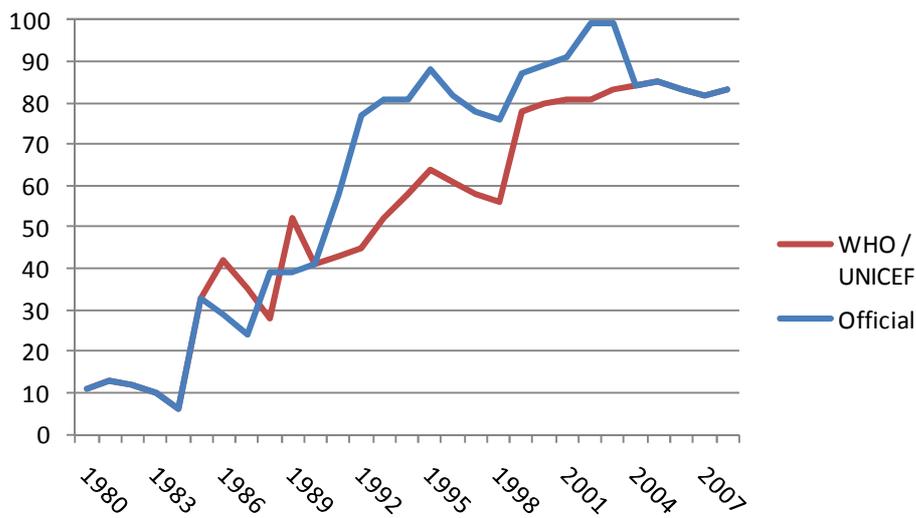
²¹ Jauregui Guachalla G, Bustillos J, Antezana E, Tapias A. Vacunación antipoliomielítica oral trivalente en Bolivia. En: Revista de Salud Pública Boliviana. 1963. P: 25-36

²² Zamora Gutiérrez A. Programas de vacunación en Bolivia. Rev Soc Bol Ped 2007; 46(2):88-9

²³ Plaza Zamorano A, Belaunde PH, Machicao Ballivan E, Fuentes Aspiza M, Ronveaux Dupal O. Campaña nacional de vacunación para la eliminación de la rubeola y del síndrome de rubeola congénita en Bolivia, 2006. Rev Soc Bol Ped 2007; 46(2):90-4

²⁴ Organización Panamericana de la Salud. Características de las vacunas contra influenza pandémica A(H1N1) a utilizar en Bolivia. Boletín Informativo Año 2 No.11/2010, Ministerio de Salud y Deporte. Situación Epidemiológica del Rotavirus. Boletín Informativo Epidemiológico. Plan Ampliando de Inmunización. Julio 2008

Figure 3.1: DPT3 vaccine coverage figures (%)²⁵



Annex G details coverage rates for BCG, DPT, OVP3 and anti-measles, hepatitis B1 / B3, rotavirus and rubella vaccines. Annex H provides an assessment of Bolivia's immunisation in terms of its key strengths and weaknesses.

²⁵ Figures sourced from "CEPA - GAVI Phase I & II consolidated approvals & disbursements" spreadsheet, received directly from GAVI.

4. OVERVIEW OF GAVI SUPPORT IN BOLIVIA²⁶

Bolivia has received GAVI support across three programs:

- INS from 2004 for three years (although excluding 2005);
- ISS starting in 2007; and
- NVS for the rotavirus vaccine since 2008.

4.1. Program approvals and disbursements

During 2004-10, the total approved support amounted to \$11.3m (with the majority relating to the rotavirus vaccine in Phase II), of which \$6.8m has been disbursed. As shown in Figure 4.1, funds were disbursed in the same year as approval until 2008. A large part of the difference between approvals and disbursements in 2009 is accounted for by HSS funds approved for 2009-10 that have not yet been disbursed.

Figure 4.1: GAVI disbursements versus approvals (\$m)²⁷

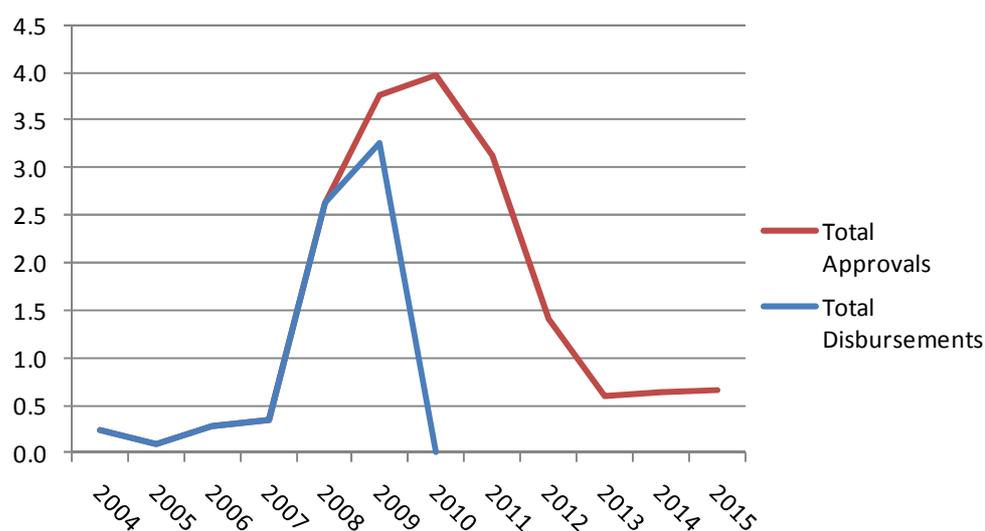


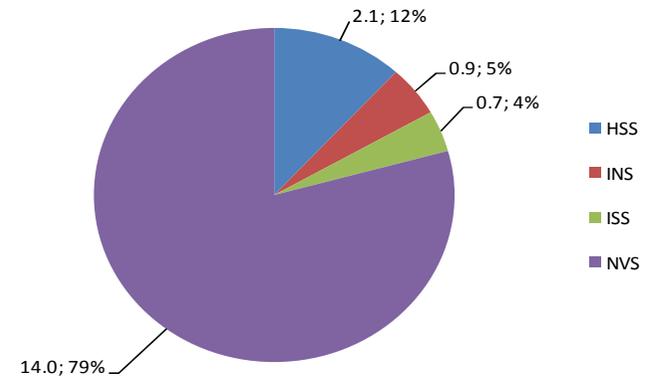
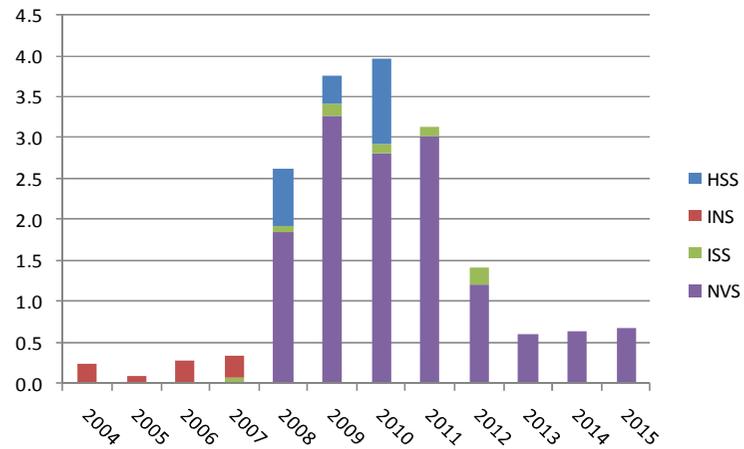
Figure 4.2 below shows the breakdown of approved and disbursed funds, across years and by GAVI program. As noted above, almost 74% of both approvals and disbursements during 2004-10 have been made under the NVS program. The second largest program in terms of approvals is HSS. Both ISS and INS are relatively small in comparison. Bolivia has not applied for CSO Type B funds and the application for Type A funds has stalled.

²⁶ Figures sourced from “CEPA – GAVI Phase I & II consolidated approvals & disbursements” spreadsheet, received from the GAVI Secretariat.

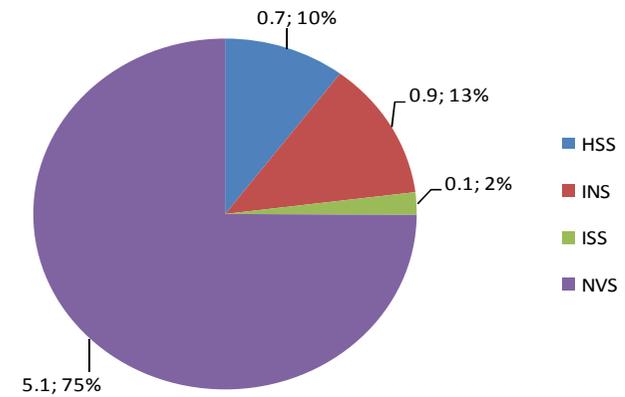
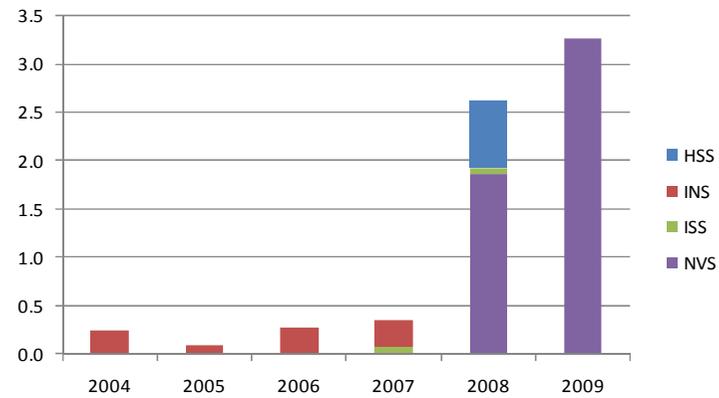
²⁷ In years 2004-08, disbursements equal approvals.

Figure 4.2: Approvals (2004-15) and disbursements (2004-9) (\$m) ²⁸

Approvals



Disbursements



²⁸ This excludes ISS lump sum payments.

4.2. General program application, approval and disbursement and monitoring processes

In general, the application process is regarded favourably, and interviews did not identify any particular concerns with GAVI's monitoring processes per se. Common points relating to all programs are summarised below:

- GAVI's processes are perceived as transparent and funding decisions are clearly communicated by GAVI.
- A number of interviewees indicated that processes are relatively easy compared with internal processes in Bolivia, which are deemed to be more cumbersome. There was also a general sense that GAVI processes are simpler than those of the Global Fund (GF) in particular.
- The ICC process in country appears to be functioning well. Again there may be a sense that the process is good in comparison to other public sector related processes in the country. But all comments indicated that the agenda was typically well managed and that decisions were taken by consensus. We understand that the meeting had often been chaired by the Vice-Minister – indicating significant and positive country engagement and ownership.
- The requirement for MSD ownership is a strong aspect of value add. Interviewees pointed to country ownership and alignment with country priorities (through the ICC) as being very important.
- The role of PAHO (Washington) is seen as being generally positive. There was no indication of any issues arising from the greater role played by PAHO and the relative lack of visibility of GAVI or GAVI country officers.
- There is *a priori* evidence to suggest that more proactive engagement by GAVI country officers (through PAHO) could have led to a more speedy resolution of issues of country issues (e.g. use of INS resources). However, this was not an issue raised by stakeholder in country.

Issues were also identified, although to a lesser degree:

- Some government officers believe that instructions and guidance supporting application forms are difficult to understand. This has reflected the fact that, until recently, not all key documents were available in Spanish, or the translation was not of a high quality.
- The country has not submitted its 2009 Annual Progress Report (APR) because Ministerial changes have held up its approval.

As a result of the cumbersome internal processes and lack of translated documents, the country sometimes encounters difficulties in complying with the timeline for the preparation of reports and the delivery of proposals.

5. ASSESSMENT OF GAVI HEALTH SYSTEM STRENGTHENING SUPPORT (SG1)

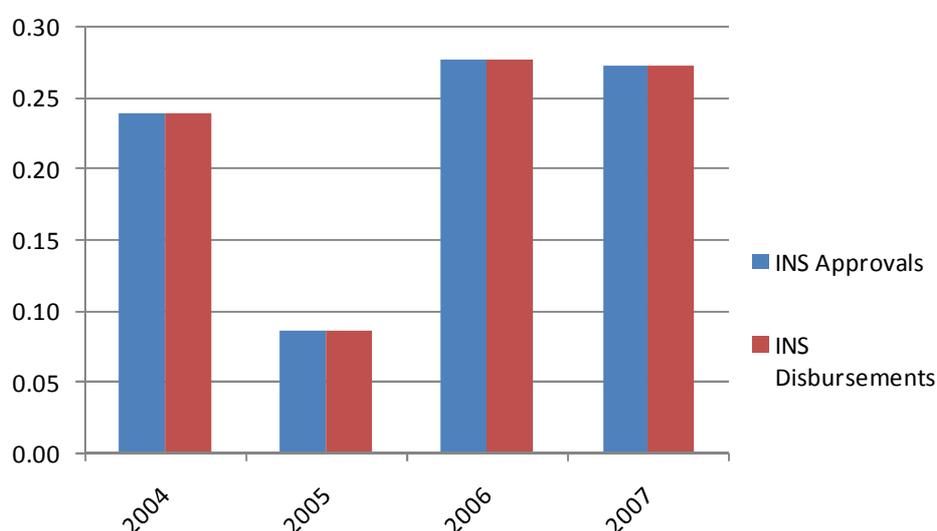
GAVI's first goal (SG1) is to contribute to strengthening the capacity of country health systems to deliver immunisation and other health services in a sustainable manner. This goal covers the HSS, ISS, INS and CSO programs.

This section provides a description of the support received from GAVI as well as an assessment of the results and value add, for the programs relevant to Bolivia.

5.1. Assessment of GAVI INS support

Bolivia is the largest recipient of INS support in the Americas region, and received INS support in kind amounting to \$0.9m during the period 2004-07. Figure 5.1 shows that all of the approved INS funds have been disbursed.

Figure 5.1: INS approvals and disbursements (\$m)



5.1.1. Description of INS application, approval and disbursement processes

A description of general processes is outlined in Section 5.1.1.

For INS in particular, there have been delays in the receipt of supplies during the first and second years of support. Supplies received in 2007 corresponded to the needs of 2006. In addition, due to a miscommunication the government had itself funded the purchase of auto-disable (AD) syringes procured through the PAHO Revolving Fund in the period 2005 onwards (highlighting its commitment to the use of ADs) – which duplicated GAVI funding.

This resulted in an underspend of \$0.5m in INS grants. Bolivia has requested (through PAHO) that GAVI allow the country to redeploy these resources for ISS purposes i.e. to invest in cold chain capacity - to purchase of a number of refrigerated lorries for the regional level.

5.1.2. Results of INS support

GAVI INS support has made limited progress in Bolivia. This section discusses each of the results of GAVI INS in Bolivia in more detail.

Introduction of safety equipment

There was little initial acceptance of AD syringes by health personnel, and there is discrepancy in health sector norms regarding the use of AD syringes.

The 2008 APR states that an evaluation has been scheduled for the storage of syringes to meet quality standards to strengthen the process of safe vaccination, and to obtain autoclaves for the disposal of waste. It also states that there are plans to conduct local surveys and training workshops on safe vaccination, although there is no evidence of this to date.

Sustainability of usage and funding of safety equipment

There is no specific information on GAVI's influence (or use of support to influence) safety policies in the country. The lack of a policy would inhibit longer term sustained use of safety equipment and safe injection practise.

Safe disposal / waste management

The EPI team, in collaboration with partners, have developed guidelines for the management of immunisation waste. These were published in April 2007. Sharps waste is placed in bio-safe boxes in most health establishments in the country. However, final disposal of waste is not satisfactory, as waste is still buried in specified, controlled sites in urban areas and burnt and buried in minor urban and rural areas.

Safety practices in broader country health systems other than immunisation

Immunisation is the only area where there has been full implementation of injection safety procedures – in other areas, progress has been much slower.

5.1.3. INS value add

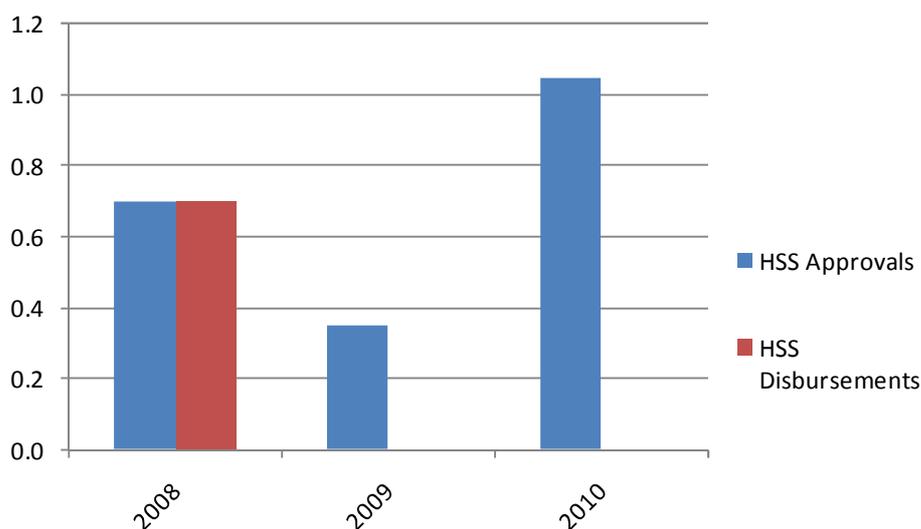
The INS window was important in raising awareness of the importance of injection safety. The National Vaccine Law (referred to in Section 7) also has a component that guarantees support for the acquisition of related safety equipment. Although the country was already moving in this direction, the INS window added impetus to the process. Stakeholders believe that without INS, the country would not have fully implemented safe injections processes for immunisation in such a short time.

5.2. Assessment of GAVI HSS support

Funding under HSS was also approved in 2008 for the period covering 2008 to 2010.

Of the total amount of \$2m approved for Bolivia under the GAVI HSS window for 2008-10, \$0.7m was disbursed in 2008. As illustrated in Figure 5.4, not all HSS funds have been disbursed as yet.

Figure 5.4: GAVI HSS approvals and disbursements (\$m)



5.2.1. Description of HSS application, approval and disbursement processes

A description of general processes is outlined in Section 5.1.1.

For HSS in particular, we understand that PAHO was particularly important in supporting the MSD in the preparation of the proposal – and that the proposal was well regarded by GAVI.

Although the first year disbursement was made to Bolivia, it has not been used. The lack of activity reflects repeated changes in political leadership in the MSD and the resulting changes in officials. We understand that the planning phase has begun, but decisions have not been taken on how to implement (i.e. whether it should be done with MSD leadership, or contracted to consultants / NGOs).

5.2.2. Results of HSS support

Since HSS implementation has not yet begun in Bolivia, results cannot be assessed. Instead, we outline the ‘expected’ results as defined in the HSS proposal.

The proposed aim of the HSS proposal is ‘to extend the coverage and improve the quality of maternal and child comprehensive care in health services in 35 prioritised municipalities of the country by 2010’. The proposal sets out two strategic objectives (on the supply and demand side respectively) and proposed interventions for each of these:

- Strategic Objective 1: To reorganise health care networks and improve the quality of care, as well as the capacity for management in health in the 35 prioritised municipalities. There are three interventions identified to support the achievement of this:
 - Development and implementation of standards, methodologies, and tools for strengthening the management capacity of the health teams (e.g. on resource planning and programming; and monitoring and evaluation).
 - Training personnel on current norms for adequate care of mother and child.
 - Consensus building and coordination between level of health management and donor supporters.

- Strategic Objective 2: Strengthen promotion and prevention interventions in maternal and child health, with a community and intercultural approach; empowering communities in their responsibility for health care in the 35 prioritised municipalities. There are three interventions identified:
 - Research on communities' knowledge, practices and attitudes.
 - Identification of needs and ways to address problems with maternal, neonatal and child health using participatory approaches.
 - Training for health workers on the intercultural approach and compassionate care for communities.

The expected results of planned interventions are outlined in Figure 5.5 below:

Figure 5.5: Expected results of GAVI HSS support

1. Increase the coverage of pentavalent vaccine from 83% to 92% in 2010;
2. Increase the number of municipalities with coverage of pentavalent vaccine from greater than or equal to 80% from 195 to 220 in 2010;
3. Reduce infant mortality from 54 per 1000 live births to 40 in 2010; and
4. Reduce maternal mortality from 229 to 170 in 2010.

Bolivia HSS Proposal 2008

5.2.3. HSS value add

As outlined above, HSS implementation has not yet begun. Therefore in this section we summarise feedback from country stakeholders on the planning phase, which to date, has been positive overall. Points to note are as follows:

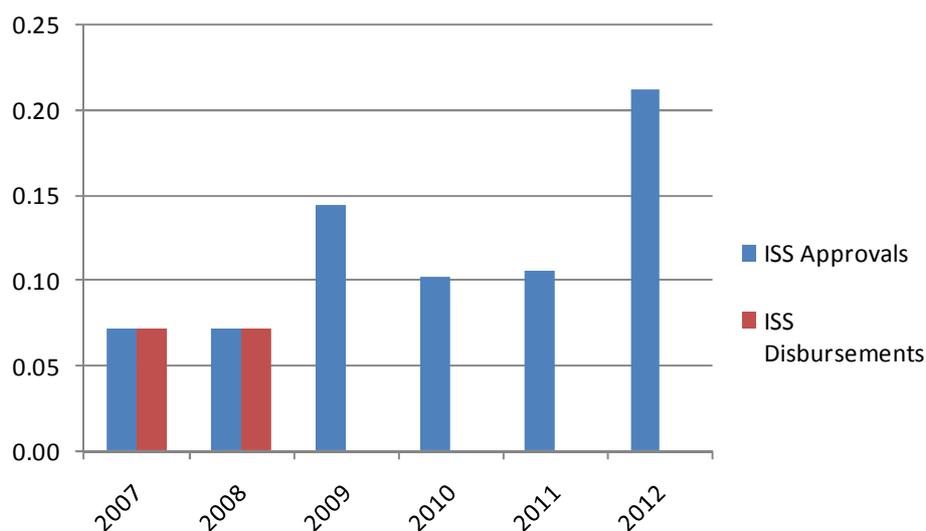
- the establishment of a base line of the situation of health services and issues, and the quality and timeliness of the production of indicators have been particular areas of value-add.
- HSS is owned by the MSD, whereas a number of other donors operate on a project basis that is separate from the government (e.g. the World Bank, USAID, JICA). As such, it is the first major project that is properly aligned with MSD strategy.

- given MSD ownership, HSS is (at least in principle) well linked-in to other projects such as those financed by the Ministry and World Bank. Notwithstanding the hiatus in implementation, the MSD indicated that, as a result of HSS, it has decided to take ownership of a number of these other projects.
- Officials believe that the HSS project also allowed the MSD to innovate in terms of the way in which it approaches Municipalities. In the past, the MSD would target the most deprived Municipalities, but under HSS, Municipalities have been clustered into networks. It is hoped this will make the delivery of the projects more efficient.
- HSS has also led to the development of a national project intended to strengthen networks of health care services.

5.3. Assessment of GAVI ISS support

In Bolivia, the level of ISS funding is relatively low. A total amount of \$0.24m (including 2008 lump sum of \$0.1m) has been disbursed to Bolivia under the ISS window, between 2001 and 2008. In addition, \$0.14m has been approved in 2009, but not yet disbursed.

Figure 5.6: ISS approvals and disbursements(\$m)²⁹



5.3.1. Description of ISS application, approval and disbursement processes

A description of general processes is outlined in Section 5.1.1.

There were no additional points raised specifically in relation to ISS processes.

5.3.2. Results of ISS support

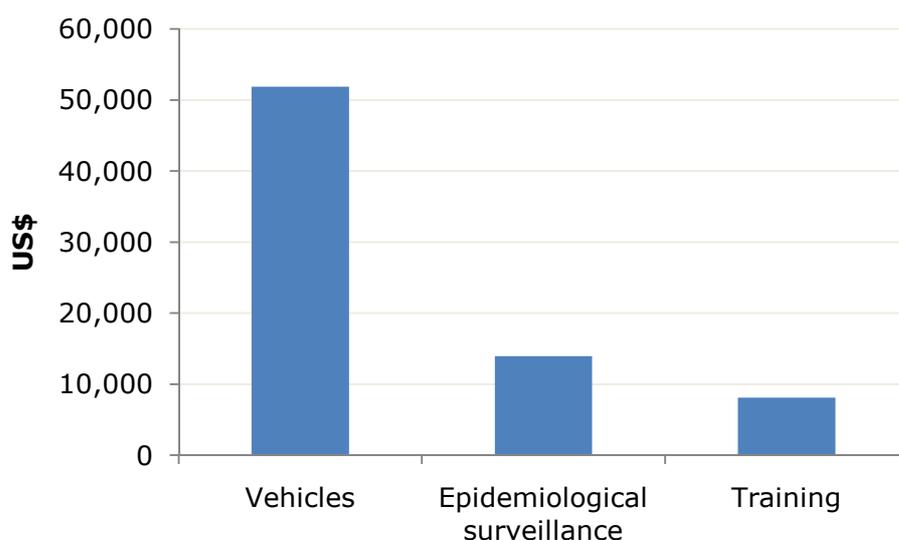
GAVI ISS support to Bolivia is reported to have strengthened immunisation systems, particularly in monitoring and evaluation of immunisation performance. This section describes the use of GAVI ISS funds in Bolivia and specific areas of value addition.

²⁹ Excludes ISS lump sum payments.

Use of ISS funds

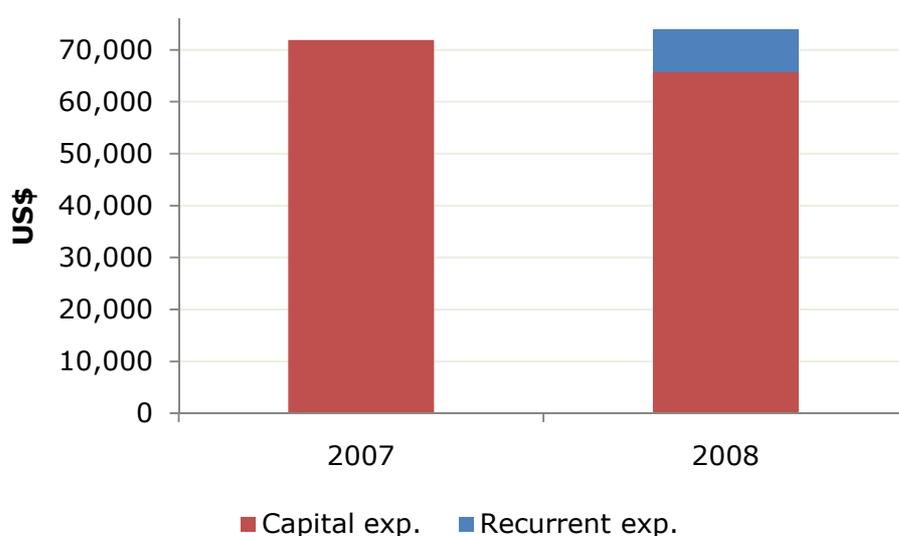
During the 2007-08 period, a total of \$0.15m has been spent on various ISS activities. Figure 5.8 below shows the allocation of ISS spending across different areas for 2008. ISS spending in the year amounted to a total of \$73,903, of which approximately 70% was for vehicles, which have strengthened capability to conduct evaluations and monitor vaccination performance and coverage. Other areas of expenditure include epidemiological surveillance and training. Funds have also been used to improve communications with vaccination centres, and information management through the purchase of computers.

Figure 5.8: ISS spending by areas of expenditure, 2008 (\$m)



As shown in Figure 5.7 below, almost all ISS spending in Bolivia has been on capital expenditure.

Figure 5.7: ISS expenditure: Recurrent versus Capital expenditure (\$)



Flexible cash

In Bolivia, the level of ISS funding is relatively low and the ability to use the resource flexibly is viewed positively.

Reward based funding

The EPI manager appeared to have a good understanding of the ‘reward’ phase. Funds have also been used to strength the capability to monitor and conduct evaluations of the performance of vaccination through the acquisition of several vehicles – some of which have been provided as ‘rewards’ to regions with good coverage performance.

Data Quality Audit (DQA)

There are significant differences between the WHO and MSD coverage rates. There is a particular issue with the denominator in the official coverage statistics which is still based on 2000 census data. We understand that the number of births per year have fallen over the decade and therefore official coverage data understates the actual level of coverage. As a result, there is a study being undertaken to compare samples across different Regional Departments.

A good amount of work has been done to establish baselines and to track progress of key indicators on mortality. A Demographic Health Survey (DHS) has recently been conducted and the data is available for immunisation. There is some disagreement, however, on maternal mortality figures (which show that maternal mortality has increased). This has meant that the DHS has not been completely signed off.

We understand that a Data Quality Survey (DQS) was expected to be conducted in 2009/10. However this has been postponed subject to the current review of ISS and data quality assessments.

5.3.3. GAVI ISS value add

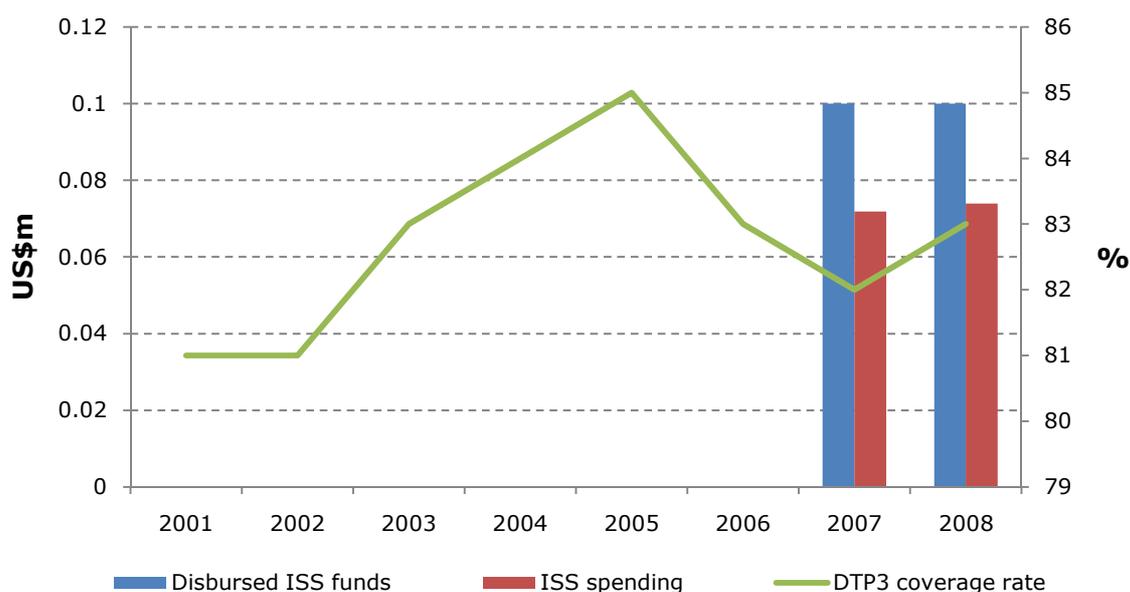
Investments in monitoring and evaluation have benefited the EPI as a whole, since these activities are critical for all vaccines. For example, the additional resources have been used for monitoring vaccination against pandemic influenza with good results.

The focus of ISS funding is on improving capacity to track coverage rates. ISS is therefore not expected to have any impact on coverage rate per se. However, EPI officials seem confident that government commitment to immunisation has meant that coverage rates are increasing.

Figure 5.9 below presents DPT3 coverage rates³⁰, GAVI ISS disbursed funds and ISS spending for the period 2001-08. A positive correlation is seen between DPT3 coverage rates and amount of ISS spending in the country during 2007-08. Given the issue with the denominator in official coverage statistics, it is likely this data underestimates the actual level of coverage.

³⁰ WHO/ UNICEF estimates.

Figure 5.9: Disbursed GAVI ISS funds, ISS spending (\$m) and DPT3 coverage (%), 2001-08³¹



The country is strongly committed at the political and technical level to vaccinations. The new government has recently introduced vaccination bonds – which are payments to individuals on confirmation that they have been vaccinated. The evaluation team believe that this policy prioritisation is the driver for increased coverage as opposed to ISS funding.

5.4. GAVI CSO support

Bolivia is eligible for both Type A and Type B support, up to maximum amounts of \$26,463 and \$142,932 respectively.³²

We understand that the focus of this funding fits well with the priorities of the government of President Evo Morales – in terms of support of grassroots organisations, and that an application for Type A funding had been prepared and submitted in March 2008 with the support of PAHO. The application was submitted in Spanish and was not signed by the authorities, hence the application was required to be resubmitted. However, given continuing political uncertainty / changes in the MSD the application the process has stalled.

Bolivia is one of the ten countries in the CSO Type B pilot, of these, it is one of two countries that have not yet applied for funding.

It was noted that there had been some confusion in the country with the term CSO i.e. CSOs were perceived to be NGOs. This resulted in a negative perception of CSO funds due to underlying political suspicion of some NGOs working in the country. This issue was resolved when it was explained that ‘CSOs’ actually refers to grass roots organisation.

³¹ Source: “CEPA - GAVI Phase I & II consolidated approvals & disbursements” spreadsheet, received from the GAVI Secretariat.

³² Source: “CSO Approvals and Disbursements (5 March)” spreadsheet, received from the GAVI Secretariat.

6. ASSESSMENT OF GAVI VACCINE SUPPORT TO BOLIVIA (SG2)

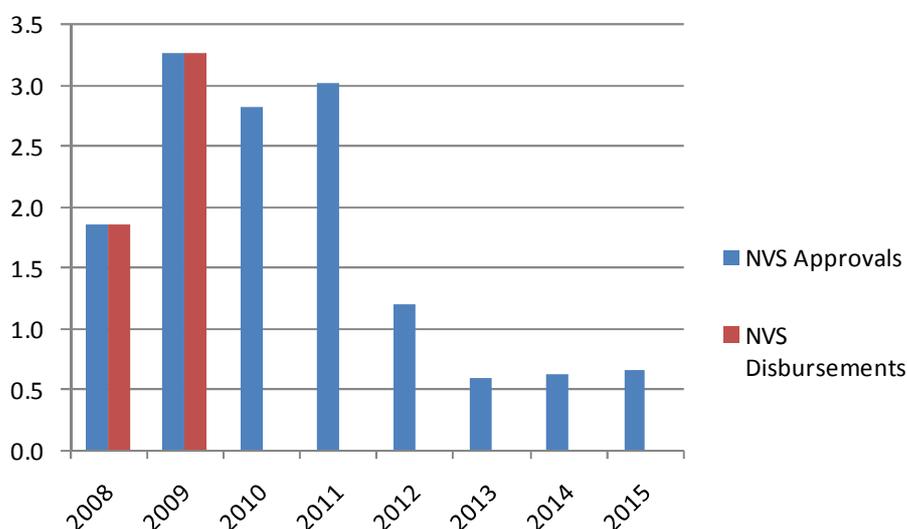
SG2 is to ‘accelerate the uptake and use of underused and new vaccines and associated technologies and improve vaccine supply security’.

This section provides a description of the vaccine support received by Bolivia as well as an assessment of the program’s results and value add.

6.1. Description of GAVI support for vaccines

Bolivia has been receiving NVS support from GAVI since 2008 for the rotavirus vaccine, and is the first GAVI eligible country to introduce the vaccine. Figure 6.1 shows approvals and disbursements for NVS over 2008-15. To date, \$5.1m has been disbursed.

Figure 6.1: NVS approvals and disbursements (\$m)



The rotavirus vaccine is financed 50% by government and 50% by GAVI. Table 6.1 outlines GAVI’s support to Bolivia in relation to the introduction of rotavirus.

Table 6.1: Introduction of underused vaccines

New/underused vaccine	Year of introduction	Total disbursement	Vaccine Introduction grant uses
Rotavirus vaccine	2008	\$1.9m	<ul style="list-style-type: none"> • \$0.1 received as vaccine introduction grant. • Grant used for conducting training workshops, public awareness and communication, and technical assistance to the SEDES.³³
Rotavirus vaccine	2009	\$3.3m	<ul style="list-style-type: none"> • Used to purchase rotavirus vaccine from PAHO revolving fund.

³³ Source: Country APR 2008.

6.2. Assessment of GAVI vaccine support

6.2.1. Description of application, approval and disbursement processes

A description of general processes is outlined in Section 5.1.1.

For NVS in particular, the introduction of the rotavirus vaccine followed a well defined process of technical review and approval by the ICC. Feedback from country interviews suggested that PAHO was very helpful in conducting the analysis and assembling the data to make the case for its introduction.

Bolivia purchases all of its vaccines through the PAHO Revolving Fund, outside the UNICEF procurement mechanism. Purchasing the vaccines through the Revolving Fund is more economical, as the Fund is able to provide them cheaper than would be the case if they were individually negotiated by the country.

In 2008, there were delays in GAVI disbursements which caused major problems. Bolivia had to employ country funds to secure rotavirus vaccine introduction, but to do this, the country had to use funding allocated to other vaccines. As a consequence, Bolivia was excluded from the Revolving Fund for three months and (combined with the use of other earmarked funds) was unable to secure enough vaccines for the population. This led to a temporary decline in vaccination coverage for other antigens.

6.2.2. Results of GAVI NVS support

Vaccine introduction

The rotavirus vaccine was adopted because diarrhoeal diseases were recognised as the most prevalent cause of infant mortality and morbidity in Bolivia. This conclusion was reached after reviewing epidemiological data from the sentinel surveillance system on diarrhoeal diseases that was implemented in Bolivia before vaccine introduction. Before the decision was reached on the vaccine to be introduced, extensive consultations were carried out with national and international experts and a disease burden assessment was conducted.

We understand that the way that the rotavirus vaccine is delivered by the Revolving Fund is functioning well, shipment is timely, the cold chain is adequate and therefore wastage is low. The delivery schedule is currently quarterly – which is aligned with EPI reporting requirements within the country.

The implementation work is planned and implemented by the EPI team, although all participating institutions play a role. For example PAHO / UNICEF worked on the preparation of publicity material for the rotavirus vaccine introduction.

With the introduction of the rotavirus vaccine, all GAVI reports have been executed jointly by the ICC. The 2009 APR has been delayed because of changes in the Ministry. There is a lot of transparency within the ICC on what is going on – which reflects the commitment and common work done by members.

Interviews did not identify any problems with the vaccine introduction, which appears to have gone smoothly and relatively well.

Vaccine adoption

There is significant variation in adoption and coverage rates in different areas of the country. First dose coverage with rotavirus vaccine was 57% in 2008 – this was based on only 4 months of vaccination activities as the vaccine was available only after August 2008. Between regional departments, this ranged from 100% in Pando, Cochabamba and Oruro to 86% in La Paz.

Table 6.2 details second dose coverage rates by regional department for 2008 and 2009. In 2008, the second dose had lower coverage, ranging from 24% in Beni to 71% in Oruro. In 2009 there was a clear increase in second dose coverage achieved, with overall vaccination coverage reached 64%.

Table 6.2: Coverage with second dose of rotavirus vaccine by department 2008-09

Regional department	2008	2009
Santa Cruz	39%	62%
La Paz	32%	60%
Cochabamba	52%	64%
Potosi	43%	71%
Chuquisaca	46%	62%
Oruro	71%	86%
Tarija	51%	67%
Beni	24%	51%
Pando	67%	75%

Source: Bolivia EPI.

It is important to bear in mind that official estimates of vaccine coverage are likely to be an underestimate – because of problems with the denominator referred to earlier in this report.

Given that the rotavirus vaccine is administered orally, acceptability has been high so far. The monodose presentation helped to prevent high levels of wastage. Preliminary data shows that diarrhoeal hospitalisation rates have been reduced by 40% since the rotavirus vaccine introduction.

6.2.3. NVS value add

GAVI vaccine support is widely recognised as playing an important role in strengthening the vaccination program in Bolivia. Specific areas of value-add include:

- The EPI team indicated that they thought the existence of GAVI had brought forward the introduction of rotavirus vaccine by at least 5 years.
- Bolivian officials credited the vaccine introduction with improvements in the diarrheal surveillance system, including strengthening the capabilities for microbiological diagnosis, increasing the number of sentinel centres (some directly funded by GAVI), and developing stronger networks with the National University and other partners. A GAVI value-add has been that the additional resources provided for the rotavirus vaccine increased interest in and improved surveillance of other diseases.

- GAVI's support has contributed to strengthening the ability of the country to conduct monitoring of vaccination coverage and other vaccination activities, and to evaluate the effectiveness of vaccines. This has largely been due to the purchase of vehicles and computers. Additional vehicles allow supervisors to visit more remote communities and computers have strengthened the communications network of the EPI and its ability to report the results of vaccination activity on a timely basis. These capacities have been fundamental to follow activities related to rotavirus vaccination, but also for other vaccines such as A H1N1.
- Introduction of the vaccine has provided a basis for the MSD to make the case to the National Treasury for funding to strengthen the cold chain, leading to increased national investment to revamp the cold chain and strengthening the national surveillance system for diarrhoea.

More broadly, GAVI NVS support has indirectly added value in a number of other areas:

- support helped to organise the work of international donors in the country. The way technical cooperation is delivered has become more organised and tied to the official agenda of the MSD.
- promotional activities around the introduction of the vaccine have led to increased awareness in communities about the value of vaccines and immunisation.

7. SUSTAINABILITY OF GAVI FUNDING AT THE COUNTRY LEVEL (SG3)

SG3 relates to GAVI's financing of its programs, and to 'increase the predictability and sustainability of long-term financing for national immunisation programs'. The focus of country-level evaluation has been to analyse to what extent GAVI has promoted and increased the sustainability of immunisation funding in the country. Since we do not have access to a comprehensive Multi-Year Plan (cMYP) for Bolivia, we undertake this analysis by collating feedback from the country visit on sustainability.

7.1. Review of cMYPs

We do not have access to a cMYP for Bolivia hence we are not able to conduct this analysis.

7.2. Stakeholder views on the sustainability of GAVI funding

There is an established tradition of prioritising child and maternal health – including immunisation – in Bolivia. Existing routine immunisation has been funded by the government's public health insurance fund. At the moment, the fund for existing vaccines is financed by 5% of the public health insurance budget.

The high level of commitment has been demonstrated in the recent GAVI-supported introduction of the rotavirus vaccine, where Bolivia is financing 50% of the vaccine cost – significantly more than GAVI co-financing minimum. Bolivia is preparing to fully finance rotavirus vaccination, and at the current price of \$7 per dose, sustainability seems viable in the long term.

Furthermore, officials have noted that the introduction of rotavirus vaccine acted as a catalyst for the implementation of a National Vaccination Law – which seeks to guarantee public financial support for all vaccines in the country through the creation of a national fund for vaccine purchase and support of vaccination activities. Government officials believe the rotavirus vaccine will be financially sustainable even when GAVI funding ends.

With regards to the sustainability of HSS and immunisation activities once GAVI support ceases, the Bolivian government is seeking to increase the budget of the health sector. However, achieving impact remains a challenge given the country's geography and levels of poverty amongst indigenous groups. The government is also strengthening ties with other donors such as USAID and several European countries.

8. GAVI'S STRUCTURES AND PROCESSES IN BOLIVIA (SG4)

SG4 is to 'increase and assess the added value of GAVI as a public private global health partnership through improved efficiency, increased advocacy and continued innovation'. This section describes the GAVI institutional structures in Bolivia and the role of technical partners in proposal development and grant implementation. There is also a discussion of the key strengths and weaknesses of the structures and processes, and the operation of GAVI's Alliance model at the country level. The particular issue here relates to the way in which GAVI operates given the importance of PAHO in Bolivia (and in the region more generally).

8.1. Institutional structures

The GAVI Alliance in Bolivia is represented by PAHO and UNICEF. PAHO, the regional WHO office for The Americas, provides technical support for all aspects of vaccination in Bolivia. It provides the EPI (based within the MSD) with a broad range of advice, such as managerial aspects of EPI, the introduction of new vaccines, epidemiological surveillance of EPI diseases, and assessing burden of immune preventable diseases.

UNICEF has worked in Bolivia since 1950. It implements five-year cooperation programmes, aimed at achieving sustainable human development for children, adolescents, women, and indigenous peoples.

Other partners involved in Bolivia include the Canadian International Development Agency (CIDA), The Integral Health Coordination Program (PROCOSI)³⁴, the Bolivian Red Cross, the Spanish International Cooperation Agency for Development (AECID), the French Development Agency (AFD), and the Belgian Development Cooperation.

8.2. Stakeholder views on the 'Alliance' model at the country level

GAVI's alliance model is perceived as positive for three key reasons: (i) efficient and effective collaboration; (ii) alignment with country activity; and (iii) increased country ownership.

Efficient and effective collaboration

The general opinion of several partners of the Alliance, is that the interagency group works well. It is often chaired by the Vice-Minister. Meetings are regular and well advertised, and decisions are made on consensus basis.

GAVI has also achieve value add by improving the way in which the delivery partners work together. Delivery partners have the opportunity to work together in other sectors, but here there are a common set of guidelines on who does what and how (part of this is the sector wide approach, but in immunisation). This standardisation of the way in which the partners work together means efforts are streamlined and resources are not expended in agreeing an approach in each case. GAVI is seen as more effective in this than GF.

³⁴ PROCOSI is an NGO network with 34 national / international member organisations and focuses on child survival.

There is also a consensus that PAHO is recognised as the Alliance partner that most influences technical and political aspects of vaccine introduction, and that this collaboration has been important despite its different concepts on health services and networks.

Alignment with country activity

The alliance model of GAVI is perceived as different to those followed by other foreign aid agencies in Bolivia. It is recognised that GAVI's Alliance model has aligned itself with government objectives and has helped the government to organise an agenda for international donors. Within the MSD, there is a clear understanding of the role of GAVI as a financing entity that operates through partners 'on the ground', and the roles of different partners in the Alliance.

One favourable characteristic of GAVI's support compared to other donors is that it is more strategic in terms of having a national vision and utilising existing networks in its approach. There was a perception that other donors have isolated approaches and focus more at local levels.

Increased country ownership

GAVI's model (with a distinct third party doing the financing – as opposed to UNICEF / PAHO) has been important in obtaining country / MSD ownership. Responsibility and accountability clearly sits with the government – albeit with support from the multilaterals. If resources had been channelled directly through UNICEF, there is a risk that the intervention would have been a 'UNICEF project' and it would not have been necessary to get ICC agreement and MSD signatures.

8.3. Country level advocacy

Bolivia is the first GAVI eligible country to have introduced rotavirus vaccine. The provision of support on rotavirus unambiguously supported the ability of EPI managers to make the case for immunisation within the country. In particular, social mobilisation required for the introduction of rotavirus resulted in the first publicity campaign for a new vaccine since 2000. The promotional activities conducted included the production of leaflets, posters and certificates (which UNICEF and PAHO worked on preparing) – targeted at both health workers and parents. This campaign has had a significant impact on raising the awareness of the rotavirus vaccine and its value amongst both: (i) the general community; and (ii) among decision makers. There is a strong sense amongst those that we interviewed that this material has played a significant part in supporting the case for immunisation in general as well as for the rotavirus vaccine.

Other relevant points noted elsewhere include the contribution of GAVI to bringing forward the introduction of the Vaccine Law (a clear indication of increased commitment) and the fact that GAVI support has acted as a catalyst for the government to strengthen the cold chain to allow the introduction of the rotavirus vaccine.

9. CONCLUSIONS

This section brings together the findings on results and value add across GAVI programs in Bolivia. Table 9.1 below consolidates the evidence from our analysis on areas where GAVI has demonstrated relatively better or weaker performance across its four SGs.

Table 9.1: Performance of GAVI programs in Bolivia

SG	Positive results/value add	Weaker results/value add
SG1: Health System Strengthening	<ul style="list-style-type: none"> ● Stakeholders believe that INS acted as an impetus for the country to introduce safety equipment for all of its immunisation programs – and speeded the process of introduction. ● ISS funds were used mainly for capital purchases such as vehicles, computers (some through ‘rewards’) which has improved general EPI monitoring and evaluation capabilities. ● During the HSS planning phase, areas of value-add have been the establishment of a baseline, increased country ownership and alignment (in both GAVI and broader activities), and innovation in ways of working. 	<ul style="list-style-type: none"> ● Limited success of INS in safe waste disposal, implementation of safe injection policy or safe practice outside immunisation. ● Disbursement delays have led to duplicated country activity and underspend in INS grants. ● Confusion relating to the term ‘CSO’ has hindered both CSO and HSS applications.
SG2: Vaccine support	<ul style="list-style-type: none"> ● Introduction and implementation of the rotavirus vaccine appears to have gone relatively well. ● Adoption rates are high for first and second doses, and are increasing. ● The EPI team indicated that they thought the existence of GAVI had brought forward the introduction of the rotavirus vaccine by at least 5 years. ● Introduction of rotavirus has acted as a catalyst for Bolivia to use country funds to increasing investment in, and strengthen the cold chain, and contributed to an improved ability to conduct surveillance. 	<ul style="list-style-type: none"> ● Disbursement delays have led to the country having to use other funds for procurement. As a consequence, Bolivia was excluded from the Revolving Fund for three months, and as a result of use of funds earmarked for other vaccines there was a temporary shortage in other vaccine stocks.

SG	Positive results/value add	Weaker results/value add
SG3: Financing	<ul style="list-style-type: none"> • Bolivia has demonstrated significant commitment to financing vaccines – which is consistent with the high priority given to maternal and new born health and to immunisation in the country. • Bolivia has recently introduced a law which guarantees financial support for all vaccines in the country through the creation of a national fund for vaccine purchase / activity support. Officials believe that GAVI’s support acted as a catalyst for this. 	<ul style="list-style-type: none"> • Disbursement delays for NVS led to short-term funding displacement (as noted above in relation to SG2).
SG4: Added value as a global PPP	<ul style="list-style-type: none"> • Promotional activities around the introduction of rotavirus have led to increased awareness in communities about the value of vaccines and immunisation in general. • Contribution (as noted above) to the introduction of National Vaccination Law. • GAVI’s alliance model is perceived as positive for three key reasons: (i) efficient and effective collaboration at the country-level; (ii) alignment with country activity; and (iii) increased country ownership. 	<ul style="list-style-type: none"> • Some criticism of clarity of communication from GAVI – in a large part because of lack of or relatively poor translation.

ANNEX A: DEMOGRAPHIC PROFILE

Table A1: Population by sub-groups (in thousands) 1980³⁵

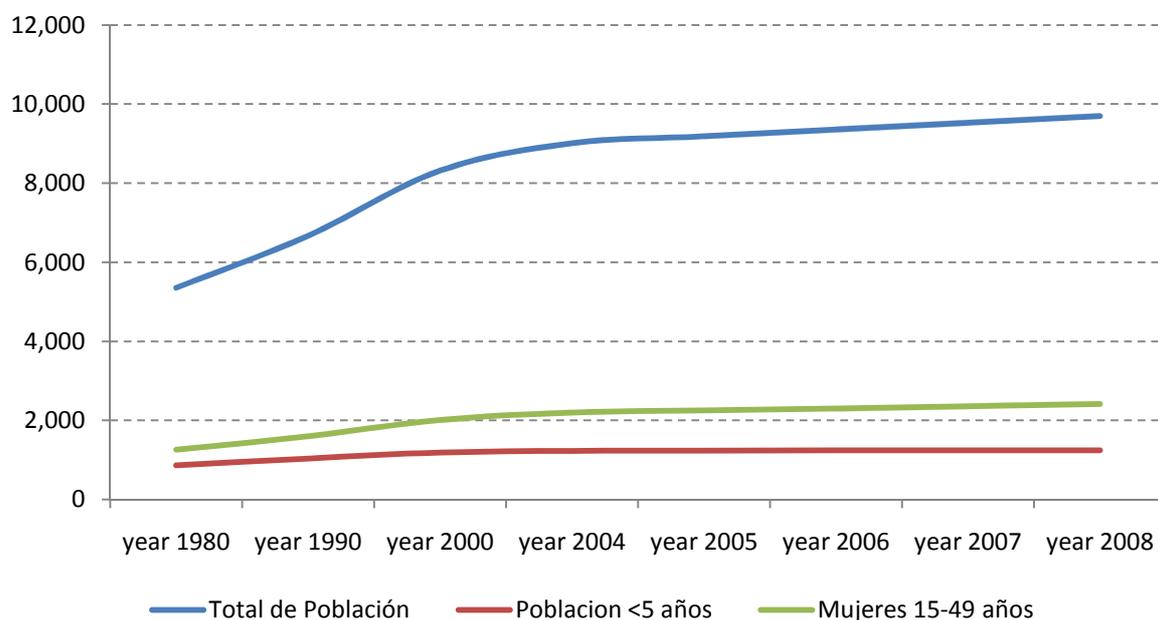


Table A2: Summary demographic and health statistics³⁶

Indicator	2000	2005	2010
Population (in millions)	8.317	9.182	9.863
Natural population growth (%)	2.1	2	1.7
Crude birth rate (per thousand)	30.5	28.5	26.6
Crude death rate (per thousand)	9	8	8.1
Total fertility rate (per women)	4.4	3.7	3.4
Life expectancy (both sexes)	63.6	64.9	66

³⁵ Source: PAHO

³⁶ Source: PAHO 2009 and others

ANNEX B: STRUCTURE OF THE HEALTH SECTOR

Provision of Health Services and Demand

The supply of health services includes the supply of resources, technology, standards, and logistics that make up the entire health system. It comprises all of the country's health facilities in different locations, levels of specialisation, including number of beds, and human resources. The national health system is comprised of a set of health services and facilities organised into networks by level of care and specialisation. These services and facilities include the public health system, social security, church-based health facilities, private for-profit or non-profit health facilities, and traditional medicine facilities in specific cases.

The following types of networks are recognised:

- **Departmental:** comprised of municipal health services networks, tertiary care hospitals, and facilities located in each department's capital city. It includes all individuals and institutions that provide health services within the departmental jurisdiction.
- **Municipal:** comprised of one or more primary care facilities and a higher-level health facility that offers health services in accordance with the degree of specialisation. It includes all individuals and institutions that provide health services within the municipal jurisdiction.

The current Management Model includes four areas:

- National, under the MSD
- Departmental, under SEDES, dependent on the prefecture
- Municipal, under DILOS; and
- Local, under the local health facility and, at an operational level, under the mobile brigade.

Access to the National Health System begins at the primary care facilities and mobile brigades, which provide care in accordance with their capacity. If necessary, they refer patients to secondary and tertiary care facilities in accordance with the network structure and treatment standards and protocol as established by the MSD. To access secondary and tertiary care facilities, patients must have a referral from a primary care facility that is part of the network, except in case of an emergency. The different levels of care offer the following:

- **Primary care:** This level predominantly focuses on self-care, outpatient visits, and transit hospitalisations. It includes Mobile Health Brigades, Health Posts, and Health Centres with or without beds, General Hospitals, and General Clinics, whether public, private, church-based, and part of Social Security or NGOs, or traditional and/or alternative medicine.
- **Secondary care:** Available at more specialised outpatient institutions and through hospitalisation for four basic specialties (internal medicine, surgery, paediatrics, and

gynaecology/obstetrics, with anaesthetics support and trauma services) and their diagnosis and treatment complements. This level includes secondary care hospitals.

- **Tertiary Care:** This level includes highly specialised outpatient care and hospitalisation for specialties and subspecialties. It is comprised of general hospitals and specialised institutes and hospitals. Overall, in 2006, there were 2,983 health facilities countrywide (91.8% of primary care and 1.94% of tertiary care). The supply of outpatient health centres is relatively high (0.33 for primary care centres with non-professional resident personnel and 0.14 for general medicine). Supply from the private subsector is low considering the population it covers. However, availability of hospital beds is concentrated in highly specialised hospitals, with 1.56 beds per 1000 people.

Table B1: Number and capacity of health care facilities, Bolivia, 2006³⁷

Indicator	Centres per 1000 people	Beds per 1000 people
Public sector hospitals		
Highly Specialised	0.01	1.56
Medium (Basic Specialisations)	0.01	0.4
Low (General Medicine)	NA	NA
Total Hospitals	149	NA
Public sector outpatient centres		
Specialised	NA	NA
First-Tier General Medical centres	0.14	0.38
First-Tier Centre with Non-Professional Resident personnel	1.377	NA
Private sector hospitals		
Highly Specialised	0.01	NA
Medium (Basic Specialisations)	0.08	NA
Low (General Medicine)	NA	NA
Total Hospitals	93	NA
Private sector outpatient centres		
Specialised Centre	NA	NA
First-Tier General Medical Centres	0.08	NA
First-Tier Centre with Non-Professional Resident Personnel	NA	NA
Total Outpatient Centre	77	NA

³⁷ Source: USAID-PAHO. Health Systems Profile Bolivia. Monitoring and analysis health systems change/reform. Third edition. Dec 2007 p.37-38

The 2006–2010 Strategic Health Plan

The MSD is the steering agency in the health sector and does not share that responsibility with any other actor. It coordinates intersectoral actions with other ministries, as well as with professional associations, NGOs, and multilateral cooperation agencies. Each administration has proposed some type of National Health Policy document.

The 2006–2010 Strategic Health Plan defines the vision of the MSD:

“In 2010, a unified health system will be fully implemented. It will provide universal access that is respectful of native cultures and enriched by traditional medicine. It will be inclusive, equitable, population-based, of high quality, and decentralised, managed and administered by the MSD. It will take action on health determinants, with the participation of a healthy population, a population with a good life, a population that is committed to physical activity and sports and that is organised and motivated by the full exercise of its right to health.”

The policies and strategies proposed in order to meet these objectives include:

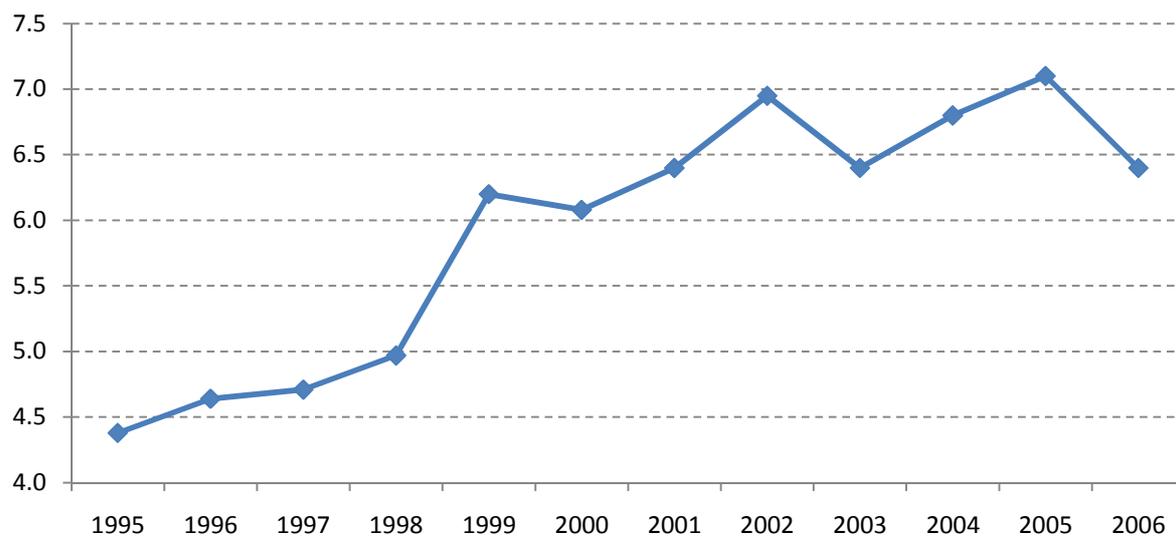
- A Single, Intercultural, Community Health System with universal access. The Family, Community, and Intercultural Health Model is to be implemented as well as quality management focused on gender, generational issues, and coverage expansion.
- Steering role to restore the management capacity to ensure financial sustainability of the sector and provide the system with a legal, regulatory, administrative, and financial framework independent of external conditions. The proposed programs and/or projects include: Universal Health Insurance, the strengthening of management capacity, and research and technology management.
- Social Mobilisation to promote citizens that are active, participatory, and responsible for their own health matters through the creation of national, departmental, and municipal health councils. The social management, mobilisation and control program will be implemented.
- Health promotion to restore State responsibility for quality of life and a culture of comprehensive health, in an effort to coordinate between the health sector and other State sectors regarding factors that determine social health exclusion. The Health Promotion, Health-Sport, and Healthy Municipalities projects will be implemented.
- Solidarity to develop a national partnership to eradicate malnutrition and violence and include the most vulnerable groups living in extreme poverty with the goal to eliminate social exclusion in health.

ANNEX C: HEALTH SECTOR EXPENDITURE AND FINANCING

This section of the annex presents detailed data on the amount, growth and financing of THE over the years, THE as a proportion of GDP, and the composition of household out of pocket expenditures.

Health sector expenditure

Figure C1: Bolivia THE as a % of GDP 1995-2006³⁸



³⁸ Sources: Ministerio de Salud y Deporte. Situación de Salud. Bolivia 2004 – Serie: Documentos de Divulgación Científica. Enero-2006, The World Factbook THE as % of GDP, 2002-2005 - Country Rankings, and WHO World Health statistics 2009. WHO Library Cataloguing-in-Publication Data. Francia 2009.

Health Financial scheme in Bolivia

This annex presents detailed data of health financial scheme in Bolivia

Figure C2: Health Financial scheme in Bolivia³⁹

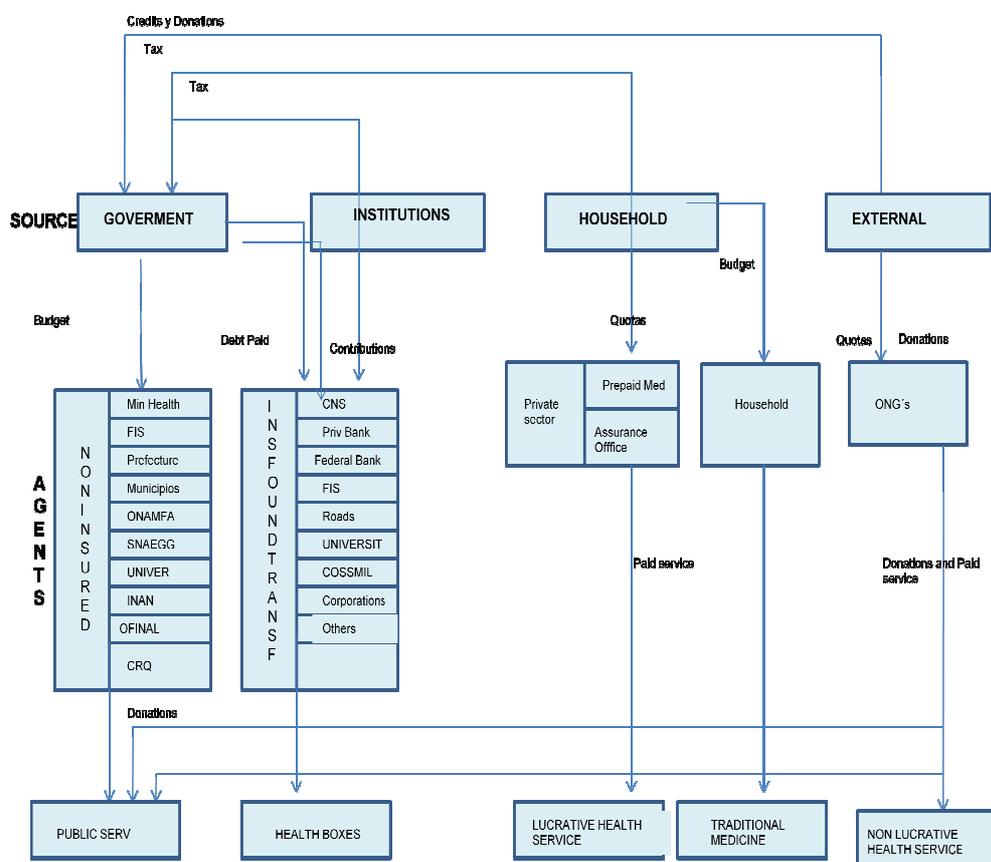


Table C1: Economical Health Financial in Bolivia 1995-98 (in \$ thousands)⁴⁰

	Public Sector			Social Security			Private Sector		
	1996	1997	1998	1996	1997	1998	1996	1997	1998
Government	62	65	72	-	4	10	-	-	-
Institutions	738	1	1	148	155	179	1	11	9
Household	999	2	5	-	-	-	101	116	130
External cooperation	20	14	19	286	248	323	9	9	7
Total	86	88	97	148	156	179	111	135	146

³⁹ Source: OPS/OMS Caracterización de la exclusión social en Bolivia. Agosto 2004.

⁴⁰ Source: Organización Panamericana de la salud. Perfil del sistema de servicios de salud Bolivia 2001.

Table C2: Health expenditure indicators by subsector 1995-2002⁴¹

Sample	1995	1996	1997	1998	1999	2000	2001	2002
National Health Expenditure (\$thousands)	\$293k	\$343k	\$373k	\$422k	\$512k	\$509k	\$513k	\$542k
- Public Health Expenditure	\$81k	\$84k	\$83k	\$97k	\$117k	\$116k	\$106k	\$113k
- Social Security Health Exp.	\$110k	\$148k	\$156k	\$179k	\$195k	\$203k	\$211k	\$222k
- Private Health Expenditure	\$102k	\$111k	\$135k	\$145k	\$200k	\$190k	\$197k	\$203k
GDP per year (\$billions)	\$6.71bn	\$7.39bn	\$7.92bn	\$8.49bn	\$8.27bn	\$8.38bn	\$8.01bn	\$7.79bn
Exchange rate (BOB per USD)	4.81	5.08	5.26	5.52	5.82	6.19	6.62	7.18
Population (millions)	6.99m	7.19m	7.39m	7.60m	7.82m	8.38m	8.62m	8.82m
National Health Expenditure as % of GDP	4.38%	4.64%	4.71%	4.97%	6.20%	6.08%	6.40%	6.95%
- Public Health Expenditure as % of GDP	1.21%	1.13%	1.04%	1.15%	1.41%	1.39%	1.32%	1.46%
- Social Security Health Expenditure of GDP	1.64%	2.01%	1.97%	2.11%	2.36%	2.42%	2.63%	2.86%
- Private Health Expenditure as % of GDP	1.52%	1.5%	1.7%	1.71%	2.42%	2.27%	2.46%	2.64%
National Expenditure per capita (\$)	\$42	\$48	\$501	\$56	\$67	\$63	\$60	\$61

⁴¹ Sources: USAID-PAHO. Health Systems Profile Bolivia. Monitoring and analysis health systems change/reform. Third edition. Dec 2007 p35

ANNEX D: MAIN HEALTH POLICY DEVELOPMENTS

Within the framework of the Millennium Summit, Bolivia made a commitment to work on the eight areas essential to the achievement of its economic and social development objectives.

Table D1: MDG Progress Bolivia, 2006⁴²

MDG	Institution(s) Responsible	Standardised Databases	Progress	Identification of Actions
1. Eradicate Extreme poverty and Hunger	Ministry of Development Planning	Reduce extreme poverty	2005: 38.2% Extreme Poverty	The PND supports micro enterprises and microfinance, rural development, and infrastructure
		Reduce malnutrition among children under 3	2003: 24.2% Malnutrition Severe 7.6% (Height/Age Indicator)	SUMI distributes full doses of micronutrients and iron syrup to children 6 months to 2 years On August 2nd, 2006, the Law for the Protection of Maternal Lactation was enacted Program Zero Malnutrition - Inter-sectoral measures to improve nutrition
2. Achieve universal elementary education	Ministry of Education and Cultures	Universal primary school coverage	2005: 94%	The PND aims to improve education through a decentralised and productive approach The National Program for the Professionalization of substitute Teachers
		Percentage of population having finished 8th year of primary school	2005: 77.8%	The National Program for New Information and Communications Technology Municipal Education Programs (PROMES) for rural areas The Access and Stay in School Program for girls in rural areas

⁴² Excludes the eighth area that relates to development of a global partnership for development

Source: USAID-PAHO. Health Systems Profile Bolivia. Monitoring and analysis health systems change/reform. Third edition Dec 2007 p.16-18

MDG	Institution(s) Responsible	Standardised Databases	Progress	Identification of Actions
		Illiteracy rate for population between 15 and 44 years of age	2001: 13.3%	National Literacy Program “Yes I Can” aims to eliminate illiteracy within three years
3. Promote gender equality and empower women	Ministry of Education and Cultures	Gender gap in rate of those finishing 8th year of primary school	2004: 2.8% 2005: 0.3%	Vice-Ministry of Gender and Generational Affairs proposes the “Reduction of Socio-Economic, Political, and Cultural Gaps based on Gender, Generation, and Different Capabilities” Policy
		Gender gap in rate of those finishing 4th year of secondary school	2004: 0.8%	
		Gender gap in illiteracy rate of those between 15 and 44 years of age	93.8%	The Access and Stay in School Program for girls in rural areas
		Percentage of women with paid employment in the non-agricultural sector	31.5%	The PND provides for projects i) to create jobs for women, youth, seniors, and people with different capabilities and ii) to train 3,000 male and female leaders
4. Reduce child mortality	MSD	IMR per 1,000 live births	2003: 54 per 1,000 live births (Urban 44, Rural 67)	Universal Insurance for Mothers and Children Regularly Scheduled Extended Program on Immunizations
		Pentavalent vaccine coverage in children under 1 year of age	2005: 85%	
5. Improve maternal health	MSD	Maternal deaths per 100,000 live births	2003: 229	Universal Insurance for Mothers and Children
		Hospital births	2005: 63%	
6. Combat HIV/AIDS, malaria, and other diseases	MSD	Incidence of AIDS cases per million	2005: 17.1	National STI/HIV/AIDS Program
		Percentage of municipalities with a Chagas’ disease infestation rate greater than 3%	2005: 19%	National Chagas’ Disease Control Program
		Annual rate of malaria parasitosis (API) per 1,000 people	2005: 5.5%	National Program for Monitoring and Controlling Malaria

MDG	Institution(s) Responsible	Standardised Databases	Progress	Identification of Actions
		Percentage of tuberculosis cases cured of all reported	1995: 52.6% 2004: 80.3%	National Tuberculosis Control Program
7. Ensure environmental sustainability		Percentage of forest covered land	47.5%	The PND promotes productive, sustainable development in the forestry sector
		Percentage of national protected areas	17.2 million Hectares	The National Protected Areas Service (SERNAP) is in charge of the conservation of 22 national protected areas
		Chlorofluorocarbon (CFC) consumption MT ODP	NA	
		% national population with access to drinking water	71.7%	National Plan "Water for All"
		National sanitation coverage (% population)	43.5%	10-Year Basic Sanitation Plan

ANNEX E: KEY HEALTH SECTOR DONORS

The table below provides data on current donor involvement in health activities by organisation, area of cooperation, project / program and target area.

Table E1: Current donor involvement in health and social protection activities⁴³

Agency	Area of Cooperation	Project/Program	Target area
Multilaterals			
UNFPA	<ul style="list-style-type: none"> Strengthen institutional capacity of Sexual and Reproductive Health Program Improve quality of sexual and reproductive health services 	<ul style="list-style-type: none"> Sexual and Reproductive Health Program 	<ul style="list-style-type: none"> National
European Commission Delegation	<ul style="list-style-type: none"> Strengthening of institutions, infrastructure, and equipment 	<ul style="list-style-type: none"> Basic Health and Hygiene Program, PROHISABA 	<ul style="list-style-type: none"> Tarija and Potosí
Inter-American Development Bank	<ul style="list-style-type: none"> Vector control of Chagas' disease and treatment for children under 5 Blood quality control at blood banks and transfusion centers Epidemiological monitoring system and network of laboratories 	<ul style="list-style-type: none"> National Chagas' Disease Program EPI National Blood Banks Program - SINAVIS/INLASA 	<ul style="list-style-type: none"> Central Bolivia and at national level
PAHO / WHO	<ul style="list-style-type: none"> Development of health systems, support for health policy development, environmental health Essential drugs, health status and trends analysis Disaster preparedness and response Dissemination of technical scientific information, technical cooperation among countries 	<ul style="list-style-type: none"> MSD 	<ul style="list-style-type: none"> Central Bolivia and at national level

⁴³ Sources: USAID-PAHO. Health Systems Profile Bolivia. Monitoring and analysis health systems change/reform. Third edition. Dec 2007 p.31

Agency	Area of Cooperation	Project/Program	Target area
World Food Program	<ul style="list-style-type: none"> • Nutrition; national micronutrient program • Food safety support, human capital development among preschool-aged boys and girls through nutrition, education, and training 	<ul style="list-style-type: none"> • National Nutrition Program 	<ul style="list-style-type: none"> • La Paz Cochabamba, Oruro, Chuquisaca, Potosí, and Tarija
UNICEF	<ul style="list-style-type: none"> • Defining policies focused on health and nutrition among children, adolescents, and mothers • Institutional and community training, IEC, mass communication, essential inputs, decentralised planning 	<ul style="list-style-type: none"> • National Nutrition Program • HIV/AIDS 	<ul style="list-style-type: none"> • Central Bolivia and at a national level
<ul style="list-style-type: none"> • Bilaterals 			
Belgium	<ul style="list-style-type: none"> • Strengthening institutional capacity • Blood banks • Tropical disease research • Rationed supply system for essential drugs, integrated approach to development 	<ul style="list-style-type: none"> • SILOS Project Ichilo • Sara Rural Development Project (PSRIS) • Tropical Medicine University Center (CUMETROP) • National Center for Tropical Disease (CENETROP) • El Alto Hospital Project • Chayanta Fellowship Project 	<ul style="list-style-type: none"> • Santa Cruz, Cochabamba, Chuquisaca, and Potosí Departments • El Alto municipality
AECI	<ul style="list-style-type: none"> • Improving mother-child health • Human resources education 	<ul style="list-style-type: none"> • Human Resources Management and Training Unit- • MSD National Health Information System (SNIS) 	<ul style="list-style-type: none"> • La Paz, Potosí, Chuquisaca, and Chiquitania
JICA	<ul style="list-style-type: none"> • Strengthening health networks through management, biomedical equipment maintenance, and quality of care • Human resources training support • Support in developing primary health care strategies 	<ul style="list-style-type: none"> • MSD • SEDES 	<ul style="list-style-type: none"> • MSD • SEDES - La Paz, Cochabamba, and Beni

Agency	Area of Cooperation	Project/Program	Target area
USAID	<ul style="list-style-type: none"> • Sexual and reproductive health • TS/HIV/AIDS • Children's health • Infectious disease (malaria, tuberculosis, leishmaniasis) • Child survival • STI/HIV/AIDS • Infectious diseases, support for National Health Information System • Support for community participation strategies 	<ul style="list-style-type: none"> • PROCOSI PROSALUD • Center for Research, Education, and Services (CIES) • Commercial Cooperation Program (PCC) • Comprehensive Health Program (PROSIN) • SEDES Sentinel Program National Sexual and Reproductive Health Program • National HIV/ AIDS Program 	<ul style="list-style-type: none"> • Central Bolivia and at a national level • La Paz, Beni, Pando, Chuquisaca, Potosí, Tarija, and Cochabamba
AFD	<ul style="list-style-type: none"> • Research on congenital transmission of Chagas' disease • Research on effects of malaria during pregnancy • Vector population study and control 	<ul style="list-style-type: none"> • National Health Laboratory Institute (INLASA) 	<ul style="list-style-type: none"> • Yacuiba, Bermejo, Carapar and Guaramerin municipalities • La Paz and Beni departments

ANNEX F: OBSERVATIONS ABOUT STRENGTHS AND WEAKNESS OF EPI

This section presents a number of observations on EPI in Bolivia, in terms of its key strengths and weaknesses. It is important to note that these observations are partial only and reflect only a very limited interaction in country with key officials / organisations.

Strengths

- There is a real work ethic and commitment amongst the staff involved, the technical teams are good and have made the project their own and this is particularly the case in the local teams.

Weaknesses

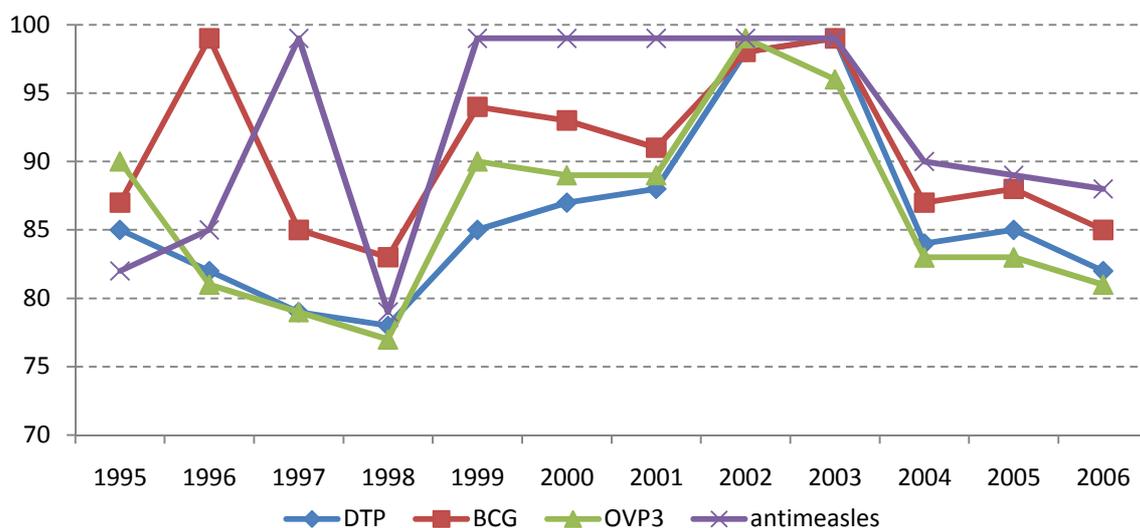
- The biggest challenge for EPI in Bolivia is the geography – and in particular reaching the indigenous people in sparsely populated and inaccessible places. Particularly a problem for the cold chain. There is a need to continue to invest in the cold chain.
- The central teams are good but there has been a lot of movement in the administrative managerial positions in recent years.
- There is a difficult to reach 10/15% that is the same group that are not being reached on each of the MSD's outreach programmes. This has prompted donors to begin to look in more detail at the Municipal level coverage rates.
- Capacity to solve health problems is limited and there is a shortage of human resources. For instance, in urban areas, there are 3.6 doctors per 10,000 people as opposed to 1.3 per 10,000 widely dispersed people in rural areas, according to the National Health Information System's Annual Health Statistics for 2007. There is undoubtedly a great burden on health workers as a result of increased immunisation⁴⁴
- The autonomous Regions may also make collection of statistics difficult.
- Lack of continuity – There have been four Ministers of Health since 2006. With each comes a completely new set of senior and middle management into the Ministry. As a result there is a lack of institutional memory, and a perceived reduction in technical health capacity. This means that they need to start again with each policy – and this takes time.

⁴⁴ Source: Silva E, Batista R. Bolivian Maternal Health Policies: Successes and Failures. Focal policy paper. May 2010.

ANNEX G: PERFORMANCE OF THE IMMUNISATION SECTOR

The annex provides an overview of performance of the immunization sector by presenting trends in coverage levels of vaccines. The EPI program has significant success in coverage for almost vaccines, the graphic 4 show more than 80% of coverage in the DPT, BCG, OVP3, anti-measles by the 2000 to 2008.

Figure G1: BCG, DPT, OVP3 and anti-measles vaccines coverage (%) 1995-2008



The second group (HpB1, B3, Rotavirus and Rubella) has a good level but in some moments it was interrupted or its vaccinating recently just began in 2008 (Rotavirus) (Figures G.2, G.3). The second group (Yellow Fiver and Tetanus Vaccines) started in low level but nowadays have a good level.

Figure G2: HepB1, HepB3, Rota1, and Rubella coverage (%) 1999-2008

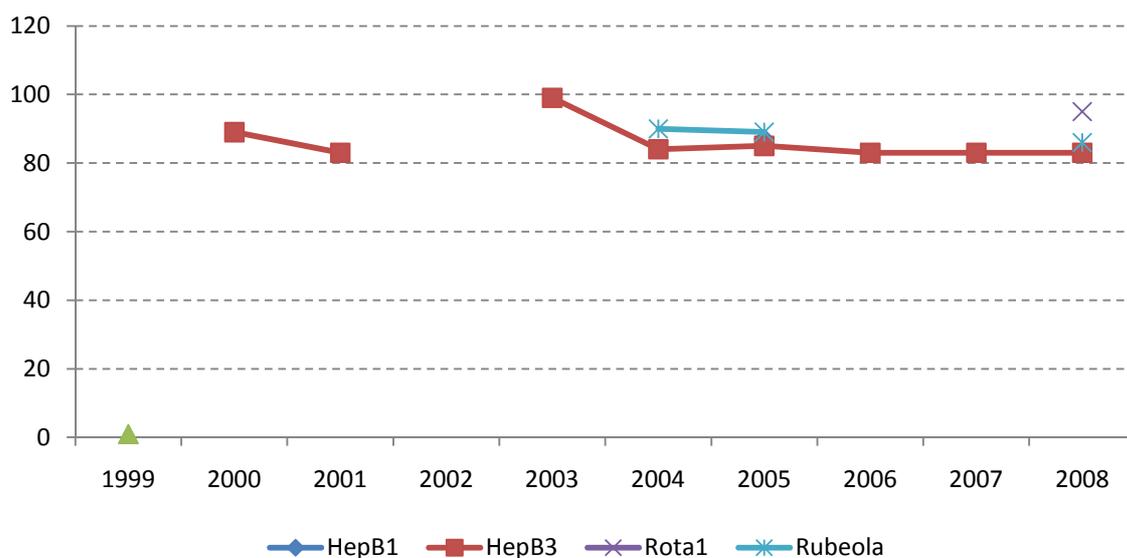
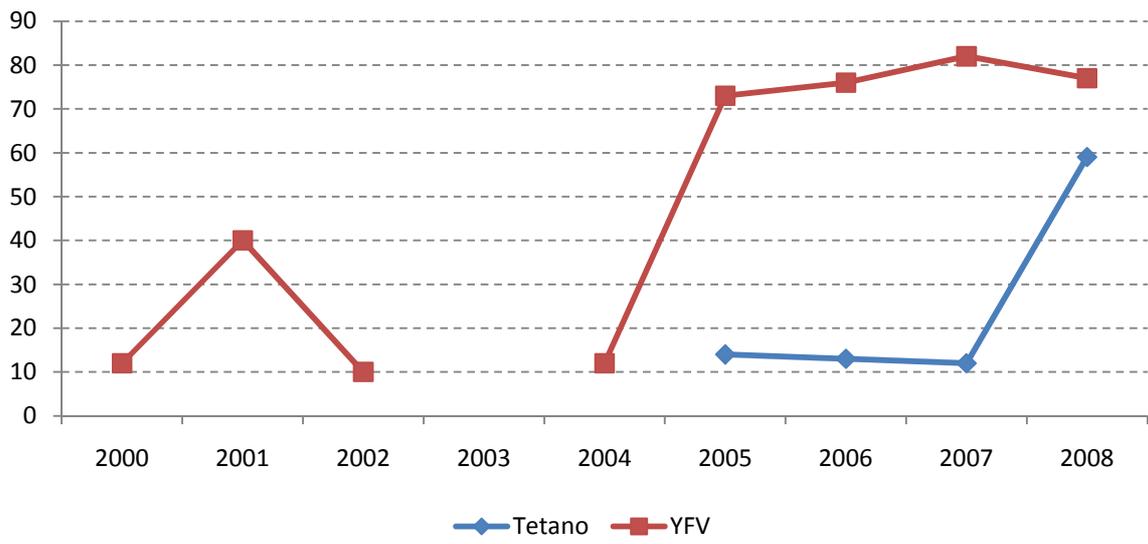


Figure G3: Tetanus and Yellow Fever coverage (%) 2000-08



ANNEX H: BIBLIOGRAPHY

1. Organización Panamericana de la Salud/Organización Mundial de la Salud. Situación de Salud en las Américas. Indicadores básicos 2009 P.3 In:
http://new.paho.org/hq/index.php?option=com_docman&task=doc_download&gid=3051&Itemid=
2. European Commission. Bolivia. Country Strategy Paper.2007-2013. P.10 In:
http://ec.europa.eu/external_relations/bolivia/csp/07_13_en.pdf
3. 2009 Bolivia Análisis e Informe de Benchmarking de las Microfinanzas. 2010 In:
<http://www.themix.org/publications/2009-bolivia-an%C3%A1lisis-e-informe-de-benchmarking-de-las-microfinanzas>)
4. Indexmundi. Bolivia GDP growth rate. In:
http://www.indexmundi.com/bolivia/gdp_real_growth_rate.html
5. Indexmundi. Bolivia GDP- per capita (PPP). In:
[http://www.indexmundi.com/bolivia/gdp_per_capita_\(ppp\).html](http://www.indexmundi.com/bolivia/gdp_per_capita_(ppp).html)
6. USAID-PAHO. Health Systems Profile Bolivia. Monitoring and analysis health systems change/reform. Third edition. Dec 2007
7. Silva E, Batista R. Bolivian Maternal Health Policies: Successes and Failures. Focal policy paper. May 2010. http://www.offnews.info/downloads/Silva_EN.pdf
8. Country strategy paper. Brussels, 17 May 2002 En:
http://ec.europa.eu/external_relations/bolivia/csp/02_06_en.pdf
9. GAVI Alliance. Application for: Health System Strengthening support for maternal and child health services in Bolivia In:
http://www.gavialliance.org/resources/Bolivia_HSS_2008.pdf
10. GAVI Alliance. Bolivia. Health System Strengthening. Up-date May 2009 In:
http://www.gavialliance.org/resources/HSS_Bolivia_Round_5_A.pdf.
11. World Health Organization. World Health Statistics 2009. In:
http://www.who.int/whosis/whostat/EN_WHS09_Full.pdf
12. Ministerio de Salud y Deporte. Situación de Salud. Bolivia 2004. Serie: Documentos de Divulgación Científica. Enero-2006 In:
www.sns.gov.bo/.../documentos/situacion/.../Situacion%20de%20Salud%20%202004.pdf
13. The World Factbook THE as % of GDP, 2002-2005 - Country Rankings. In :
http://www.photius.com/rankings/total_health_expenditure_as_percent_of_gdp_2000_to_2005.html
14. World Health Organization. World Health statistics 2009. WHO Library Cataloguing-in-Publication Data. Francia 2009. In:
http://www.who.int/whosis/whostat/EN_WHS09_Full.pdf
15. GAVI Alliance. Bolivia. APR. 2008

16. Jauregui Guachalla G, Bustillos J, Antezana E, Tapias A. Vacunación antipoliomielítica oral trivalente en Bolivia. En: Revista de Salud Pública Boliviana. 1963. P: 25-36
17. Zamora Gutiérrez A. Programas de vacunación en Bolivia. Rev Soc Bol Ped 2007; 46(2):88-9
18. Plaza Zamorano A, Belaunde PH, Machicao Ballivan E, Fuentes Aspiaza M, Ronveaux Dupal O. Campaña nacional de vacunación para la eliminación de la rubeola y del síndrome de rubeola congénita en Bolivia, 2006. Rev Soc Bol Ped 2007; 46(2):90-4
19. Organización Panamericana de la Salud. Características de las vacunas contra influenza pandémica A(H1N1) a utilizar en Bolivia. Boletín Informativo Año 2 No.11/2010
20. Ministerio de Salud y Deporte. Situación Epidemiológica del Rotavirus. Boletín Informativo Epidemiológico. Plan Ampliando de Inmunización. Julio 2008

ANNEX I: LIST OF CONSULTEES

Table I1: Country consultees

Stakeholder category	Organisation	Position	Person
Government	MSD	Planning Unit Project Manager	Stephen Sanjimi
		EPI Team Leader	Dr Max Enriquez
		EPI professional in charge of epidemiological surveillance	Dr Virginia Quintana
		EPI Administrative Manager	Mr Froilan Arroyo
	MSD	Head of the Planning Department	Dr German Crespo.
Other donor organisations	PAHO	Health Systems Advisor	Carlos Ayala
	UNICEF	Chief of Health and Nutrition	Ivette Sandio
	CIDA	Bolivia Health Projects Lead	Erika Silva
Civil society	PROCOSI	Specialist Information Systems Epidemiology and Community Health Project Team	Wilma Velasquez
	Plan international	Health Advisor	Alberto Tenorio
Other		Former Manager of the HSS component of GAVI	Dr Jeannette Aguirre