



*GAVI Alliance*

# Application Form for Country Proposals

*For Support to New and Under-Used Vaccines (NVS)*

Submitted by  
**The Government of**  
***Bolivia***

Date of submission: **14.05.2011 23:56:35**

**Deadline for submission: 1 Jun 2011**

Select Start and End Year of your Comprehensive Multi-Year Plan (cMYP)

Start Year 2011

End Year 2015

**Revised in January 2011**

**(To be used with Guidelines of December 2010)**

Please submit the Proposal using the online platform

<https://AppsPortal.gavialliance.org/PDExtranet>.

Enquiries to: [proposals@gavialliance.org](mailto:proposals@gavialliance.org) or representatives of a GAVI partner agency. The documents can be shared with GAVI partners, collaborators and general public. The Proposal and attachments must be submitted in English, French, Spanish, or Russian.

**Note:** Please ensure that the application has been received by the GAVI Secretariat on or before the day of the deadline.

The GAVI Secretariat is unable to return submitted documents and attachments to countries. Unless otherwise specified, documents will be shared with the GAVI Alliance partners and the general public.

**GAVI ALLIANCE  
GRANT TERMS AND CONDITIONS**

**FUNDING USED SOLELY FOR APPROVED PROGRAMMES**

The applicant country ("Country") confirms that all funding provided by the GAVI Alliance will be used and applied for the sole purpose of fulfilling the programme(s) described in the Country's application. Any significant change from the approved programme(s) must be reviewed and approved in advance by the GAVI Alliance. All funding decisions for the application are made at the discretion of the GAVI Alliance Board and are subject to IRC processes and the availability of funds.

**AMENDMENT TO THE APPLICATION**

The Country will notify the GAVI Alliance in its Annual Progress Report if it wishes to propose any change to the programme(s) description in its application. The GAVI Alliance will document any change approved by the GAVI Alliance, and the Country's application will be amended.

**RETURN OF FUNDS**

The Country agrees to reimburse to the GAVI Alliance all funding amounts that are not used for the programme(s) described in its application. The country's reimbursement must be in US dollars and be provided, unless otherwise decided by the GAVI Alliance, within sixty (60) days after the Country receives the GAVI Alliance's request for a reimbursement and be paid to the account or accounts as directed by the GAVI Alliance.

**SUSPENSION/ TERMINATION**

The GAVI Alliance may suspend all or part of its funding to the Country if it has reason to suspect that funds have been used for purpose other than for the programmes described in the Country's application, or any GAVI Alliance-approved amendment to the application. The GAVI Alliance retains the right to terminate its support to the Country for the programmes described in its application if a misuse of GAVI Alliance funds is confirmed.

**ANTICORRUPTION**

The Country confirms that funds provided by the GAVI Alliance shall not be offered by the Country to any third person, nor will the Country seek in connection with its application any gift, payment or benefit directly or indirectly that could be construed as an illegal or corrupt practice.

**AUDITS AND RECORDS**

The Country will conduct annual financial audits, and share these with the GAVI Alliance, as requested. The GAVI Alliance reserves the right, on its own or through an agent, to perform audits or other financial management assessment to ensure the accountability of funds disbursed to the Country.

The Country will maintain accurate accounting records documenting how GAVI Alliance funds are used. The Country will maintain its accounting records in accordance with its government-approved accounting standards for at least three years after the date of last disbursement of GAVI Alliance funds. If there is any claims of misuse of funds, Country will maintain such records until the audit findings are final. The Country agrees not to assert any documentary privilege against the GAVI Alliance in connection with any audit.

**CONFIRMATION OF LEGAL VALIDITY**

The Country and the signatories for the Country confirm that its application, and Annual Progress Report, are accurate and correct and form legally binding obligations on the Country, under the Country's law, to perform the programmes described in its application, as amended, if applicable, in the APR.

**CONFIRMATION OF COMPLIANCE WITH THE GAVI ALLIANCE TRANSPARENCY AND ACCOUNTABILITY POLICY**

The Country confirms that it is familiar with the GAVI Alliance Transparency and Accountability Policy (TAP) and complies with the requirements therein.

**USE OF COMMERCIAL BANK ACCOUNTS**

The Country is responsible for undertaking the necessary due diligence on all commercial banks used to manage GAVI cash-based support. The Country confirms that it will take all responsibility for replenishing GAVI cash support lost due to bank insolvency, fraud or any other unforeseen event.

**ARBITRATION**

Any dispute between the Country and the GAVI Alliance arising out of or relating to its application that is not settled amicably within a reasonable period of time, will be submitted to arbitration at the request of either the GAVI Alliance or the Country. The arbitration will be conducted in accordance with the then-current UNCITRAL Arbitration Rules. The parties agree to be bound by the arbitration award, as the final adjudication of any such dispute. The place of arbitration will be Geneva, Switzerland. The language of the arbitration will be English.

For any dispute for which the amount at issue is US\$ 100,000 or less, there will be one arbitrator appointed by the GAVI Alliance. For any dispute for which the amount at issue is greater than US \$100,000 there will be three arbitrators appointed as follows: The GAVI Alliance and the Country will each appoint one arbitrator, and the two arbitrators so appointed will jointly appoint a third arbitrator who shall be the chairperson.

The GAVI Alliance will not be liable to the country for any claim or loss relating to the programmes described in the application, including without limitation, any financial loss, reliance claims, any harm to property, or personal injury or death. Country is solely responsible for all aspects of managing and implementing the programmes described in its application.

# 1. Application Specification

Please specify for which type of GAVI support you would like to apply to.

**Important note:** To enable proper functioning of the form, please first select the cMYP years on the previous page.

**Note:** To add new lines click on the *New item* icon in the *Action* column. Use the *Delete item* icon to delete a line.

Type of Support	Vaccine	Start Year	End Year	Preferred second presentation <sup>[1]</sup>	Action
New Vaccines Support	Pneumococcal (PCV13), 1 doses/vial, Liquid	2012	2015		

<sup>[1]</sup> This “**Preferred second presentation**” will be used in case there is no supply available for the preferred presentation of the selected vaccine (“**Vaccine**” column). If left blank, it will be assumed that the country will prefer waiting until the selected vaccine becomes available.

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### 3. Executive Summary

The infections caused by the *Streptococcus pneumoniae* bacteria, also known as pneumococcus, is one of the leading bacterial causes of morbidity and mortality among children under five years of age and there are studies showing that these infections kill approximately 1% of the children born in high-risk zones.

According to WHO estimates, during the 2000 management period, there were approximately 14.5 million episodes of serious Pneumococcal Disease and more than 800,000 deaths among children under five years of age. It is important to point out that the population of children under five years of age, as well as immunosuppressed persons, smokers and the elderly are at the highest risk of pneumococcal disease. The total deaths attributable to the bacteria each year, including adults and children under five, is around 1.6 million, according to WHO estimates.

When it comes to children under five years of age, pneumonia causes around 95% of the serious episodes and nearly 90% of the diseases due to pneumococcus. Meningitis is responsible for at least 1% of the cases of serious pneumococcal disease in children under five years of age, but more than 7% of the deaths caused by pneumococcal infection. In addition, pneumococcus can also cause acute otitis media, septicemia and other invasive diseases such as peritonitis, arthritis and osteomyelitis.

In Bolivia in 2007, Acute Respiratory Infection (ARI) was the second leading cause of death among children from 1 to 5 years of age (20%), following Acute Diarrheal Disease (38%). In addition, in 2008, 51% of the 151,225 children under 5 hospitalized and reported to the SNIS (Bolivia's Health Information System) were under 1 year of age, showing the impact of this unit on the public health of smaller children.

Based on the PAHO's recommendations, Bolivia set up the bacterial pneumonia and meningitis surveillance. According to the data of 2008, pneumonia was the cause of 13.5% of the hospitalizations in children under 5 and bacterial meningitis was the cause of 0.5%, with 1.2% and 22.6% fatalities respectively. Pneumococcus was the most commonly isolated factor: 17% in cases of pneumonia and 50% in cases of meningitis.

According to the behavior of bacterial and pneumococcus meningitis and pneumonia, it has been estimated that during the 2008 management period, for each 100,000 children under five, 10,663 cases of pneumonia were cared for as outpatients, 997 were hospitalized and 32 died. 133 minors were treated as outpatients, 168 were hospitalized and 4 died (for each 100,000 children under 5) due to pneumococcus pneumonia. As regards bacterial meningitis, for each 100,000 children under 5, 34 were hospitalized and 8 died, while pneumococcal meningitis was the cause of 17 children hospitalized and 4 deaths (database analysis of the Department of Health's information system, SIREVA, bacterial meningitis and pneumonia surveillance in children under 5 and the mortality rate of the National Institute of Statistics).

These figures show the high impact of bacterial meningitis and pneumonia on public health in Bolivia. According to the data of Bolivia's SIREVA (Regional System of Vaccines) surveillance, which is a part of the PAHO's surveillance network in the Region, pneumococcus serotypes 14, 88, 18C 19a were isolated in 85% of the samples in 2006, while serotype 14 and groups 6, 16 and 19 were the most common in 2008. The potential coverage of the vaccines was 77% for PCV7 and 88.5% for PCV10 in 2008, and 88.9% and 96.3% respectively in 2008.

The strategies to reduce mortality and morbidity due to bacterial meningitis and pneumonia include breastfeeding, eating right, washing hands and other hygienic measures, identifying signs of risk and alarm; and proper, timely consultation and treatment. Recently, the introduction of the vaccine with *Haemophilus Influenzae B* significantly reduced the burden of diseases due to respiratory infection and meningitis.

Although all these measures are efficient and effective to reduce mortality and morbidity due to ARI and some of them also play a role in producing the burden due to other childhood tracers, in the case of pneumococcal infection, the impact may be different from that expected because: a) Pneumococcal infection affects a significant percentage of infants under 12 months (50%), when children are the most susceptible to severe events. Therefore, prevention programs are required to have a high impact on the first few months of life, which is a short time to achieve the potential impact by intervention requiring a change in behavior toward maternal education, b) mortality due to ARI and pneumococcus is higher in the malnourished population; in Bolivia, malnutrition is still a leading public health issue, and c) Timely consultation and access to proper treatment are essential to reduce the complications of ARI and pneumococcus. In the case of Bolivia, geographic conditions make it difficult for children to access healthcare services.

In addition, pneumococcal vaccination will have additional benefits: a) It will play a role in reducing mortality and morbidity due to pneumonia, sepsis and meningitis, with an effectiveness of more than 90% in the serotypes included in the vaccine ; b) It will play a role in reducing the number of asymptomatic carriers and the pneumococcus' resistance to antibiotics, with a positive impact on the community, healthcare services and herd immunity, including the elderly, c) It will play a role in reaching one of the MDG (by reducing the mortality in children under 5 by 2/3) and generating equity, because benefits will be obtained regardless of sex and the socioeconomic level of the children or their family's level of education, d) It will play a role in achieving one of the Bolivian Government's objectives contained in the Sector Development Plan 2010 – 2020, e) Recent studies show that the vaccine produces a 12% short-term ROI in the poorest countries and an 18% long-term ROI. In addition to reducing mortality due to pneumococcus, it will have a positive impact on human development; recent studies found that increasing the survival rate in children by 5 percentage points, increases economic growth by one percentage point per year for a decade.

These analyses show the enormous benefit of immunisation. According to Harvard's Dr. Bloom, these “effects, which are produced at a remarkably low cost, will very likely translate into long-lasting impacts on the economy”. Due to social, economic and health-related effects, vaccination will play a role in achieving the objective of the MDG, which is “building a safer, more prosperous and equitable world”. Based on these conditions, the pneumococcal vaccine in Bolivia is the best intervention strategy and it can be considered the most efficient and effective among the alternatives that are available.

Pneumococcal vaccines are a response to the problems and diseases caused by pneumococcus, and in countries where the vaccines have been used, there has been a considerable decrease in invasive pneumococcal disease and pneumonia-related illnesses. For instance, following three years of application of the conjugate vaccine in the US, invasive pneumococcal disease due to pneumococcal serotypes of the vaccine had dropped 94% among children vaccinated. Furthermore, reductions were observed in the morbidity of the population that had not been vaccinated; this phenomenon is known as “herd immunity”.

Based on the statistics described earlier and the appearance of drug-resistant pneumococcus whose effect has substantially complicated the treatment of these infections, we have found the need for effective prevention strategies; one of them is the introduction of new pneumococcal conjugate vaccines, such as the 10-valent and 13-valent vaccines, which will stimulate immunity among the infant and child population in order to prevent most of the diseases caused by pneumococcus.

In order to evaluate the introduction of the pneumococcal conjugate vaccine in the basic schedule, the Expanded Program on Immunization asked the PAHO, by means of the ProVac project, to assist in the development of a cost-effectiveness study to introduce the vaccine in Bolivia, which turned out to be cost-effective. However, given the high cost of the vaccine, it would be best to have the GAVI subsidy because Bolivia has shown signs of effective commitment to the co-payment of the anti-rotavirus vaccine, which was introduced in 2008 and

has had demonstrable impact on hospitalizations due to diarrhea in the diarrhea surveillance.



## 4. Signatures

### 4.1. Signatures of the Government and National Coordinating Bodies

#### 4.1.1. Government and the Inter-Agency Coordinating Committee for Immunisation

The Government of Bolivia would like to expand the existing partnership with the GAVI Alliance for the improvement of the infants routine immunisation programme of the country, and specifically hereby requests for GAVI support for Pneumococcal (PCV13) 1 doses/vial Liquid introduction.

The Government of Bolivia commits itself to developing national immunisation services on a sustainable basis in accordance with the Comprehensive Multi-Year Plan (cMYP) presented with this document. The Government requests that the GAVI Alliance and its partners contribute financial and technical assistance to support immunisation of children as outlined in this application.

Tables 6.(n).5. (where (n) depends on the vaccine) in the NVS section of this application shows the amount of support in either supply or cash that is required from the GAVI Alliance. Tables 6.(n).4. of this application shows the Government financial commitment for the procurement of this new vaccine (NVS support only).

Following the regulations of the internal budgeting and financing cycles the Government will annually release its portion of the co-financing funds in the month of March.

Please note that this application will not be reviewed or approved by the Independent Review Committee (IRC) without the signatures of both the Minister of Health & Minister of Finance or their delegated authority.

Enter the family name in capital letters.

Minister of Health (or delegated authority)		Minister of Finance (or delegated authority)	
<b>Name</b>	Dr. Nila HEREDIA MIRANDA	<b>Name</b>	Dr. Luis ARCE CATAORA
<b>Date</b>		<b>Date</b>	
<b>Signature</b>		<b>Signature</b>	

*This report has been compiled by*

**Note:** To add new lines click on the **New item** icon in the **Action** column. Use the **Delete item** icon to delete a line.

Enter the family name in capital letters.

Full name	Position	Telephone	Email	Action
Dr. Rene Lenis Porcel	National Representative of the Expanded Program on Immunisation	(591-2) 244-2473	rlenis@hotmail.com	

#### 4.1.2. National Coordinating Body - Inter-Agency Coordinating Committee for Immunisation

We the members of the ICC, HSCC, or equivalent committee<sup>[1]</sup> met on the 11.05.2011 to review this proposal. At that meeting we endorsed this proposal on the basis of the supporting documentation which is attached.

<sup>[1]</sup> Inter-agency Coordinating Committee or Health Sector Coordinating Committee, or equivalent committee which has the authority to endorse this application in the country in question.

The endorsed minutes of this meeting are attached as DOCUMENT NUMBER: 3.

**Note:** To add new lines click on the **New item** icon in the **Action** column. Use the **Delete item** icon to delete a line.

Enter the family name in capital letters.

Name/Title	Agency/Organisation	Signature	Action
Dr. Christian DARRAS/ Representative PAHO/WHO Bolivia	PAHO/WHO Bolivia		
Dr. Desiree PASTOR/ Immunisation Consultant	PAHO/WHO Bolivia		
Dr. Stanley BLANCO/ Health Office Program Official	USAID		
Mr. Per ENGEBACK/ UNICEF Representative	UNICEF		
Dr. Carmen LUCAS/ Health Official	UNICEF		
Dr. Cesar MIRANDA/ PROFORSA Coordinator	JICA		
Dr. Ignacio CARREÑO/ Chief Executive Officer	PROCOSI		
Attorney Sergio CRIALES/ Program Manager	PROCOSI		
Dr. Marcia RAMIREZ/ Health Consultant	WORLD BANK		

In case the GAVI Secretariat has queries on this submission, please contact

Enter the family name in capital letters.

<b>Name</b>	Dr. Rene Lenis Porcel	<b>Title</b>	National Representative of the Expanded Program on Immunisation
<b>Tel no</b>	(591-2) 244-2473		
<b>Fax no</b>	(591-2) 244-2473	<b>Address</b>	Calle Capitan Ravelo, No 2199 Frente a la Plaza Bolivia, Edificio PAI La Paz, Bolivia
<b>Email</b>	rlenis@hotmail.com		

#### 4.1.3. The Inter-Agency Coordinating Committee for Immunisation

Agencies and partners (including development partners and NGOs) supporting immunisation services are co-ordinated and organised through an inter-agency coordinating mechanism (ICC, HSCC, or equivalent committee). The ICC, HSCC, or equivalent committee is responsible for coordinating and guiding the use of the GAVI NVS support. Please provide information about the ICC, HSCC, or equivalent committee in your country in the table below.

#### Profile of the ICC, HSCC, or equivalent committee

<b>Name of the committee</b>	Inter-agency Coordinating Committee of the Expanded Program on Immunisation (ICC - EPI)
<b>Year of constitution of the current committee</b>	1987
<b>Organisational structure (e.g., sub-committee, stand-alone)</b>	Stand-alone body of technical and financial support for the EPI
<b>Frequency of meetings</b>	3 meetings per year

## Composition

**Note:** To add new lines click on the **New item** icon in the **Action** column. Use the **Delete item** icon to delete a line.

Enter the family name in capital letters.

<b>Function</b>	<b>Title / Organisation</b>	<b>Name</b>	
<b>Chair</b>	Vice Minister / Minister of Health and Sports	Dr. Martin MATURANO	
<b>Secretary</b>	Pan American Health Organization		
<b>Members</b>	PAHO/WHO Representative	Dr. Christian DARRÁS	<b>Action</b>
	PAHO/WHO EPI Consultant	Dr. Desireé PASTOR	
	Vice Representative UNICEF	Mr. Per ENGEBAK	
	UNICEF Health and Nutrition Official	Dr. Ivette SANDINO	
	UNICEF Health Officer	Dr. Rosario QUIROGA	
	Chief Executive Officer / UDAPE	Attorney María Félix DELGADILLO	
	USAID Director	Mr. Wayne NIELSESTEUN	
	Health Office Director / USAID	Mrs. Connie JOHNSON	
	Health Office Program Official / USAID	Dr. Stanley BLANCO	
	Chief Executive Officer CARITAS	Eng. Raúl FRÍAS	
	UNFPA Representative	Dr. Jaime NADAL	
	Principal Representative of Canadian Cooperation	Mr. Andrew SOGNER	
	Canadian Cooperation	Dr. Pilar LÓPEZ	
	Chief Executive Officer / PROCOSI	Dr. José Ignacio CARREÑO	
	JICA Resident Representative Director	Mr. Hirofumi MATSUYAMA	
	Resident Representative Belian Technical Cooperation	Mr. Jan SCHOLLAERT	

Function	Title / Organisation	Name
	World Bank Resident Representative	Dr. Oscar AVALLE
	Social Sector Project Official / World Bank	Attorney Patricia ÁLVAREZ
	Epidemiology Department Representative / National Health Bureau	Dr. Kadyr OCAÑA
	S-1 Governor Bolivia / Lion's Club	Eng. Luis MIRANDA
	Chairman of District - 4690 / Rotary Club	Dr. Julio César PAREDES
	Spanish Cooperation Coordinator	Dr. Sergio Martín MORENO
	Representative of the International Relations Office / MSD	Attorney Alejandra GARRÓN
	Sector Health Representative / UDAPE	Attorney Susana LIZARRAGA
	Chief of Staff / MSD	Dr. Eduardo AILLÓN
	Managing Director of Administrative Affairs / MSD	Attorney Gaby AYOROA
	Head of the Epidemiology Unit / MSD	Dr. José Antonio ZAMBRANA
	National EPI Representative / MSD	Dr. René LENIS

#### Major functions and responsibilities of the committee

**The EPI (ICC - EPI) Inter-agency Coordination Committee was organized during the 1987 management period with the participation of UNICEF, PAHO, USAID, PL-480 and the Rotary Club International Polio Plus. The initial objective was to support the program to eradicate poliomyelitis.**

**Other agencies and institutions, such as JICA, Belgian Cooperation, IDP , PROCOSI and FENASONGs were incorporated progressively, becoming the fundamental pillars of the program's financing and technical consultancy. In 1996, a new EPI agreement was signed whose main goal was to eradicate measles. In the year 2000, a commitment that stresses support for the Second Generation EPI was signed, and finally, in the 2003 management period, the commitment to support EPI goals was renewed. The most outstanding characteristics of the committee are:**

- 1) Set an example of commitment nationwide and worldwide.**
- 2) Provide the EPI with technical and financial support (it is important to point out that there were periods in which the ICC - EPI was a determining factor for the execution of the EPI plans, funding approximately 80% of its budget).**
- 3) Serve as a catalyst to attract more partners and institutions to support EPI-related activities.**

Three major strategies to enhance the committee's role and functions in the next 12 months

1.	Ensure the attendance of 50% of the representatives of national and international organizations that make up the committee in the meetings scheduled in the framework of the ICC - EPI.
2.	Prepare an ICC - EPI activity plan.
3.	Support the Ministry of Health and Sports in acquiring additional resources in order for vaccination activities to be timely, sustainable and recurrent in the budget assigned to the EPI.

## 4.2. National Immunization Technical Advisory Group for Immunisation

(If it has been established in the country)

We the members of the NITAG met on the 10.05.2011 to review this proposal. At that meeting we endorsed this proposal on the basis of the supporting documentation which is attached.

The endorsed minutes of this meeting are attached as DOCUMENT NUMBER: 4.

In case the GAVI Secretariat has queries on this submission, please contact  
Enter the family name in capital letters.

<b>Name</b>	Dr. Adalid Zamora	<b>Title</b>	Chairman of the National Immunisation Committee
<b>Tel no</b>	(591) 706-222-51		
<b>Fax no</b>	not available	<b>Address</b>	Hospital del Niño Ovidio Aliaga, Calle Rafael Zubieta, No. 1887 Lado Estado Mayor, Miraflores, La Paz.
<b>Email</b>	zadalid@gmail.com		

### 4.2.1. The NITAG Group for Immunisation

#### Profile of the NITAG

<b>Name of the NITAG</b>	National Immunisation Committee (NIC)
<b>Year of constitution of the current NITAG</b>	2000
<b>Organisational structure (e.g., sub-committee, stand-alone)</b>	Stand-alone advisory bodies
<b>Frequency of meetings</b>	10 meetings per year

#### Composition

**Note:** To add new lines click on the **New item** icon in the **Action** column. Use the **Delete item** icon to delete a line.

Enter the family name in capital letters.

Function	Title / Organisation	Name	
<b>Chair</b>	Pediatrician / Children's Hospital	Dr. Adalid ZAMORA	
<b>Secretary</b>	Pan American Health Organization	Dr. Desiree PASTOR	
<b>Members</b>	Chairman of the Primary Care Physicians Association	Dr. Olga MORA	<b>Action</b>
	Chairman of the Bolivian Public Health	Dr. Jorge GAMBOA	

Function	Title / Organisation	Name
	Association	
	Chairman of the Paceña Pediatrics Association	Dr. Jorge SALAZAR
	Infectologist / Children's Hospital	Dr. Victor Hugo VELASCO
	Allergist / ESAVI Committee	Dr. Jean FLORU
	Pediatrician / Hospital La Paz	Dr. Rolando GONZALEZ
	Primary Care Physicians Association	Dr. Raúl ESCOBAR
	Head of the Epidemiology Unit / MSD	Dr. José Antonio ZAMBRANA
	EPI Consultant / PAHO/WHO	Dr. Erick MACHICAO
	EPI Consultant / PAHO/WHO	Dr. Percy HALKYER
	Representative EPI / La Paz	Dr. Luis FERNÁNDEZ
	Biochemistry INLASA / MSD	Dr. Patricia ROSALES
	National EPI Coordination and Supervision / MSD	Dr. Elvira CHAHUA
	PN Surveillance Representative - EPI / MSD	Dr. Virginia TINTAYA
	Health Official / UNICEF	Dr. Rosario QUIROGA
	Chief Executive Officer / PROCOSI	Dr. José CARREÑO
	PAHO/WHO Representative Bolivia	Dr. Christian DARRÁS
	Immunologist / Hospital Obrero	Dr. Carlos GUACHALLA
	Head of Gastroenterology / Hospital del Niño	Dr. Luis TAMAYO
	Vice Dean of the School of Medicine / UMSA	Dr. Christian TRIGOSO
	Chairman of the Bolivian Gynecology Association	Dr. Elmer BALDERRAMA
	Chairman of the Bolivian Pediatrics Association	Dr. Darwín MARTÍNEZ
	Bolivian OB-Gyn Association	Dr. Ramiro PANDO

### Major functions and responsibilities of the NITAG

**This committee was set up in April 2000 with the participation of the Colegio Médico de Bolivia (Association of Medical Doctors of Bolivia), Colegio Médico de Enfermeras (the association of nurses), the Bolivian Pediatrics Association, the Bolivian Public Health Association, the Bolivian Family Medicine Association, the Bolivian OB-Gyn Association, the Primary Care Physician Association, Biochemists of the UMSA School of Medicine, PAHO/WHO and the EPI, to provide technical assistance for the program on the national and regional levels, and become disseminators of the country's immunisation policies at each of their institutions.**

**The functions of the NIC can be identified based on three lines of work as described below. 1)**

**TECHNICAL:** Periodic monitoring of EPI progress, Impact Assessment, cooperate in research to support surveillances and the IEC component, coordinate with Nursing Schools and Universities. 2)  
**SUPERVISION:** Decentralization to Department Health Services (SEDES) for direct supervision, monitoring of financial disbursements for the EPI, support the organizational regional immunisation committees. 3)  
**INFORMATION AND DISSEMINATION:** Conference in schools of medicine, nursing, scientific associations and universities. Prepare a quarterly brochure aimed at the general population and personnel from the health sector.

The responsibilities of the NIC can be identified based on the following lines of action: 1) The NIC will operate on a biannual basis and it will be convened by its chairman and coordinated by the PAHO and the national EPI representative, who will take part in the meetings as the secretary and the suppliers of the information requested by the NIC, 2) The members of the committee agree to provide permanent support to disseminate the vaccine-preventable disease control and surveillance program, 3) Institutions will make their best efforts to maintain their representation in the committee, 4) Attend all the committee's meetings, 5) Monitor fulfillment of the agreement that has been signed, 6) Provide assistance for educational institutions for the introduction of the EPI in HR training programs, 7) Instruct affiliates to follow the same line of work in the departments, 8) Carry out advocacy tasks in enacting laws and other legal instruments to support vaccination, the regular financing of vaccines and syringes, 9) Attend national and international NIC events.

Three major strategies to enhance the NITAG's role and functions in the next 12 months

1.	Advise and participate in the design, application and evaluation of immunisation plans and policies in Bolivia.
2.	Generate favorable thoughts as regards immunisation in the parliament, executive branch, the press, the church and others.
3.	Get the department representatives of the committee's member institutions to play an active role in the application and evaluation of the EPI.

## 5. Immunisation Programme Data

Please complete the tables below, using data from available sources. Please identify the source of the data, and the date. Where possible use the most recent data and attach the source document.

- Please refer to the Comprehensive Multi-Year Plan for Immunisation (cMYP) (or equivalent plan) and attach a complete copy (with an Executive Summary) as DOCUMENT NUMBER 6
- Please refer to the two most recent annual WHO/UNICEF Joint Reporting Forms (JRF) on Vaccine Preventable Diseases.
- Please refer to Health Sector Strategy documents, budgetary documents, and other reports, surveys etc., as appropriate.

### 5.1. Basic facts

For the year (most recent; specify dates of data provided)

	Figure		Year	Source
Total population	10,426,643		2010	Population Forecast / National Institute of Statistics (NIS)
Infant mortality rate (per 1000)	50		2008	National Demographics and Health Survey / NIS, MSD and MSH
Surviving Infants <sup>[1]</sup>	261,809		2010	Population Forecast / National Institute of Statistics (NIS)
GNI per capita (US\$)	1,683		2009	Economic and Social Policy Analysis Unit / UDAPE
Total Health Expenditure (THE) as a percentage of GDP	4.62	%	2008	National Health Accounts in Bolivia / MSD
General government expenditure on health (GGHE) as % of General government expenditure	3.21	%	2008	Economic and Social Policy Analysis Unit / UDAPE

<sup>[1]</sup> Surviving infants = Infants surviving the first 12 months of life

Please provide some additional information on the planning and budgeting context in your country; also indicate the name and date of the relevant planning document for health

**The management of strategic institutional planning of Public Sector entities such as the MSD (Ministry of Health and Sports) which is the head of the health sector, is governed by the General Social and Economic Development Plan (GSEDP) based on the Integral State Planning System (ISPS), which incorporates Strategic Institutional Plans, Sector Development Plans and Development Plans of independent territories. Public sector entities prioritize their short, medium and long-term goals and objectives based on the development objectives and strategic goals of the GSEDP, Sector Development Plans and Development Plans of independent territories that cause an impact on the eradication of extreme poverty, social exclusion, increase in production and the generation of employment for the socio-economic development of the State.**

**The multi-year budget is combined with the Strategic Institutional Plan in the framework of the Sector Development Plans and the Development Plans of independent territories. Budget management is the efficient administration of the use and allocation of public funds to fulfill short, medium and long-term goals and objectives based on providing goods and services.**

**The health strategies of the Plurinational State of Bolivia are contained and described in the Sector Development Plan (SDP) 2010-2020: "Aiming for Universal Health" conducted by the MSD Planning Unit in December 2009.**



Is the cMYP (or updated Multi-Year Plan) aligned with this document (timing, content, etc.)?

The EPI's Multi Year Plan is framed in the SDP based on Sector Project 1.1 "Increase in Healthcare Service Coverage SAFCI whose objective is to increase the coverage of essential care in the areas of prevention, early detection, treatment and control of diseases. It is important to point out that the increase in coverage will be achieved through healthcare establishments, house calls and mobile healthcare teams.

Please indicate the national planning budgeting cycle for health

The health sector budget is planned based on the SDP and covers the following phases or stages: All the offices and units attached to the MSD are asked to prepare their Annual Operating Plan (AOP) based on the guidelines provided by the Ministry of Economy and Public Finance (MEPF). After that, all the AOPs from the different MSD Offices and Units are consolidated in the Planning Unit, which is in charge of reviewing the quantitative and qualitative aspects of the plan. Once it has been reviewed and approved by the Planning Unit, it is sent to the Highest Executive Authority (HEA), which in our case is the Health Secretary, followed by the MEPF. It is important to mention that the AOP is annualized as regards goals as well as budget.

Please indicate the national planning cycle for immunisation

As we explained earlier, the MSD asks all its Offices and Units to send in the respective AOPs through the General Planning Department. Budget planning is carried out in the EPI based on the five-year plan and the annual requirements that were not identified in the five-year plan. It is important to mention that the EPI has a five-year plan for the 2011 - 2015 period.

Please indicate if sex disaggregated data (SDD) is used in immunisation routine reporting systems

The information reported by the National Health Information System IS NOT sex disaggregated, so it is impossible to analyze the indicators based on this variable.

Please indicate if gender aspects relating to introduction of a new vaccine have been addressed in the introduction plan

NO because the vaccine that will be introduced in the basic EPI schedule does not distinguish gender and fulfills the SDP objective "Aiming for Universal Health".

## 5.2. Current vaccination schedule

Traditional, New Vaccines and Vitamin A supplement (refer to cMYP pages)

**Note:** To add new lines click on the *New item* icon in the *Action* column. Use the *Delete item* icon to delete a line.

Vaccine (do not use trade name)	Ages of administration (by routine immunisation services)	Given in entire country	Comments	Action
BCG	Newborn	Yes	Single-dose intradermal administration	
Penta	At a 2-month interval (2, 4 and 6 months)	Yes	Three-dose intramuscular administration	
Poliomyelitis	At a 2-month interval (2, 4, and 6 months)	Yes	Three-dose oral administration. There are two booster shots for this vaccine (18 - 23 months and 48 - 59 months)	
DTP	Administered as a booster (18 to 23 months and 48 to 59 months)	Yes	Two-dose intramuscular administration	

<b>Vaccine (do not use trade name)</b>	<b>Ages of administration (by routine immunisation services)</b>	<b>Given in entire country</b>	<b>Comments</b>	<b>Action</b>
MMR	12 to 23 months	Yes	Single-dose subcutaneous administration	
Other	At a 2-month interval (2 and 4 months)	Yes	Two doses of the ANTI-ROTAVIRUS vaccine, oral administration	
Other	Over 65 years of age	Yes	Single-dose, every year of the seasonal flu vaccine for adults, intramuscular administration	
Other	Infants from 6 to 11 months and children from 12 to 23 months	Yes	In the case of the first group, 2 doses are administered; in the case of the second group, a single dose of the pediatric version of the seasonal flu vaccine is administered	
Td	10 to 49 years of age (Men and Women)	Yes	Five-dose, intramuscular administration.	
Other	12 to 23 months	Yes	Single dose of the YELLOW FEVER VACCINE, subcutaneous administration	
<b>Vitamin A</b>	6 to 11 months and 1 to 4 years of age	Yes		

### 5.3. Trends of immunisation coverage and disease burden

(as per last two annual WHO/UNICEF Joint Reporting Form on Vaccine Preventable Diseases)

Trends of immunisation coverage (percentage)					Vaccine preventable disease burden		
Vaccine	Reported		Survey		Disease	Number of reported cases	
	2009	2010	2003	2008		2009	2010
<b>BCG</b>	88	90	93	98	<b>Tuberculosis</b>		
<b>DTP</b>	<b>DTP1</b>	87	87	94	<b>Diphtheria</b>	0	5
	<b>DTP3</b>	85	80	74	<b>Pertussis</b>	0	0
<b>Polio 3</b>	84	80	70	86	<b>Polio</b>	0	0
<b>Measles (first dose)</b>	86	80	82	86	<b>Measles</b>	0	0
<b>TT2+ (Pregnant women)</b>			29		<b>NN Tetanus</b>	1	0
<b>Hib3</b>					<b>Hib<sup>[2]</sup></b>	1	2
<b>Yellow Fever</b>	61	63			<b>Yellow fever</b>	0	3
<b>HepB3</b>					<b>HepB sero-prevalence<sup>[1]</sup></b>		
<b>Vitamin A supplement Mothers (&lt; 6 weeks post-delivery)</b>	54	55	31				
<b>Vitamin A supplement Infants (&gt;6 months)</b>	62	59	60				

<sup>[1]</sup> If available

<sup>[2]</sup> **Note:** JRF asks for Hib meningitis

If survey data is included in the table above, please indicate the years the surveys were conducted, the full title and if available, the age groups the data refers to

National Demographics and Health Survey (ENDSA 2003) and National Demographics and Health Survey (ENDSA 2008). In both surveys, the analysis of vaccine coverage was based on the percentage of children between 18 and 29 months of age with a health card seen by the interviewer and the percentage that received each vaccine at any time, according to the health card of mother's report. The vitamin A vaccine is considered a post-delivery supplement for mothers and children from 6 to 59 months of age for the second indicator.

## 5.4. Baseline and Annual Targets

(refer to cMYP pages)

**Table 1:** baseline figures

Number	Base Year	Baseline and Targets				
	2010	2012	2013	2014	2015	
Total births	279,237	296,999	314,456	331,913	349,370	
Total infants' deaths	17,456	14,099	12,292	10,485	8,679	
Total surviving infants	261,781	282,900	302,164	321,428	340,691	
Total pregnant women	319,424	324,598	330,505	336,412	342,319	
Number of infants vaccinated (to be vaccinated) with BCG	236,899	254,610	274,969	295,714	316,844	
BCG coverage (%) <sup>[1]</sup>	85%	86%	87%	89%	91%	
Number of infants vaccinated (to be vaccinated) with OPV3	219,895	248,952	274,969	295,714	316,844	
OPV3 coverage (%) <sup>[2]</sup>	84%	88%	91%	92%	93%	
Number of infants vaccinated (or to be vaccinated) with DTP1 <sup>[3]</sup>	228,137	263,097	284,034	302,142	320,250	
Number of infants vaccinated (to be vaccinated) with DTP3 <sup>[3]</sup>	210,667	248,952	274,969	295,714	316,844	
DTP3 coverage (%) <sup>[2]</sup>	80%	88%	91%	92%	93%	
Wastage <sup>[1]</sup> rate in base-year and planned thereafter for DTP (%)	5%	5%	5%	5%	5%	
Wastage <sup>[1]</sup> factor in base-year and planned thereafter for DTP	1.05	1.05	1.05	1.05	1.05	
Target population vaccinated with 1 <sup>st</sup> dose of Pneumococcal		257,439	271,947	298,928	316,844	
Target population vaccinated with 3 <sup>rd</sup> dose of Pneumococcal		243,294	271,947	292,499	313,437	
Pneumococcal coverage (%) <sup>[2]</sup>	0%	86%	90%	91%	92%	
Infants vaccinated (to be vaccinated) with 1 <sup>st</sup> dose of Measles	207,793	268,653	268,946	272,042	272,339	
Measles coverage (%) <sup>[2]</sup>	79%	95%	89%	85%	80%	
Pregnant women vaccinated with TT+						

Number	Base Year	Baseline and Targets					
	2010	2012	2013	2014	2015		
TT+ coverage (%) <sup>[4]</sup>	0%	0%	0%	0%	0%		
Vit A supplement to mothers within 6 weeks from delivery	149,402						
Vit A supplement to infants after 6 months	1,169,169						
Annual DTP Drop-out rate[ ( DTP1 - DTP3 ) / DTP1 ] x 100 <sup>[5]</sup>	8%	5%	3%	2%	1%		

<sup>[1]</sup> Number of infants vaccinated out of total births

<sup>[2]</sup> Number of infants vaccinated out of total surviving infants

<sup>[3]</sup> Indicate total number of children vaccinated with either DTP alone or combined

<sup>[4]</sup> Number of pregnant women vaccinated with TT+ out of total pregnant women

<sup>[5]</sup> The formula to calculate a vaccine wastage rate (in percentage): $[( A - B ) / A ] \times 100$ . Whereby: A = the number of doses distributed for use according to the supply records with correction for stock balance at the end of the supply period; B = the number of vaccinations with the same vaccine in the same period.

## 5.5. Summary of current and future immunisation budget

(or refer to cMYP pages)

Cost category	Estimated costs per annum in US\$ (in thousand US\$)								
	Base Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
	2010	2012	2013	2014	2015				
<b>Routine Recurrent Cost</b>									
<b>Vaccines (routine vaccines only)</b>	<b>17,326,604</b>	<b>18,346,029</b>	<b>20,251,084</b>	<b>22,425,106</b>	<b>24,694,298</b>				
Traditional vaccines	10,811,931	11,110,713	12,223,313	13,392,669	14,621,186				
New and underused vaccines	6,514,673	7,235,316	8,027,771	9,032,437	10,073,112				
Injection supplies	645,618	718,637	790,599	866,233	945,693				
Personnel	<b>433,357</b>	<b>482,368</b>	<b>530,671</b>	<b>581,439</b>	<b>634,775</b>				
Salaries of full-time NIP health workers (immunisation specific)	408,412	454,602	500,125	547,970	598,236				
Per-diems for outreach vaccinators / mobile teams	24,945	27,766	30,546	33,469	36,539				
Transportation	200,222	222,867	245,184	268,640	293,282				
Maintenance and overheads	180,569	200,991	221,118	242,271	264,495				
Training	8,674	9,655	10,622	11,638	12,706				
Social mobilisation and IEC	430,926	479,663	527,696	578,178	631,215				
Disease surveillance	9,660	10,752	11,829	12,961	14,149				
Program management	172,147	191,617	210,805	230,972	252,159				
Other	254,602	283,397	311,775	341,602	372,937				
<b>Subtotal Recurrent Costs</b>	<b>19,662,379</b>	<b>20,945,976</b>	<b>23,111,383</b>	<b>25,559,040</b>	<b>28,115,709</b>				

		Estimated costs per annum in US\$ (in thousand US\$)							
Cost category	Base Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
	2010	2012	2013	2014	2015				
<b>Routine Capital Costs</b>									
Vehicle									
Cold chain equipment	115,567	128,637	141,519	155,057	169,281				
Other capital equipment	48,086	52,525	58,885	64,518	70,436				
<b>Subtotal Capital Costs</b>	<b>163,653</b>	<b>181,162</b>	<b>200,404</b>	<b>219,575</b>	<b>239,717</b>				
<b>Campaigns</b>									
Polio									
Measles									
Yellow Fever									
MNT campaigns									
Other campaigns	275,927	307,134	337,890	370,214	404,174				
<b>Subtotal Campaign Costs</b>	<b>275,927</b>	<b>307,134</b>	<b>337,890</b>	<b>370,214</b>	<b>404,174</b>				
<b>GRAND TOTAL</b>	<b>20,101,959</b>	<b>21,434,272</b>	<b>23,649,677</b>	<b>26,148,829</b>	<b>28,759,600</b>				

## 5.6. Summary of current and future financing and sources of funds

Please list in the tables below the funding sources for each type of cost category (if known). Please try and indicate which immunisation program costs are covered from the Government budget, and which costs are covered by development partners (or the GAVI Alliance), and name the partners (or refer to cMYP).

**Note:** To add new lines click on the **New item** icon in the **Action** column. Use the **Delete item** icon to delete a line.

		Estimated costs per annum in US\$ (in thousand US\$)								
Cost category	Funding source	Base Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
		2010	2012	2013	2014	2015				
<b>Routine Recurrent Cost</b>										

		Estimated costs per annum in US\$ (in thousand US\$)								
Cost category	Funding source	Base Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
		2010	2012	2013	2014	2015				
Traditional vaccines	MSD	10,811,931	11,110,713	12,223,313	13,392,669	14,621,186				
Injection supplies	MSD	645,618	718,637	790,599	866,233	945,693				
New Vaccines	MSD/GAVI/ PAHO	6,514,673	7,235,316	8,027,771	9,032,437	10,073,112				
Others	MSD/UNICEF	1,690,156	1,880,310	2,069,700	2,267,701	2,475,718				
<b>Routine Capital Costs</b>										
Cold chain	MSD	115,567	128,637	141,519	155,057	169,281				
Other capital equipment	MSD	48,086	53,525	58,885	64,518	70,436				
<b>Campaigns</b>										
AH1N1	MSD/PAHO	145,042								
Rotavirus	MSD	849								
Diphtheria	MSD	130,036								
Other	MSD/Others		307,134	337,890	370,214	404,174				
<b>GRAND TOTAL</b>		<b>20,101,958</b>	<b>21,434,272</b>	<b>23,649,677</b>	<b>26,148,829</b>	<b>28,759,600</b>				



## 6. New and Under-Used Vaccines (NVS)

Please summarise the cold chain capacity and readiness to accommodate new vaccines, stating how the cold chain expansion (if required) will be financed, and when it will be in place. Please indicate the additional cost, if capacity is not available and the source of funding to close the gap.

**Current capacity of the cold chain network with the introduction of the rotavirus vaccine:** Bolivia's inventory of the cold network indicated that the installed capacity of the EPI's cold network is 200 mt<sup>3</sup>. It is important to point out that the space required for the EPI's regular vaccines plus the rotavirus vaccine is 254.28 mt<sup>3</sup>, so there is a difference of 54.28 mt<sup>3</sup>.

**Requirements of the PCV13 vaccine:** The 13-valent vaccine (PCV13) comes in 18 cm x 15 cm x 4 cm boxes containing between 100 and 200 doses. Box dimensions do not vary depending on the number of doses. The estimated volume of each dose is 5.4 cm<sup>3</sup> and 10.8 cm<sup>3</sup>, respectively.

Total estimated space for the PCV13 vaccine, according to the number of doses required in the 2012 schedule is 3.9 mt<sup>3</sup> for the 200 dose presentation and 7.8 mt<sup>3</sup> for the 100 dose presentation. By 2015 (the last year of the project), the requirements would be 5.5 mt<sup>3</sup> for the 200 dose presentation and 10.9 mt<sup>3</sup> for the 100 dose presentation.

Therefore, the cold network can meet the requirements of the PCV13 vaccine in either of its presentations (100 or 200 doses), but orders will have to be placed at least twice per year.

It is important to bear in mind that in 2012, a larger number of doses is required for the vaccination of children from 12 to 23 months of age. In addition, the space required by the lyophilized rotavirus vaccine was taken into consideration in the calculation. Once the liquid vaccine with an oral doser has arrived in the country, 45% of the installed capacity of the cold network is released, and if the liquid rotavirus vaccine in a dosing tube is introduced, an addition 52% of the installed capacity of the cold network is released.

Please give a summary of the cMYP sections that refer to the introduction of new and under-used vaccines. Outline the key points that informed the decision-making process (data considered etc).

Decisions were made based on 6 processes: 1) Bacterial and pneumococcal meningitis and pneumonia disease burden (mortality, hospitalizations, outpatient care, based on the national information systems, in the bacterial meningitis and pneumonia surveillance in children under 5 years of age and SIREVA); 2) Analysis of the possible intervention strategies to reduce the pneumonia disease burden and selection of vaccination as a first-choice strategy; 3) Cost-effectiveness of vaccination; 4) Background and development of Bolivia's immunisation program and the sustainability of vaccination; 5) Selection of the vaccine (potential coverage of the vaccines, cold network capacity, prequalification by the WHO and the National Regulatory Agency, operating aspects and vaccine costs); and 6) Programmatic feasibility analysis (impact of the pneumococcus vaccine in the regular vaccination program in the vaccine distribution system and the cold network; and social acceptance of the vaccine).

The cMYP includes the requirements to introduce the PCV13 vaccine in the regular schedule, in the following sections (7 altogether) in particular.

- 1) Biologicals: procurement of biologicals, including transport expenses, taxes, customs, etc.
- 2) Social communication: community mobilization plan.
- 3) Strengthening: for operating aspects such as vaccine distribution, parts, fuel, etc. In order to develop the awareness and motivation strategy of the program's human resources, for "all children and all vaccines to count", and consider each child equally important, regardless of the dose (first dose or additional doses) and whether they are new or previous vaccines (use of the vaccinometer), recognition of the best 2 departments by the Ministry of Health, two (2) goal assessments (in the middle and at the end of the year), sharing successful experiences.
- 4) Training, refresher courses on technical standards and human resource training meetings.
- 5) Epidemiology Surveillances: to assess impact.
- 6) Research: for the complementary assessment of the impact of vaccination.
- 7) Operating Aspects: to adjust the information system in order to report coverage with PCV13 and, in the medium term, vaccination coverage by child sex.

The expenses of all other aspects necessary to introduce the vaccine (supervision of the cold network, etc.), are comparable with the other vaccines included in the regular program.

## 6.1. Capacity and cost (for positive storage)

	Formula	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	
		2012	2013	2014	2015					
A	Annual positive volume requirement, including new vaccine (litres or m <sup>3</sup> ) m3	Sum-product of total vaccine doses multiplied by unit packed volume of the vaccine	264	265	266	267				
B	Existing net positive cold chain capacity (litres or m <sup>3</sup> ) m3	#	200	200	200	200				
C	Estimated minimum number of shipments per year required for the actual cold chain capacity	A / B	2	2	2	2				
D	Number of consignments / shipments per year	Based on national vaccine shipment plan	4	4	4	4				
E	Gap (if any)	((A / D) - B)	-134	-134	-134	-133				
F	Estimated additional cost of cold chain	US\$								

Please briefly describe how your country plans to move towards attaining financial sustainability for the new vaccines you intend to introduce, how the country will meet the co-financing payments, and any other issues regarding financial sustainability you have considered (refer to the cMYP)

The Expanded Program on Immunisation is one of the Bolivian Government's top priorities. Over the last few years, we have guaranteed the funds required to purchase vaccines and even new vaccines (pentavalent DPT-HB-Hib and rotavirus, the latter with the support of GAVI); for vaccination campaigns, (measles, congenital rubella and yellow fever control) and other aspects necessary for the proper operation of the program (supervision, cold network, strengthening the program, social communication strategies, monitoring, training, etc.

In 2005, the Government passed the Vaccine Law (currently under regulation), which establishes, among others, the funding of the vaccination program with Bolivia's General Budget and the cMYP is coordinated with the Sector Development Plan 2010-2020 of the Plurinational State of Bolivia, which helps guarantee the sustainability of vaccination. In addition, the participation of Bolivia's Ministry of Economy and Public Finance in analyzing the introduction plan for the pneumococcal vaccine (including the cMYP and the budget for the PCV13 vaccine) will help prioritize and sustain this measure of intervention and guarantee vaccine co-payments. (See attachments 2 and 11).

Finally, the introduction of the pneumococcal vaccine has the support of Bolivia's Ministry of Health and Sports, the Inter-agency Coordinating Committee (ICC) and the country's National Immunization Practices Committee (NIPC), with the technical endorsement and support of the Pan American Health Organization based on a cost-effectiveness study of the pneumococcal vaccine conducted in 2010. The consideration thereof has undergone a thorough planning and preparation process to measure impact over the last year. (See attachments 1, 3 and 4).

## 6.2. Assessment of burden of relevant diseases (if available)

**Note:** To add new lines click on the *New item* icon in the *Action* column. Use the *Delete item* icon to delete a line.

Disease	Title of the assessment	Date	Results
Bacterial meningitis	Burden of bacterial	Jan - Dec. 2008	Bacterial pneumonia (for each

Disease	Title of the assessment	Date	Results
and pneumonia	meningitis and pneumonia in children under 5. Bolivia, 2008		1000.000 children under 5) 10,663 were treated as outpatients 997 were hospitalized 4 died Bacterial meningitis (for each 1000.000 children under 5) 34 were hospitalized 8 died
Pneumococcal meningitis and pneumonia	Burden of pneumococcal meningitis and pneumonia	Jan - Dec. 2008.	Pneumococcal pneumonia (for each 1000.000 children under 5) 168 were hospitalized 4 died Pneumococcal meningitis (for each 1000.000 children under 5) 17 were hospitalized 4 died  Considering that the number of events is underestimated due to the characteristics of the information systems. Information regarding mortality due to meningitis, sepsis or bacterial diseases is not collected

If new or under-used vaccines have already been introduced in your country, please give details of the lessons learned from storage capacity, protection from accidental freezing, staff training, cold chain, logistics, drop-out rate, wastage rate etc., and suggest action points to address them

**Note:** To add new lines click on the **New item** icon in the **Action** column. Use the **Delete item** icon to delete a line.

Lessons Learned	Action Points
The procurement of vaccines through the PAHO/WHO rotary fund was successful and the creation of the fund to "Support vaccination programs and immunisation financing, co-financing and sustainability", managed through the PAHO in Bolivia in coordination with the Ministry of Health, based on the agreement between GAVI/PAHO/WHO.	A similar model will be applied for the new PCV13 vaccine.
In 2008, there was a delay in the deposit of GAVI's co-pay for the procurement of the rotavirus vaccine at the time of its introduction. Therefore, the Ministry of Health had to pay the rotary fund for the full amount of the purchase (301,000 doses), thus causing a shortage of other vaccines in the beginning of the year, in addition to reduced vaccination coverage.	Communication and process coordination with GAVI will be improved to schedule the procurement of new vaccines.
There was a problem to establish vaccination coverage because the SNIS (Bolivia's Health Information System) has a three (3) month delay in information; rural health centers have geographic difficulties to send out information locally and population denominators may not be up to date because the last census was carried out in 2001.	PAHO plans to conduct a vaccination coverage survey in the second half of 2011.
Cold network capacity may be affected by the increase in obsolete equipment and others operating with Freon, which affects the ozone layer. There are no refrigerated vehicles to transport the vaccines to the departments	The cold network inventory will be updated. The needs of the cold network (including the central level) will be analyzed with the Government and strategies will be suggested for the procurement and exchange of equipment (activity included in the cMYP)
The epidemiological surveillance of entities with new vaccines (rotavirus) has strengthened the regular vaccination program and improved the logistical capacity and social mobilization thereof.	The cMYP includes the activities required to improve the epidemiological surveillance for bacterial pneumonia and meningitis.

Lessons Learned	Action Points
In most establishments, hazardous waste is disposed of in safety boxes. However, progress is yet to be made as regards the final disposal of safety boxes and vaccine containers	1) The possibility of increasing funds to improve this aspect will be analyzed with the Government (procurement of autoclaves, vaccine waste compressors, etc.) 2) Human resources will be trained and activities will be carried out to raise awareness as regards the use of AD syringes and other safety standards (see cMYP)
Training of the EPI's human resources is essential to guarantee useful vaccination coverage; to guarantee the proper use, storage and distribution of new vaccines; to guarantee vaccine effectiveness; and to reduce adverse events related to vaccination.	The cMYP includes funds to update and distribute vaccination standards to key stakeholders (including the community) for human resource training.
The program's feedback and social mobilization strategy is essential to guarantee proper vaccination coverage.	The cMYP includes these communication strategies focusing on pneumococcus during the first few months of vaccine use.

Please list the vaccines to be introduced with support from the GAVI Alliance (and presentation)

**Pneumococcal (PCV 13) 1 dose/vial, liquid**

### 6.3.1. Requested vaccine ( Pneumococcal (PCV13), 1 doses/vial, Liquid )

As reported in the cMYP, the country plans to introduce Pneumococcal (PCV13), 1 doses/vial, Liquid vaccine.

### 6.3.2. Co-financing information

If you would like to co-finance higher amount than minimum, please overwrite information in the “*Your co-financing*” row.

**Note:** Selection of this field has direct impact on automatic calculations of support you are requesting and should not be left empty.

Country group	Graduating
---------------	------------

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
	2012	2013	2014	2015				
<b>Minimum co-financing</b>	0.70	1.40	2.10	2.80				
<b>Your co-financing (please change if higher)</b>	0.70	1.40	2.10	2.80				

### 6.3.3. Wastage factor

Please indicate wastage rate:

Countries are expected to plan for a maximal wastage rate of:

- 50% - for a lyophilised vaccine in 10 or 20-dose vial,
- 25% - for a liquid vaccine in 10 or 20-dose vial or a lyophilised vaccine in 5-dose vial,
- 10% - for a lyophilised/liquid vaccine in 2-dose vial, and
- 5% - for a liquid vaccine in 1-dose vial

**Note:** Selection of this field has direct impact on automatic calculations of support you are requesting and should not be left empty.

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
	2012	2013	2014	2015				
<b>Vaccine wastage rate in %</b>	5%	5%	5%	5%				
<b>Equivalent wastage factor</b>	1.05	1.05	1.05	1.05				

### 6.3.4. Specifications of vaccinations with new vaccine

	Data from		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
			2012	2013	2014	2015				
Number of children to be vaccinated with the first dose	Table 1	#	257,439	271,947	298,928	316,844				
Number of children to be vaccinated with the third dose <sup>[1]</sup>	Table 1	#	243,294	271,947	292,499	313,437				
Immunisation coverage with the third dose	Table 1	#	86.00%	90.00%	91.00%	92.00%				
Estimated vaccine wastage factor	Table 6.(n).3 <sup>[3]</sup>	#	1.05	1.05	1.05	1.05				
Country co-financing per dose <sup>[2]</sup>	Table 6.(n).2 <sup>[3]</sup>	\$	0.70	1.40	2.10	2.80				

<sup>[1]</sup> 2<sup>nd</sup> dose if Measles vaccine or Rotavirus 2-dose schedule

<sup>[2]</sup> Total price per-dose includes vaccine cost, plus freight, supplies, insurance, visa costs etc.

<sup>[3]</sup> Where (n) depends on the vaccine

### 6.3.5. Portion of supply to be procured by the country (and cost estimate, US\$)

		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
		2012	2013	2014	2015				
Number of vaccine doses	#	189,500	324,600	540,000	756,800				
Number of AD syringes	#	202,300	343,300	571,500	800,600				
Number of re-constitution syringes	#								
Number of safety boxes	#	2,250	3,825	6,350	8,900				
Total value to be co-financed by country	\$	710,000	1,215,500	2,022,500	2,834,500				

### 6.3.6. Portion of supply to be procured by the GAVI Alliance (and cost estimate, US\$)

		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
		2012	2013	2014	2015				
Number of vaccine doses	#	824,300	543,600	423,000	255,400				
Number of AD syringes	#	880,100	575,000	447,600	270,200				

		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
		2012	2013	2014	2015				
<b>Number of re-constitution syringes</b>	#								
<b>Number of safety boxes</b>	#	9,775	6,400	4,975	3,000				
<b>Total value to be co-financed by GAVI</b>	\$	<b>3,087,500</b>	<b>2,036,000</b>	<b>1,584,000</b>	<b>956,500</b>				

### 6.3.7. New and Under-Used Vaccine Introduction Grant

Please indicate in the tables below how the one-time Introduction Grant<sup>[1]</sup> will be used to support the costs of vaccine introduction and critical pre-introduction activities (refer to the cMYP).

#### Calculation of lump-sum for the Pneumococcal (PCV13), 1 doses/vial, Liquid

If the total is lower than US\$100,000, it is automatically rounded up to US\$100,000

Year of New Vaccine Introduction	Births (from Table 1)	Share per Birth in US\$	Total in US\$
2012	296,999	0.30	100,000

<sup>[1]</sup> The Grant will be based on a maximum award of \$0.30 per infant in the birth cohort with a minimum starting grant award of \$100,000

#### Cost (and finance) to introduce the Pneumococcal (PCV13), 1 doses/vial, Liquid (US\$)

**Note:** To add new lines click on the **New item** icon in the **Action** column. Use the **Delete item** icon to delete a line.

Cost Category	Full needs for new vaccine introduction in US\$	Funded with new vaccine introduction grant in US\$
Training	25,000	2,500
Social Mobilization, IEC and Advocacy	200,000	50,000
Cold Chain Equipment & Maintenance	900,000	225,000
Vehicles and Transportation	150,000	37,500
Programme Management	30,000	3,000
Surveillance and Monitoring	30,000	3,000
Human Resources		
Waste Management		
Technical assistance	24,000	2,400
<b>Totals</b>	<b>1,359,000</b>	<b>323,400</b>



## 7. Procurement and Management of New and Under-Used Vaccines

**Note:** The PCV vaccine must be procured through UNICEF

- a) Please show how the support will operate and be managed including procurement of vaccines (GAVI expects that most countries will procure vaccine and injection supplies through UNICEF)

The procurement of vaccines through the PAHO/WHO rotary fund was successful as well as the creation of the fund to “Support vaccination programs and immunisation financing, co-financing and sustainability”, managed through the PAHO in Bolivia in coordination with the Ministry of Health, based on the agreement between GAVI/PAHO/WHO. It is important to bear in mind that Bolivia's Vaccine Law only includes the procurement of vaccines through the PAHO Rotary Fund.

- b) If an alternative mechanism for procurement and delivery of supply (financed by the country or the GAVI Alliance) is requested, please document
- Other vaccines or immunisation commodities procured by the country and descriptions of the mechanism used.
  - The functions of the National Regulatory Authority (as evaluated by WHO) to show they comply with WHO requirements for procurement of vaccines and supply of assured quality.

As we said earlier, Bolivia's Vaccine Law includes the procurement of biologicals and syringes only through the PAHO Rotary Fund based on the mechanisms established by PAHO/WHO. The PAHO/WHO Rotary Fund only provides vaccines with prequalification by the WHO

- c) Please describe the introduction of the vaccines (refer to cMYP)

During Year 1 (2012), the PCV13 vaccine will be administered to infants under 12 months (3 doses) and 1 dose will be administered to children from 12 to 23 months of age starting on June 1, 2012. During the following years (2012-2015), only the PCV10 vaccine will be administered to infants under 12 months. The introduction will follow a social mobilization plan and a plan to train human resources in the technical and operating aspects of the vaccine. These aspects have been considered in the cMYP.

In addition, the introduction of the rotavirus vaccine will be changed from lyophilised to liquid with an oral doser in order to save storage space (45%), followed by a dosing tube, thus saving an additional 52% to optimize cold network capacity

- d) Please indicate how funds should be transferred by the GAVI Alliance (if applicable)

As mentioned earlier, the procurement of vaccines through the PAHO/WHO Rotary Fund was successful as well as the creation of the fund to “Support vaccination programs and immunisation financing, co-financing and sustainability”, managed through the PAHO in Bolivia in coordination with the Ministry of Health, based on the agreement

between GAVI/PAHO/WHO. A similar model will be used for the procurement of the PCV10 vaccine and the syringes required for its administration

- e) Please indicate how the co-financing amounts will be paid (and who is responsible for this)

The EPI program is responsible for paying the co-financing, and it will be paid through the PAHO/WHO Rotary Fund based on an inter-institutional agreement. These funds come from the Bolivian Government's budget

- f) Please outline how coverage of the new vaccine will be monitored and reported (refer to cMYP)

Coverage will be monitored based on the EPI information system, which brings together reports from department municipalities and consolidates them on the national level (SNIS, Bolivia's Health Information System). In the medium term, vaccine coverage and other administrative indicators of the program are expected to be sex disaggregated (see vaccination impact assessment, administrative assessment in the introduction plan for the pneumococcal vaccine. Bolivia, 2012-2015). Special emphasis will be made on the monitoring indicator (Third doses of pentavalent DPT-HB-Bib (Third doses of the pneumococcal vaccine x 100)- 100". This indicator is expected to be less than 10% in 2012 and less than 5% as of 2014

### **7.1. Vaccine Management (EVSM/EVM/VMA)**

When was the last Effective Vaccine Store Management (EVSM) conducted? August - 2010

When was the last Effective Vaccine Management (EVM) or Vaccine Management Assessment (VMA) conducted? August - 2010

If your country conducted either EVSM, EVM, or VMA in the past three years, please attach relevant reports. (Document N°4)

A VMA report must be attached from those countries which have introduced a New and Underused Vaccine with GAVI support before 2008.

Please note that EVSM and VMA tools have been replaced by an integrated Effective Vaccine Management (EVM) tool. The information on EVM tool can be found at [http://www.who.int/immunisation\\_delivery/systems\\_policy/logistics/en/index6.html](http://www.who.int/immunisation_delivery/systems_policy/logistics/en/index6.html)

For countries which conducted EVSM, VMA or EVM in the past, please report on activities carried out as part of either action plan or improvement plan prepared after the EVSM/VMA/EVM.

When is the next Effective Vaccine Management (EVM) Assessment planned? June - 2012

*Under new guidelines, it will be mandatory for the countries to conduct an EVM prior to an application for introduction of new vaccine.*



## **8. Additional Comments and Recommendations**

Comments and Recommendations from the National Coordinating Body (ICC/HSCC)

The Coordination Committee supports the introduction of the pneumococcal vaccine in the country's regular schedule. However, it suggests that the Expanded Program on Immunisation of the Ministry of Health and Sports should guarantee the economic and financial sustainability of the budget for the procurement of the vaccine once co-financing has ended.

## 9. Annexes

### Annex 1

#### Annex 1.1 – Pneumococcal (PCV13), 1 doses/vial, Liquid

**Table 1.1 A** - Rounded up portion of supply that is procured by the country and estimate of related cost in US\$

Required supply item		2012	2013	2014	2015				
Number of vaccine doses	#	189,500	324,600	540,000	756,800				
Number of AD syringes	#	202,300	343,300	571,500	800,600				
Number of re-constitution syringes	#								
Number of safety boxes	#	2,250	3,825	6,350	8,900				
Total value to be co-financed by the country	\$	710,000	1,215,500	2,022,500	2,834,500				

**Table 1.1 B** - Rounded up portion of supply that is procured by GAVI and estimate of related cost in US\$.

Required supply item		2012	2013	2014	2015				
Number of vaccine doses	#	824,300	543,600	423,000	255,400				
Number of AD syringes	#	880,100	575,000	447,600	270,200				

Required supply item		2012	2013	2014	2015				
Number of re-constitution syringes	#								
Number of safety boxes	#	9,775	6,400	4,975	3,000				
Total value to be co-financed by the country	\$	3,087,500	2,036,000	1,584,000	956,500				

**Table 1.1 C** - Summary table for Pneumococcal (PCV13), 1 doses/vial, Liquid

	Data from		2012	2013	2014	2015				
Number of Surviving infants	Table 1	#	282,900	302,164	321,428	340,691				
Number of children to be vaccinated with the third dose <sup>[1]</sup>	Table 1	#	243,294	271,947	292,499	313,437				
Immunisation coverage with the last dose	Table 1	#	86.00%	90.00%	91.00%	92.00%				
Number of children to be vaccinated with the first dose	Table 1	#	257,439	271,947	298,928	316,844				
Number of doses per child		#	3	3	3	3				
Estimated vaccine wastage factor	Table 6.(n)0.3 <sup>[2]</sup>	#	1.05	1.05	1.05	1.05				
Number of doses per vial		#	1	1	1	1				
AD syringes required		#	Yes	Yes	Yes	Yes				
Reconstitution syringes required		#	No	No	No	No				
Safety boxes required		#	Yes	Yes	Yes	Yes				
Vaccine price per dose		\$	3.500	3.500	3.500	3.500				
Country co-financing per dose	Table 6.(n).2 <sup>[2]</sup>	\$	0.70	1.40	2.10	2.80				
AD syringe price per unit		\$	0.053	0.053	0.053	0.053				
Reconstitution syringe price per unit		\$								
Safety box price per unit		\$	0.640	0.640	0.640	0.640				
Freight cost as % of vaccines value		%	5.00	5.00	5.00	5.00				
Freight cost as % of devices value		%	10.00	10.00	10.00	10.00				

<sup>[1]</sup> 2<sup>nd</sup> dose if Measles vaccine or Rotavirus 2-dose schedule

<sup>[2]</sup> Where (n) depends on the vaccine

**Table 1.1 D** - Estimated number of doses for Pneumococcal (PCV13), 1 doses/vial, Liquid associated injection safety material and related co-financing budget (page 1)

	Formula	2012			2013			
		Total	Government	GAVI	Total	Government	GAVI	
A	<b>Country Co-finance</b>	18.69%			37.38%			
B	<b>Number of children to be vaccinated with the first dose<sup>[1]</sup></b>	Table 1 (baseline & annual targets)	257,439	48,112	209,327	271,947	101,665	170,282
C	<b>Number of doses per child</b>	Vaccine parameter	3	3	3	3	3	3
D	<b>Number of doses needed</b>	B * C	772,317	144,336	627,981	815,841	304,993	510,848
E	<b>Estimated vaccine wastage factor</b>	Table 6.(n).3. in NVS section <sup>[2]</sup>	1.05	1.05	1.05	1.05	1.05	1.05
F	<b>Number of doses needed including wastage</b>	D * E	810,933	151,553	659,380	856,634	320,243	536,391
G	<b>Vaccines buffer stock</b>	(F - F of previous year) * 0.25	202,734	37,889	164,845	11,426	4,272	7,154
I	<b>Total vaccine doses needed</b>	F + G	1,013,667	189,441	824,226	868,060	324,514	543,546
J	<b>Number of doses per vial</b>	Vaccine parameter	1	1	1	1	1	1
K	<b>Number of AD syringes (+ 10% wastage) needed</b>	(D + G) * 1.11	1,082,307	202,269	880,038	918,267	343,283	574,984
L	<b>Reconstitution syringes (+ 10% wastage) needed</b>	I / J * 1.11						
M	<b>Total of safety boxes (+ 10% of extra need) needed</b>	(K + L) / 100 x 1.11	12,014	2,246	9,768	10,193	3,811	6,382
N	<b>Cost of vaccines needed</b>	I * vaccine price per dose	3,547,835	663,042	2,884,793	3,038,210	1,135,798	1,902,412
O	<b>Cost of AD syringes needed</b>	K * AD syringe price per unit	57,363	10,721	46,642	48,669	18,195	30,474
P	<b>Cost of reconstitution syringes needed</b>	L * reconstitution price per unit						
Q	<b>Cost of safety boxes needed</b>	M * safety box price per unit	7,689	1,437	6,252	6,524	2,439	4,085
R	<b>Freight cost for vaccines needed</b>	N * freight cost as % of vaccines value	177,392	33,153	144,239	151,911	56,791	95,120
S	<b>Freight cost for devices needed</b>	(O + P + Q) * freight cost as % of devices value	6,506	1,216	5,290	5,520	2,064	3,456
T	<b>Total fund needed</b>	(N + O + P + Q + R + S)	3,796,785	709,567	3,087,218	3,250,834	1,215,284	2,035,550
U	<b>Total country co-financing</b>	I * country co-financing per dose	709,567			1,215,284		
V	<b>Country co-financing % of GAVI supported proportion</b>	U / T	18.69%			37.38%		

<sup>[1]</sup> 2<sup>nd</sup> dose if Measles vaccine or Rotavirus 2-dose schedule

<sup>[2]</sup> Where (n) depends on the vaccine

**Table 1.1 D - Estimated number of doses for Pneumococcal (PCV13), 1 doses/vial, Liquid associated injection safety material and related co-financing budget (page 2)**

	Formula	2014			2015			
		Total	Government	GAVI	Total	Government	GAVI	
A	<b>Country Co-finance</b>	56.08%			74.77%			
B	<b>Number of children to be vaccinated with the first dose<sup>[1]</sup></b>	Table 1 (baseline & annual targets)	298,928	167,625	131,303	316,844	236,897	79,947
C	<b>Number of doses per child</b>	Vaccine parameter (schedule)	3	3	3	3	3	3
D	<b>Number of doses needed</b>	B * C	896,784	502,874	393,910	950,532	710,689	239,843
E	<b>Estimated vaccine wastage factor</b>	Table 6.(n).3. in NVS section <sup>[2]</sup>	1.05	1.05	1.05	1.05	1.05	1.05
F	<b>Number of doses needed including wastage</b>	D * E	941,624	528,018	413,606	998,059	746,224	251,835
G	<b>Vaccines buffer stock</b>	(F - F of previous year) * 0.25	21,248	11,915	9,333	14,109	10,549	3,560
I	<b>Total vaccine doses needed</b>	F + G	962,872	539,933	422,939	1,012,168	756,773	255,395
J	<b>Number of doses per vial</b>	Vaccine parameter	1	1	1	1	1	1
K	<b>Number of AD syringes (+ 10% wastage) needed</b>	(D + G) * 1.11	1,019,016	571,416	447,600	1,070,752	800,575	270,177
L	<b>Reconstitution syringes (+ 10% wastage) needed</b>	I / J * 1.11						
M	<b>Total of safety boxes (+ 10% of extra need) needed</b>	(K + L) / 100 x 1.11	11,312	6,344	4,968	11,886	8,887	2,999
N	<b>Cost of vaccines needed</b>	I * vaccine price per dose	3,370,052	1,889,765	1,480,287	3,542,588	2,648,705	893,883
O	<b>Cost of AD syringes needed</b>	K * AD syringe price per unit	54,008	30,286	23,722	56,750	42,431	14,319
P	<b>Cost of reconstitution syringes needed</b>	L * reconstitution price per unit						
Q	<b>Cost of safety boxes needed</b>	M * safety box price per unit	7,240	4,060	3,180	7,608	5,689	1,919
R	<b>Freight cost for vaccines needed</b>	N * freight cost as % of vaccines value	168,503	94,489	74,014	177,130	132,436	44,694
S	<b>Freight cost for devices needed</b>	(O + P + Q) * freight cost as % of devices value	6,125	3,435	2,690	6,436	4,813	1,623
T	<b>Total fund needed</b>	(N + O + P + Q + R + S)	3,605,928	2,022,032	1,583,896	3,790,512	2,834,071	956,441
U	<b>Total country co-financing</b>	I * country co-financing per dose	2,022,032			2,834,071		
V	<b>Country co-financing % of GAVI supported proportion</b>	U / T	56.08%			74.77%		

<sup>[1]</sup> 2<sup>nd</sup> dose if Measles vaccine or Rotavirus 2-dose schedule

<sup>[2]</sup> Where (n) depends on the vaccine



## Annex 2

Estimated prices of supply and related freight cost: 2011 from UNICEF Supply Division; 2012 onwards: GAVI Secretariat

**Table A - Commodities Cost**

Vaccine	Presentation	2011	2012	2013	2014	2015	2016	2017
AD syringe	0	0.053	0.053	0.053	0.053	0.053	0.053	0.053
DTP-HepB	2	1.600						
DTP-HepB	10	0.620	0.620	0.620	0.620	0.620	0.620	0.620
DTP-hepB-Hib	WAP	2.580	2.470	2.320	2.030	1.850	1.850	1.850
DTP-hepB-Hib	WAP	2.580	2.470	2.320	2.030	1.850	1.850	1.850
DTP-hepB-Hib	WAP	2.580	2.470	2.320	2.030	1.850	1.850	1.850
DTP-Hib	10	3.400	3.400	3.400	3.400	3.400	3.200	3.200
HepB monoval	1							
HepB monoval	2							
Hib monoval	1	3.400						
Measles	10	0.240	0.240	0.240	0.240	0.240	0.240	0.240
Pneumococcal(PCV10)	2	3.500	3.500	3.500	3.500	3.500	3.500	3.500
Pneumococcal(PCV13)	1	3.500	3.500	3.500	3.500	3.500	3.500	3.500
Reconstit syringe for Pentaval (2ml)	0	0.032	0.032	0.032	0.032	0.032	0.032	0.032
Reconstit syringe for YF	0	0.038	0.038	0.038	0.038	0.038	0.038	0.038
Rotavirus 2-dose schedule	1	7.500	6.000	5.000	4.000	3.600	3.600	3.600
Rotavirus 3-dose schedule	1	5.500	4.000	3.333	2.667	2.400	2.400	2.400
Safety box	0	0.640	0.640	0.640	0.640	0.640	0.640	0.640
Yellow Fever	WAP	0.856	0.856	0.856	0.856	0.856	0.856	0.856
Yellow Fever	WAP	0.856	0.856	0.856	0.856	0.856	0.856	0.856

**Note:** WAP - weighted average price (to be used for any presentation: For DTP-HepB-Hib, it applies to 1 dose liquid, 2 dose lyophilised and 10 dose liquid. For Yellow Fever, it applies to 5 dose lyophilised and 10 dose lyophilised)

**Table B - Commodities Freight Cost**

Vaccines	Group	No Threshold	200'000 \$		250'000 \$		2'000'000 \$	
			<=	>	<=	>	<=	>
Yellow Fever	Yellow Fever		20%				10%	5%
DTP+HepB	HepB and or Hib	2%						
DTP-hepB-Hib	HepB and or Hib				15%	3,50%		
Pneumococcal vaccine (PCV10)	Pneumococcal	5%						
Pneumococcal vaccine (PCV13)	Pneumococcal	5%						
Rotavirus	Rotavirus	5%						
Measles	Measles	10%						

**Table C - Graduating** - Minimum country's co-payment per dose of co-financed vaccine.

vaccine	2012	2013	2014	2015			
Pneumococcal (PCV13), 1 doses/vial, Liquid	0.70	1.40	2.10	2.80			

**Table D - Wastage rates and factors**

Countries are expected to plan for a maximal wastage rate of:

- 50% - for a lyophilised vaccine in 10 or 20-dose vial,
- 25% - for a liquid vaccine in 10 or 20-dose vial or a lyophilised vaccine in 5-dose vial,
- 10% - for a lyophilised/liquid vaccine in 2-dose vial, and

- 5% - for a liquid vaccine in 1-dose vial

Vaccine wastage rate	5%	10%	15%	20%	25%	30%	35%	40%	45%	50%	55%	60%
Equivalent wastage factor	1.05	1.11	1.18	1.25	1.33	1.43	1.54	1.67	1.82	2	2.22	2.5

WHO International shipping guidelines: maximum packed volumes of vaccines

**Table E - Vaccine maximum packed volumes**

Vaccine product	Designation	Vaccine formulation	Admin route	No. Of doses in the schedule	Presentation (doses/vial, prefilled)	Packed volume vaccine (cm <sup>3</sup> /dose)	Packed volume diluents (cm <sup>3</sup> /dose)
BCG	BCG	lyophilized	ID	1	20	1.2	0.7
Diphtheria-Tetanus-Pertussis	DTP	liquid	IM	3	20	2.5	
Diphtheria-Tetanus-Pertussis	DTP	liquid	IM	3	10	3.0	
Diphtheria-Tetanus	DT	liquid	IM	3	10	3.0	
Tetanus-Diphtheria	Td	liquid	IM	2	10	3.0	
Tetanus Toxoid	TT	liquid	IM	2	10	3.0	
Tetanus Toxoid	TT	liquid	IM	2	20	2.5	
Tetanus Toxoid UniJect	TT	liquid	IM	2	Uniject	12.0	
Measles	Measles	lyophilized	SC	1	1	26.1	20.0
Measles	Measles	lyophilized	SC	1	2	13.1	13.1
Measles	Measles	lyophilized	SC	1	5	5.2	7.0
Measles	Measles	lyophilized	SC	1	10	3.5	4.0
Measles-Rubella freeze dried	MR	lyophilized	SC	1	1	26.1	26.1
Measles-Rubella freeze dried	MR	lyophilized	SC	1	2	13.1	13.1
Measles-Rubella freeze dried	MR	lyophilized	SC	1	5	5.2	7.0
Measles-Rubella freeze dried	MR	lyophilized	SC	1	10	2.5	4.0
Measles-Mumps-Rubella freeze dried	MMR	lyophilized	SC	1	1	26.1	26.1
Measles-Mumps-Rubella freeze dried	MMR	lyophilized	SC	1	2	13.1	13.1
Measles-Mumps-Rubella freeze dried	MMR	lyophilized	SC	1	5	5.2	7.0
Measles-Mumps-Rubella freeze dried	MMR	lyophilized	SC	1	10	3.0	4.0

Vaccine product	Designation	Vaccine formulation	Admin route	No. Of doses in the schedule	Presentation (doses/vial, prefilled)	Packed volume vaccine (cm3/dose)	Packed volume diluents (cm3/dose)
Polio	OPV	liquid	oral	4	10	2.0	
Polio	OPV	liquid	oral	4	20	1.0	
Yellow fever	YF	lyophilized	SC	1	5	6.5	7.0
Yellow fever	YF	lyophilized	SC	1	10	2.5	3.0
Yellow fever	YF	lyophilized	SC	1	20	1.5	2.0
Yellow fever	YF	lyophilized	SC	1	50	0.7	1.0
DTP-HepB combined	DTP-HepB	liquid	IM	3	1	9.7	
DTP-HepB combined	DTP-HepB	liquid	IM	3	2	6.0	
DTP-HepB combined	DTP-HepB	liquid	IM	3	10	3.0	
HepB	HepB	liquid	IM	3	1	18.0	
HepB	HepB	liquid	IM	3	2	13.0	
HepB	HepB	liquid	IM	3	6	4.5	
HepB	HepB	liquid	IM	3	10	4.0	
Hepatitis B UniJect	HepB	liquid	IM	3	Uniject	12.0	
Hib liquid	Hib_liq	liquid	IM	3	1	15.0	
Hib liquid	Hib_liq	liquid	IM	3	10	2.5	
Hib freeze-dried	Hib_lyo	lyophilized	IM	3	1	13.0	35.0
Hib freeze-dried	Hib_lyo	lyophilized	IM	3	2	6.0	
Hib freeze-dried	Hib_lyo	lyophilized	IM	3	10	2.5	3.0
DTP liquid + Hib freeze-dried	DTP+Hib	liquid+lyop.	IM	3	1	45.0	
DTP-Hib combined liquid	DTP+Hib	liquid+lyop.	IM	3	10	12.0	
DTP-Hib combined liquid	DTP-Hib	liquid	IM	3	1	32.3	
DTP-HepB liquid + Hib freeze-dried	DTP-Hib	liquid	IM	3	10	2.5	
DTP-HepB liquid + Hib freeze-dried	DTP-HepB+Hib	liquid+lyop.	IM	3	1	22.0	
DTP-HepB-Hib liquid	DTP-HepB+Hib	liquid+lyop.	IM	3	2	11.0	
DTP-HepB-Hib liquid	DTP-hepB-Hib	liquid	IM	3	10	4.4	
DTP-HepB-Hib liquid	DTP-hepB-Hib	liquid	IM	3	2	13.1	
DTP-HepB-Hib liquid	DTP-hepB-Hib	liquid	IM	3	1	19.2	
Meningitis A/C	MV_A/C	lyophilized	SC	1	10	2.5	4.0
Meningitis A/C	MV_A/C	lyophilized	SC	1	50	1.5	3.0
Meningococcal A/C/W/	MV_A/C/W	lyophilized	SC	1	50	1.5	3.0
Meningococcal A/C/W/Y	MV_A/C/W/Y	lyophilized	SC	1	10	2.5	4.0

Vaccine product	Designation	Vaccine formulation	Admin route	No. Of doses in the schedule	Presentation (doses/vial, prefilled)	Packed volume vaccine (cm3/dose)	Packed volume diluents (cm3/dose)
Meningitis W135	MV_W135	lyophilized	SC	1	10	2.5	4.0
Meningitis A conjugate	Men_A	lyophilized	SC	2	10	2.6	4.0
Japanese Encephalitis	JE_lyo	lyophilized	SC	3	10	15.0	
Japanese Encephalitis	JE_lyo	lyophilized	SC	3	10	8.1	8.1
Japanese Encephalitis	JE_lyo	lyophilized	SC	3	5	2.5	2.9
Japanese Encephalitis	JE_lyo	lyophilized	SC	3	1	12.6	11.5
Japanese Encephalitis	JE_liq	liquid	SC	3	10	3.4	
Rota vaccine	Rota_lyo	lyophilized	oral	2	1	156.0	
Rota vaccine	Rota_liq	liquid	oral	2	1	17.1	
Rota vaccine	Rota_liq	liquid	oral	3	1	45.9	
Pneumo. conjugate vaccine 7-valent	PCV-7	liquid	IM	3	PFS	55.9	
Pneumo. conjugate vaccine 7-valent	PCV-7	liquid	IM	3	1	21.0	
Pneumo. conjugate vaccine 10-valent	PCV-10	liquid	IM	3	1	11.5	
Pneumo. conjugate vaccine 10-valent	PCV-10	liquid	IM	3	2	4.8	
Pneumo. conjugate vaccine 13-valent	PCV-13	liquid	IM	3	1	12.0	
Polio inactivated	IPV	liquid	IM	3	PFS	107.4	
Polio inactivated	IPV	liquid	IM	3	10	2.5	
Polio inactivated	IPV	liquid	IM	3	1	15.7	
Human Papillomavirus vaccine	HPV	liquid	IM	3	1	15.0	
Human Papillomavirus vaccine	HPV	liquid	IM	3	2	5.7	
Monovalent OPV-1	mOPV1	liquid	oral		20	1.5	
Monovalent OPV-3	mOPV3	liquid	oral		20	1.5	

## 10. Attachments

### 10.1. List of Supporting Documents Attached to this Proposal

Document	Section	Document Number	Mandatory <sup>1)</sup>
MoH Signature (or delegated authority) of Proposal		1	Yes
MoF Signature (or delegated authority) of Proposal		2	Yes
Signatures of ICC or HSCC or equivalent in Proposal		3	Yes
Minutes of ICC/HSCC meeting endorsing Proposal		4, 9	Yes
comprehensive Multi Year Plan - cMYP		6	Yes
cMYP Costing tool for financial analysis		10	Yes
Minutes of last three ICC/HSCC meetings		5	Yes
Plan for NVS introduction (if not part of cMYP)			
Banking details			
WHO/UNICEF Joint Reporting Form (JRF)		7	
ICC/HSCC workplan for forthcoming 12 months			
National policy on injection safety		8	
Action plans for improving injection safety			

<sup>1)</sup> Please indicate the duration of the plan / assessment / document where appropriate

### 10.2. Attachments

List of all the mandatory and optional documents attached to this form

**Note:** Use the **Upload file** arrow icon to upload the document. Use the **Delete item** icon to delete a line. To add new lines click on the **New item** icon in the **Action** column.

ID	File type	File name		New file	Actions
	Description	Date and Time	Size		
1	<b>File Type:</b> MoH Signature (or delegated authority) of Proposal * <b>File Desc:</b> Signature of the Bolivian Minister of Health and Sports	<b>File name:</b> <a href="#">FIRMAS APR 2010 GAVI.pdf</a> <b>Date/Time:</b> 14.05.2011 18:27:38 <b>Size:</b> 230 KB			
2	<b>File Type:</b> MoF Signature (or delegated authority) of Proposal <b>File Desc:</b> Signature of the Bolivian Minister of Economy and Public Finance	<b>File name:</b> <a href="#">FIRMA MINISTRO FINANZAS APR2010.txt</a> <b>Date/Time:</b> 14.05.2011 18:28:28 <b>Size:</b> 0 B			
3	<b>File Type:</b> Signatures of ICC or HSCC or equivalent in Proposal * <b>File Desc:</b> Signatures of ICC 2011 approving proposal	<b>File name:</b> <a href="#">Página de Firmas del CCI.pdf</a> <b>Date/Time:</b> 14.05.2011 18:31:07 <b>Size:</b> 187 MB			

4	<b>File Type:</b> Minutes of ICC/HSCC meeting endorsing Proposal *	<b>File name:</b> <a href="#">Acta Reunión Comité Cooperación Interagencial PAI.pdf</a>		
	<b>File Desc:</b> Minutes of ICC of the EPI 2011 approving proposal for the introduction of the pneumococcal vaccine	<b>Date/Time:</b> 14.05.2011 18:32:13 <b>Size:</b> 173 MB		
5	<b>File Type:</b> Minutes of last three ICC/HSCC meetings *	<b>File name:</b> <a href="#">ACTA CCI 26 MARZO 2010[1].doc</a>		
	<b>File Desc:</b> Minutes ICC 2010	<b>Date/Time:</b> 14.05.2011 18:33:45 <b>Size:</b> 36 KB		
6	<b>File Type:</b> comprehensive Multi Year Plan - cMYP *	<b>File name:</b> <a href="#">Plan Quinquenal - Bolivia 2011-2015.xls</a>		
	<b>File Desc:</b> Multi Year Action Plan EPI BOLIVIA 2011-2015	<b>Date/Time:</b> 14.05.2011 18:34:48 <b>Size:</b> 276 KB		
7	<b>File Type:</b> WHO/UNICEF Joint Reporting Form (JRF)	<b>File name:</b> <a href="#">FINAL_JRF_2011_PAHO_SPANISH.xls</a>		
	<b>File Desc:</b> WHO/UNICEF Joint Reporting Form	<b>Date/Time:</b> 14.05.2011 18:40:52 <b>Size:</b> 389 KB		
8	<b>File Type:</b> National policy on injection safety	<b>File name:</b> <a href="#">Documento de noramas - inyecciones seguras.pdf</a>		
	<b>File Desc:</b> Bolivian Biosafety Standard No. 63003	<b>Date/Time:</b> 14.05.2011 18:47:57 <b>Size:</b> 71 KB		
9	<b>File Type:</b> Minutes of ICC/HSCC meeting endorsing Proposal *	<b>File name:</b> <a href="#">Acta Reunión Comité Nal. Inmunización PAI.pdf</a>		
	<b>File Desc:</b> Minutes of National Immunisation Committee approving GAVI proposal	<b>Date/Time:</b> 14.05.2011 18:48:46 <b>Size:</b> 507 MB		
10	<b>File Type:</b> cMYP Costing tool for financial analysis *	<b>File name:</b> <a href="#">Plan Quinquenal - Bolivia 2011-2015.xls</a>		
	<b>File Desc:</b> Calculations in the Multi Year Action Plan 2011-2015	<b>Date/Time:</b> 14.05.2011 18:50:20 <b>Size:</b> 276 KB		
11	<b>File Type:</b> other	<b>File name:</b> <a href="#">ACTA PAI, OPS Y UNIDAD DE PRESUPUESTOS MSD.pdf</a>		
	<b>File Desc:</b> Minutes of meeting with Ministry of Health's Budget Office approving co-pays for pneumococcal vaccine	<b>Date/Time:</b> 14.05.2011 18:53:24 <b>Size:</b> 405 KB		

# Banking Form

In accordance with the decision on financial support made by the GAVI Alliance, the Government of Bolivia hereby requests that a payment be made via electronic bank transfer as detailed below:

<b>Name of Institution (Account Holder):</b>			
<b>Address:</b>			
<b>City Country:</b>			
<b>Telephone no.:</b>		<b>Fax no.:</b>	
	<b>Currency of the bank account:</b>		
<b>For credit to:</b>			
<b>Bank account's title:</b>			
<b>Bank account no.:</b>			
<b>Bank's name:</b>			

Is the bank account exclusively to be used by this program?

By who is the account audited?

Signature of Government's authorizing official

<b>Name:</b>		<b>Seal</b>
<b>Title:</b>		
<b>Signature:</b>		
<b>Date:</b>		



FINANCIAL INSTITUTION		CORRESPONDENT BANK (In the United States)	
Bank Name:			
Branch Name:			
Address:			
City Country:			
Swift Code:			
Sort Code:			
ABA No.:			
Telephone No.:			
FAX No.:			

I certify that the account no is held by (Institution name) at this banking institution.

The account is to be signed jointly by at least 0 (number of signatories) of the following authorized signatories:		
1	Name:	
	Title:	
2	Name:	
	Title:	
3	Name:	
	Title:	
4	Name:	
	Title:	

<b>Name of bank's authorizing official</b>	
<b>Signature:</b>	
<b>Date:</b>	
<b>Seal:</b>	