



GAVI Alliance

Application Form for Country Proposals

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

Submitted by
The Government of
Zambia

Date of submission: **27.06.2011 05:19:50**

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 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 ^[1]	Action
New Vaccines Support	Rotavirus 2-dose schedule	2013	2015	Rotavirus 3-dose schedule	
New Vaccines Support	Pneumococcal (PCV10), 2 doses/vial, Liquid	2012	2015	Pneumococcal (PCV13), 1 doses/vial, Liquid	
New Vaccines Support	Measles, 10 doses/vial, Lyophilised	2012	2015		

^[1] 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

This proposal application has been developed with participation of a high profile country body, the Inter-Agency Coordination Committee (ICC), whose membership is drawn from Heads of Agencies, Civil Society Organisations (CSOs), and Health Professional Bodies. The Child Health Unit is the secretariat. The ICC provides policy guidance on Maternal, Newborn and Child Health (MNCH) issues. The decision to introduce new vaccines was made by the ICC in 2007 with a letter of intent submitted. The decision was also influenced by the observed high disease burden of rotavirus disease amongst children with acute diarrhoeal hospitalisation at the University Teaching Hospital.

The purpose of this proposal is to introduce pneumococcal, measles second dose and rotavirus vaccines. In 2009, the Ministry of Health submitted a proposal for the introduction of these vaccines. In August 2010, the country received conditional approval for pneumococcal and measles second dose vaccines and re-submission for rotavirus vaccine.

Addressing 2009 GAVI conditionality for pneumococcal and measles second dose vaccines

The conditionality for the pneumococcal and measles second dose vaccines was to provide evidence of resources to upgrade the cold chain storage capacity. In order to address the cold chain storage gap, Zambia has developed a cold chain strategy which has identified gaps and financial resources required. It is estimated, using the World Health Organisation cold chain forecasting tool, that the current national level positive storage capacity is 10,000 litres and negative capacity is 11,024 litres, while at provincial level positive storage capacity is 7,776 litres and negative storage capacity is 9,504. It is estimated that the additional net positive capacity of 41,477 litres and 20,244 litres will be required at national and provincial level respectively. With the planned introduction of the pneumococcal vaccine and measles second dose and subsequently the rotavirus vaccine, the country is making steps to address cold chain challenges, as well as those outlined in the 2009 Vaccine Management Assessment (VMA). Key findings from the assessment indicated inadequate cold chain capacity and needed skills for vaccine management. To address these findings the Ministry of Health, WHO, UNICEF and partners have undertaken two key strategies - cold chain expansion and skills strengthening.

Firstly, as part of cold chain expansion strategy, Government and CIDRZ/ARK are procuring five cold rooms in 2011 at the national level for a total of US\$ 630,000 has been mobilised for their procurement. Works to refurbish the existing shelter at the central level to accommodate the five new (40m³ each) cold rooms are underway. At the provincial level, WHO recently installed a 30m³ cold room at one provincial site, covering three provinces, while the Canadian International Development Agency (CIDA) through UNICEF have committed funds (US\$496,000) to secure four additional cold rooms at four provincial sites. CIDA through UNICEF assistance will support the procurement of eight provincial fridges for the remaining three provinces as well as 60 fridges for the district level. The Interagency Coordinating Committee is also working with partners to advocate and mobilise resources for additional cold chain expansion at district and health facility levels where need has been identified.

Secondly, to address skills strengthening, the country has conducted Middle Level Management (MLM) trainings at provincial and district levels, and continues to provide on-site supportive supervision. We are also planning to conduct an Effective Vaccine Management assessment and training before the year end, of which funds have been secured from partners to conduct this activity. In addition, trainings targeting all cold chain technicians at all levels are planned with the installation of additional cold chain equipment. The support requested for pneumococcal vaccines from GAVI worth US\$ 27,585,500 with the Ministry of Health committing to co-financing US\$ 1,558,000 for the period 2012-2015. GAVI Support requested for second dose measles vaccine is US\$2,428,000 for the period of 2012 to 2015.

The Expanded Programme on Immunisations (EPI) spans over the past decade with significant progress made in reducing morbidity and mortality in children due to vaccine preventable diseases. This is a result of heightened attention given to routine immunisations, the Zambia Ministry of Health's commitment to strengthen the national EPI and efforts to prioritise the health of children. The country with assistance from GAVI and partners has made huge investments in improving the quality of immunisation services with the introduction of new injection equipment, new vaccines and training health workers. Attention to child health is further intensified through national social mobilisation campaigns including the bi-annual Child Health Weeks and outreach immunisation sessions through the Reaching Every District (RED) strategy. At the policy level, strong support for child health has been demonstrated amongst partners and has been strengthened with the expansion of the ICC to include Maternal, Neonatal and Child Health (MNCH). In support of Zambia's focus to reduce childhood morbidity and mortality, Zambia is applying for GAVI support to introduce the rotavirus vaccine. With a birth cohort of about 650,000, it is hoped to reach 60% of children below the age of one year with the rotavirus vaccine in the first year and subsequently reduce the diarrhoeal disease burden due to rotavirus in the country and contribute to the attainment of Millennium Development Goal 4, to reduce child mortality.

Located in Southern Africa, Zambia is a large landlocked country covering a surface area of 752,000 km². According to the 2010 census reported by the Central Statistical Office (CSO), Zambia has a population of about 13 million, 61% of which is rural. The country has a relatively low population density with about 17 persons per square kilometre (distributed throughout 9 provinces and 72 districts), which poses a challenge in the provision of basic social services. Though a significant decline in morbidity and mortality trends has been achieved, the infant and under five child mortality rates for Zambia are still among the highest in the world and in the sub-region with 70 infant deaths per 1,000 live births and 119 under five deaths per 1,000 live births respectively (Zambia Demographic Health Survey, 2007). Immunisation coverage rates for DPT3 have consistently remained above 80% over the last decade, with 2010 rates for DPT3 at 82%, while Measles coverage for the same period is 97%. The burden of infectious diseases in Zambia is high and contributes significantly to child morbidity and mortality. Childhood death and disease is compounded by the high overall HIV prevalence of 14.3% (Zambia Demographic Health Survey, 2007) and further exacerbated by poverty and the vulnerability of children.

In this proposal, Zambia is making a re-submission for introduction of the rotavirus vaccine. Zambia has a high burden of childhood death attributable to diarrhoeal diseases. Diarrhoea is currently the third leading cause of death in children under five, after malaria and pneumonia (WHO 2006). Rotavirus contributes heavily to a large number of diarrhoeal cases and it is estimated that about 30-50% of acute diarrhoea hospitalisations in Zambia are associated with rotavirus among children aged 0 to 59 months (Rotavirus surveillance, University Teaching Hospital, Lusaka, 2009). The World Health Organisation (WHO)'s Strategic Group of Experts (SAGE) recommends the inclusion of rotavirus vaccination of infants into all national immunisation programmes. In countries where diarrhoeal deaths account for > 10% of mortality among children aged less than 5 years, the introduction of the vaccine is strongly recommended. Rotavirus vaccines stand to make the greatest impact in high-burden regions in Africa and Asia, Zambia included, where 85% of global rotavirus disease deaths occur. Limited access to vital medical care along with poor health seeking behaviours by caregivers in many developing world settings puts prevention through rotavirus vaccination as a principal solution for child survival. SAGE also states that rotavirus vaccination should be a part of a comprehensive diarrhoeal disease control strategy, that includes improvements in hygiene and sanitation, zinc supplementation, community-based administration of oral rehydration solution and overall improvements in case management. Zambia echoes this sentiment and is committed to not only the introduction of the rotavirus vaccine, but also to all aspects of diarrhoeal disease control. To this effect, the Ministry of Health is currently collaborating with partners to booster community mobilisation to advocate for the rotavirus vaccine, to increase awareness and improve behaviours for diarrhoea-related prevention and treatment in the

community, as well as to improve clinical management in health facilities.

To address the disease burden caused by rotavirus and in response to the WHO recommendation, Zambia is an ideal candidate to receive the vaccine and is keen for its roll-out to further decrease morbidity and mortality of children from rotavirus, a preventable disease causing unnecessary death. Therefore Zambia seeks GAVI support to introduce the rotavirus vaccine. Introduction of the rotavirus vaccine is in line with Zambia's efforts to achieve the Millennium Development Goals to reduce under five mortality and aligns with the updated Comprehensive Multi Year Plan (cMYP) for the period 2011-2015. Zambia plans to introduce the rotavirus vaccine in 2013, after the planned introduction of the pneumococcal vaccine, both of which will be integrated into the normal EPI programme, given to children at 6 weeks and 10 weeks along with DPT-Hib-HepB1 and DPT-Hib-HepB2. The administrative DPT3 coverage trends over past has been consistently above 90% with the exception of 2010 where the country noted a significant drop. This is due to funding gaps in the sector which resulted in reduced outreach activities. The following are vaccines in the national EPI programme: BCG, OPV, DPT-HepB-Hib, Measles and TT. Following the 2003 measles catch-up immunisation campaign, Zambia achieved more than 90% reduction in measles mortality which has been sustained. However, the country has noted with concern the resurgence of measles cases.

After considering both rotavirus vaccine options, Rotarix®, the 2-dose vaccine was chosen, primarily because of the number of dosages and the drop-out rates experienced between the second and third dose, along with cold chain storage required and genotypes. Of the licensed vaccine choices, Rotarix® was also the preferable choice due to early full protection against rotavirus diarrhoea at 10 weeks. Target rates for the first year of rotavirus introduction (2013) is 60%, 70% for 2014 and 95% for 2015. The total support requested for the introduction of the rotavirus vaccine is US\$17,199,000 worth of vaccines.

The country will be undertaking pre-introduction activities for the rotavirus vaccine introduction in 2013. These activities will include training health workers, social mobilisation, disease surveillance, revision of M&E tools and printing new guidelines. Preparations and plans for the vaccine's introduction will be supported by the existing Child Health Technical Working Group and will seek policy guidance from the ICC. A post introduction evaluation will be done one year after introduction of the new vaccine.

Zambia has a National Health Strategic Plan (NHSP) in which EPI is one of the components. The recently developed NHSP (still in the finalisation process) which will run from 2011-2015 has been costed and also aligned to the Six National Development (SNDP). The country is also committed to sustained financing for immunisation. This is demonstrated by the country's procurement of all the traditional vaccines and co-financing obligations for the underused vaccines. The 2010 financing toward immunisation services indicated that government was the major source of funding at 69% with cooperating partners supplementing.

It is evident that diarrhoea caused by rotavirus contributes to a heavy disease burden among infants and young children in Zambia, corroborating our GAVI application for support of the rotavirus vaccination. The Ministry of Health is confident that we will be able to successfully accelerate the introduction of the rotavirus vaccine into the national EPI and would like to introduce the rotavirus vaccine in 2013 to 2015, aligned with the cMYP and the National Health Strategic Plan.

Zambia is eager and equipped for the introduction of the rotavirus vaccine and keen to be a leader in the region combating childhood illness and death.

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 Zambia 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 Rotavirus 2-dose schedule , Pneumococcal (PCV10) 2 doses/vial Liquid , Measles 10 doses/vial Lyophilised introduction.

The Government of Zambia 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 June.

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)	
Name	Mr. Kapembwa Simbao, MP	Name	Dr. Situmbeko Musokotwane
Date		Date	
Signature		Signature	

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
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Full name	Position	Telephone	Email	Action
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4.1.2. National Coordinating Body - Inter-Agency Coordinating Committee for Immunisation

We the members of the ICC, HSCC, or equivalent committee^[1] 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.

^[1] 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: 10.

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
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Name/Title	Agency/Organisation	Signature	Action
Honorable Kapembwa Simbao- Minister	Ministry of Health		
Dr. Victor Mukonka, Director Public Health & Research	Ministry of Health		
Dr Olusegun Babaniyi, Country Representative	World Health Organisation		
Dr. Nilda Lambo, Chief of Health	UNICEF		
Ms. Angela Spilsbury, Health Advisor	DFID		
Dr Madani Thiam, Head of Cooperation	CIDA		
Dr. Randy Kolstad, Director, HPN	USAID		
Dr. Jeff Stringer- Director	CIDRZ		
Mr. Mark Vandervort, Country Director	CARE International		
Mr. Dev Barbbar, Rotarian	Rotary International		
Dr. Nanthalile Mugala, President	Paediatric Association of Zambia		
Ms. Yvonne Mulenga, Country Director	Valid International		
Ms. Karen Simwinga, Executive Director	CHAZ		

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

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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

Name of the committee	Inter-Agency Coordinating Committee
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Year of constitution of the current committee	2002
Organisational structure (e.g., sub-committee, stand-alone)	Stand alone
Frequency of meetings	Quarterly and Adhoc

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	
Chair	Deputy Minister, Ministry of Health	Dr. Christopher Kalila	
Secretary	Child Health Specialist, Ministry of Health	Dr. Penelope Kalesha	
Members	Director Public Health & Research, Ministry of Health	Dr. Victor Mukonka	Action
	Chief of Health, UNICEF	Dr. Nilda Lambo	
	Country Representative, World Health Organization	Dr Olusegun Babaniyi,	
	Health Advisor, DFID	Ms. Angela Spilsbury	
	Head of Cooperation, CIDA	Dr. Madani Thiam	
	Director, HPN, USAID	Dr. Randy Kolstad	
	Director, CIDRZ	Dr. Jeff Stringer	
	Country Director, CARE International	Mr. Mark Vandervort	
	Rotarian, Rotary International	Mr. Dev Babar	
	President, Paediatric Association of Zambia	Dr. Nanthalile Mugala	
	Country Director, Valid International	Ms. Yvonne Mulenga	
	Executive Director, CHAZ	Ms. Karen Sichinga	

Major functions and responsibilities of the committee

- The broad terms of reference for the ICC for Child Health are to:
- Advise the Ministry of Health and other private sector / NGOs/ implementing agency on issues related to child health.
- The MoH shall designate an official, department or institution to perform the function of Secretariat
- Members shall be drawn from all relevant fields (Ministry of Health, University Teaching Hospital, Tropical Diseases Research Centre, National Malaria Control Centre, National Food and Nutrition Commission, Pharmaceutical services, Laboratory services and Child Health Co-operating partners, etc).

- The ICC shall set up and monitor sub-committees as deemed necessary.
- Additional persons and / or Institutions shall be co-opted to sit on any of the sub-committees.
- The group shall meet every 2-3 months, or as may be deemed necessary.
- The ICC shall endeavour to assist the Government (MOH) to mobilise resources for the implementation of child health interventions.
- To reinforce advocacy for child health with activities particularly targeted at key political leaders and policy makers. To mobilise other partners for child health and expand partnerships.
- To increase community participation in child health activities.
- The ICC shall endeavor to mobilise other partners to invest in various child health programmes.

The major functions and Responsibilities of the Inter-Agency Coordinating Committee include:

1. Advising the Ministry of Health on issues of Child health
2. Assisting the Ministry of Health to mobilise resources for implementing child health activities
3. Reinforcing advocacy for child health particularly targeted at key political leaders and policy makers
4. Increasing community participation of child health activities
5. Monitoring and evaluating EPI and other child health activities

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

1.	Strengthen linkages with other sector committees for greater advocacy of MNCH issues
2.	Increase ICC partner collaboration and information sharing to leverage programmes and resources
3.	Expand ICC membership to include non-traditional partners and opportunities (e.g. private sector, Public Private Partnerships)

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 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: .

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

Enter the family name in capital letters.

Name	NOT APPLICABLE	Title	NOT APPLICABLE
Tel no	NOT APPLICABLE		
Fax no		Address	
Email			

4.2.1. The NITAG Group for Immunisation

Profile of the NITAG

Name of the NITAG	NOT APPLICABLE
Year of constitution of the current NITAG	NOT APPLICABLE
Organisational structure (e.g., sub-committee, stand-alone)	NOT APPLICABLE
Frequency of meetings	NOT APPLICABLE

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	
Chair	NOT APPLICABLE	NOT APPLICABLE	
Secretary	NOT APPLICABLE	NOT APPLICABLE	
Members			Action

Major functions and responsibilities of the NITAG

NOT APPLICABLE

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

1.	NOT APPLICABLE
2.	NOT APPLICABLE
3.	NOT APPLICABLE

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 4
- 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 2010 (most recent; specify dates of data provided)

	Figure	Year	Source
Total population	13,046,508	2010	Central Statistical Office/Preliminary 2010 Census Report
Infant mortality rate (per 1000)	70	2007	ZDHS 2007
Surviving Infants ^[1]	606,663	2010	Central Statistical Office
GNI per capita (US\$)	1,053	2008	Central Statistical Office
Total Health Expenditure (THE) as a percentage of GDP	4.80	% 2009	www.who.int/nha/country
General government expenditure on health (GGHE) as % of General government expenditure	10.80	% 2009	www.who.int/nha/country

^[1] 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 Ministry of Finance and National Planning provides a block figure to be allocated to the Health sector for the following year. The Ministry of Health through the Directorate of Planning and Policy apportions planning indicative figures to health programmes as well as various levels of service delivery. These levels develop action plans within the ceilings provided.

The documents used for planning include:

1. Green Paper from Ministry of Finance and National Planning which contains the national expenditure and revenue plan.
2. The Ministry of Health develops technical updates as well as action planning handbooks for various levels of service delivery 2011.
3. The National Health Strategic Plan 2011-2015.

The planning cycle starts in April/May of each year. Submission of finalised action plans to the Ministry of Finance and National Planning is in September. Parliamentary approval is December.

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

YES

The planning documents for Health in Zambia are guided by the National Health Strategic Plan (NHSP). The current NHSP runs from 2011 – 2015 and is in the process of finalisation. The cMYP has been updated and covers the same period. The NHSP addresses key issues for the introduction of new vaccines, strengthening

of routine immunisation, improving and sustaining efficient health systems and commodities for child health such as vaccines and cold chain equipment. Other key issues include the improvement and expansion of health information systems, operational research, Integrated Disease Surveillance and Response (IDSR) to generate evidence for programme management. All key issues mentioned are addressed in the cMYP.

Please indicate the national planning budgeting cycle for health

The planning cycle starts in May with the national launch. The provinces and districts are provided with national guidelines for planning purposes. Two provincial/district reviews of the draft plans are conducted by the central level planning teams which include various programme managers, planners and partners. The final plans are submitted by the end of August to the Ministry of Health planning unit for consolidation and submission to the Ministry of Finance and National Planning in September. The sector budget is presented to parliament in October for funding for the subsequent fiscal year.

Please indicate the national planning cycle for immunisation

The planning cycle for immunisation falls within the planning cycle for health as explained above.

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

The Health Management Information System (HMIS) has a provision for analysing sex disaggregated data. However, the immunisation data is not disaggregated.

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

No.

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
Vit A Infants	Every six months from the age of six to eleven months	Yes		
BCG	Birth	Yes		
Penta	6,10,14 weeks	Yes		
Polio	6,10,14 weeks	Yes		
Measles	9 months	Yes		
Vitamin A		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	2009	2010		2009	2010
BCG		109	93			Tuberculosis		48,408
DTP	DTP1	98	92			Diphtheria		
	DTP3	98	84			Pertussis		
Polio 3		96	81			Polio		0
Measles (first dose)		92	97		88	Measles	26	15,574
TT2+ (Pregnant women)		76	76			NN Tetanus		0
Hib3						Hib ^[2]		0
Yellow Fever						Yellow fever		0
HepB3						HepBsero-prevalence ^[1]		
Vitamin A supplement Mothers (< 6 weeks post-delivery)								
Vitamin A supplement Infants (>6 months)		90	86					

^[1] If available

^[2] **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

Note for the drop in coverage in table 5.3
The drop in coverage is attributed to significant drop in immunisation outreach activities related to insufficient funding as well as competing activities including human resource shortages

Survey data :
Post Measles Vaccination campaign survey 2010- Age group for thid survey was 9-47 months for 71 districts except for Lusaka which had a target age group of 9-59 months for the vaccination campaign.

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	652,325	689,367	708,669	728,512	748,910		
Total infants' deaths	45,663	41,362	38,977	36,426	33,701		
Total surviving infants	606,662	648,005	669,692	692,086	715,209		
Total pregnant women	704,511	758,304	779,536	801,363	823,801		
Number of infants vaccinated (to be vaccinated) with BCG	598,935	661,792	680,322	706,657	726,443		
BCG coverage (%) ^[1]	92%	96%	96%	97%	97%		
Number of infants vaccinated (to be vaccinated) with OPV3	483,732	583,205	629,511	664,403	693,753		
OPV3 coverage (%) ^[2]	80%	90%	94%	96%	97%		
Number of infants vaccinated (or to be vaccinated) with DTP1 ^[3]	551,700	615,605	642,905	671,323	700,905		
Number of infants vaccinated (to be vaccinated) with DTP3 ^[3]	497,464	583,205	629,511	664,403	693,753		
DTP3 coverage (%) ^[2]	82%	90%	94%	96%	97%		
Wastage ^[1] rate in base-year and planned thereafter for DTP (%)	5%	5%	5%	5%	5%		
Wastage ^[1] factor in base-year and planned thereafter for DTP	1.05	1.05	1.05	1.05	1.05		
Target population vaccinated with 1 st dose of Pneumococcal		421,203	502,270	671,323	700,905		
Target population vaccinated with 3 rd dose of Pneumococcal		388,803	468,785	664,403	693,753		
Pneumococcal coverage (%) ^[2]	0%	60%	70%	96%	97%		
Target population vaccinated with 1 st dose of Rotavirus			435,300	588,273	686,601		
Target population vaccinated with last dose of Rotavirus			401,816	484,460	679,449		
Rotavirus coverage (%) ^[2]	0%	0%	60%	70%	95%		
Infants vaccinated (to be vaccinated)	579,681	622,085	649,602	671,323	693,753		

Number	Base Year	Baseline and Targets					
	2010	2012	2013	2014	2015		
with 1 st dose of Measles							
Measles coverage (%) ^[2]	96%	96%	97%	97%	97%		
Infants vaccinated (to be vaccinated) with 2 nd dose of Measles		550,804	589,329	629,782	679,449		
Pregnant women vaccinated with TT+	500,203	591,477	615,833	641,090	700,231		
TT+ coverage (%) ^[4]	71%	78%	79%	80%	85%		
Vit A supplement to mothers within 6 weeks from delivery		615,605	636,208	671,323	700,905		
Vit A supplement to infants after 6 months	288,165	307,802	318,104	328,741	339,724		
Annual DTP Drop-out rate[(DTP1 - DTP3) / DTP1] x 100 ^[5]	10%	5%	2%	1%	1%		

^[1] Number of infants vaccinated out of total births

^[2] Number of infants vaccinated out of total surviving infants

^[3] Indicate total number of children vaccinated with either DTP alone or combined

^[4] Number of pregnant women vaccinated with TT+ out of total pregnant women

^[5] The formula to calculate a vaccine wastage rate (in percentage):[(A – B) / A] x 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)

	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				
Routine Recurrent Cost									
Vaccines (routine vaccines only)	6,858	15,081	24,717	29,825	32,611				
Traditional vaccines	897	1,538	1,627	1,690	1,763				
New and underused vaccines	5,961	13,543	23,090	28,135	30,848				
Injection supplies	532	806	853	942	975				
Personnel	11,896	12,205	12,453	12,703	12,957				
Salaries of full-time NIP health workers (immunisation specific)	684	760	775	791	807				
Per-diems for outreach vaccinators / mobile teams	11,212	11,445	11,678	11,912	12,150				
Transportation	17	19	19	20	21				
Maintenance and overheads	1,296	1,326	2,217	2,270	937				
Training	261	281	295	309	324				
Social mobilisation and IEC	326	352	369	387	405				
Disease surveillance	656	703	737	773	811				
Program management	587	633	664	696	730				
Other									
Subtotal Recurrent Costs	22,429	31,406	42,324	47,925	49,771				
Routine Capital Costs									
Vehicle									

	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				
Cold chain equipment									
Other capital equipment	50	52	52	52	52				
Subtotal Capital Costs	50	52	52	52	52				
Campaigns									
Polio	449	895	929	965	1,003				
Measles	2,023		5,904						
Yellow Fever									
MNT campaigns									
Other campaigns									
Subtotal Campaign Costs	2,472	895	6,833	965	1,003				
GRAND TOTAL	24,951	32,353	49,209	48,942	50,826				

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				
Routine Recurrent Cost										
Routine Recurrent Costs	Gouvernement, UNICEF, WHO, USAID, CIDA Canada	22,429	31,406	42,325	47,926	49,771				
Routine Capital Costs										

		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				
Routine Capital Costs	Government	50	52	52	52	52				
Campaigns										
Campaigns	Gouvernement, UNICEF, WHO, USAID, CIDA Canada	2,472	895	6,834	965	1,003				
GRAND TOTAL		24,951	32,353	49,211	48,943	50,826				

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.

It is estimated that currently at the national level, the available positive storage capacity is 10,000 litres and negative capacity is 11,024 litres. These figures differ from the last Zambia proposal to GAVI for the introduction of new vaccines because two of the cold rooms included in the assessment at that time are now obsolete.

To project the required cold chain storage capacity, the Ministry of Health along with partners received technical support from the World Health Organisation on the Effective Vaccine Management forecasting tool. This tool considers Zambia specific population data in light of current cold chain capacities and assists in the projection of bringing on additional vaccines, looking at growth rates, birth cohort, etc. The required additional capacity to bring on new vaccines in the country is in the table below. The increased cold chain capacity required with introduction of new vaccines is attached in the Zambia Vaccine Cold Chain Scale up Strategy(Document 11).

The table below shows current and needed additional net capacity required to bring pneumococcal, second measles and rotavirus into the national immunisation programme by 2013.

Table:	Net	Cold	Chain	Capacity	Required
Level	Current	Net	Capacity	(litres)	Additional
	Positive(+2to +8°C)	Negative(-25 to -15°C)	Positive(+2to +8°C)	Net	Capacity
				Required	to
					(litres)
National	10,000	11,024	41,447	N/A	
Provincial	7,776	9,504	20,244	N/A	
District	19,008	8,508	18,305	N/A	
Health Facility	33,600	N/A	16,800	N/A	

Strategies and Scale-Up

Through the Inter agency Coordinating Committee (ICC), the Ministry of Health is working with partners and will continue to do so to mobilise resources for cold chain expansion prior to introduction of the new vaccines. The Ministry of Health aims to prioritise and strengthen the national cold chain first, followed by provincial, district and health facility levels. The national level will receive five additional cold rooms with a capacity of 40m3 each, with an overall stand-by generator. In addition to the procurement of the cold rooms, the process of rehabilitation of the shelter for the five cold rooms is underway.

The provincial level will receive an additional four cold rooms with shelters rehabilitated to house them with support from CIDA through UNICEF. The additional cold chain equipment will accommodate pneumococcal, rota and measles second dose vaccines into the immunisation schedule. With the strengthening of the National and provincial cold chain, adequate storage capacity (62,000 litres) for vaccines will be assured while needed additional funds are sourced and equipment procured for the district and health facility levels. Funding totalling to the amount of US\$1,281,000 for national and provincial cold chain has already been secured from the ministry of Health, Centre for Infectious Disease Research In Zambia/Absolute Return for Kids (CIDRZ/ARK), and CIDA through UNICEF. In addition Ministry of Health has secured funding (US\$200,000) for infrastructure rehabilitation for the central store and tender processes are underway. At the district level, UNICEF with support from CIDA will procure 60 fridges. The World Health Organisation has procured one 30m3 cold room catering for three provinces. It is expected that the planned cold chain capacity expansion for the national and provincial level will be functional by the end of the first quarter 2012 and shall cater for additional new vaccines.

Table 6.1 below shows what will be the existing net positive capacity at the national level store in 2012 after an additional 41,447lt to the current (2010) capacity of 10,000lt. The annual positive volume requirement from 2012 through to 2015 will be adequately managed at the national and provincial level cold stores. At lower levels deliveries of vaccines will increase in frequency while efforts to mobilise financial resources to increase cold chain capacity as well as replace any obsolete equipment continue.

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)

The decision to introduce Pneumococcal and rota virus vaccines was discussed at the Inter Agency Coordinating Committee in 2009. Zambia had expressed interest in the introduction of new vaccines and communicated to GAVI. However, events preceeding this decision by ICC included discussions through the child Health technical working group meetings with stakeholders including the Peadiatrics association of Zambia and took into consideration the

pneumococcal (WHO data) and rota (rota surveillance) disease burdens to inform decisions.

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 ³) Litres	Sum-product of total vaccine doses multiplied by unit packed volume of the vaccine	73,160	78,902	89,466	92,783				
B	Existing net positive cold chain capacity (litres or m ³) Litres	#	51,450	51,450	51,450	51,450				
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)	-33,160	-31,725	-29,084	-28,254				
F	Estimated additional cost of cold chain	US\$	0	0	0	0				

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 average financial resources for routine immunisation will be growing at a rate of 6% per annum. When compared to the average per capita health expenditure for the next five years which is assumed to remain constant and a funding gap is likely to arise. Using estimates from the immunisation multi year plan there will be an annual funding gap averaging 4%. In monetary terms this will be equivalent to two million US dollars annually. Given the limited fiscal space this shortfall will have to be sourced from local partners who support the Ministry of Health in kind.

The main funding source for routine immunisation is the government which provided 69% of the total required funding for 2010. Other key funders included UNICEF, CIDA, WHO and MVN-Zambia. This share of government funding is all the more impressive as demonstrated by government's commitment to vaccine procurement which was non-existent in 2004, now with government procuring all traditional vaccines with the exception of BCG which was until last year supported by JICA. The co-financing for the pentavalent vaccine is completely funded by the government with no record of defaulting. If the current economical growth rates are sustained it is likely that there will be more financial commitment from the government which will assure its sustainability.

NOTE: In this analysis there is no inclusion of cold chain and motor vehicle investments because although inputs were made in the costing tool of the cMYP data entry and financing sheets, they are not reflected in the costing sheets. Support has been requested and once this is resolved the issue shall be addressed. However, there are intentions to invest in cold chain at district and health facility levels as well as transport with indications of probable support from some partners.

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
Rota	Rota virus surveillance in hospitalised children with acute diarrhoea	2006 to date	disease burden for rota is 30-50% of all hospitalised acute diarrhoeas.

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	
Zambia conducted a Post Introduction Evaluation for the switch of Pentavalent vaccine from lyophilised to fully liquid vaccine: Lessons learnt included-	Action points from the Post Introduction Evaluation for the switch of Pentavalent vaccine from lyophilised to fully liquid vaccine included	
Staff training was key to ensure smooth safe and efficient vaccine introduction of pentavalent vaccine	All introductions of new vaccines or switch in the formulation of a vaccine to be preceded by training of health workers at all levels of service delivery	
Social mobilisation including increased awareness of people at all levels of society was key to the acceptance of the introduction of new vaccine and dispel myths and misconception concerning the safety of new vaccine	Intensive social mobilisation targetting the various level of members of society including the media necessary for increasing awareness and acceptance. Dispelling of myths and misconception on vaccines to be handled. Involvement of media personnel through training on new vaccine.	
provision of updated guidelines and manuals necessary for updating health workers during trainings and use as reference documents	Provide all health workers with written guidelines and manuals when introducing new vaccines	

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

PCV10					
Rota	Virus	Vaccine	2	Dose	schedule
MSD					

6.3.1. Requested vaccine (Measles, 10 doses/vial, Lyophilised)

As reported in the cMYP, the country plans to introduce Measles, 10 doses/vial, Lyophilised vaccine.

6.3.2. Co-financing information

No Co-financing for Measles

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				
Vaccine wastage rate in %	25%	25%	25%	25%				
Equivalent wastage factor	1.33	1.33	1.33	1.33				

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	#	622,085	649,602	671,323	693,753				
Number of children to be vaccinated with the third dose ^[1]	Table 1	#	550,804	589,329	629,782	679,449				
Immunisation coverage with the third dose	Table 1	#	96.00%	97.00%	97.00%	97.00%				
Estimated vaccine wastage factor	Table 6.(n).3 ^[3]	#	1.33	1.33	1.33	1.33				
Country co-financing per dose ^[2]	Table 6.(n).2 ^[3]	\$	0.00	0.00	0.00	0.00				

^[1] 2nd dose if Measles vaccine or Rotavirus 2-dose schedule

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

^[3] 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	#	0	0	0	0				
Number of AD syringes	#	0	0	0	0				
Number of re-constitution syringes	#	0	0	0	0				
Number of safety boxes	#	0	0	0	0				
Total value to be co-financed by country	\$	0	0	0	0				

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	#	915,800	796,700	851,100	920,200				
Number of AD syringes	#	814,700	668,400	714,000	772,600				
Number of re-constitution syringes	#	101,700	88,500	94,500	102,200				
Number of safety boxes	#	10,175	8,425	8,975	9,725				
Total value to be co-financed by GAVI	\$	301,000	259,000	277,000	299,500				

6.3.7. New and Under-Used Vaccine Introduction Grant

Please indicate in the tables below how the one-time Introduction Grant^[1] 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 Measles, 10 doses/vial, Lyophilised

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	689,367	0.30	207,000

^[1] 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 Measles, 10 doses/vial, Lyophilised (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	313,160	112,691
Social Mobilization, IEC and Advocacy	116,525	56,206
Cold Chain Equipment & Maintenance	304,389	
Vehicles and Transportation		10,000
Programme Management	31,212	
Surveillance and Monitoring	62,424	28,103
Human Resources		
Waste Management		
Technical assistance		
Totals	827,710	207,000

6.4.1. Requested vaccine (Pneumococcal (PCV10), 2 doses/vial, Liquid)

As reported in the cMYP, the country plans to introduce Pneumococcal (PCV10), 2 doses/vial, Liquid vaccine.

6.4.2. 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	Low
---------------	-----

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
	2012	2013	2014	2015				
Minimum co-financing	0.20	0.20	0.20	0.20				
Your co-financing (please change if higher)	0.20	0.20	0.20	0.20				

6.4.3. 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				
Vaccine wastage rate in %	5%	5%	5%	5%				
Equivalent wastage factor	1.05	1.05	1.05	1.05				

6.4.4. 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	#	421,203	502,270	671,323	700,905				
Number of children to be vaccinated with the third dose ^[1]	Table 1	#	388,803	468,785	664,403	693,753				
Immunisation coverage with the third dose	Table 1	#	60.00%	70.00%	96.00%	97.00%				
Estimated vaccine wastage factor	Table 6.(n).3 ^[3]	#	1.05	1.05	1.05	1.05				
Country co-financing per dose ^[2]	Table 6.(n).2 ^[3]	\$	0.20	0.20	0.20	0.20				

^[1] 2nd dose if Measles vaccine or Rotavirus 2-dose schedule

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

^[3] Where (n) depends on the vaccine

6.4.5. 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	#	88,600	88,000	120,100	119,200				
Number of AD syringes	#	94,600	93,200	127,300	126,100				
Number of re-constitution syringes	#								
Number of safety boxes	#	1,050	1,050	1,425	1,400				
Total value to be co-financed by country	\$	332,000	329,500	450,000	446,500				

6.4.6. 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	#	1,570,000	1,558,100	2,127,800	2,112,000				
Number of AD syringes	#	1,676,300	1,650,400	2,256,100	2,233,900				
Number of re-constitution syringes	#								
Number of safety boxes	#	18,625	18,325	25,050	24,800				
Total value to be co-financed by GAVI	\$	5,880,500	5,835,500	7,969,000	7,909,500				

6.4.7. New and Under-Used Vaccine Introduction Grant

Please indicate in the tables below how the one-time Introduction Grant^[1] 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 (PCV10), 2 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	689,367	0.30	207,000

^[1] 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 (PCV10), 2 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		200,430	
Social Mobilization, IEC and Advocacy	166,573		
Cold Chain Equipment & Maintenance	1,126,000		
Vehicles and Transportation		6,123	
Programme Management		447	
Surveillance and Monitoring			
Human Resources	24,510		
Waste Management			
Technical assistance			
Under five cards, guidelines and monitoring tools	656250		
Totals	1,973,333	207,000	

6.5.1. Requested vaccine (Rotavirus 2-dose schedule)

As reported in the cMYP, the country plans to introduce Rotavirus 2-dose schedule vaccine.

6.5.2. 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	Low
---------------	-----

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
	2013	2014	2015					
Minimum co-financing	0.20	0.20	0.20					
Your co-financing (please change if higher)	0.20	0.20	0.20					

6.5.3. 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
	2013	2014	2015					
Vaccine wastage rate in %	5%	5%	5%					
Equivalent wastage factor	1.05	1.05	1.05					

6.5.4. Specifications of vaccinations with new vaccine

	Data from		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8
			2013	2014	2015					
Number of children to be vaccinated with the first dose	Table 1	#	435,300	588,273	686,601					
Number of children to be vaccinated with the third dose ^[1]	Table 1	#	401,816	484,460	679,449					
Immunisation coverage with the third dose	Table 1	#	60.00%	70.00%	95.00%					
Estimated vaccine wastage factor	Table 6.(n).3 ^[3]	#	1.05	1.05	1.05					
Country co-financing per dose ^[2]	Table 6.(n).2 ^[3]	\$	0.20	0.20	0.20					

^[1] 2nd dose if Measles vaccine or Rotavirus 2-dose schedule

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

^[3] Where (n) depends on the vaccine

6.5.5. 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
		2013	2014	2015					
Number of vaccine doses	#	43,500	62,600	78,900					
Number of AD syringes	#								
Number of re-constitution syringes	#								
Number of safety boxes	#	500	700	900					
Total value to be co-financed by country	\$	229,000	263,500	299,000					

6.5.6. 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
		2013	2014	2015					
Number of vaccine doses	#	1,099,200	1,253,200	1,414,700					
Number of AD syringes	#								
Number of re-constitution syringes	#								
Number of safety boxes	#	12,225	13,925	15,725					
Total value to be co-financed by GAVI	\$	5,779,500	5,273,500	5,358,500					

6.5.7. New and Under-Used Vaccine Introduction Grant

Please indicate in the tables below how the one-time Introduction Grant^[1] 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 Rotavirus 2-dose schedule

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\$
2013	708,669	0.30	213,000

^[1] 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 Rotavirus 2-dose schedule (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	169,534	169,534
Social Mobilization, IEC and Advocacy	121,742	37,421
Cold Chain Equipment & Maintenance		
Vehicles and Transportation	6,046	6,046
Programme Management	15,708	
Surveillance and Monitoring		
Human Resources		
Waste Management		
Technical assistance		
Printing	25,656	
Totals	338,686	213,001

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 under GAVI support will be through UNICEF Supply Division. Shipments will be delivered to the national store and further distributed to provincial stores, districts and finally service delivery points. It is anticipated that the national store will receive quarterly shipments and will in turn distribute on a quarterly basis to the provinces.

- 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.

NA

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

The introduction of the new vaccines will require a number of activities to be undertaken by the country in order to ensure readiness for provision of quality vaccine and creation of demand for the same. These activities will include the following, some of which have already been addressed or on going and others yet to be addressed:

- 1.Meetings for Adaptation and Updating of Guidelines and Tools
- 2.Request for vaccine
- 2.Training of trainers and orientation of Health Workers
- 3.Update and print Under Five Cards, guidelines and monitoring tools,production of DVD Training Materials
- 4.Social Mobilization at all Level
- 5.Logistics Distribution to Provinces
6. Introduce new vaccine
- 7.Support supervision pre and intra introduction

Introduction plans for rotavirus, pneumococcal and measles second dose are attached for reference.

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

The Ministry of Health is requesting that the funds be channelled and administered by UNICEF.

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

Co-financing will be paid by June of each year through UNICEF by the Ministry of Health. The Ministry of Health will be responsible for mobilizing resources.

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

In order to monitor the introduction of the new vaccines, we intend to provide close supportive supervision during the first year of introduction to ensure that staff are collecting data accurately and following standard practices for the immunisation activities. Furthermore, we will monitor programme process indicators and strengthen disease surveillance. At the end of the first year of introduction, we intend to conduct the post introduction evaluation survey.

7.1. Vaccine Management (EVSM/EVM/VMA)

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

When was the last Effective Vaccine Management (EVM) or Vaccine Management Assessment (VMA) conducted? December - 2009

If your country conducted either EVSM, EVM, or VMA in the past three years, please attach relevant reports. (Document N°6)

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/immunization_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.

Recommendation 1

VAR: there is need to install a cold room with the appropriate range of temperatures for the purpose of receiving vaccines at the airport. (Central level)

Action taken to date

The Ministry has made arrangements for vaccines to be immediately cleared by a contracted clearing agent on arrival to the central store. The Ministry of Health is given prior notification of any shipments arriving. For any shipment that may arrive on weekends and public holidays special arrangements are made to receive them at the central cold store during that period.

Recommendation 2

Vaccines storage Temperatures: Temperatures recording to be made 7days a week and at least twice/24 hours. All levels to prepare an elaborate contingency plan and display it at the appropriate place within the vaccine store. Conduct training and support supervision for new MCH staff at the provincial and district levels

Action taken to date

1. Temperature monitoring is conducted twice daily including weekends and public holidays and

documented on standardized temperature monitoring charts.

2. For the newly installed cold room in one of the regions an automatic and manual temperature monitoring system is in place.
3. MLM trainings conducted targeting all provincial MCH and Cold Chain Officers as well as MCH and Cold Chain Technicians from selected districts whose first module is cold chain and vaccine management.
4. Supportive supervision and mentorship for cold chain management has been conducted for selected district.

Future actions

1. EVM assessment and training will be conducted in 2011 for MCH staff and logisticians/cold chain technicians.
2. MLM trainings for in-service and tutors in pre-service Nursing training institutions

Recommendation 3

Cold store capacity: Install two additional cold rooms at national level; establish a zonal cold store to cater for three provinces.

Building, cold chain equipment and transport: Procure and install standby generators in all provincial and district cold stores. Update the cold inventory status for all levels in line with the Ministry of Health phased replacement plan.

Action taken to date

1. With a view to address additional cold chain requirements for new vaccine introduction a vaccine cold chain expansion strategy has been developed to address cold chain needs and used to mobilize resources. To date funding has been secured to procure 5 cold rooms (40m³ each) for central level as well as 4 additional cold rooms (30m³ each) for the provincial level along with standby generators. Orders have been placed. The shelters for these equipment shall also be constructed or rehabilitated. The installation of cold rooms at both the national and provincial levels will be completed by end of first quarter 2012.
2. A Zonal cold room with backup generator (30,000 litres) has been installed and is operational. This zonal store will cater for three of the nine provinces.
3. Cold chain inventory is collected and updated on a quarterly basis using both manual and an electronic tool at central level while at the lower levels the manual tool is in use. On site mentorship and supervision has been conducted for Cold Chain Technicians to strengthen updating of the inventory.

Future actions

1. EVM assessment and training will be conducted in 2011 for MCH staff and logisticians/cold chain technicians.
2. Receiving, distribution and installation of nine cold rooms for the central and provincial levels.
3. Continued resource mobilization for cold chain expansion for district and health centre levels including training of cold chain technicians.

Recommendation 4.

Maintenance of cold chain equipment and transport: Provide reliable transport for cold chain technician to enable them carry out regular maintenance and repair works (Provincial and district levels). Provinces and districts should prioritize the purchase of adequate stocks of spare parts

Action taken to date

1. Through the GAVI Health Systems support window 200 motor bikes were procured. This is in addition to similar efforts by other programmes such as malaria, TB, HIV and Nutrition resulting in all districts being adequately serviced with motor bikes for Cold Chain Technicians.
2. Repair and maintenance of the existing transport fleet is planned for and undertaken by the respective

districts.

Future actions

Plans to replace part of this fleet is indicated in the cMYP.

Recommendation 5.

Stock management: Provinces should procure computers and to facilitate computerisation of the stock management system, and train staff accordingly. Management at provincial, district and health facility levels to ensure that standardised stock cards are consistently used.

Action taken

1. MCH and Cold Chain staff at provincial and district levels have access to shared computers provided through shared programmes.
2. Standardized stock registers have been introduced countrywide.

Future actions

1. EVM assessment and training will be conducted in 2011 for MCH staff and logisticians/cold chain technicians.
2. Through the planned vaccine cold chain expansion at provincial levels computer shall be procured.

Recommendation 6

Effective vaccine delivery: Strengthen stock management and carrying out monthly physical stock counts for vaccines, injection materials and diluents.

1. Vaccine Management training through MLM trainings targeting all provincial MCH and Cold Chain Officers as well as MCH and Cold Chain Technicians from selected districts.
2. Two 10 ton trucks have been procured using GAVI funds for the purpose of distributing vaccines and devices to the provincial centres on a quarterly basis, using a mix of the pull and push distribution system.

Future actions

1. Introduction of an electronic monitoring system to manage vaccine stocks.
2. MLM trainings for in-service and tutors in pre-service Nursing training institutions

Recommendation 7

Correct use of diluents for freeze-dried vaccines: Monitoring of stock movements should include the diluents and injection materials at all levels.

Actions taken

Vaccine Management training through MLM trainings targeting all provincial MCH and Cold Chain Officers as well as MCH and Cold Chain Technicians from selected districts have been conducted.

Future actions

EVM assessment and training will be conducted in 2011 for MCH staff and logisticians/cold chain technicians.

Recommendation 8

MDVP: provide more support by way of job aids, technical guidelines and training staff at all sub national levels and facility in the application and importance of MDVP and vaccine management. Vaccine

Management training through MLM trainings targeting all provincial MCH and Cold Chain Officers as well as MCH and Cold Chain Technicians from selected districts have been conducted.

Action taken

Developing Job Aids for Health Workers for use at all levels particularly at the service delivery level ongoing.

Future actions

EVM assessment and training will be conducted in 2011 for MCH staff and logisticians/cold chain technicians.

Printing and distribution of Job Aids for use at all levels particularly at the service delivery level.

Recommendation 9

VVM: Prepare and print and display posters and stickers at appropriate places. Train staff on the reading and interpretation and use of VVM for management purposes.

Action taken

1. Vaccine Management training through MLM trainings targeting all provincial MCH and Cold Chain Officers as well as MCH and Cold Chain Technicians from selected districts have been conducted.

2. Developing Job Aids for Health Workers for use at all levels particularly at the service delivery level.

Future actions

EVM assessment and training will be conducted in 2011 for MCH staff and logisticians/cold chain technicians.

Printing and distribution of Job Aids for use at all levels particularly at the service delivery level.

Recommendation 10

Vaccine wastage control: The wastage monitoring to be activated at all levels of the EPI system in the country, with subsequent relevant training of staff.

Action taken

1. Vaccine Management training through MLM trainings targeting all provincial MCH and Cold Chain Officers as well as MCH and Cold Chain Technicians from selected districts have been conducted.

2. Developing Job Aids for Health Workers for use at all levels particularly at the service delivery level.

Future actions

EVM assessment and training will be conducted in 2011 for MCH staff and logisticians/cold chain technicians.

Printing and distribution of Job Aids for use at all levels particularly at the service delivery level.

When is the next Effective Vaccine Management (EVM) Assessment planned? - 2011

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 cMYP for the immunisation programme, in the last revision, has been aligned in content and timeframe to the National Health Strategic Plan (NHSP) which will run from 2011 – 2015. This is also in alignment with the Sixth National Development Plan (SNDP). The ICC requests approval of the extension of Zambia's cMYP by one year.

The ICC in this application notes that there is a requirement to provide second preference of the vaccine presentation. Considering the difference in cold chain requirements of the available presentations of the Rotavirus vaccine the country makes a second under great duress considering the cold chain implications associated with the second preference.

9. Annexes

Annex 1

Annex 1.1 – Measles, 10 doses/vial, Lyophilised

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	#	0	0	0	0				
Number of AD syringes	#	0	0	0	0				
Number of re-constitution syringes	#	0	0	0	0				
Number of safety boxes	#	0	0	0	0				
Total value to be co-financed by the country	\$	0	0	0	0				

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	#	915,800	796,700	851,100	920,200				
Number of AD syringes	#	814,700	668,400	714,000	772,600				
Number of re-constitution syringes	#	101,700	88,500	94,500	102,200				
Number of safety boxes	#	10,175	8,425	8,975	9,725				
Total value to be co-financed	\$	301,000	259,000	277,000	299,500				

Required supply item		2012	2013	2014	2015				
by the country									

Table 1.1 C - Summary table for Measles, 10 doses/vial, Lyophilised

	Data from		2012	2013	2014	2015				
Number of Surviving infants	Table 1	#	648,005	669,692	692,086	715,209				
Number of children to be vaccinated with the third dose ^[1]	Table 1	#	550,804	589,329	629,782	679,449				
Immunisation coverage with the last dose	Table 1	#	96.00%	97.00%	97.00%	97.00%				
Number of children to be vaccinated with the first dose	Table 1	#	622,085	649,602	671,323	693,753				
Number of doses per child		#	1	1	1	1				
Estimated vaccine wastage factor	Table 6.(n).3 ^[2]	#	1.33	1.33	1.33	1.33				
Number of doses per vial		#	10	10	10	10				
AD syringes required		#	Yes	Yes	Yes	Yes				
Reconstitution syringes required		#	Yes	Yes	Yes	Yes				
Safety boxes required		#	Yes	Yes	Yes	Yes				
Vaccine price per dose		\$	0.240	0.240	0.240	0.240				
Country co-financing per dose	Table 6.(n).2 ^[2]	\$	0.00	0.00	0.00	0.00				
AD syringe price per unit		\$	0.053	0.053	0.053	0.053				
Reconstitution syringe price per unit		\$	0.038	0.038	0.038	0.038				
Safety box price per unit		\$	0.640	0.640	0.640	0.640				
Freight cost as % of vaccines value		%	10.00	10.00	10.00	10.00				
Freight cost as % of devices value		%	10.00	10.00	10.00	10.00				

^[1] 2nd dose if Measles vaccine or Rotavirus 2-dose schedule

^[2] Where (n) depends on the vaccine

Table 1.1 D - Estimated number of doses for Measles, 10 doses/vial, Lyophilised associated injection safety material and related co-financing budget (page 1)

		Formula	2012			2013		
			Total	Government	GAVI	Total	Government	GAVI
A	Country Co-finance		0.00%			0.00%		
B	Number of children to be vaccinated with the first dose ^[1]	Table 1 (baseline & annual targets)	550,804	0	550,804	589,329	0	589,329
C	Number of doses per child	Vaccine parameter	1	1	1	1	1	1
D	Number of doses needed	B * C	550,804	0	550,804	589,329	0	589,329
E	Estimated vaccine wastage factor	Table 6.(n).3. in NVS section ^[2]	1.33	1.33	1.33	1.33	1.33	1.33
F	Number of doses needed including wastage	D * E	732,570	0	732,570	783,808	0	783,808
G	Vaccines buffer stock	(F - F of previous year) * 0.25	183,143	0	183,143	12,810	0	12,810
I	Total vaccine doses needed	F + G	915,713	0	915,713	796,618	0	796,618
J	Number of doses per vial	Vaccine parameter	10	10	10	10	10	10
K	Number of AD syringes (+ 10% wastage) needed	(D + G) * 1.11	814,682	0	814,682	668,375	0	668,375
L	Reconstitution syringes (+ 10% wastage) needed	I / J * 1.11	101,645	0	101,645	88,425	0	88,425
M	Total of safety boxes (+ 10% of extra need) needed	(K + L) / 100 x 1.11	10,172	0	10,172	8,401	0	8,401
N	Cost of vaccines needed	I * vaccine price per dose	219,772	0	219,772	191,189	0	191,189
O	Cost of AD syringes needed	K * AD syringe price per unit	43,179	0	43,179	35,424	0	35,424
P	Cost of reconstitution syringes needed	L * reconstitution price per unit	3,863	0	3,863	3,361	0	3,361
Q	Cost of safety boxes needed	M * safety box price per unit	6,511	0	6,511	5,377	0	5,377
R	Freight cost for vaccines needed	N * freight cost as % of vaccines value	21,978	0	21,978	19,119	0	19,119
S	Freight cost for devices needed	(O + P + Q) * freight cost as % of devices value	5,356	0	5,356	4,417	0	4,417
T	Total fund needed	(N + O + P + Q + R + S)	300,659	0	300,659	258,887	0	258,887
U	Total country co-financing	I * country co-financing per dose	0			0		
V	Country co-financing % of GAVI supported proportion	U / T	0.00%			0.00%		

^[1] 2nd dose if Measles vaccine or Rotavirus 2-dose schedule

^[2] Where (n) depends on the vaccine

Table 1.1 D - Estimated number of doses for Measles, 10 doses/vial, Lyophilised associated injection safety material and related co-financing budget (page 2)

		Formula	2014	2015
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			Total	Government	GAVI	Total	Government	GAVI
A	Country Co-finance		0.00%			0.00%		
B	Number of children to be vaccinated with the first dose ^[1]	Table 1 (baseline & annual targets)	629,782	0	629,782	679,449	0	679,449
C	Number of doses per child	Vaccine parameter (schedule)	1	1	1	1	1	1
D	Number of doses needed	B * C	629,782	0	629,782	679,449	0	679,449
E	Estimated vaccine wastage factor	Table 6.(n).3. in NVS section ^[2]	1.33	1.33	1.33	1.33	1.33	1.33
F	Number of doses needed including wastage	D * E	837,611	0	837,611	903,668	0	903,668
G	Vaccines buffer stock	(F - F of previous year) * 0.25	13,451	0	13,451	16,515	0	16,515
I	Total vaccine doses needed	F + G	851,062	0	851,062	920,183	0	920,183
J	Number of doses per vial	Vaccine parameter	10	10	10	10	10	10
K	Number of AD syringes (+ 10% wastage) needed	(D + G) * 1.11	713,989	0	713,989	772,521	0	772,521
L	Reconstitution syringes (+ 10% wastage) needed	I / J * 1.11	94,468	0	94,468	102,141	0	102,141
M	Total of safety boxes (+ 10% of extra need) needed	(K + L) / 100 x 1.11	8,974	0	8,974	9,709	0	9,709
N	Cost of vaccines needed	I * vaccine price per dose	204,255	0	204,255	220,844	0	220,844
O	Cost of AD syringes needed	K * AD syringe price per unit	37,842	0	37,842	40,944	0	40,944
P	Cost of reconstitution syringes needed	L * reconstitution price per unit	3,590	0	3,590	3,882	0	3,882
Q	Cost of safety boxes needed	M * safety box price per unit	5,744	0	5,744	6,214	0	6,214
R	Freight cost for vaccines needed	N * freight cost as % of vaccines value	20,426	0	20,426	22,085	0	22,085
S	Freight cost for devices needed	(O + P + Q) * freight cost as % of devices value	4,718	0	4,718	5,104	0	5,104
T	Total fund needed	(N + O + P + Q + R + S)	276,575	0	276,575	299,073	0	299,073
U	Total country co-financing	I * country co-financing per dose	0			0		
V	Country co-financing % of GAVI supported proportion	U / T	0.00%			0.00%		

^[1] 2nd dose if Measles vaccine or Rotavirus 2-dose schedule

^[2] Where (n) depends on the vaccine

Annex 1.2 – Pneumococcal (PCV10), 2 doses/vial, Liquid

Table 1.2 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	#	88,600	88,000	120,100	119,200				
Number of AD syringes	#	94,600	93,200	127,300	126,100				
Number of re-constitution syringes	#								
Number of safety boxes	#	1,050	1,050	1,425	1,400				
Total value to be co-financed by the country	\$	332,000	329,500	450,000	446,500				

Table 1.2 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	#	1,570,000	1,558,100	2,127,800	2,112,000				
Number of AD syringes	#	1,676,300	1,650,400	2,256,100	2,233,900				
Number of re-constitution syringes	#								
Number of safety boxes	#	18,625	18,325	25,050	24,800				
Total value to be co-financed by the country	\$	5,880,500	5,835,500	7,969,000	7,909,500				

Table 1.2 C - Summary table for Pneumococcal (PCV10), 2 doses/vial, Liquid

	Data from		2012	2013	2014	2015				
Number of Surviving infants	Table 1	#	648,005	669,692	692,086	715,209				
Number of children to be vaccinated with the third dose ^[1]	Table 1	#	388,803	468,785	664,403	693,753				
Immunisation coverage with the last dose	Table 1	#	60.00%	70.00%	96.00%	97.00%				
Number of children to be vaccinated with the first dose	Table 1	#	421,203	502,270	671,323	700,905				
Number of doses per child		#	3	3	3	3				
Estimated vaccine wastage	Table 6.(n).3 ^[2]	#	1.05	1.05	1.05	1.05				

	Data from		2012	2013	2014	2015				
factor										
Number of doses per vial		#	2	2	2	2				
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 ^[2]	\$	0.20	0.20	0.20	0.20				
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				

^[1] 2nd dose if Measles vaccine or Rotavirus 2-dose schedule

^[2] Where (n) depends on the vaccine

Table 1.2 D - Estimated number of doses for Pneumococcal (PCV10), 2 doses/vial, Liquid associated injection safety material and related co-financing budget (page 1)

		Formula	2012			2013		
			Total	Government	GAVI	Total	Government	GAVI
A	Country Co-finance		5.34%			5.34%		
B	Number of children to be vaccinated with the first dose ^[1]	Table 1 (baseline & annual targets)	421,203	22,491	398,712	502,270	26,824	475,446
C	Number of doses per child	Vaccine parameter	3	3	3	3	3	3
D	Number of doses needed	B * C	1,263,609	67,472	1,196,137	1,506,810	80,471	1,426,339
E	Estimated vaccine wastage factor	Table 6.(n).3. in NVS section ^[2]	1.05	1.05	1.05	1.05	1.05	1.05
F	Number of doses needed including wastage	D * E	1,326,790	70,846	1,255,944	1,582,151	84,494	1,497,657
G	Vaccines buffer stock	(F - F of previous year) * 0.25	331,698	17,712	313,986	63,841	3,410	60,431
I	Total vaccine doses needed	F + G	1,658,488	88,557	1,569,931	1,645,992	87,903	1,558,089
J	Number of doses per vial	Vaccine parameter	2	2	2	2	2	2
K	Number of AD syringes (+ 10% wastage) needed	(D + G) * 1.11	1,770,791	94,554	1,676,237	1,743,423	93,107	1,650,316
L	Reconstitution syringes (+ 10% wastage) needed	I / J * 1.11						
M	Total of safety boxes (+ 10% of extra need) needed	(K + L) / 100 x 1.11	19,656	1,050	18,606	19,352	1,034	18,318
N	Cost of vaccines needed	I * vaccine price per dose	5,804,708	309,950	5,494,758	5,760,972	307,661	5,453,311

		Formula	2012			2013		
			Total	Government	GAVI	Total	Government	GAVI
O	Cost of AD syringes needed	K * AD syringe price per unit	93,852	5,012	88,840	92,402	4,935	87,467
P	Cost of reconstitution syringes needed	L * reconstitution price per unit						
Q	Cost of safety boxes needed	M * safety box price per unit	12,580	672	11,908	12,386	662	11,724
R	Freight cost for vaccines needed	N * freight cost as % of vaccines value	290,236	15,498	274,738	288,049	15,384	272,665
S	Freight cost for devices needed	(O + P + Q) * freight cost as % of devices value	10,644	569	10,075	10,479	560	9,919
T	Total fund needed	(N + O + P + Q + R + S)	6,212,020	331,698	5,880,322	6,164,288	329,199	5,835,089
U	Total country co-financing	I * country co-financing per dose	331,698			329,199		
V	Country co-financing % of GAVI supported proportion	U / T	5.34%			5.34%		

^[1] 2nd dose if Measles vaccine or Rotavirus 2-dose schedule

^[2] Where (n) depends on the vaccine

Table 1.2 D - Estimated number of doses for Pneumococcal (PCV10), 2 doses/vial, Liquid associated injection safety material and related co-financing budget (page 2)

		Formula	2014			2015		
			Total	Government	GAVI	Total	Government	GAVI
A	Country Co-finance		5.34%			5.34%		
B	Number of children to be vaccinated with the first dose ^[1]	Table 1 (baseline & annual targets)	671,323	35,851	635,472	700,905	37,433	663,472
C	Number of doses per child	Vaccine parameter (schedule)	3	3	3	3	3	3
D	Number of doses needed	B * C	2,013,969	107,553	1,906,416	2,102,715	112,297	1,990,418
E	Estimated vaccine wastage factor	Table 6.(n).3. in NVS section ^[2]	1.05	1.05	1.05	1.05	1.05	1.05
F	Number of doses needed including wastage	D * E	2,114,668	112,930	2,001,738	2,207,851	117,912	2,089,939
G	Vaccines buffer stock	(F - F of previous year) * 0.25	133,130	7,110	126,020	23,296	1,245	22,051
I	Total vaccine doses needed	F + G	2,247,798	120,040	2,127,758	2,231,147	119,156	2,111,991
J	Number of doses per vial	Vaccine parameter	2	2	2	2	2	2
K	Number of AD syringes (+ 10% wastage) needed	(D + G) * 1.11	2,383,280	127,275	2,256,005	2,359,873	126,031	2,233,842
L	Reconstitution syringes (+ 10% wastage) needed	I / J * 1.11						
M	Total of safety boxes (+ 10% of extra need) needed	(K + L) / 100 x 1.11	26,455	1,413	25,042	26,195	1,399	24,796
N	Cost of vaccines needed	I * vaccine price per dose	7,867,293	420,139	7,447,154	7,809,015	417,046	7,391,969
O	Cost of AD syringes needed	K * AD syringe price per unit	126,314	6,746	119,568	125,074	6,680	118,394

		Formula	2014			2015		
			Total	Government	GAVI	Total	Government	GAVI
P	Cost of reconstitution syringes needed	L * reconstitution price per unit						
Q	Cost of safety boxes needed	M * safety box price per unit	16,932	905	16,027	16,765	896	15,869
R	Freight cost for vaccines needed	N * freight cost as % of vaccines value	393,365	21,007	372,358	390,451	20,853	369,598
S	Freight cost for devices needed	(O + P + Q) * freight cost as % of devices value	14,325	766	13,559	14,184	758	13,426
T	Total fund needed	(N + O + P + Q + R + S)	8,418,229	449,560	7,968,669	8,355,489	446,230	7,909,259
U	Total country co-financing	I * country co-financing per dose	449,560			446,230		
V	Country co-financing % of GAVI supported proportion	U / T	5.34%			5.34%		

^[1] 2nd dose if Measles vaccine or Rotavirus 2-dose schedule

^[2] Where (n) depends on the vaccine

Annex 1.3 – Rotavirus 2-dose schedule

Table 1.3 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	#		43,500	62,600	78,900				
Number of AD syringes	#								
Number of re-constitution syringes	#								
Number of safety boxes	#		500	700	900				

Required supply item		2012	2013	2014	2015				
Total value to be co-financed by the country	\$		229,000	263,500	299,000				

Table 1.3 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	#		1,099,200	1,253,200	1,414,700				
Number of AD syringes	#								
Number of re-constitution syringes	#								
Number of safety boxes	#		12,225	13,925	15,725				
Total value to be co-financed by the country	\$		5,779,500	5,273,500	5,358,500				

Table 1.3 C - Summary table for Rotavirus 2-dose schedule

	Data from		2012	2013	2014	2015				
Number of Surviving infants	Table 1	#	708,669	669,692	692,086	715,209				
Number of children to be vaccinated with the third dose ^[1]	Table 1	#	535,754	401,816	484,460	679,449				
Immunisation coverage with the last dose	Table 1	#	75.60%	60.00%	70.00%	95.00%				
Number of children to be vaccinated with the first dose	Table 1	#	636,208	435,300	588,273	686,601				
Number of doses per child		#	2	2	2	2				
Estimated vaccine wastage factor	Table 6.(n).3 ^[2]	#		1.05	1.05	1.05				
Number of doses per vial		#	1	1	1	1				
AD syringes required		#	No	No	No	No				
Reconstitution syringes required		#	No	No	No	No				
Safety boxes required		#	Yes	Yes	Yes	Yes				
Vaccine price per dose		\$	5.000	5.000	4.000	3.600				
Country co-financing per dose	Table 6.(n).2 ^[2]	\$	0.20	0.20	0.20	0.20				
AD syringe price per unit		\$	0.053	0.053	0.053	0.053				
Reconstitution syringe price per unit		\$								

	Data from		2012	2013	2014	2015				
Safety box price per unit		\$	0.550	0.640	0.640	0.640				
Freight cost as % of vaccines value		%		5.00	5.00	5.00				
Freight cost as % of devices value		%	10.00	10.00	10.00	10.00				

^[1] 2nd dose if Measles vaccine or Rotavirus 2-dose schedule

^[2] Where (n) depends on the vaccine

Table 1.3 D - Estimated number of doses for Rotavirus 2-dose schedule associated injection safety material and related co-financing budget (page 1)

		Formula	2013			2014		
			Total	Government	GAVI	Total	Government	GAVI
A	Country Co-finance		3.80%			4.75%		
B	Number of children to be vaccinated with the first dose ^[1]	Table 1 (baseline & annual targets)	435,300	16,559	418,741	588,273	27,961	560,312
C	Number of doses per child	Vaccine parameter	2	2	2	2	2	2
D	Number of doses needed	B * C	870,600	33,117	837,483	1,176,546	55,922	1,120,624
E	Estimated vaccine wastage factor	Table 6.(n).3. in NVS section ^[2]	1.05	1.05	1.05	1.05	1.05	1.05
F	Number of doses needed including wastage	D * E	914,130	34,773	879,357	1,235,374	58,719	1,176,655
G	Vaccines buffer stock	(F - F of previous year) * 0.25	228,533	8,694	219,839	80,311	3,818	76,493
I	Total vaccine doses needed	F + G	1,142,663	43,466	1,099,197	1,315,685	62,536	1,253,149
J	Number of doses per vial	Vaccine parameter	1	1	1	1	1	1
K	Number of AD syringes (+ 10% wastage) needed	(D + G) * 1.11						
L	Reconstitution syringes (+ 10% wastage) needed	I / J * 1.11						
M	Total of safety boxes (+ 10% of extra need) needed	I / 100 x 1.11	12,684	483	12,201	14,605	695	13,910
N	Cost of vaccines needed	I * vaccine price per dose	5,713,315	217,327	5,495,988	5,262,740	250,142	5,012,598
O	Cost of AD syringes needed	K * AD syringe price per unit						
P	Cost of reconstitution syringes needed	L * reconstitution price per unit						
Q	Cost of safety boxes needed	M * safety box price per unit	8,118	309	7,809	9,348	445	8,903
R	Freight cost for vaccines needed	N * freight cost as % of vaccines value	285,666	10,867	274,799	263,137	12,508	250,629
S	Freight cost for devices needed	(O + P + Q) * freight cost as % of devices value	812	31	781	935	45	890
T	Total fund needed	(N + O + P + Q + R + S)	6,007,911	228,533	5,779,378	5,536,160	263,137	5,273,023
U	Total country co-financing	I * country co-financing per dose	228,533			263,137		
V	Country co-financing % of GAVI supported proportion	U / T	3.80%			4.75%		

^[1] 2nd dose if Measles vaccine or Rotavirus 2-dose schedule

^[2] Where (n) depends on the vaccine

Table 1.3 D - Estimated number of doses for Rotavirus 2-dose schedule associated injection safety material and related co-financing budget (page 2)

		Formula	2015					
			Total	Government	GAVI	Total	Government	GAVI
A	Country Co-finance		5.28%					
B	Number of children to be vaccinated with the first dose ^[1]	Table 1 (baseline & annual targets)	686,601	36,254	650,347			
C	Number of doses per child	Vaccine parameter (schedule)	2	2	2	2	2	2
D	Number of doses needed	B * C	1,373,202	72,507	1,300,695			
E	Estimated vaccine wastage factor	Table 6.(n).3. in NVS section ^[2]	1.05	1.05	1.05			
F	Number of doses needed including wastage	D * E	1,441,863	76,132	1,365,731			
G	Vaccines buffer stock	(F - F of previous year) * 0.25	51,623	2,726	48,897			
I	Total vaccine doses needed	F + G	1,493,486	78,858	1,414,628			
J	Number of doses per vial	Vaccine parameter	1	1	1	1	1	1
K	Number of AD syringes (+ 10% wastage) needed	(D + G) * 1.11						
L	Reconstitution syringes (+ 10% wastage) needed	I / J * 1.11						
M	Total of safety boxes (+ 10% of extra need) needed	I / 100 x 1.11	16,578	876	15,702			
N	Cost of vaccines needed	I * vaccine price per dose	5,376,550	283,888	5,092,662			
O	Cost of AD syringes needed	K * AD syringe price per unit						
P	Cost of reconstitution syringes needed	L * reconstitution price per unit						
Q	Cost of safety boxes needed	M * safety box price per unit	10,610	561	10,049			
R	Freight cost for vaccines needed	N * freight cost as % of vaccines value	268,828	14,195	254,633			
S	Freight cost for devices needed	(O + P + Q) * freight cost as % of devices value	1,061	57	1,004			
T	Total fund needed	(N + O + P + Q + R + S)	5,657,049	298,698	5,358,351			
U	Total country co-financing	I * country co-financing per dose	298,698					
V	Country co-financing % of GAVI supported proportion	U / T	5.28%					

^[1] 2nd dose if Measles vaccine or Rotavirus 2-dose schedule

^[2] 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 - Low - Minimum country's co-payment per dose of co-financed vaccine.

vaccine	2012	2013	2014	2015			
Rotavirus 2-dose schedule		0.20	0.20	0.20			
Pneumococcal(PCV10), 2 doses/vial, Liquid	0.20	0.20	0.20	0.20			
Measles, 10 doses/vial, Lyophilised	0.00	0.00	0.00	0.00			

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 (cm3/dose)	Packed volume diluents (cm3/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
Polio	OPV	liquid	Oral	4	10	2.0	

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	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	
Hepatitis B	HepB	liquid	IM	3	1	18.0	
Hepatitis B	HepB	liquid	IM	3	2	13.0	
Hepatitis B	HepB	liquid	IM	3	6	4.5	
Hepatitis B	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
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	

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)
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 ¹
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		12	Yes
comprehensive Multi Year Plan - cMYP		4	Yes
cMYP Costing tool for financial analysis		5	Yes
Minutes of last three ICC/HSCC meetings		10	Yes
Improvement plan based on EVM		13	Yes
WHO/UNICEF Joint Reporting Form (JRF)			
ICC/HSCC workplan for forthcoming 12 months			
National policy on injection safety			
Action plans for improving injection safety			
Plan for NVS introduction (if not part of cMYP)		7, 8, 9	
Banking details			

^[1] 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	File Type: MoH Signature (or delegated authority) of Proposal * File Desc:	File name: MOH And MOF Signatures for proposal 001.jpg Date/Time: 17.06.2011 05:06:39 Size: 888 KB			
2	File Type: MoF Signature (or delegated authority) of Proposal * File Desc:	File name: MOH And MOF Signatures for proposal 001.jpg Date/Time: 17.06.2011 05:07:01 Size: 888 KB			
3	File Type: Signatures of ICC or HSCC or equivalent in Proposal * File Desc:	File name: ICC Signatures for proposal 001.jpg Date/Time: 17.06.2011 05:07:40 Size:			

	File Desc:	783 KB		
4	File Type: comprehensive Multi Year Plan - cMYP *	File name: C:\Users\penelope\Desktop\Zambia cMYP 2011-2015 Revised 9May11.doc Date/Time: 10.05.2011 13:46:14 Size: 1 MB		
5	File Type: cMYP Costing tool for financial analysis *	File name: FINAL_ZAM_cMYP_Costing_Tool_Vs%202.5_En(1)FINAL10.05.11.xls Date/Time: 01.06.2011 09:39:16 Size: 3 MB		
6	File Type: other	File name: C:\Users\penelope\Desktop\Vaccine_Management_Assessment_2009.doc Date/Time: 10.05.2011 13:58:02 Size: 1 MB		
7	File Type: Plan for NVS introduction (if not part of cMYP)	File name: C:\Users\user\Documents\cMYP 2011 Arusha Final Draft_27.04.11\Working_Documents\FINAL\Pneumo_introduction_plan_Zambia_2012_Final.doc Date/Time: 11.05.2011 07:31:43 Size: 365 KB		
8	File Type: Plan for NVS introduction (if not part of cMYP)	File name: C:\Users\user\Documents\cMYP 2011 Arusha Final Draft_27.04.11\Working_Documents\FINAL\Rota_introduction_plan_Zambia_2013_Final.doc Date/Time: 11.05.2011 07:39:17 Size: 387 KB		
9	File Type: Plan for NVS introduction (if not part of cMYP)	File name: C:\Users\user\Documents\cMYP 2011 Arusha Final Draft_27.04.11\Working_Documents\FINAL\Measles_Second_Dose_Introduction_plan_Zambia_-_2011_final.doc Date/Time: 11.05.2011 07:40:23 Size: 205 KB		
10	File Type: Minutes of last three ICC/HSCC meetings *	File name: C:\Users\penelope\Desktop\MINUTES OF ICC IN 2010 and 2011.doc Date/Time: 10.05.2011 14:40:59 Size: 398 KB		
11	File Type: other	File name: C:\Users\user\Documents\cMYP 2011 Arusha Final Draft_27.04.11\Working_Documents\FINAL\Zambia_Vaccine_Cold_Chain_Scale-Up_Strategy-Final.docx Date/Time: 11.05.2011 07:43:00 Size: 215 KB		
12	File Type: Minutes of ICC/HSCC meeting endorsing Proposal *	File name: C:\Users\penelope\Desktop\ICC_EXTRAORDINARY_MEETING_11_MAY_2011_Final.doc Date/Time: 11.05.2011 12:53:27 Size: 103 KB		
13	File Type: Improvement plan based on EVM *	File name: Working_Documents_plan_of_Action_for_VMA_Recommendations.xls Date/Time: 01.06.2011 09:37:40		

		Size: 29 KB		
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Banking Form

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

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

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

By who is the account audited?

Signature of Government's authorizing official

Name:		Seal
Title:		
Signature:		
Date:		

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:	

Name of bank's authorizing official	
Signature:	
Date:	
Seal:	