GAVI Alliance

Application Form for Country Response To Conditions

For Support to:

Preventive Campaign Support

Submitted by

The Government of

Bangladesh

Date of submission: **1/28/2013**

Deadline for submission: 2/1/2013

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

Start Year	2011	End Year	2016

Form revised in 2012

(To be used with Guidelines of December 2012)

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 TRANSPARANCY 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 languages of the arbitration will be English or French.

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.

Type of Support	Vaccine	Start Year	End Year	Preferred second presentation[1]
Preventive Campaign Support	MR, 10 dose(s) per vial, LYOPHILISED	2013	2013	

[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.

Note for HPV and MR: These prices are indicative only as GAVI has not procured HPV and MR vaccines for GAVI countries yet. Prices will be finalised through tender processes in Q3. GAVI will only fund HPV vaccines if an acceptable price reduction is secured from the current price indicated. The MR price is based on the current price to UNICEF

2. Table of Contents

3. Executive Summary

Please provide a summary of your country's proposal, including the following the information:

- For each specific request, NVS routine support or NVS campaign :
  - The duration of support
  - The total amount of funds
  - Details of the vaccine(s), if applicable
- Relevant baseline data, including:
  - DTP3 and Measles coverage data (as reported on the WHO/UNICEF Joint Reporting Form)
  - Birth cohort, targets and immunisation coverage by vaccines
- Country preparedness
  - Summary of EVM assessment
- The nature of stakeholders' participation in developing this proposal
  - Inter-Agency Coordinating Committee

Bangladesh applies to GAVI for Measles Rubella campaign to be conducted in 2013. This will be one time nation wide campaign in the last quarter of 2013<?xml:namespace prefix = o ns = "urn:schemas-microsoft-com:office:office" />

Total amount of funds requested, will be 33,138,394 US$ for vaccines and injection supplies, and 33,586,453 USD for the operational costs. MR Lyophilized 10 dose vaccine is requested. Total doses requirement is calculated using 15% wastage rate

Birth cohort is estimated at 3,400.454 in 2012 and 3,499,739 in 2013. Target of 9 months-15 year population for MR campaign in 2013 is 51,671,466.

Bangladesh NIP achieved significant success in many areas of EPI in terms of reaching high coverage with traditional vaccines via routine immunization and control of polio and measles via supplementary immunization campaigns. The country successfully introduced Hep B and Hib vaccines with GAVI support and reached 95-96 % coverage in recent years. The DTP3 (Pentavalent) coverage was 96% in 2010 & 95% in 2011 and Measles 1st dose coverage was 94% in 2010 & 98% in 2011.

Country intends to maintain BCG coverage at the level of 98% despite of the fact that only 32% of birth is attended by skilled medical personnel, OPV and Pentavalent coverage at the level of 95% and TT coverage of Child Bearing Age Women at the level of 80%. However challenges still remain in terms of sustaining the desired level of protection against measles as well as decreasing further child morbidity and mortality caused by acute respiratory diseases and diarrhoea.

An updated cMYP 2011-2016 reflects NIP's priorities, objectives and strategies based on the situational analysis. According to the cMYP, Bangladesh intends to introduce Measles 2nd dose in 2012, PCV in 2013 and Rota and Hep-B birth dose in 2014 as per the recommendations of National committee on Immunization practice chaired by the Secretary to the Ministry of Health and Family Welfare.

Country is well prepared to conduct the campaign based on extensive experiences gained through conducting measles catch-up campaign in 2006 by vaccinating 35 million children in three weeks and measles follow-up campaign in 2010 by vaccinating 35 million children in two weeks. Those campaign has reached administrative coverage of 100%. External monitoring by international observers have shown that coverage and quality of the campaign is very good. (refer attached reports):

Cold chain assessment was conducted in 2010 followed by EVM assessment in April 2011. As per the recommendation of the EVM assessment conducted in 2011 EPI with UNICEF support is in process to increase the cold storage capacity to accommodate MCV2 and PCV10 by installing 10 WICs which will provide additional 97.5 cubic meters (net). After introducing MCV2 and PCV vaccines additional 29.5 cubic meter net space will be available which can be used to accommodate some of the MR campaign vaccine. Total space required for MR campaign vaccine is 173 cubic meter (net) space. The shortage of space (172.5-29.5=143) could be addressed by hiring temporary cold store at the central level.

District level has 118 cubic meters net cold storage space at +2° to +8°, which is adequate for the introduction of MCV2 and PCV10 vaccines. Sub-districts level has 177 cubic meters net cold storage space at +2° to +8° and after introduction of MCV2 and PCV10 vaccines there will be 132 cubic meter excess space. In addition WHO supported on going and planned procurements will increase the districts capacity by 9.7 cubic meters and sub-districts capacity by 35 cubic meters. So in total there will be 177 cubic meter (net) space available at the field level to accommodate MR campaign vaccine. Meanwhile there is ongoing improvement of national, district and sub-district level cold chain capacity through GAVI HSS funds and new vaccine introduction funds In terms of cold chain storage capacity.

Bangladesh has already achieved more than 90% MCV1 coverage during last five years and planned to introduce measles second dose with GAVI support in September 2012. In September 2012 measles first dose will be replaced by MR vaccine and MR single dose will be given to girls at 15 years through national resources. During 2010 and 2011 Bangladesh has achieved recommend surveillance indicators of measles case based surveillance: non measles suspected measles case rate of more than 2 per 100,000 population and more than 80% laboratory confirmation of suspected measles cases. Hence Bangladesh can sustain the effect of proposed MR campaign in last quarter of 2013 to reach measles and rubella elimination in 2016 as envisaged in cMYP.

All immunization stakeholders fully participated in developing this proposal. Proposal has been developed through an intensive consultative process between the EPI authorized personnel and EPI partners. It was underpinned by substantial update of strategies, key activities and financial projections that was reflected in the current version of the cMYP with all details related to the introduction of new vaccines (there is no standalone introduction plan). Technical issues were discussed and endorsed by health officials and major issues including the cMYP and application was approved by the ICC.

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 Bangladesh 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

MR, 10 dose(s) per vial, LYOPHILISED preventive campaigns

The Government of Bangladesh commits itself to developing national immunisation services on a sustainable basis in accordance with the Comprehensive Multi-Year Plan 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.

Table(s) in the NVS Routine section of this application shows the amount of support in either supply or cash that is required from the GAVI Alliance. Table(s) 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 **September**.

The payment for the first year of co-financed support will be around **September 2013** for MR, 10 dose(s) per vial, LYOPHILISED.

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 and Minister of Finance or their delegated authority.

Minister of Health (or delegated authority)		**Minister of Finance (or delegated authority)**	
Name	Md. Humayun Kabir, Senior Secretary, Ministry of Health and Family Welfare	**Name**	Shahabuddin Ahmed, Additional Secretary, Ministry of Finance
Date		**Date**	
Signature		**Signature**	

This report has been compiled by (these persons may be contacted in case the GAVI Secretatiat has queries on this document):

Full name	Position	Telephone	Email
Dr Jayantha Liyanage	Medical Officer-EPI, IVD, WHO, Bangladesh	+880-2-8831415 Ext. 309; Cell: +8801711535387	liyanagej@searo.who.int
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Dr. Md. Tajul Islam A Bari	Programme Manager-EPI & Surveillance, DGHS,MOH&FW	+880-2-8821910-13	tajulepi@yahoo.com

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 **27/08/2012** 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 4.

Name/Title*	Agency/Organisation*	Signature
Dr. Bushra Binte Alam, Senior Health Specialist	World Bank	
Dr. Kaosar Afsana, Director, BRAC Health Program	BRAC	
Dr. Lianne Kuppens, Chief, Health Section	UNICEF - Bangladesh	
Dr. Shehlina Ahmed, Health Advisor	DFID	
Dr. Thushara E.I Fernando, WHO Representative	WHO- Bangladesh	
Gregory Adams, Acting Director, Population, Health & Nutrition	USAID	
Maki Nagai, Representative	JICA	
Md. Anisur Rahman, Joint Secretary(Municipality)	Local Government Division, Ministry of Local Government, Rural Development & Co-operatives	
PDG Salim Reza, Chairman	Rotary International	
Peggy Thorpe, First Secretary, Develoment	CIDA	

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 routine support and/or campaign 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 Coordination Committee (ICC)
Year of constitution of the current committee	2001
Organisational structure (e.g., sub-committee, stand-alone)	Technical Sub-Committee
Frequency of meetings	3-4 meetings per year

Composition

Function	Title / Organisation	Name
Chair	Senior Secretary, Ministry of Health and Family Welfare	Md. Humayun Kabir
Secretary	Director-PHC and Line Director-MNC&AH	Dr Syed Abu Jafar Md. Musa
Members	Joint Secretary(Municipality), Local Government Division, Ministry of Local Government, Rural Development & Co-operatives	Md. Anisur Rahman,
	Senior Health Advisor, DFID	Dr. Shehlina Ahmed
	Deputy Executive Director, Health, BRAC	Faruque Ahmed
	First Secretary, Embassy of Japan	NA
	Chief, Health & Nutrition Section, UNICEF	Dr. Lianne Kuppens
	Senior Health Specialist, World Bank	Dr. Bushra Binte Alam,
	Chairman, Rotary International	PDG Salim Reza
	Co-Chairman, National Polio Plus Comittee	Prof. Jalal U Ahmed

Major functions and responsibilities of the ICC/HSCC:

1. ICC review and approve all EPI activities including GAVI related activities and budgets which are

recommended by the Technical Sub-committee
2. ICC review and monitor all EPI related activities, budget and expenditure statements
3. ICC assess APR and approve before sending to GAVI Secretariat
4. ICC assess APR and approve NV proposal before sending to GAVI Secretariat

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

1.	**To organize at least 3 or more ICC meetings in next 12 months to review the activities and to provide quick decisions for accomplishing activities. <?xml:namespace prefix = o /></**
2.	**To review the existing committee and to involve new members from other Multisectoral Partners Agencies, Civil Society Organizations, Professional bodies and more participation from Local Goverment like City Corporations.**
3.	**To co-ordinate partner agencies and GAVI Secretariat for developing coordinated efforts to introduce New and Underutilized Vaccine in routine EPI to save millions of lives and to conduct supplementary immunization campaign such as MR campaign.**

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 4.

4.2.1. The NITAG Group for Immunisation

Profile of the NITAG

Name of the NITAG	
Year of constitution of the current NITAG	
Organisational structure (e.g., sub-committee, stand-alone)	
Frequency of meetings	

Composition

Function	Title / Organisation	Name
Chair		
Secretary		
Members		

Major functions and responsibilities of the NITAG

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

1.	
2.	
3.	

5. Immunisation Programme Data

5.1. Basic facts

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

- Please refer to the Comprehensive Multi-Year Plan for Immunisation (cMYP) (or equivalent plan) and attach a complete copy (with an Executive Summary) as DOCUMENT NUMBER : 6
- Please attach relevant Vaccine Introduction Plans as DOCUMENT NUMBER : 7
- 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.

For the year **2011** (most recent; specify dates of data provided)

	Figure	Year	Source
Total population	149,772,364	2011	2011 National Census
Infant mortality rate (per 1000)	43	2011	BDHS
Surviving infants[1]	3,254,214	2011	Based on BDHS andWHO-UNICEF JRF
GNI per capita (US$)	640	2011	World Bank data
Total Health Expenditure (THE) as a percentage of GDP	5 %	2011	Ministry of Finance, Budget 2011
General government expenditure on health (GGHE) as % of General government expenditure	6 %	2011	Ministry of Finance, Budget 2011

[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

There are two major policy planning documents that outline sector priorities, strategies, interventions and resources:
a) Strategic Plan for Health Population and Nutrition Sector Development Programme (HPNSDP) 2011-2016
b) Programme Implementation Plan (PIP) of HPNSDP 2011 - 2016

Please indicate the name and date of the relevant planning document for health

a) Strategic Plan for Health Population and Nutrition Sector Development Programme (HPNSDP) 2011-2016
b) Programme Implementation Plan (PIP) of HPNSDP 2011 - 2016

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

Yes, the current cMYP developed in 2010 covers the same period as HPNSDP 2011 - 2016

Please indicate the national planning budgeting cycle for health

National budgeting cycle for health covers 1 year and start from July 1 of each year and ends on June 30 of the next year

Please indicate the national planning cycle for immunisation

National Planning cycle for immunization is harmonized with national budgeting cycle for health

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

Sex disaggregated date is not used in routine immunization reporting system, however this data is available in coverage evaluation survey report

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

No

Please describe any recent evidence of socio-economic and/or gender barriers to the immunisation programme through studies or surveys?

There are no socio-economic or gender barriers to the immunization programme.

Country should provide an outline of all **preparatory** activities for vaccine(s) introduction

The preparatory activities is based on the experience of measles catch-up campaign and measles follow-up campaign conducted in 2006 & in 2010 respectively. Following would be key preparatory activities

1) Development of training materials, IEC materials and record keeping & reporting forms
2) Training of field workers and supervisors
3) Development of Microplan
4) Advocacy, social mobilization and planning meetings at national and sub-national level
5) Vaccine and logistics procurement management and distribution including addressing the cold chain capacity at national, district and sub district levels
6) Human resource management
7) Programme supervision and monitoring
8) AEFI reporting system and management
9) Waste management

5.1.1 MCV Immunisation coverage

Please provide information concerning routine immunisation coverage related to measle-containing vaccines (MCV)

Table 5.1.1: MCV Immunisation coverage

Coverage	2005		2006		2007	
	Administrative1)	WHO/UNICEF2)	Administrative1)	WHO/UNICEF2)	Administrative1)	WHO/UNICEF2)
Measles 1st dose (%)	94	94	92	92	95	95
Measles 2st dose (%)	0	0	0	0	0	0
Supplementary Immunization Activities (SIA) (%)	0	0	101	87	0	0

Coverage	2008		2009		2010	
	Administrative1)	WHO/UNICEF2)	Administrative1)	WHO/UNICEF2)	Administrative1)	WHO/UNICEF2)
Measles 1st dose (%)	96	96	98	98	94	94
Measles 2st dose (%)	0	0	0	0	0	0
Supplementary Immunization Activities (SIA) (%)	0	0	0	0	100	88

Coverage	2011	
	Administrative1)	WHO/UNICEF2)
Measles 1st dose (%)	96	96
Measles 2st dose (%)	0	0
Supplementary Immunization Activities (SIA) (%)	0	0

Note:

1)National reported Administrative Coverage

2)WHO/UNICEF estimated coverage

Was the last Measles Supplementary Immunization Activities (SIA) administrative coverage or results of a survey of acceptable methodology **Results of a survey**

Please describe survey methodology:

WHO 30 cluster Coverage Evaluation Survey methodology was followed to conduct measles supplementary activities (SIA) survey in each district and city corporation (total 72 units) and data was collected after taking interview of parents and on the basis of immunization history.

5.2. Baseline and Annual Targets (NVS Routine Support)

No NVS Routine Support is requested

5.3. Baseline and Annual Targets for Preventive Campaign(s)

5.3.1 Baseline and annual targets (MR campaign)

Please specify cohort for rubella-containing vaccines (RCV):

RCV Start **9 months**

RCV End **15 years**

Cohort population = population 9 months - 15 years old

GAVI supports no more than 15 cohorts. If the application is not within 9 months to 15 years, please provide justification

NA

Table 5.3.1 Baseline NVS preventive campaign figures for MR

Number	Base Year	Baseline and Targets
	2011	2013
Total births	3,400,432	3,499,760
Total population 9 months - 15 years old	51,671,466	51,671,466
Target population vaccinated with MR	0	51,671,466
MR (campaign) coverage (%) [1]	0.00 %	100.00 %
Wastage rate in base year and thereafter (%) for MR (campaign)	0	15
Wastage factor in base year and thereafter for MR	1	1.18

[1] Number of persons vaccinated out of total births

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

No NVS Routine Support is requested

7. NVS Preventive Campains

7.1. Assessment of burden of relevant diseases related to campaigns (if available)

Disease	Title of the assessment	Date	Results
Measles and Rubella	Review of the yearly measles and rubella surveillance data	August 2012	Background: In 2004, Bangladesh accelerated measles control activities. According to WHO/UNICEF estimated MCV1 coverage was 81% in 2004 and 89% of the total cases from serologically confirmed measles outbreaks in 2004 and 2005 were under 10 years old children. In March 2006, measles catch up campaign was conducted targeting children of 9 months -10 years. The reported coverage of the campaign was 101% and survey evaluated coverage was 87%. Vaccination cards were not given during the campaign and hence the campaign coverage has been evaluated in the survey by history only. After the campaign, measles incidence became low (5-10 per million populations, source: clinical cases + serologically confirmed outbreak cases + epi linked)). As a follow-up strategy measles Follow-up campaign was conducted in January 2010 targeting children of 9 months-5 years. The reported coverage was 100% and survey evaluated coverage was 88%. Vaccination cards were not given during the campaign and hence the campaign coverage has been evaluated in the survey by history only. Current rubella and measles situation: Serologically and epidemiological linked rubella incidence in Bangladesh was 37 per million population in 2011 and 87 per million population in 2010. Rubella epidemics come ones in 2-3 years and year 2010 was an epidemic year. The age distribution of cases reported from laboratory confirmed rubella outbreaks have shown that 77% cases in 2011 and 84% of cases in 2010 were among under 15 year old children. In 2010 WHO/UNICEF estimated MCV1 coverage was 94%. However incidence of measles (clinical cases+sero confirm outbreak cases and epi linked) increased from 5.2 per million pop in 2010 to 37.3 per one million population (788 in 2010, 5625 in 2011). 86% of cases from the laboratory confirmed outbreaks were among children of under 15 years. Bangladesh will introduce MR vaccine as measles first dose from September 2012. Simultaneously MR vaccine will be given to adolescent girls who are coming for TT vaccination at the age of 15 years. Vaccine that would be spared after infant vaccination will be used for adolescent girl, hence no additional MR vaccine will be required. The TT2 coverage for girls is above 80%. Measles second dose will be given at 15-18 months from September 2012 through GAVI funds

			"Sero-prevalence of Rubella among urban and rural Bangladeshi Women" a small scale study conducted by A Nessa, MN Islam, S Tabassum, SU Munshi, M Ahmed and R Karim which was published in Indian Journal of Medical Microbiology, Year:2008, Volumn: 26, Page; 94-95 shows that 78.69% of 1-5 years, 47.55% of 6-10 years, 33.34% of 11-15 years, 22.59% of 16-20 years, 18.08% of 21-25 years, 16.42% of 26-30 years, 19.05% of 31-35 years, 11.67% of 36-40years, 9.68% of 41-45 years age groups women are seronegative for rubella specific IgG. Conclusion: Bangladesh has achieved more than 90% MCV1 coverage. Two measles supplementary immunization activities have been conducted in 2006 and 2010. Measles second dose will be introduced in 2012. MR will replace measles first dose. MR vaccination campaign targeting children 9 months-15 years will enable to drastically reduce the circulation of both measles and rubella virus circulation and reach measles and rubella elimination. Bangladesh has a strong surveillance system to monitor the progress.

If MR vaccines have already been introduced in your country during campaigns, please give details of the **lessons learned** from previous introduction(s) specifically for: storage capacity, protection from accidental freezing, staff training, cold chain, logistics, coverage and drop-out rates, wastage rate, etc., and suggest **action points** to address them.

Lessons Learned	Action Points
Although Bangladesh has not introduced MR vaccine, however Bangladesh has conducted measles catch-up campaign targeting 35 million children under 10 years in 2006. This together with measles follow up campaign in 2010 have provided a wide range of experiences. Some of the key lessons from those campaigns are: High political and financial commitment of government and active coordination among partners agencies were the key for successful conduction of campaign. A separate storage premises for campaign vaccine and logistics helps in better management In case of limited storage capacity against a huge requirement of vaccine phase- wise import and delivery on a well planned schedule is critical Necessity of effective and quality training at all level before campaign. Advocacy and planning meetings with different stakeholder at various level is useful to create awareness among the community. Timely formulation of a good micro-plan is key to achieving campaign success AEFI management system, daily monitoring of coverage data from vaccination centers to the district levels is crucial Necessity of experienced cold chain and logistic consultants	Commitment from the Government and parnter agencies is secured before the campaign Development of detail micro-plan for the campaign Training and orientation of all key professionals will be conducted in advance Conduction of advocacy and planning meetings will be considered before and during campaign Preparations for the cold chain requirements at national and district level Development of vaccine and logistics management and distribution plan

7.1.1 Epidemiology and disease burden for Measles-Rubella

Please select at least one of the following information sources to justify RCV diseases burden results:

Epidemiological information on burden of disease:

- ☑ 1 - Rubella data from the measles case-based surveillance system (including the age distribution of rubella cases)
- ☑ 2 - Rubella seroprevalence surveys
- ☐ 3 - Congenital Rubella Syndrome (CRS) burden information, e.g. retrospective search, modelled estimates for CRS burden, prospective surveillance
- ☐ 4 - Other

7.2.Requested for MR, 10 dose(s) per vial, LYOPHILISED campaign support

7.2.1. Summary for MR campaign support

Please give a summary of the cMYP and/or the MR, 10 dose(s) per vial, LYOPHILISED campaign introduction plan sections that refer to the introduction of MR, 10 dose(s) per vial, LYOPHILISED campaign. Outline the key points that informed the decision-making process (data considered etc):

cMYP has recognized the introduction of RCV in the national immunization schedule. Accordingly MR vaccine will be introduced to National immunization programme at 9 months in September 2012. At the same time MR vaccine will be offered to women at 15 years with TT first dose vaccination and measles second dose will be offered to children at 15-18 months. Since 2003, Bangladesh has strengthened measles surveillance. Initially it was outbreak based surveillance but improved to case based surveillance with laboratory confirmation of all cases in 2009. Data from routine surveillance from 2003 has provided substantial amount of data on rubella and measles epidemiology in Bangladesh. Accordingly, Serologically and epi linked rubella incidence in Bangladesh in 2011 is 37 per one million population. The incidence of rubella was 87 per one million population in the epidemic year of 2010. Age distribution of out breaks has shown that 83% of cases are less than 15 years in 2009 and 2010, and 77% of cases were less than 15 years in 2011. Age distribution of cases from measles outbreaks reported in 2011 has shown that 84% of cases are under 15 years. Accordingly campaign covering age group 9 months-15 years will reduce both rubella and measles virus circulation and enable to achieve measles and rubella elimination. The campaign would be supplementary to more than 90% evaluated MCV coverage for last 5 years, measles second dose, MR vaccination at 9 months and 15 years (for women). Once the MR camapign is conducted Bangladesh would have implemented all recomended immunization strategies for measles and rubella elimination. Bangladesh has a good surveillance system to monitor the progress

Please summarise (1) the waste management plan and (2) 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 if the supplies for the campaign will have any impact in the shipment plans for your routine vaccines and how it will be handled:

Waste management plan:<?xml:namespace prefix = o />

During the campaign filled safety boxes will be returned to vaccine storage centers at the end of each session together with the empty vaccine carrier and the tally sheet for the session. If incinerators are available in these centers, safety boxes will be incinerated. Where there are no incinerators, safety boxes will be burned in a pit under the supervision of the manager of the institue who will keep a written record of the process. After burning unburned remnants like needles will be covered by a layer of soil.

Cold chain capacity and readiness

In 2006, Bangladesh vaccinated 35 million children in three weeks during measles catch-up campaign. The key approaches used for enhancing cold chain capacity and management were

1. Hiring additional cold chain space of 420 cubic meters near Dhaka international

airport. Ensuring adequate power supply, temperature management and EPI cold chain engineers to this facility

2. Assessment of district and upazila level cold chain capacity to plan the phasing of vaccine supply from national level to districts

3. Mobilizing district and upazila level cold chain space out side the health department to prepare the ice packs. This enabled to use maximum cold chain space in health department to keep the vaccines.

External independent monitoring has shown that in all vaccination centers VVM was either in stage 1 or 2 and above approaches has worked well.

Bangladesh is planning to introduce Pneumococal vaccine in 2013. As per the recommendation of the EVM

assessment conducted in 2011 UNICEF is in process to increase the cold storage capacity to accommodate MCV2 and PCV10 by installing 10 WICs which will provide additional 97.5 cubic meters (net). After accommodating these vaccines there will be 29.5 cubic meter (net) excess space which will be used to accommodate some of the MR campaign vaccine. Total space required for MR campaign vaccine is 173 cubic meter (net) space. The shortage of space of (172.5-29.5) 143 cubic meter will be addressed by hiring cold store at the central level.

District level has 118 cubic meters net cold storage space at +2° to +8° which is adequate for the introduction of MCV2 and PCV10 vaccines. Sub-districts level has 177 cubic meters net cold storage space at +2° to +8° and after introduction of MCV2 and PCV10 vaccines there will be 132 cubic meter excess space. In addition WHO has provided 126 ILRs in 2011 and is in the process to procure 144 ILR and 30 Solar Refrigerators by 2012 which will increase the districts capacity by 9.7 cubic meters and sub-districts capacity by 35 cubic meters. So in total there will be 177 cubic meter (net) space available at the field level to accommodate MR campaign vaccine. Meanwhile there is ongoing improvement of national, district and sub-district level cold chain capacity through GAVI HSS funds and new vaccine introduction funds. With these improvements and implementing strategies used in 2006 campaign to meet the cold chain needs it would be possible to ensure cold chain requirements for the MR vaccination campaign to be held in last quarter of 2013.

7.2.2. Grant Support for Operational Costs of the MR Campaign

Please indicate in the tables below how the support Grant [1] will be used to support the operational costs of the campaign and other critical pre-introduction activities. GAVI's support may not be enough to cover the full needs so please indicate in the table below how much and who will be complementing the funds needed (refer to the cMYP and the MR, 10 dose(s) per vial, LYOPHILISED campaign introduction plan).

Table 7.2.2: calculation of grant to support the operational costs of the campaigns

Year of MR support	Target population vaccinated (from Table 5.3)	Share per population 9 months-15 years old in US$	Total in US$
2013	51,671,466	0.65	33,586,453

[1] The Grant will be based on a maximum award of 0.65 per cohort population

Cost (and finance) of the MR, 10 dose(s) per vial, LYOPHILISED campaign US$

Cost Category	Full needs for new vaccine introduction in US$	Funded with GAVI introduction grant in US$
	2013	2013
Training	2,746,830	0
Social Mobilization, IEC and advocacy	2,788,484	0
Cold Chain Equipment & Maintenance	5,671,287	0
Vehicles and Transportation	3,808,332	0
Programme Management	6,275,198	0
Surveillance and Monitoring	5,257,165	0
Human Resources	325,635	0
Waste Management	206,877	0
Technical Assistance	250,000	0
Planning	200,098	0
Volunteer incentives	2,145,958	0
Other (please specify)		
Finger Marker	289,916	
Improve Cold Chain Capacity at Central level	3,411,886	

Campaign evaluation (coverage evaluation survey)	208,845	
Total	**33,586,511**	**0**

Please describe others sources of funding if available to cover your full needs

7.2.3 Evidence of introduction of RCV in routine programme

Please provide evidence that the country can finance the introduction of Rubella-Containing-Vaccine (RCV) into the routine programme through one of the following:

- ☑ 1 - A commercial contract for purchase of MR/MMR (Meales Rubella/Meales Mumps Rubella) vaccine together with shipping documents, invoice, etc.
- ☑ 2 - Proof that RCV has been integrated into the cMYP with the budget line for vaccines increased to include purchase of RCV as part of the health sector budget to indicate that RCV funds are allocated
- ☑ 3 - A letter from the Minister of Finance or Budget ensuring additional funding for RCV purchase
- ☑ 4 - An MOU between government and donor(s) (or other written document that proves donor commitment) for at least one year for purchase of RCV for use in the routine programme
- ☐ 5 - Other

7.2.4 Introduction planning for RCV

Countries should describe their plan for introduction including surveillance activities:

Does Bangladesh's cMYP include a plan for the introduction of RCV into the national programme? **Yes**

Please describe a Plan Of Action (POA) for the introduction of RCV into the national programme or provide the POA as an attachment - Refer to section 10. Attachments. (Document N°)

Bangladesh Plan of Action (PoA) for measles and rubella elimination has evolved over the years from the national plan for sustainable measles mortality reduction to elimination. The comprehensive vaccination strategy for the introduction of RCV include:

<?xml:namespace prefix = o />

- Measles and rubella (MR) campaign to be conducted in last quarter of 2013 targeting children 9 months-15 years

- Replacing Measles containing vaccine (MCV1) at 9 months by Measles and rubella (MR) in the routine childhood vaccination programme from September 2012

- Bangladesh provides 5 doses of TT vaccine for women starting from 15 years in routine vaccination programme as a component of sustaining maternal and neonatal tetanus elimination status. From September 2012, this opportunity will be used to provide a single dose MR vaccine when women come for TT vaccine at the age of 15 years.

- Measles second dose will be given to children at 15-18 months

National MCV1 coverage is more than 90% and all districts have achieved more than 80% MCV1 coverage. Once MR vaccine will replace Measles vaccine, high routine immunization coverage for both measles and rubella vaccines will be maintained. If measles second dose coverage also increases as first dose coverage, that will ensure that children who do not get first dose as well who got first dose but did not develop immunity will be immunized. After 2013, based on epidemiology of measles and rubella necessity and timing of supplementary MR campaigns in the future will be decided.

Surveillance for rubella and measles would include:

Since 2009 case-based measles surveillance is conducted with serological confirmation for measles and rubella. Non measles suspected measles rate was more than 2 per 100,000 populations in successive years. Laboratory confirmation has been more than 80%

Sentinel surveillance for Congenital Rubella Syndrome (CRS) surveillance will be started in selected sites from fourth quarter of 2012. These sites will be pediatrics units, ophthalmology units, neonatology units, cardiology units and ENT units where CRS cases are likely to be reported

Adverse Event Following Immunization (AEFI) surveillance is well established in Bangladesh and 1197 AEFI were reported in 2011 and out of them 45 were severe AEFI. As per national guidelines all severe AEFI cases need to be fully investigated and in 2011, 98% has been investigated

Vaccine coverage monitoring and reporting

Micro plans are prepared before the beginning of the year. As per the micro plans immunization sessions are conducted. Immunization coverage is monitored by union in monthly upazila meetings and coverage of upazials is monitored by district in district monthly meetings. National level closely monitors the coverage by districts and upazila. In addition coverage evaluation surveys are conducted yearly by districts.

The communication strategy for the introduction of RCV

Comprehensive communication strategy targeting adolescents and school going children and their parents would be developed before the beginning of the MR campaign. In addition communication strategies for routine child hood immunization and TT vaccines will include rubella vaccination.

INSTRUCTIONS

Components of the POA/cMYP should include:

a. Comprehensive vaccination strategy for the introduction of RCV including a description of:

i. Initial Measles and rubella (MR) campaign

ii. Replacing Measles containing vaccine (MCV) with Measles and rubella (MR) / Measles, mumps, and rubella (MMR) in the routine childhood vaccination programme

iii. Strategies for targeting Women of Childbearing Age (WCBA), such as vaccination during routine services, post-partum, at 1st well baby visit, SIAs

iv. Linkage to the current routine immunisation schedule

v. Linkage to measles second dose, if applicable

vi. Description of how the country plans to continue to maintain high MR/MMR vaccine coverage either through routine immunisation or through Supplementary Immunization Activities (SIAs)

b. A brief description of the following surveillance activities:

i. Integration of Rubella surveillance with case-based measles surveillance

ii. Congenital Rubella Syndrome (CRS) surveillance or plans to establish sentinel site CRS surveillance

iii. Adverse Event Following Immunization (AEFI) surveillance

c. Vaccine coverage monitoring and reporting

d. The communication strategy for the introduction of RCV

7.2.5 Measles surveillance indicators

Please provide information on the following indicators of the quality of measles surveillance for at least two years prior to application (if available):

Surveillance indicator	2010	2011
Reporting rate at national level 1)	10	5
	100,000	100,000
Laboratory confirmation rate (%) 2)	81	92

Note:

1) Reporting rate at national level = number of discarded measles cases per 100,000 population per year

2) Laboratory confirmation rate (%) = number of suspected cases with specimens collected for testing divided by the number of suspected cases not confirmed through epidemiological linkage

7.2.6 Rubella Containing Vaccine introduction Grant

Has a Rubella Containing vaccine already been introduced nationally on a routine basis? **Yes**

8. Procurement and Management

8.1. Procurement and Management of New and Under-Used Vaccines Routine

No NVS Routine Support is requested

8.2. Procurement and Management for NVS Preventive Campaign(s)

8.2.1. Procurement and Management for MR, 10 dose(s) per vial, LYOPHILISED campaign

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

Vaccine and logistics will be procured by UNICEF through their procurement mechanism. Once vaccines reach Bangladesh, logistic management will be done by National EPI with the technical assistance of UNICEF and WHO.

b) Please indicate when you are planning to conduct the campaign (month and year) and how the campaign is going to be rolled out (e.g. in different phases or one time).

Campaign will be conducted in last quarter of 2013 and it will be one time

c) Please outline how coverage of the new vaccine will be monitored and reported (refer to the cMYP and/or the MR, 10 dose(s) per vial, LYOPHILISED campaign introduction plan)

The coverage of the campaign will be monitored on daily basis. Assigned first line supervisor will visit areas covered by the vaccinator of the previous day and conduct a survey in 20 house holds to identify any missed target population. In addition, second line supervisors from upazila, district, division and HQ will also conduct house hold survey by using check list. Independent observers will also monitor the programme by using a checklist. Analysis of these monitoring checklist will help to identify areas with low coverage and to take appropriate action.

The vaccinator from each of the center will send the tally sheet to the upazila health complex at the end of the session. The upazila manager will compile all these reports and calculate the coverage against the target. The coverage report of the upazilas will be sent to district and from the district to national level on daily basis.

8.3. Vaccine Management (EVSM/EVM/VMA)

Did the country have Effective Vaccine Management Assessment (VMA) in the past? **Yes**

When was the last VMA conducted? **March 2004**

Did the country have Effective Vaccine Store Management (EVSM) in the past? **Yes**

When was the last EVSM conducted? **March 2004**

Did the country have Effective Vaccine Management (EVM) in the past? **Yes**

When was the EVM conducted? **April 2011**

If your country conducted either EVSM or VMA in the past two years, please attach relevant reports. (Document N°13)

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 Effective Vaccine Store Management (EVSM) and Vaccine Management Assessment(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.

Calibration of temperature monitoring device plan has been developed

Works are under way to increase the capacity of cold space and dry space at central EPI

Plan has been developed to install fire extinguisher at EPI store

SOP on vaccine management updated and planned for refreshers training

Introduced uniform formula for forecasting of vaccine needs at all level

Introduced new batch cards and vaccine stock registers

Does the country plan to conduct an Effective Vaccine Management (EVM) Assessment in the future? **Yes**

When is the next Effective Vaccine Management (EVM) Assessment planned? **March 2014**

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

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

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

Members of ICC meeting held on 27 August 2012 recommended to conduct MR vaccination campaign for children 9 months-15 years as part of overall plan for measles and rubella elimination in <?xml:namespace prefix = st1 />Bangladesh

10. Attachments

10.1. List of documents attached to this proposal

Document Number	Document	Section	Mandatory	File
1	MoH Signature (or delegated authority) of Proposal		✓	Signature_MoH & MoF.pdf File desc: MoH Signature Date/time: 8/28/2012 3:30:19 AM Size: 283179
2	MoF Signature (or delegated authority) of Proposal		✓	Signature_MoH & MoF.pdf File desc: Mof Signature Date/time: 8/28/2012 3:30:35 AM Size: 283179
3	Signatures of ICC or HSCC or equivalent in Proposal		✓	Signature_ICC member.pdf File desc: Signatures of ICC members Date/time: 8/29/2012 6:26:00 AM Size: 304759
4	Minutes of ICC/HSCC meeting endorsing Proposal		✓	ICC meeting minutes.pdf File desc: Minutes of ICC meeting Date/time: 8/29/2012 6:26:20 AM Size: 541384
5	comprehensive Multi Year Plan - cMYP		✓	cMYP Bangladesh 2011-2016.pdf File desc: Bangladesh cMYP 2011-2016 Date/time: 8/25/2012 2:53:00 AM Size: 2908386
6	cMYP Costing tool for financial analysis		✓	BNG cMYP Costing 2011 Final.xls File desc: cMYP Costing Date/time: 8/25/2012 3:02:01 AM Size: 4118016
7	Plan for NVS introduction (if not part of cMYP)	5.1	✓	Implemetation Plan.pdf File desc: Implementation plan Date/time: 8/29/2012 6:26:47 AM Size: 231883
8	Improvement plan based on EVM		✓	EVM Improvement Plan.pdf File desc: EVM Improvement Plan Date/time: 8/28/2012 1:07:46 AM Size: 550060
11	Evidence of introduction of RCV in routine programme	7.c.3	✗	Shipping and commercial Invoice.pdf File desc: Evidence of introduction of RCV in routine programme Date/time: 8/30/2012 5:44:16 AM Size: 1187395
				Summmary of reply to conditions.pdf

14	Summary of response to conditions	3	✓	File desc: Date/time: 1/22/2013 3:46:51 AM Size: 988211

11. Annexes

Annex 1 - NVS Routine Support

No NVS Routine Support is requested

Annex 2 - NVS Routine – Preferred Second Presentation

No NVS Routine – Preferred Second Presentation requested this year

Annex 3 - NVS Preventive campaign(s)

Annex 3.1 - NVS Preventive campaign(s) (MR, 10 dose(s) per vial, LYOPHILISED)

Table Annex 3.1 C: Summary table for CAMPAIGN MR, 10 dose(s) per vial, LYOPHILISED

	Data from		2013
Total campaign population	Table 5.3.1	#	51,671,466
Immunization coverage	Table 5.3.1	%	100.00 %
Number of persons to be vaccinated	Table 5.3.1	#	51,671,466
Number of doses per persons	Parameter	#	1
Estimated vaccine wastage factor	Table 5.3.1	#	1.18
Number of doses per vial	Parameter	#	10
AD syringes required	Parameter	#	Yes
Reconstitution syringes required	Parameter	#	Yes
Safety boxes required	Parameter	#	Yes
Vaccine price per dose	Table Annexes 4A	$	0.524
AD syringe price per unit	Table Annexes 4A	$	0.0465
Reconstitution syringe price per unit	Table Annexes 4A	$	0.037
Safety box price per unit	Table Annexes 4A	$	0.58
Freight cost as % of vaccines value	Table Annexes 4B	%	13.00 %
Freight cost as % of devices value	Parameter	%	10.00 %

Table Annex 3.1 D: Estimated number of MR, 10 dose(s) per vial, LYOPHILISED associated injection safety material and related co-financing budget (page 1)

		Formula	GAVI
			2013
B	Number of persons to be vaccinated with the first dose		51,671,466
C	Number of doses per persons		1
D	Number of doses needed	B x C	51,671,466
E	Estimated vaccine wastage factor	Wastage factor table	1.18
F	Number of doses needed including wastage	D x E	60,972,330
G	Vaccines buffer stock	0	0
I	Total vaccine doses needed	(((F + G) / Vaccine package size) + 1) * Vaccine package size	60,972,430
J	Number of doses per vial	Vaccine parameter	10
K	Number of AD syringes (+ 10% wastage) needed	(D + G) x 1.11	57,355,328
L	Reconstitution syringes (+ 10% wastage) needed	I / J * 1.11	6,767,940
M	Total of safety boxes (+ 10% of extra need) needed	(K + L) /100 * 1.11	711,769
N	Cost of vaccines needed	I x g	0.524
O	Cost of AD syringes needed	K x ca	2,667,022.752
P	Cost of reconstitution syringes needed	L x cr	250,414
Q	Cost of safety boxes needed	M x cs	412,827
R	Freight cost for vaccines needed	N x fv	0
S	Freight cost for devices needed	(O+P+Q) x fd	333,027
T	Total fund needed	(N+O+P+Q+R+S)	35,612,844.752

Note: There is no cofinancing for NVS preventive campaigns

Annex 4

Table Annex 4A: Commodities Cost

Vaccine	Presentation	2013	2014	2015	2016
DTP-HepB-Hib, 1 dose(s) per vial, LIQUID	1	2.017	1.986	1.933	1.927
DTP-HepB-Hib, 10 dose(s) per vial, LIQUID	10	2.017	1.986	1.933	1.927
DTP-HepB-Hib, 2 dose(s) per vial, LYOPHILISED	2	2.017	1.986	1.933	1.927
HPV bivalent, 2 dose(s) per vial, LIQUID	2	5.000	5.000	5.000	5.000
HPV quadrivalent, 1 dose(s) per vial, LIQUID	1	5.000	5.000	5.000	5.000
Measles, 10 dose(s) per vial, LYOPHILISED	10	0.242	0.242	0.242	0.242
Meningogoccal, 10 dose(s) per vial, LIQUID	10	0.520	0.520	0.520	0.520
MR, 10 dose(s) per vial, LYOPHILISED	10	0.524	0.555	0.578	0.606
Pneumococcal (PCV10), 2 dose(s) per vial, LIQUID	2	3.500	3.500	3.500	3.500
Pneumococcal (PCV13), 1 dose(s) per vial, LIQUID	1	3.500	3.500	3.500	3.500
Rotavirus, 2-dose schedule	1	2.550	2.550	2.550	2.550
Rotavirus, 3-dose schedule	1	3.500	3.500	3.500	3.500
Yellow Fever, 10 dose(s) per vial, LYOPHILISED	10	0.900	0.900	0.900	0.900
Yellow Fever, 5 dose(s) per vial, LYOPHILISED	5	0.900	0.900	0.900	0.900

Note for HPV and MR: These prices are indicative only as GAVI has not procured HPV and MR vaccines for GAVI countries yet. Prices will be finalised through tender processes in Q3. GAVI will only fund HPV vaccines if an acceptable price reduction is secured from the current price indicated. The MR price is based on the current price to UNICEF

Supply	Form	2013	2014	2015	2016
AD-SYRINGE	SYRINGE	0.047	0.047	0.047	0.047
RECONSTIT-SYRINGE-PENTAVAL	SYRINGE	0.037	0.037	0.037	0.037
RECONSTIT-SYRINGE-YF	SYRINGE	0.037	0.037	0.037	0.037
SAFETY-BOX	SAFETYBOX	0.580	0.580	0.580	0.580

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 liquid)

Table Annex 4B: Freight cost as percentage of value

Vaccine Antigen	Vaccine Type	No Threshold	500,000$	
			<=	>
DTP-HepB-Hib	HEPBHIB		23.80 %	6.00 %
HPV bivalent	HPV	3.50 %		
HPV quadrivalent	HPV	3.50 %		
Measles	MEASLES	14.00 %		
Meningogoccal	MENINACONJUGATE	10.20 %		
MR	MR	13.20 %		

Pneumococcal (PCV10)	PNEUMO	3.00 %		
Pneumococcal (PCV13)	PNEUMO	6.00 %		
Rotavirus	ROTA	5.00 %		
Yellow Fever	YF	7.80 %		

Table Annex 4C: Low - Minimum country's co-payment per dose of co-financed vaccine.

Vaccine

Table Annex 4D: 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

Vaccine	Vaccine wastage rate	VaccineWastageFactor
MR, 10 dose(s) per vial, LYOPHILISED	15 %	1.18

Table Annex 4E: 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	
Diphtheria-Tetanus	DT	liquid	IM	3	10	3	
Tetanus-Diphtheria	Td	liquid	IM	2	10	3	
Tetanus Toxoid	TT	liquid	IM	2	10	3	
Tetanus Toxoid	TT	liquid	IM	2	20	2.5	
Tetanus Toxoid UniJect	TT	liquid	IM	2	Uniject	12	
Measles	Measles	lyophilized	SC	1	1	26.1	20
Measles	Measles	lyophilized	SC	1	2	13.1	13.1
Measles	Measles	lyophilized	SC	1	5	5.2	7
Measles	Measles	lyophilized	SC	1	10	3.5	4
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

Measles-Rubella freeze dried	MR	lyophilized	SC	1	10	2.5	4
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
Measles-Mumps-Rubella freeze dried	MMR	lyophilized	SC	1	10	3	4
Polio	OPV	liquid	Oral	4	10	2	
Polio	OPV	liquid	Oral	4	20	1	
Yellow fever	YF	lyophilized	SC	1	5	6.5	7
Yellow fever	YF	lyophilized	SC	1	10	2.5	3
Yellow fever	YF	lyophilized	SC	1	20	1.5	2
Yellow fever	YF	lyophilized	SC	1	50	0.7	1
DTP-HepB combined	DTP-HepB	liquid	IM	3	1	9.7	
DTP-HepB combined	DTP-HepB	liquid	IM	3	2	6	
DTP-HepB combined	DTP-HepB	liquid	IM	3	10	3	
Hepatitis B	HepB	liquid	IM	3	1	18	
Hepatitis B	HepB	liquid	IM	3	2	13	
Hepatitis B	HepB	liquid	IM	3	6	4.5	
Hepatitis B	HepB	liquid	IM	3	10	4	
Hepatitis B UniJect	HepB	liquid	IM	3	Uniject	12	
Hib liquid	Hib_liq	liquid	IM	3	1	15	
Hib liquid	Hib_liq	liquid	IM	3	10	2.5	
Hib freeze-dried	Hib_lyo	lyophilized	IM	3	1	13	35
Hib freeze-dried	Hib_lyo	lyophilized	IM	3	2	6	
Hib freeze-dried	Hib_lyo	lyophilized	IM	3	10	2.5	3
DTP liquid + Hib freeze-dried	DTP+Hib	liquid+lyop.	IM	3	1	45	
DTP-Hib combined liquid	DTP+Hib	liquid+lyop.	IM	3	10	12	
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	
DTP-HepB-Hib liquid	DTP-HepB+Hib	liquid+lyop.	IM	3	2	11	
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
Meningitis A/C	MV_A/C	lyophilized	SC	1	50	1.5	3
Meningococcal A/C/W/	MV_A/C/W	lyophilized	SC	1	50	1.5	3
Meningococcal A/C/W/Y	MV_A/C/W/Y	lyophilized	SC	1	10	2.5	4
Meningitis W135	MV_W135	lyophilized	SC	1	10	2.5	4
Meningitis A conjugate	Men_A	lyophilized	SC	2	10	2.6	4
Japanese Encephalitis	JE_lyo	lyophilized	SC	3	10	15	
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	
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	
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	
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 Papilomavirus vaccine	HPV	liquid	IM	3	1	15	
Human Papilomavirus 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	

12. Banking Form

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

Name of Institution (Account Holder):	Ministry of Health and Family Welfare, Bangladesh		
Address:	Bangladesh Secretariat, Dhaka-1000		
City Country:	Dhaka, Bangladesh		
Telephone no.:	+88-02-7169637; 9880530 (Office)	**Fax no.:**	+88-02-8821914; +88-02-9559216
		Currency of the bank account:	USD Account
For credit to:			
Bank account's title:	Global Alliance for Vaccines and Immunization (GAVI)		
Bank account no.:	FCAD 00011		
Bank's name:	Sonali Bank, Local Office, 35-44, Motijheel C/A, Dhaka, Bangladesh		

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

By who is the account audited? Foreign Aided Project Audit Directorate

Signature of Government's authorizing official

		Seal
Name:	Md. Shafiqul Islam Laskar	
Title:	Joint Secretary (PH&WHO), MOH&FW, Bangladesh Secretariat, Dhaka	
Signature:		
Date:	28/08/2012	

FINANCIAL INSTITUTION		**CORRESPONDENT BANK (In the United States)**
Bank Name:	Sonali Bank	Standard Chatered bank
Branch Name:	Sonali Bank, Local Office,	Trade Services, 1 Evertrust Plaza, Suite 1101, 11th Floor
Address:	35-44, Motijheel C/A, Dhaka-1000, Bangladesh	Jersey City, New Jersey 07302, USA
City Country:	Dhaka, Bangladesh	New Jersey, USA
Swift Code:	BSONBDDH	SCBLUS33
Sort Code:		
ABA No.:		62621 scbusaui
Telephone No.:	+88-02-9550426-36; +88-02-9560962	(023) 420117,
FAX No.:	+88-02-9568002; +88-02-9561410	

I certify that the account No FCAD 00011 is held by Global Alliance for Vaccines and Immunization (GAVI) at this banking institution

The account is to be signed jointly by at least 2 (number of signatories) of the following authorized signatories:

1		
	Name:	Md Shafiqul Islam Lasker
	Title:	Joint Secretary (PH&WHO), MOH&FW, Bangladesh Secretariat, Dhaka
2		
	Name:	Dr. Md. Tajul Islam A Bari
	Title:	Programme Manager-EPI & Surveillance, DGHS, MOH&FW
3		
	Name:	
	Title:	

Name of bank's authorizing official
Md Kamrul Hasan Bhuiyan
Signature:
Date: 8/28/2012 12:00:00 AM
Seal: