

### **GAVI Alliance**

# **Application Form for Country Proposals**

For Support to:

Routine New Vaccines Support Preventive Campaign Support

Submitted by

# The Government of

# Myanmar

Date of submission: 6 October 2013

**Deadline for submission: 15 September 2013** 

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

Form revised in 2013

2012

End Year 2016

(To be used with Guidelines of June 2013)

Please submit the Proposal using the online platform

https://AppsPortal.gavialliance.org/PDExtranet

Start Year

Enquiries to: <a href="mailto:proposals@gavialliance.org">proposals@gavialliance.org</a> 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 C Supp		MR, 10 dose(s) per vial, LYOPHILISED	2014	2014	
Routine New Supp		Pneumococcal (PCV10), 2 dose(s) per vial, LIQUID	2016	2016	

[1] GAVI may not be in a position to accommodate all countries first product preferences, and in such cases, GAVI will contact the country and partners to explore alternative options. A country will not be obliged to accept its second or third preference, however GAVI will engage with the country to fully explore a variety of factors (such as implications on introduction timing, cold chain capacity, disease burden, etc.) which may have an implication for the most suitable selection of vaccine. If a country does not indicate a second or third preference, it will be assumed that the country prefers to postpone introduction until the first preference is available. It should be noted that this may delay the introduction in the country.

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<u>Table Annex 1.1 A Rounded up portion of supply that is procured by the country and estimate of relative costs in US</u>\$

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Table Annex 1.1 C Summary table for vaccine Pneumococcal (PCV10), 2 dose(s) per vial, LIQUID

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Annex 2 - NVS Routine - Preferred Second Presentation

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

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Table Annex 4A: Commodities Cost

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### 12. Banking Form

## 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, including the reason for the choice of presentation
  - o Projected month and year of introduction of the vaccine
- 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 and progress on EVM improvement plan
- The nature of stakeholders' participation in developing this proposal
  - Inter-Agency Coordinating Committee
  - Partners

is applying to GAVI for for following supports <?xml:namespace prefix = o />

- 1) Measles Rubella catch up campaign to be conducted in 2014. This will be one time nation wide campaign in the last quarter of 2014 targeting children from age of 9 months to 18 years targeting a total of 22,973,525 children and young adolescents
- 2) Pneumococcal vaccine (PCV 10) to be introduced in 2016

#### MR Campaign :

MMR Birth cohort is estimated in 2013 is 1,519,321 and for 2014 the cohort is 1,527, 254. Target age of 9 months-18 year population for MR campaign in 2014 is, 22.973.525. The target age group has been decided based on the country current epidemiology for measles and rubella disease prevalence.

Total amount of operational funds for MR campaign requested, will be 14,932,791 US\$ for the operational costs (@0.65 USD per child). MR Lyophilized 10 dose vaccine is requested. Total doses requirement is 27,568, 230 doses calculated using 15% wastage rate with a target of 100 % coverage .The vaccine as along with AD syringes, mixing syringes and safety boxes should be supplied through UNICEF Myanmar. After the SIA MR will be introduced in routine EPI and <?xml:namespace prefix = st1 ns = "urn:schemas-microsoft-com:office:smarttags" />Myanmar is requesting for Vaccine introduction grant of USD \$ 1,216, 846 (calculated @ 0.80 per child). MOH is requesting these funds to be provided to MOH Myanmar through WHO

For PCV 10 pneumococcal vaccine the country is requesting 5,196,966 doses of vaccine for 2016. This is based on 2016 surviving infants of 1,46,6516 (3 doses, 90% coverage for PCV, and wastage factor of 1.05 and a buffer of 25%)

The current Under Five Mortality Ratio of Myanmar is >52 /1000 live birth (as per 2011 data) and in order to reach MDGs, pneumococcal vaccine as one of the important interventions needed to protect the lives of young children. Pneumonia is one of the top five causes of death in under five children. This is also out lined in Myanmar New National Health Policy. A comprehensive Pneumonia control plan will be developed in 2015 along with all relevant other sectors such as nutrition, MCH, air pollution etc

PCV introduction will be done after an EVM assessment in 2014, and an extensive expansion of current cold

chain capacity. trainings and advocacy plus developing a comprehensive Plans are on going to expand the cold

chain capacity in 2014-2015 to ensure that country has adequate Cold chain space before introduction on PCV in 2016.

Myanmar EPI achieved significant success in many areas of immunization programme in terms of reaching high coverage with traditional vaccines via routine immunization and eradication of polio and control of measles via supplementary immunization campaigns and second dose in routine EPI. The country achieved MNT elimination in 2010 by a validation survey process coordinated by WHO HQ. There has been no wild polio virus reported since 2007. The country successfully introduced Hep B in 2005 and Hib vaccines as Penta valent with GAVI support in 2012 and reached > 80 % coverage of DPT3 in since 2007. The country also conducted a very successful follow up measles Immunization campaign in 2012 reaching >95% coverage from the targeted 6.4 million children ( 9 months to 5 years) Subsequently the EPI Program with assistance of GAVI introduced second dose of Measles vaccine at the age of 18 months. Now country has 2 measles vaccine in its EPI program and would like to introduce Rubella vaccine as MR at the age of 9 months. The rubella vaccine cost will be fully funded by government budget in 2015 after the completion of MR catch-up campaign in 2014.

Once the MR campaign is conducted by end of 2014,. Myanmar it would have implemented all recommended immunization strategies for measles and rubella elimination. Myanmar has a good surveillance system to monitor the progress

There are a many hard to reach areas in MMR and program is innovating different new mechanisms to reach these populations by REC, reaching every community in open season, expansion of cold chain capacity and setting up of Cold chain in locations, engagement of new INGO, NGO in EPI and continued advocacy at all levels, supported by a strong supervision and monitoring plan.

An updated cMYP 2012-2016 reflects Myanmar EPI programs priorities, objectives and strategies based on global goal and targets of eradication, elimination and reduction and control of vaccine preventable diseases as highlighted in Global Vaccine Action Plan.

The country conducted an EVM assessment in 2011, which should that the current cold chain capacity is adequate for traditional vaccines including Penta and measles 2nd dose. With the one Measles dose switching to MR there will not be any additional requirement for Cold chain capacity, for MR campaign the vaccine will be stored at national and sub national cold rooms, additional space will be hired from private sector to temp store this vaccine in Yangon. A temperature monitoring and temperature mapping studies were done in 2012 and a cold chain improvement plan has been developed. Country has introduced new generation temp monitoring devices such as Freeze Tag and Fridge tags, data loggers to effectively monitor cold chain specially freezing of vaccines

All immunization stakeholders fully participated in developing this proposal. Proposal has been developed through an intensive and also 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 /revised version of the cMYP 2012-2016 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 and these vaccines were recommended by NCIP (independent technical advisory body).

## 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 Myanmar 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 GAVI support for:

Pneumococcal (PCV10), 2 dose(s) per vial, LIQUID routine introduction MR, 10 dose(s) per vial, LYOPHILISED preventive campaigns

The Government of Myanmar 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) 6.2.4 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) 6.2.3 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**.

The payment for the first year of co-financed support will be around **January 2016** for Pneumococcal (PCV10), 2 dose(s) per vial, LIQUID.

Please note that this application will not be reviewed or recommended for approval by the Independent Review Committee (IRC) without the signatures of both the Minister of Health and Minister of Finance or their delegated authority. These signatures are attached as DOCUMENT NUMBER: 1 and 2 in Section 10. Attachments.

Minister of Health (or delegated authority)		Minister of Finance (or delegated authority)	
Name	Professor Dr. Pe Thet Khin	Name	U Win Oo (Delegated authiority)
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. Kyaw Kan Kaung	Deputy Director (EPI) , DoH	+95-67-420437	kyawkankaungmo@gmail.com

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

Agencies and partners (including development partners and NGOs) supporting immunisation services are coordinated 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	ICC	
Year of constitution of the current committee	2000	
Organisational structure (e.g., sub-committee, stand-alone)	Stand Alone	
Frequency of meetings	3-4 times per year	

The Terms of Reference or Standard Operating Principles for the ICC, including details on the ICC membership, quorum, dispute resolution process and meeting schedules is attached as DOCUMENT NUMBER: 4.

Major functions and responsibilities of the ICC/HSCC:

In Myanmar Inter-agency Coordinating Committees (ICC) is chaired byDirector General Health, DOH, and Ministry of Health Myanmar. The ICC hasbeen formed to improve coordinationamong partners in support of immunization programs and control ofvaccine-preventable diseases, The member ship of the ICC was revised in 2012with inclusion of more INGO, NGO and other relevant partners, Myanmar Maternaland Child Welfare associations.

Every year ICC meets 3-4 times to review the progress and performance, identify gaps and address needs to ensure EPI is well supported.

The following Major Functions are undertaken by the ICC

- 1) Leadership and active participation from the MOH to guide the EPI program
- 2) Collective monitoring andevaluation of Immunization activities.
- 3) Input and assistance from otherMOH departments, like MCH, nutrition, Health System Strengthening, Planning, Finance Primary Health care unit etc. UN agencies like WHO and UNICEF for appropriatedecision-making for support and program continuity. This includes jointCollaboration, joint prioritization, the establishment of common goals andobjectives, and harmonized work plans with MOH under the guidance of NationalHealth policy
- 4) Advocacy for Resourcemobilization internally as well as by donors
- 5) Review and approve the GAVIsupported activities related to EPI
- 6) Review needs for SupplementaryImmunization activity or other additional immunization activity. Such as NID,SIA, measles catch up , rubella catch up etc.
- 7) Coordinated Implementation and Monitoring
- 8) Review and endorse CEU plansfor disease burden study, cold chain assessment, or new vaccine introduction, evaluations etc
- 9) Any other issues whereImmunization program needs attention

Please describe how partners have provided support in preparation of the proposal:

All relevent partners formally and informally contacted. Technical staff fron WHO and UNICEF country office contribute for the proposal.

ICC and NCIP members contribute for the development of the proposal.

## 4.1.3. Signature Table for the Coordinating Committee for Immunisation

We the members of the ICC, HSCC, or equivalent committee [1] met on the 03/07/2013 to review this proposal. At that meeting we endorsed this proposal on the basis of the supporting documentation which is attached. The minutes of the meeting endorsing this proposal are attached as Document number 5. The signatures endorsing the proposal are attached as Document number 6 (please use the list for signatures in the section below).

Please refer to Annex D of the Guidelines for more information on ICCs.

Function	Title / Organisation	Name	Please sign below to indicate the attendance at the meeting where the	to indicate the endorsement of
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			proposal was endorsed	where the proposal was discussed
Chair	Director General	Dr. Min Than Nyunt		
Secretary	EPI Manager	Dr. Kyaw Kan Kaung		
Members	List Attacehed	List Attacehed		

By submitting the proposal we confirm that the quorum has been met. Yes

The minutes from the three most recent ICC meetings are attached as DOCUMENT NUMBER: 7.

## 4.2. National Immunization Technical Advisory Group

Has a NITAG been established in the country? Not selected

## 5. Immunisation Programme Data

## **5.1 Background information**

Please complete the table 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 10. Please attach the cMYP costing tool as DOCUMENT NUMBER 11.
- Please attach relevant Vaccine Introduction Plan(s) as DOCUMENT NUMBER: 12
- 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.

Please use the most recent data available and specify the source and date.

	Figure	Year	Source
Total population	62,427,473	2012	EPI,CSO
Infant mortality rate (per 1000)	37	2012	Health in Myanmar
Surviving infants[1]	1,454,842	2012	c MYP 2012-2016
GNI per capita (US\$)	46	2009	Myanmar Health Statistics
Total Health Expenditure (THE) as a percentage of GDP	2 %	2009	National Health Account Govt of Myanmar
General government expenditure on health (GGHE) as % of General government expenditure	10 %	2010	National Health Account,WHO

[1] Surviving infants = Infants surviving the first 12 months of life

#### 5.1.1 Lessons learned

#### **Routine New Vaccines Support**

If new or under-used vaccines have already been introduced in your country, 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 or actions taken to address them. Please refer to previous Post Introduction Evaluations (PIE), if applicable.

Lessons Learned	Action Points
People awareness should start well in advance on the	
introduction of new vaccine	Trainings should be done 2 months before NVI
	All formats, Imm cards, registers posters, IEC materials take time to
NVI is a good opportunity to strengthen all aspects of EPI	be revised should be done 2-3 months in advance and sent to HE
program, raise EPI profile	well in advance
AEFI is more of a scare , but still needs attention	□Old Immunization un used cards , guidelines, formats , posters should be called back to district level to avoid confusion
Cold chain training is as important as tochnical trainings for	micro plans should be revised to incorporate new areas as a tool to
Cold chain training is as important as technical trainings for micro planning, injection safety, etc	increase coverage
Thicro planning, injection salety, etc	□Dos and don't are needed at HC level
Reduction in wastage rates is not easy	and don't are needed at the level
specially in remote and HRA areas where session size is small	□Involve Local authorities in planning for NVI
	ı ő
HW need more trainings on prevention of freezing of vaccine,	☐Impact monitoring studies should be planned
and how to use new temp monitoring tools	□Coverage evaluation is must to verify real coverage
HW feel happy / motivated to give new vaccine to community	□New temp monitoring tools need SOP / additional guidelines in
Community acceptance is good only if advocacy is good.	enough quantitity
Local authorities should also be advocated on NVI	
Drop out are reduced if number of injections are decreased	
Vaccinating partially vaccinated children ( who got 1 or 2 DTP)	

with Penta was not clear	
PIE for Penta has been planned for Q1 of 2014	

## Preventive campaign support

If campaigns with MR vaccines have already been conducted in your country, please give details of the lessons learned, specifically for: storage capacity, protection from additional freezing, staff training, cold chain, logistics, coverage, wastage rate, etc, and suggest action points to address them in future campaigns.

Lessons Learned	Action Points
1. Geographical analysis of population is needed for good micro plan 2. Good number of trainer need for good quality training 3. Practise of waste management system in routine EPI is crucial 4. Good AEFI management system could help to overcome any unwanted situation 5. Cold chain and logistic management plan and implementation is crucial for program 6. Local level initiatives can make a differences 7. HAs, BHSs should be oriented about main basic themes and strategies through monthly meeting before going to data collection 8. Creation of good number of trainer 9. Separate training for 1st line supervisors 10. Strong monitoring and supervision at sub national level 11. Need to provide special initiative for Hard to reach areas 12. Accurate budgeting	Detailed micro plan , grass root level planning at village, Health center is key to successful SIA Planning should start at least 6 months in advance Inter ectoral coordination is very challenging and needs more time and advocacy Multilingual IEC material are needed in community and sshould be ready well in time HW trainings are effective only when they are trained by well trained trainers and good simple training materials Anti shock kits (AEFI kits) should be ready available at all vaccination post in SIA and routine EPI sessions Media briefing is good initiative Post SIA monitoring should be part of SIA planning Volunteers should be indentified well in Medical association should be part of planning, implementation and monitoring process Bottom up planning for budget, no uniform formula will work

## 5.1.2 Health planning and budgeting

Please provide information on the planning and budgeting cycle in your country

Health budgets cycle is from April to March every year, how ever the National health planning is for 5 years (2012-2016) plus an annual work plan for each sub area of work, such as EPI has 5 year c MYP 2012-2016 plus an annual work plan . Work plans are flexible and can be updated, modified based on performance and needs and are flexible

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

Myanmar National Health Plan 2012-2016

#### Ministry of Health

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

Yes, the present c MYP ( 2012- 2016) has been updated to incorporate all the changes as being proposed in the application and reflects the current plan.

Please indicate the national planning budgeting cycle for health

Myanmar health budget planning cycle is from April to March every year and is approved by Ministry of Health.

Please indicate the national planning cycle for immunisation

EPI annual plans are from January to Decemberafter review of last years performance

## 5.1.3 Preparatory activities

Please provide an outline of all preparatory activities for vaccine(s) introduction

MR and PCV introduction plan attached

#### 5.1.4 Gender and equity

Please describe any barriers in access to immunisation services that are related to geographic, socioeconomic and/or gender equity and actions taken to mitigate these barriers. Highlight where these issues are addressed in the vaccine introduction plan(s).

In Myanmar Immunization services are provided free of cost for all children, however there are hard to reach areas, with geographical and social barriers. EPI program has been

successfully able to reach such communities by developing innovative strategies such as Reaching every community (REC) plans, engagement of local NGO, and INGO and

integration of EPI with other health program. Under REC additional funds / operational cost is provided to Health workers to cover hard to reach areas in open season and give services to the remote populations, such areas are regularly updated and included in township annual plans. Also as more NGO are now operational in Myanmar they are assisting in reaching to communities in HRA / border areas and conflict or security compromised areas, this has been possible only in recent months/ years with the new government policies. In the MR campaign and PCV introduction plans these issues have been well identified and plans are in place to address them. Inter sectoral support and cooperation will be involved

Discuss how equity issues (geographic, socio-economic and/or gender) are being taken into account in the design of social mobilisation and other strategies to increase immunisation coverage. Highlight where these issues are addressed in the vaccine introduction plan(s).

In Myanmar there is no gender discrimination, the male to female population ratio is nearly 50:50 equal, in this scenario the program provided free vaccination to all children in all religions, ethnicity and locations. Also VPD surveillance data does not show any large gender difference in disease prevalence's, social mobilization efforts are carried in all parts of country, IEC materials are developed in local languages and dialects to address the needs of local community specifically in border areas. All these issues are being addressed in the current MR campaign and PCVintroduction plans.

Please indicate if sex disaggregated data is collected and used in immunisation routine reporting systems.

Sex dis aggregated data is not collected, however there are plans in MOH to start this data collection in 2015. (after general census)

Is the country currently in a situation of fragility (eg. insecurity, conflict, post-conflict, refugees/and or displaced persons and recent, current or potential environmental disaster, such as flooding, earthquake or drought)? If Yes, please describe how these issues may impact your immunisation programme, planning for introduction of routine vaccines or campaigns and financing of these activities.

Yes Myanmar has small limited areas in border to China, Bangladesh where the IDP areexisting, Myanmar situation is changingvery rapidly, the government polices are changing so that more INGO / NGO areengaged in delivering Health services including EPI, more areas are nowaccessible to the government staff to deliver health services, there is peacetalks. Under the new government set up, local authorities are being given responsibility to seek coordination, collaboration with local communities inplanning, and delivery of health services, including EPI. Areas which are very difficulty are being reached by periodic campaign approach to ensure each community as at least four contacts per year to provide all antigens to children by age of one year.

## 5.1.5 Data quality

Please attach a data quality assessment report, if one has been completed within the previous 36 months (DOCUMENT NUMBER : 13). If available, an improvement plan and progress report on the implementation of the improvement plan should also be submitted (DOCUMENT NUMBER : 14, DOCUMENT NUMBER : 15).

#### 5.1.6 MCV Immunisation coverage

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

#### Table 5.1.6: MCV Immunisation coverage

Coverage	2005	2006	2007
----------	------	------	------

	Administrative(1)	WHO/UNICEF(2)	Administrative(1)	WHO/UNICEF(2)	Administrative(1)	WHO/UNICEF(2)
Measles 1st dose (%)	72		70		81	
Measles 2st dose (%)	0	0	0	0	0	0
Supplementary Immunisation Activities (SIA) (%)	0	0	0	0	94	0

Coverage	20	08	20	09	20	10
	Administrative(1)	WHO/UNICEF(2)	Administrative(1)	WHO/UNICEF(2)	Administrative(1)	WHO/UNICEF(2)
Measles 1st dose (%)	83		87		88	
Measles 2st dose (%)	57		65		75	
Supplementary Immunisation Activities (SIA) (%)	0		0	0	0	0

Coverage	2011		2012		
	Administrative(1)	WHO/UNICEF(2)	Administrative(1)	WHO/UNICEF(2)	
Measles 1st dose (%)	88	88	84	84	
Measles 2st dose (%)	80	80	76	76	
Supplementary Immunisation Activities (SIA) (%)	0	0	97		

## 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 **Administrative coverage** 

## **5.2. Baseline and Annual Targets (NVS Routine Support)**

Please refer to cMYP pages to assist in filling-in this section.

Baselii				
Number	Base Year	and Targets		
	2012	2016		
Total births	1,510,745	1,513,433		
Total infants' deaths	55,898	46,917		
Total surviving infants	1,454,847	1,466,516		
Total pregnant women	1,586,282	1,558,836		
Target population vaccinated with BCG	1,391,044	1,437,761		
BCG coverage	92 %	95 %		
Target population vaccinated with OPV3				
OPV3 coverage	92 %	88 %		
Number of infants vaccinated (to be vaccinated) with DTP1	1,369,231	1,393,190		
Number of infants vaccinated (to be vaccinated) with DTP3	1,332,137	1,295,667		
DTP3 coverage	92 %	88 %		
Wastage[1] rate in base- year and planned thereafter (%) for DTP	33	15		
Wastage[1] factor in base- year and planned thereafter for DTP	1.49	1.18		
Target population vaccinated with 1st dose of Pneumococcal (PCV10)	0	1,319,865		
Target population vaccinated with 3rd dose of Pneumococcal (PCV10)	0	1,161,480		
Pneumococcal (PCV10) coverage	0 %	79 %		
First Presentation: Pneumococcal (PCV10), 2 dose(s) per vial, LIQUID				
Wastage[1] rate in base- year and planned thereafter (%) {0}	0	5		
Wastage[1] factor in base- year and planned thereafter (%)	1.00	1.05		
Maximum wastage rate value for Pneumococcal (PCV10), 2 dose(s) per vial, LIQUID	10 %	10 %		

Number of infants vaccinated (to be vaccinated) with 1st dose of TT+	1,406,719	1,465,305
TT+ coverage	89 %	94 %
Annual DTP Drop out rate [ ( DTP1 – DTP3 ) / DTP1 ] x 100	3 %	7 %

- [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.

## 5.3. 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 14 years

Cohort population = population 9 months - 14 years old

GAVI will only provide support to countries for rubella catch-up campaign by providing MR vaccine for a target population of males and females aged 9 months to 14 years (the exact range in the scope of 9 months to 14 years old will depend on rubella epidemiology in the country.

Table 5.3.1 Baseline NVS preventive campaign figures for MR

	Base Year	Baseline and Targets	
	2013	2014	
Total births	1,519,321	1,527,254	
Total population 9 months - 14 years old	19,706,667	20,061,387	
Target population vaccinated with MR	0	0	
MR (campaign) coverage (%) [1]	0 %	0 %	
Wastage rate (%) for MR (campaign)	15	15	
Wastage factor for MR	1.18	1.18	

<sup>[1]</sup> Number of persons vaccinated out of total target population

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

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

Disease	Title of the assessment	Date	Results
Pneumococcal Infection	Study on Meningitis at Yangon Children Hospital and North Okkalapa General Hospital	May 1997 to February 1998	A total of 220 clinically diagnosed suspected meningitis cases admitted to YCH and NOGH was studied during the period May 1997 to February 1998 and out of 50 cases with meningitis picture three major organisms are positive in the proportion of 30% for Haemophilus influenzae type b, 40% for Neisseria menigitidies and 22% for Streptococcus pneumoniae
Pneumococcal Infection	WHO estimate for Myanmar Streptococcus pneumonia incidence rate per 100000 children under 5	August 2008	>3000
Pneumococcal Infection	WHO Estimate for Myanmar Pneumococcal Mortality Rate (Obrien et al Lancet 2009, 374, 893-902	August 2008	100 -300
Pneumococcal Infection	Regional Death Estimate Pneumonia Regional for SEAR	2008	99,000
Pneumococcal Infection	Myanmar Annual hospital statistics report for 2007	2007	leading cause of mortality in under fives unspecified pneumonia 9.8%(Rank 1)
Pneumococcal Infection	A study by Dr. Mo Mo Win et al, Department of Medical Research, on Invasive Pneumococcal Infection in children done in Yangon children hospital in 2006- 07	2008	Blood samples were collected from 150 children (73 males and 77 females) with pneumonia, (110 cases, septicemia (22 cases) and meningitis (18 cases) attending Yangon Children hospital during July 2006 to April 2007 ages ranging from 2 months to 12 years Seventy out of 150 samples yielded bacterial pathogens by blood culture method. Among them Streptococcus pneumonia (pneumococci) was isolated from 12 cases .They are isolated from 7 cases of pneumonia, 3 cases of meningitis, and 2 cases of septicaemia. Gentamicin blood agar plate was used for the isolation of Streptococcus pneumoniae and for identification, colony recognition and optochin sensitivity test was done. Pneumococcal antisera were used for stereotyping. Antibiotics sensitivity test was done by Kirby –Bauer disc agar diffusion. They are resistant to penicillin (41.6%) gentamycin, (4i.6%) cotrimoxazole, (33.3%) ciprofloxacin, ampicillin and cefriazone (16.6%) and amikakin (8.3%) Approximately 17% of pathogens isolated from blood culture positive children with Pneumonia, Septicaemia and Meningitis were Streptococcus pneumoniae.
Pneumococcal Infection	A nationwide over-all and cause- specific under five mortality survey in Myanmar	2002-2003	A nationwide over-all and cause-specific under five mortality survey done in 2002-2003 by Department of Health and UNICEF in Myanmar found that the major causes of mortality in the age group of 28 days to 5 years of age were pneumonia 27.6%, diarrhoea 17.6% and brain infections 17.1%. Pneumonia and meningitis (brain infections) accounted for 35% of under five deaths.

Pneumococcal Infection	WHO estimate as of the year 2000 for the cases and deaths of streptococcus pneumonia in Myanmar	2000	deaths of streptococcus pneumonia in Myanmar 159,958 and 6557.
Rubella Infection	) Rubella Antibody survey in Burmese pregnant women- Rangoon	1976-1978	1) The survey of rubella antibody revealed that majority of Burmese pregnant women (96%) was immune to rubella. but negative cases were found among young subjects aged 15-24 year. Overall risk of getting rubella during pregnancy and subsequent delivery of infants with congenital malformations is rather low for the Burmese women.  He also studied the prevalence of congenital defects among sick neonates and detected congenital abnormalities such as eye defects and involvement of central nervous system. An average of 74 CRS cases per year was suspected in Yangon area from the year 1975 to 1978. He also studied post-operative cases of congenital heart diseases and found cardiac lesions compatible with congenital rubella syndrome during the same study period
Rubella Infection	Clinical Profile of Congenital Heart Diseases in Yangon Children Hospital.	July 1985-86	Study population- Study on maternal factor associated 118 new cases with congenital heart disease Out of positive reply in (17) cases. a definite history of Rubella in one mother and her child born with- Hypertelorism, Congenital Cataract, Ostim primum Atrial Septal Defect and Normal intelligence.
Rubella	Active surveillance for the congenital rubella syndrome in Yangon ,Myanmar	(1.12.2000) to (31.12.2002)	The hospital-based prospective and exploratory study. CRS surveillance network in Yangon has been established with the linkages between DMR (Lower Myanmar) and (11) major hospitals in Yangon Metropolitan area.  A total of 81 children aged 0-17 months were suspected of having CRS. Of these, 18 children had laboratory-confirmed CRS (7 were IgM Positive; 7 were RT-PCR Positive; and 10 were IgG Positive at > 6 months of age). One additional child who tested positive by RT_PCR with maternal rubella infection during pregnancy but normal on clinical examination was classified as having congenital rubella infection. During 2001-2002 no rubella outbreaks were detected in Yangon Division, In the 31 urban townships of Yangon Division, the annual incidence was 0.1 laboratory –confirmed cases of CRS per 1000 live births.
Rubella	Rubella –specific Immunoglobulin- G status among schoolgirls in Pyinmana, Central Myanmar, in the	2004	The operational research has been carried out to explore the rubella-specific IgG status among schoolgirls at two timepoints, particularly at the age between 11-12 years and between 15-16 years. Total of 100 schoolgirls attending at the Basic Education High School, Pyinmana, 50 girls between the ages of 11-12 years and another 50 girls between the ages of 15-16 years, were chosen by simple random sampling. The results revealed that rubella-specific Ig G positive rate of schoolgirls aged 11-12 years and 15-16 years were 84% and 82% respectively

			) CRS surveillance among infants in Yangon was conducted for two
Rubella	Twins with Suspected Congenital Rubella Syndrome (CRS) in Yangon, Myanmar	2005	consecutive years from December 2000 to December 2002, as a WHO-funded study. Among 13 participating hospitals, Special Care Baby Unit of the Central Women's Hospital in Yangon reported 17 infants with suspected CRS. Interestingly, three sets of twins with suspected CRS were reported. All 3 sets of twins were IgM negative. However, rubella RNA was detected by RT-PCR in Twins1A who showed no obvious clinical signs, and in Twins 2B who had patent ductus arteriosus, splenomegaly and hepatomegaly. Nucleotide sequences of PCR positive cases revealed genotype 1 sequences. Both twins of twin set -2 were Ig G positive at age 12 days, however, it turned out to be negative at the age of 9 months. Both twins of twin set -3 died before 2 months of age, probably due to other infections. Our findings revealed the different scenario of twins with suspected CRS. It also served as valuable additional information to the medical literature as there very few reports on twins with CRS
Rubella	MOH, Central Epidemology unit	2010 TO 2013	Annualized incidence of Confirmed Rubella cases ranged from 0.01 to 1.27 In 2012, 50% of rubella cases were in the age 15 to 20 and one rubella outbreak

## 6.2. Requested vaccine (Pneumococcal (PCV10), 2 dose(s) per vial, LIQUID)

As reported in the cMYP, the country plans to introduce Pneumococcal (PCV10), using Pneumococcal (PCV10), 2 dose(s) per vial, LIQUID.

When is the country planning to conduct this vaccine? January 2016

Please note that, due to a variety of factors, the launch date may vary compared to the date stipulated in the application. GAVI will work closely with countries and their partners to address these issues.

## 6.2.1. Co-financing information

If you would like to co-finance an amount higher than the minimum, please provide information in Your co-financing row.

Country group Low	
	Year 1
	2016
Minimum co-financing	0.20
Your co-financing (please change if higher)	0.20

## 6.2.2. Specifications of vaccinations with new vaccine

	Data franc		Year 1
	Data from		2016
Number of children to be vaccinated with the first dose	Table 5.2	#	1,319,865
Number of children to be vaccinated with the third dose	Table 5.2	#	1,161,480
Immunisation coverage with the third dose	Table 5.2	#	79.20 %
Country co-financing per dose	Table 6.2.1	\$	0.2

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

		2016
Number of vaccine doses	#	288,400
Number of AD syringes	#	0
Number of re-constitution syringes	#	0
Number of safety boxes	#	0
Total value to be co-financed by the Country [1]	\$	1,039,500

<sup>[1]</sup> The co-financing amount for low-income countries indicates costs for the vaccines and any freight charges. The total co-financing amount does not contain the costs and fees of the relevant Procurement Agency, such as contingency buffer and handling fees. Information on these extra costs and fees will be provided by the relevant Procurement Agency as part of the cost estimate to be requested by the Country.

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

		2016
Number of vaccine doses	#	4,909,100
Number of AD syringes	#	5,548,900
Number of re-constitution syringes	#	0
Number of safety boxes	#	61,600
Total value to be co-financed by GAVI	\$	17,991,000

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

# Calculation of Vaccine Introduction Grant for the Pneumococcal (PCV10), 2 dose(s) per vial, LIQUID

Year of New Vaccine Introduction	Births (from Table 5.2)	Share per Birth in US\$	Total in US\$
2016	1,513,433	0.80	1,210,746

The Grant will be based on a maximum award of \$0.80 per infant in the birth cohort with a minimum starting grant award of \$100,000

Please describe how the GAVI Vaccine Introduction Grant will be used to facilitate the timely and effective implementation of critical activities in advance of and during the introduction of the new vaccine (refer to the cMYP and the Vaccine Introduction Plan).

#### Described in NV itorduction plan attached as Annex

Please summarise in the table below the full costs of preparing for and introducing the vaccine, and specify which items are expected to be covered with the one-time GAVI grant. Please note that the country will be required to submit a detailed budget for the Vaccine Introduction Grant prior to release of funds.

## Cost (and finance) to introduce the Pneumococcal (PCV10), 2 dose(s) per vial, LIQUID US\$

Cost Category	Total cost for preparation of and delivery of campaign in US\$	Funded with GAVI introduction grant in US\$
Training	0	0
Social Mobilization, IEC and advocacy	0	0
Cold Chain Equipment & Maintenance	0	0
Vehicles and Transportation	0	0
Programme Management	0	0
Surveillance and Monitoring	0	0
Human Resources	0	0
Waste Management	0	0
Technical Assistance	0	0
Other (please specify)		
Total	0	0

Where GAVI support is not enough to cover the full needs, please describe other sources of funding and the expected amounts to be contributed, if available, to cover your full needs.

GAVI NVI grants will be used before, during and after introduction of PCV 10. In case of any shortfalls, Specfially for Cold chain, monitoring and supervision, MOH will re program HSS funds to cover the gaps. Also partners in country WHO and UNICEF will be supporting certian key preparatory, activites, Also there is high possibilty that by 2016 additional funds from MOH will be made available to EPI program to cover the gaps and ensure smooth introduction of PCV in Myanmar

# 7. NVS Preventive Campains

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

Disease	Title of the assessment	Date	Results
Rubella	(1) Rubella Antibody survey in Burmese pregnant women- Rangoon	(1) 1976-1978	(1) The survey of rubella antibody revealed that majority of Burmese pregnant women (96%) was immune to rubella. but negative cases were found among young subjects aged 15-24 year. Overall risk of getting rubella during pregnancy and subsequent delivery of infants with congenital malformations is rather low for the Burmese women.
	(2) Clinical Profile of Congenital Heart Diseases in Yangon Children Hospital. July 1985- June1986	(2) 1985-1986	(2) Study population- Study on maternal factor associated 118 new cases with congenital heart disease. Out of positive reply in (17) cases. a definite history of Rubella in one mother and her child born with- Hypertelorism, Congenital Cataract, Ostim primum Atrial Septal Defect and Normal intelligence.
	(3) Active surveillance for the congenital rubella syndrome in Yangon ,Myanmar	(3) (1.12.2000) to (31.12.2002)	(3) The hospital-based prospective and exploratory study. CRS surveillance network in Yangon has been established with the linkages between DMR (Lower Myanmar) and (11) major hospitals in Yangon Metropolitan area.  A total of 81 children aged 0-17 months were suspected of having CRS. Of these, 18 children had laboratory-confirmed CRS (7 were IgM Positive; 7 were RT-PCR Positive; and 10 were IgG Positive at > 6 months of age). One additional child who tested positive by RT_PCR with maternal rubella infection during pregnancy but normal on clinical examination was classified as having congenital rubella infection. During 2001-2002 no rubella outbreaks were detected in Yangon Division, In the 31 urban townships of Yangon Division, the annual incidence was 0.1 laboratory –confirmed cases of CRS per 1000 live births.
	(4) Rubella –specific Immunoglobulin-G status among schoolgirls in Pyinmana, Central Myanmar, in the	(4) 2004	The operational research has been carried out to explore the rubella-specific IgG status among schoolgirls at two time-points, particularly at the age between 11-12 years and between 15-16 years. Total of 100 schoolgirls attending at the Basic Education High School, Pyinmana, 50 girls between the ages of 11-12 years and another 50 girls between the ages of 15-16 years, were chosen by simple random sampling. The results revealed that rubella-specific Ig G positive rate of schoolgirls aged 11-12 years and 15-16 years were 84% and 82% respectively.
	(5) Twins with Suspected Congenital Rubella Syndrome (CRS) in Yangon, Myanmar.	(5) 2005	(5) CRS surveillance among infants in Yangon was conducted for two consecutive years from December 2000 to December 2002, as a WHO-funded study. Among 13 participating hospitals, Special Care Baby Unit of the Central Women's Hospital in Yangon reported 17

infants with suspected CRS. Interestingly, three sets of twins with suspected CRS were reported. All 3 sets of twins were IgM negative. However, rubella RNA was detected by RT-PCR in Twins1A who showed no obvious clinical signs, and in Twins 2B who had patent ductus arteriosus, splenomegaly and hepatomegaly. Nucleotide sequences of PCR positive cases revealed genotype 1 sequences. Both twins of twin set -2 were Ig G positive at age 12 days, however, it turned out to be negative at the age of 9 months. Both twins of twin set -3 died before 2 months of age, probably due to other infections. Our findings revealed the different scenario of twins with suspected CRS. It also served as valuable additional information to the medical literature as there very few reports on twins with CRS.

## 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

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

## 7.2.1. Summary for MR campaign support

When is the country planning to conduct the MR catchup campaign? November 2014

When is the country planning to introduce MR into routine immunisation? January 2015

Please note that, due to a variety of factors, the launch date may vary compared to the date stipulated in the application. GAVI will work closely with countries and their partners to address this issue.

Please give a summary of the cMYP and/or the MR, 10 dose(s) per vial, LYOPHILISED introduction plan sections that refer to the introduction of MR, 10 dose(s) per vial, LYOPHILISED. Outline the key points that informed the decision-making process (data considered etc) and describe the plans for social mobilisation and microplanning, including strategies for insecure or hard-to-reach areas.

Local diseasecdata, spllimented by WHO regional estimates, all data reviwed by country Independent Immunization body NCIP, and decided to intorduce the R vaccine after MR campaign., MYP revised and alined to this, RUBELLA intorduction also in line with SEARO regional goal of Measles elimination by 2020 and rubell control by 2020.

Hard to reach areas will be targeted by mobilization of additional man power, revision of man power and coordination with partners,

Please summarise the cold chain capacity and readiness to accommodate new vaccines, taking into consideration training, cold chain and other logistic requirements. If cold chain expansion is required state how it 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.

EVM done in 2011 states Cold chian adequate for MR, since this MR will be a switch of one measles dose to MR no new cold chain space is being needed and adequate cold chain in place, replacement are being done for old beyond repairable equipments on going to strengthen,

Please describe how the campaign activities will contribute to strengthening routine immunisation services. Please refer to specific activities to be undertaken during planning and implementation, to evaluate the implementation of the routine strengthening activities completed during the campaign, and to assess, via an independent survey, the quality and coverage achieved through the campaign.

Revision of microplanning.

Strengthening of AEFI, cold chain systems, injection safelty, R./R, partnerships,

Visibility and enhance ownersahip of govt and partners.

Traiinigs lead to better tech skills.

New posters, formats, operation cost

al these will benigfit RI in long term

Please submit relevant documentation to support the estimates of the size of the campaign target population (as DOCUMENT NUMBER : 18).

#### 7.2.2. Grant Support for Operational Costs of the MR Campaign

**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)	GAVI contribution per target person in US\$	Total in US\$
2014	0	0.65	0

[1] The Grant will be based on a maximum award of \$0.65\$ per target person

Please describe how the grant will be used to facilitate the preparation and timely and effective delivery of the campaigns to the target population (refer to the cMYP and the Vaccine Introduction Plan).

MR campagin will need adequate advance planning, close monitoring at all levels, great advocacy, partnerships, and coordination with varoius sectors specifically education department, religious ministryies.

labour department INGO, NGO, vaoius wokers union, professional bodies etc. National level coordination body will be set up as pr past experaince under the chairmen ship pf Health minister of Vice president Details are in Vaccine Intorduction

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

Cost Category	Total cost for preparation of and delivery of campaign in US\$	Funded with GAVI introduction grant in US\$	
	2014	2014	
Training	500,000	310,784	
Social Mobilization, IEC and advocacy	700,000	661,610	
Cold Chain Equipment & Maintenance	6,100,000	6,074,381	
Vehicles and Transportation	4,200,000	4,130,010	
Programme Management	450,000	412,797	
Surveillance and Monitoring	2,230,000	2,291,818	
Human Resources	340,000	0	
Waste Management	1,000,000	899,689	
Technical Assistance	250,000	0	
Planning	100,000	82,559	
Volunteer incentives	500,000	69,143	
Other (please specify)			
Total	16,370,000	14,932,791	

Where GAVI support is not enough to cover the full needs, please describe other sources of funding and the expected amounts to be contributed, if available, to cover your full needs.

local donors USAID, DFID, Measles initiative will be approched to cover the gaps if GAVI does not fund the remaining cohort. Aefforst will be made to incrase govt budget for this and also UNICF, WHO, will be requested to mobilise support. There is high chance that the donor will support this to stop the shift of measles / rubella epidemologyto high age group.

#### 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. In this case, the country must show additional evidence that the country will include MR vaccination in the routine immediately after the campaign.
- □ 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
- Ø 5 Other

Please attach one or more of these documents AS DOCUMENT NUMBER in Section 10. Attachments Please briefly describe the document used as evidence:

Ministry of Health approved the MR vaccine introduction plan and this document is attached.

## 7.2.4 Introduction planning for RCV

Countries should describe their plan for introduction including surveillance activities:

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

Please summarise the Introduction Plan for the introduction of RCV into the national programme. Please refer to the instructions described below.

Myanmar has existing two doses of measles vaccine in EPI, soon after MR SIA the first dose will be switched to MR at 9 months. From 1st Jan 2015 all children who will be eligible for m9th month mesales dose will be given MR vaccine.

Efforst will be made to reach highcoverage with both measle and MR vaccine at every township level >90% and low pockets will be targeted for intensification of RI . foccu will be on migrant population, border aresa, peri urban areas and remotely located pop.

#### INSTRUCTIONS

Components of the introduction plan 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	2011	2012
Deposition rate at matical level (4)	78	34
Reporting rate at national level (1)	100,000	100,000
Laboratory confirmation rate (%) (2)	85	93

#### 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? No

## Calculation of Vaccine Introduction Grant for the MR, 10 dose(s) per vial, LYOPHILISED

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). 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.

Year of New Vaccine Introduction	Births (From Table 5.3)	Share per Birth in US\$	Total in US\$
2014	1,527,254	0.80	1,221,803

<sup>[1]</sup> The Grant will be based on a maximum award of \$0.80 per infant in the birth cohort with a minimum starting grant award of \$100,000

Please describe how the GAVI Vaccine Introduction Grant will be used to facilitate the timely and effective implementation of critical activities in advance of and during the introduction of the new vaccine (refer to the cMYP and the Vaccine Introduction Plan).

this will be used to strengthen measles training, case based measles surveillance, procduction of IEC Materials, new formats recording reporting of EPI books with MR coloums, new IEC mateirls, Starting CRS surveillance in 2-3 major hosital, strengthening cold chain, vaccine transportation cost, and monitoring and evaluation

Please summarise in the table below the full costs of preparing for and conducting the campaign, and specify which items are expected to be covered with the GAVI grant. Please note that the country will be required to submit a detailed budget for the Campaign Operational Support Grant prior to release of funds.

## Cost (and finance) to introduce the MR, 10 dose(s) per vial, LYOPHILISED US\$

Cost Category	Total cost for preparation of and delivery of campaign in US\$	Funded with GAVI introduction grant in US\$
Training	175,000	121,803
Social Mobilization, IEC and advocacy	250,000	250,000
Cold Chain Equipment & Maintenance	150,000	100,000
Vehicles and Transportation	300,000	300,000
Programme Management	100,000	50,000
Surveillance and Monitoring	250,000	200,000
Human Resources	100,000	75,000
Waste Management	100,000	75,000
Technical Assistance	100,000	50,000
Other (please specify)		
Total	1,525,000	1,221,803

## 8. Procurement and Management

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

**Note:** The PCV vaccine must be procured through UNICEF to be able to access the price awarded by the Advance Market Commitment (AMC).

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):

Vaccine and logistics willbe procured by UNICEF through their procurement mechanism. Once vaccines reach Myanmar,logistic management will be done by Department of Health with the technical assistance of UNICEF and WHO. All vaccines will be registered in country by NRA/ FDA and close post intorduction surveillance will be undertaken to monitor. AEFI and other possible negative effects.

- b) If an alternative mechanism for procurement and delivery of vaccine 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.

Campaign will be conducted in the period from last quarter of 2014 and it will be done first for the school going age and then for under five children and non-schoolgoing children. Finger marking will be done for all vaccinated children and independent monitors will monitor the coverage, missed children and help in reaching the un reached areas.

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

NIL For vaccines and logistics, Only the campaign and New vaccine introduction grants amount should be provided to Myanmay through WHO

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

DOH will pay annually the cost of rubella vaccine to UNICEF who will be requested to procure vaccine on thier behalf, UNICEF provided the first dose of measles vaccine and govt will contribute towards thee rubella cost. DG Health MOH is the overall person responsible for this who will be supported by EPI manager

e) Please describe the financial management procedures that will be applied for the management of the NVS cash support, including procurement.

GAVI is being requested to provide Campaign and NV intorduction grants to Myanmar, which will be channelled through WHO country office throuh existing mechanisam as per WHO rules

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

The coverage of thecampaign will be monitored on daily basis. Immunizer from the field level willreport to Rural Health Center Level. Compiled data from Rural Health Center Level will be submitted to Township Health Department Level and then it will besubmitted further to State and Regional Health Departments. State/RegionalHealth Directors will submit the report to EPI Project Manager.

Local DQA will be encouraged at township and state and region levels. Six monthly review at national levels and at state / regional will be conducted to monitor the progress, also at township level mnothly review of EP I program will be done to indentify weak / low pockets of coverage and plans will be drawn to address the coverage gaps.

Independent observers from WHO and UNICEF willalso monitor the programme by using a checklist. Analysis of thesemonitoring checklist will help to identify areas with low coverage and to takeappropriate action.

- g) If applying for measles second dose, does the country wish to have the support in cash or in-kind? N/A
- 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):

UNICEF Myanmar has been providing all EP Ivaccines to MOH since long and have well established mech for procurments of WHO pre qualified vaccines. This process will continue for MR also . all vaccines wil le registered in country and used for MR SIA. afer SIA MOH will contribute the rubella cost to UNICEF and unicef will procure the MR vaccine. Curretly UNICEF is providing Measles vaccine so MOH JUST TOPS UP THE RUBLLA cost

b) Please describe the financial management procedures that will be applied for the management of the preventive campaign cash support, including any procurement to be incurred.

Vaccine and logistics to be suuplies by GAVI to MMR through UNICF. Operational cost for SIA NO local vaccine or AD syrige procurment will be done locally. Operational cost may please be routed through WHO and UNICEF country offices locally, details of split will be sent later.

MR introduction cost may please be sent to WHO Myanmar so that WHO can support MOH on planning for MR intorduction well in time .

c) Please indicate if the campaign is going to be phased, and if so, how this will be done.

campaing will be in q4 of 2014 in single phase, first targeting primary schools, later middle and senoir schools, and lastly at community targeting 9 months to 6 years and tracking all missed or left out from school SIA. marker pens will be used to track un vaccinated children.

d) 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)

Post campagin coverage survey

during SIA independent monitoriing

### 8.3 Vaccine Management (EVSM/EVM/VMA)

Under the new guidelines, it is mandatory for countries to conduct an Effective Vaccine Management (EVM) assessment prior to an application for introduction of new vaccine. This EVM should have been conducted within the preceding 36 months.

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

When was the EVM conducted? July 2011

Please attach the most recent EVM report (DOCUMENT NUMBER: 20,21,22), the corresponding EVM improvement plan (DOCUMENT NUMBER: 21) and progress on the EVM improvement plan (DOCUMENT NUMBER: 22). The improvement plan should include a timeline, budget of committed resources for these activities and funding gaps, if any, as well as M&E indicators to monitor progress of implementation.

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? **June 2014** 

## 8.4 Waste management

Please describe the country's waste management plan for immunisation activities (including campaigns). Include details on the safe handling, storage, transportation and disposal of immunisation waste.

After mixing diluent and the vaccine, the mixingsyringes will be discarded in the safety boxes as well as the used AD syringes will be put into the safety box. Safety boxes filled with used syringes will besent to Rural Health Centers from Immunization posts. Then they will be burned in the excavated pit and then will be covered with earth. In the places wherethere is incinerators, these safety boxes will be burnt in incinerators.

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

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

Myanmar under its new goverment is fully committed to provide all basic health care for its citizen. The govt has been showing leadership and owernship in protecting the children from VPDs. In 2012 it co fianced and itorduced Penta valaent vaccine for its children. The tow new vaccine ( rubella and PCV 10 ) will protect lives of thousands of young ones to give the country a healthy child and a bright future for its new generations

# 10. List of documents attached to this proposal

## 10.1. List of documents attached to this proposal

Document Number	Document	Section	Mandatory	File
				MoH and MoF Signiture.jpg
1	MoH Signature (or delegated authority) of Proposal		✓	File desc:
				Date/time: 10/4/2013 8:22:05 AM
				Size: 535972
				MoH and MoF Signiture.jpg
2	MoF Signature (or delegated authority) of Proposal		✓	File desc:
				Date/time: 10/4/2013 8:23:44 AM
			•	Size: 535972
				MoE.pdf
3	MoE signature (or delegated authority) of HPV Proposal	4.1.1	×	File desc:
				Date/time: 10/5/2013 12:28:53 PM
				Size: 37797
				ICC Signature endorsing NVI in Myamar.pdf
3	Signatures of ICC or HSCC or equivalent in Proposal		✓	File desc:
				Date/time: 10/6/2013 3:26:07 AM
				Size: 1877824
				ICC TOR .doc
4	Terms of Reference for the ICC	4.1.2	✓	File desc:
				Date/time: 10/5/2013 1:26:08 PM
				Size: 40960
				ICC Meeting Minute Approving PCV and Pneumoccal.PDF
4	Minutes of ICC/HSCC meeting endorsing Proposal		<b>✓</b>	File desc:
	onderoning in reposal			Date/time: 10/6/2013 5:41:56 AM
				Size: 6754885
				cMYP_2012-2016_Revised Sep 2013 - 5- Oct-13 Edition.docx
5	comprehensive Multi Year Plan - cMYP		✓	File desc:
				Date/time: 10/5/2013 1:16:05 PM
				Size: 3966642
				NCIP Meeting Minute Approving MR and PCV introduction.PDF
5	Minutes of NITAG meeting endorsing proposal	4.2	×	File desc:
				Date/time: 10/6/2013 5:48:05 AM
				Size: 2877421
				cMYP_Costing_Tool_Vs.2.5_EN_ 5-Oct- 13.xlsm
6	cMYP Costing tool for financial analysis		▼	File desc:
			l	Date/time: 10/5/2013 1:12:22 PM

				Size: 1627923
				MR Intorduction_doc_6th Oct_ final.doc
7	Plan for NVS introduction (if not part of cMYP)	5.1	✓	File desc:
				Date/time: 10/6/2013 6:17:40 AM
				Size: 659968
				ICC 2-5-2013.pdf
7	Minutes of last three ICC/HSCC meetings		✓	File desc:
				Date/time: 10/5/2013 1:34:32 PM
				Size: 1214079
				EVM-imp-plan-Myanmar 2011 v6.xlsx
8	Improvement plan based on EVM		<b>✓</b>	File desc:
				Date/time: 10/6/2013 7:07:00 AM
				Size: 135356
	+			EPI national policy changes and
				recommendations for new vaccine introduction.pdf
9	Minutes of three most recent NITAG meetings	4.2.1	X	File desc:
				Date/time: 10/5/2013 1:32:18 PM
				Size: 19946
				HPV Road Map.pdf
10	HPV roadmap or strategy	6.1.1	X	File desc:
				Date/time: 10/5/2013 12:36:11 PM
				Size: 37797
				Planning EPI coverage survey.pdf
13	Data quality assessment (DQA) report	5.1.5	×	File desc:
				Date/time: 10/6/2013 1:34:56 AM
				Size: 45750
				DQA Improvemet plan.pdf
14	DQA improvement plan	5.1.5	×	File desc:
				Date/time: 10/6/2013 3:29:34 AM
				Size: 37318
				DQA Improvemet plan.pdf
15	Progress report on implementation of DQA improvement plan	5.1.5	×	File desc:
				Date/time: 10/6/2013 3:30:17 AM
				Size: 37318
				Campaign Target Refer.pdf
18	Campaign target population documentation	7.x.1	×	File desc:
	- Cooding Resident			Date/time: 10/6/2013 7:00:28 AM
				Size: 39096
				EVM_report-Myanmar v6TH 7 sept.docx
20	EVM report	8.3	<b>✓</b>	File desc:
			•	Date/time: 10/6/2013 7:05:01 AM
				Size: 6227935
				EVM Improvement Plan Progress
				Report.docx

22	EVM improvement plan progress report	8.3	$\checkmark$	File desc:
				Date/time: 10/6/2013 7:08:39 AM
				Size: 16933

#### 11. Annexes

#### **Annex 1 - NVS Routine Support**

Annex 1.1 - NVS Routine Support (Pneumococcal (PCV10), 2 dose(s) per vial, LIQUID) Table Annex 1.1 A: Rounded up portion of supply that is procured by the country and estimate of relative costs in US\$

		2016
Number of vaccine doses	#	288,400
Number of AD syringes	#	0
Number of re-constitution syringes	#	0
Number of safety boxes	#	0
Total value to be co-financed by the Country [1]	\$	1,039,500

Table Annex 1.1 B: Rounded up portion of supply that is procured by GAVI and estimate of relative costs in US\$

		2016
Number of vaccine doses	#	4,909,100
Number of AD syringes	#	5,548,900
Number of re-constitution syringes	#	0
Number of safety boxes	#	61,600
Total value to be co-financed by GAVI	\$	17,991,000

## Table Annex 1.1 C: Summary table for vaccine Pneumococcal (PCV10), 2 dose(s) per vial, LIQUID

ID		Data from		2016
	Number of surviving infants	Table 5.2	#	1,466,516
	Number of children to be vaccinated with the first dose	Table 5.2	#	1,319,865
	Number of children to be vaccinated with the third dose	Table 5.2	#	1,161,480
	Immunisation coverage with the third dose	Table 5.2	%	79.00 %
	Number of doses per child	Parameter	#	3
	Estimated vaccine wastage factor	Table 5.2	#	1.05
	Number of doses per vial	Parameter	#	2
	AD syringes required	Parameter	#	Yes
	Reconstitution syringes required	Parameter	#	No
	Safety boxes required	Parameter	#	Yes
g	Vaccine price per dose	Table Annexes 4A	\$	3.5
СС	Country co-financing per dose	Table 6.4.1	\$	0.2
са	AD syringe price per unit	Table Annexes 4A	\$	0.0465
cr	Reconstitution syringe price per unit	Table Annexes 4A	\$	0
cs	Safety box price per unit	Table Annexes 4A	\$	0.58
fv	Freight cost as % of vaccines value	Table Annexes 4B	%	3.00 %
fd	Freight cost as % of devices value	Parameter	%	0

# Table Annex 1.1 D: Estimated numbers for Pneumococcal (PCV10), 2 dose(s) per vial, LIQUID, associated injection safety material and related co-financing budget (page 1)

		Formula		2016	
			Total	Government	GAVI
Α	Country co-finance		5.55 %		
В	Number of children to be vaccinated with the first dose	Table 1	1,319,865	73,225	1,246,640
С	Number of doses per child	Vaccine parameter (schedule)	3		
D	Number of doses needed	ВхС	3,959,595	219,673	3,739,922
Е	Estimated vaccine wastage factor	Wastage factor table	1.05		
F	Number of doses needed including wastage	DxE	4,157,575	230,657	3,926,918
G	Vaccines buffer stock	(F – F of previous year) * 0.25	1,039,394	57,665	981,729
I	Total vaccine doses needed	(((F + G) / Vaccine package size) + 1) * Vaccine package size	5,197,369	288,343	4,909,026
J	Number of doses per vial	Vaccine parameter	2		
K	Number of AD syringes (+ 10% wastage) needed	(D + G) x 1.11	5,548,878	0	5,548,878
L	Reconstitution syringes (+ 10% wastage) needed	I / J * 1.11	0	0	0
М	Total of safety boxes (+ 10% of extra need) needed	(K + L) /100 * 1.11	61,593	0	61,593
N	Cost of vaccines needed	l x g	18,190,792	1,009,199	17,181,593
0	Cost of AD syringes needed	K x ca	258,023	0	258,023
Р	Cost of reconstitution syringes needed	Lxcr	0	0	0
Q	Cost of safety boxes needed	M x cs	35,724	0	35,724
R	Freight cost for vaccines needed	Nxfv	545,724	30,276	515,448
s	Freight cost for devices needed	(O+P+Q) x fd	0	0	0
Т	Total fund needed	(N+O+P+Q+R+S)	19,030,263	1,039,474	17,990,789
U	Total country co-financing	I 3 cc	1,039,474		
٧	Country co-financing % of GAVI supported proportion	U/T	5.55 %		

#### 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		2014
Total campaign population	Table 5.3.1	#	20,061,387
Immunization coverage	Table 5.3.1	%	0
Number of persons to be vaccinated	Table 5.3.1	#	0
Number of doses per persons	Parameter	#	1
Estimated vaccine wastage factor	Table 5.3.1	#	1.18
Vaccine stock on 31st December <span style="background- color:#D9D9D9"&gt;{0} * (see explanation footnote)</span 	Table 5.3.1	#	0
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	\$	0.532
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
			2014
В	Number of persons to be vaccinated with the first dose		0
С	Number of doses per persons		1
D	Number of doses needed	ВхС	0
Ε	Estimated vaccine wastage factor	Wastage factor table	1.18
F	Number of doses needed including wastage	DxE	0
G	Vaccines buffer stock	0	0
I	Total vaccine doses needed	(((F + G) / Vaccine package size) + 1) * Vaccine package size	100
J	Number of doses per vial	Vaccine parameter	10
K	Number of AD syringes (+ 10% wastage) needed	(D + G) x 1.11	0
L	Reconstitution syringes (+ 10% wastage) needed	I / J * 1.11	12
М	Total of safety boxes (+ 10% of extra need) needed	(K + L) /100 * 1.11	1
N	Cost of vaccines needed	l x g	0.53
0	Cost of AD syringes needed	K x ca	0
Р	Cost of reconstitution syringes needed	Lxcr	1
Q	Cost of safety boxes needed	M x cs	1
R	Freight cost for vaccines needed	N x fv	0
s	Freight cost for devices needed	(O+P+Q) x fd	1
Т	Total fund needed	(N+O+P+Q+R+S)	57

Note: There is no cofinancing for NVS preventive campaigns

#### Annex 4

#### **Table Annex 4A: Commodities Cost**

Vaccine	Presentation	2014	2015	2016
DTP-HepB-Hib, 1 dose(s) per vial, LIQUID	1	2.036	1.986	1.927
DTP-HepB-Hib, 10 dose(s) per vial, LIQUID	10	2.036	1.986	1.927
DTP-HepB-Hib, 2 dose(s) per vial, LYOPHILISED	2	2.036	1.986	1.927
HPV bivalent, 2 dose(s) per vial, LIQUID	2	4.600	4.600	4.600
HPV quadrivalent, 1 dose(s) per vial, LIQUID	1	4.500	4.500	4.500
Measles second dose, 10 dose(s) per vial, LYOPHILISED	10	0.286	0.296	0.322
Meningococcal type A, 10 dose(s) per vial, LYOPHILISED	10	0.554	0.582	0.611
MR, 10 dose(s) per vial, LYOPHILISED	10	0.532	0.565	0.591
Pneumococcal (PCV10), 2 dose(s) per vial, LIQUID	2	3.500	3.500	3.500
Pneumococcal (PCV13), 1 dose(s) per vial, LIQUID	1	3.500	3.500	3.500
Rotavirus, 2-dose schedule	1	2.550	2.550	2.550
Rotavirus, 3-dose schedule	1	3.500	3.500	3.500
Yellow Fever, 10 dose(s) per vial, LYOPHILISED	10	0.907	0.923	0.923
Yellow Fever, 5 dose(s) per vial, LYOPHILISED	5	0.907	0.923	0.923

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

Table Annex 4B: Freight cost as percentage of value

Vaccino Antigon	Vaccine Type	No	500,000\$		
Vaccine Antigen Vaccine Type		Threshold	<b>\=</b>	^	
DTP-HepB-Hib	HEPBHIB		25.50 %	6.40 %	
HPV bivalent	HPV	3.50 %			
HPV quadrivalent	HPV	3.50 %			
Measles second dose	MEASLES	14.00 %			
Meningococcal type A	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	2016
Pneumococcal (PCV10), 2 dose(s) per vial, LIQUID	0.2

#### Table Annex 4D: Wastage rates and factors

The following table shows the wastage rates for routine and campaign vaccines, set for 2014.

Vaccine	dose(s) per vial	Maximum Vaccine wastage rate*	Benchmark Wastage Rate**
DTP-HepB-Hib, 1 dose(s) per vial, LIQUID	1	5 %	
DTP-HepB-Hib, 10 dose(s) per vial, LIQUID	10	25 %	15 %
DTP-HepB-Hib, 2 dose(s) per vial, LYOPHILISED	2	10 %	
HPV bivalent, 2 dose(s) per vial, LIQUID	2	10 %	
HPV quadrivalent, 1 dose(s) per vial, LIQUID	1	5 %	
Measles second dose, 10 dose(s) per vial, LYOPHILISED	10	40 %	
Meningococcal type A, 10 dose(s) per vial, LYOPHILISED	10	10 %	
MR, 10 dose(s) per vial, LYOPHILISED	10	25 %	
Pneumococcal (PCV10), 2 dose(s) per vial, LIQUID	2	10 %	
Pneumococcal (PCV13), 1 dose(s) per vial, LIQUID	1	5 %	
Rotavirus, 2-dose schedule	1	5 %	
Rotavirus, 3-dose schedule	1	5 %	
Yellow Fever, 10 dose(s) per vial, LYOPHILISED	10	40 %	
Yellow Fever, 5 dose(s) per vial, LYOPHILISED	5	10 %	

#### Comments:

Note: HPV demonstration project wastage rates are the same as the vaccine

#### Table Annex 4E: Vaccine maximum packed volumes

Kindly note that this table is for reference purposes only and includes GAVI- and non GAVI-supported vaccines.

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	тт	liquid	IM	2	Uniject	12	
Measles	Measles	lyophilized	SC	1	1	26.1	20
Measles	Measles	lyophilized	SC	1	2	13.1	13.1

<sup>\*</sup> Source - WHO indicative wastage rates

<sup>\*\*</sup> Source - Country APRs and studies, approved by WHO, UNICEF, and the GAVI Secretariat

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 +	DTP-Hib	liauid	IM	3	10	2.5	

Hib freeze-dried							
DTP-HepB liquid + Hib freeze-dried	DTP- HepB+Hib	liquid+lyop.	IM	3	1	22	
DTP-HepB-Hib	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	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

		nancial support made by the GAVI Ament be made via electronic bank to	
Name of Institution (Account Holder)			
Address:			
City Country:			
Telephone no.:		Fax no.:	
	Curre	ncy of the bank account:	
For credit to:		<u></u>	
Bank account's ti	tle:		
Bank account no.	.:		
Bank's name:			
Is the bank accour By who is the acco	ount audited?	used by this program?	 Cool
	Name:		Seal
	Name.		
	Signature:		
	Date:		
	FINANCIAL IN	ISTITUTION	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 at this banking institution

is to be signed joint	tly by at least (number of signatories) of the following authorized signatories:
Name:	
Title:	
Name:	
Title:	
	·
Name:	
Title:	
k's authorizing offici	ial ————————————————————————————————————
	Name: Title: Name: Title: Name: