

Application Form for Gavi NVS support

Submitted by

The Government of Lao People's Democratic Republic

Date of submission: Not yet submitted

Deadline for submission:

- i. 9 September 2016
- ii. 1st May 2015
- iii. 9 September 2015

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

Start Year

2017

End Year

2021

Form revised in 2016

(To be used with Guidelines of November 2015)

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

Gavi GRANT TERMS AND CONDITIONS

FUNDING USED SOLELY FOR APPROVED PROGRAMMES

The applicant country ("Country") confirms that all funding provided by the Gavi 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. All funding decisions for the application are made at the discretion of the Gavi Board and are subject to IRC processes and the availability of funds.

AMENDMENT TO THE APPLICATION

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

RETURN OF FUNDS

The Country agrees to reimburse to the Gavi 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, within sixty (60) days after the Country receives the Gavi's request for a reimbursement and be paid to the account or accounts as directed by the Gavi.

SUSPENSION/ TERMINATION

The Gavi 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-approved amendment to the application. The Gavi retains the right to terminate its support to the Country for the programmes described in its application if a misuse of Gavi funds is confirmed.

ANTICORRUPTION

The Country confirms that funds provided by the Gavi 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, as requested. The Gavi 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 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 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 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 TRANSPARENCY AND ACCOUNTABILITY POLICY

The Country confirms that it is familiar with the Gavi 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 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 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. 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 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 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. Type of Support requested

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

Type of Support	Support Vaccine		End Year	Preferred second presentation[1]
Routine New Vaccines Support	MR, 10 dose(s) per vial, LYOPHILISED in second dose	2017	2021	

[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.

2. Table of Contents

- 1. Type of Support requested
- 2. Table of Contents
- 3. Executive Summary
- 4. Signatures
 - 4.1. Signatures of the Government and National Coordinating Bodies
 - 4.1.1. Government and the Inter-Agency Coordinating Committee for Immunisation
 - 4.1.2. National Coordinating Body Inter-Agency Coordinating Committee for Immunisation
 - 4.1.3. Signature Table for the Coordinating Committee for Immunisation
 - 4.2. National Immunization Technical Advisory Group (NITAG)
 - 4.2.1. The NITAG
- 5. Immunisation Programme Data
 - 5.1 Background information
 - 5.1.1 Lessons learned
 - 5.1.2 Health planning and budgeting
 - 5.1.3 Gender and equity
 - 5.1.4 Data quality
 - 5.1.5 MCV Immunisation coverage
 - 5.2. Baseline and Annual Targets (NVS Routine Support)
 - 5.3. Targets for Preventive Campaign(s)
 - 5.4. Targets for One time mini-catchup campaign(s)
- 6. New and Under-Used Vaccines (NVS Routine)
 - 6.1. Assessment of burden of relevant diseases (if available)
 - 6.2 Requested vaccine (MR, 10 dose(s) per vial, LYOPHILISED in second dose)
 - 6.2.1 Co-financing information
 - 6.2.2 Specifications of vaccinations with new vaccine
 - 6.2.3 Portion of supply to be procured by the country (and cost estimate, US\$)
 - 6.2.4 Portion of supply to be procured by Gavi (and cost estimate, US\$)
 - 6.2.5 New and Under-Used Vaccine Introduction Grant
 - 6.2.6 Technical assistance
- 7. NVS Preventive Campaigns
- 8. Procurement and Management
 - 8.1 Procurement and Management of New and Under-Used Vaccines Routine
 - 8.2 Procurement and Management for NVS Preventive Campaign(s)
 - 8.3 Product Licensure
 - 8.4 Vaccine Management (EVSM/EVM/VMA)
 - 8.5 Waste management

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

10. List of documents attached to this proposal

11. Annexes

Annex 1 - NVS Routine Support

Annex 1.1 MR, 10 dose(s) per vial, LYOPHILISED in second dose

<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>\$

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

<u>Table Annex 1.1 C Summary table for vaccine MR, 10 dose(s) per vial, LYOPHILISED in second dose</u>

<u>Table Annex 1.1 D Estimated numbers for MR, 10 dose(s) per vial, LYOPHILISED in second dose, associated injection safety material and related co-financing budget</u>

Annex 2 - NVS Routine - Preferred Second Presentation

Annex 3 - NVS Preventive campaign(s)

Annex 4

Table Annex 4A: Commodities Cost

Table Annex 4B: Freight cost as percentage of value

<u>Table Annex 4C: Preparing transition phase - Minimum country co-payment per dose of co-financed vaccine</u>

Table Annex 4D: Wastage rates and factors

Table Annex 4E: Vaccine maximum packed volumes

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 requested
 - Details of the vaccine(s), if applicable, including the reason for the choice of presentation
 - Projected month and year of introduction of the vaccine (including for campaigns and routine)
- · Relevant baseline data, including:
 - DTP3 and Measles coverage data (as reported on the WHO/UNICEF Joint Reporting Form)
 - Target population from Risk Assessments from Yellow Fever and Meningitis A
 - Birth cohort, targets and immunisation coverage by vaccines
- · Country preparedness
 - Summary of planned activities to prepare for vaccine launch, including EVM assessments, progress on EVM improvement plans, communication plans, etc.
 - Summary of EVM assessment and progress on EVM improvement plan
- The nature of stakeholders' participation in developing this proposal
 - Inter-Agency Coordinating Committee
 - o Partners, including CSO involvement

Country background

The Government of Lao PDR, together with other Member States of WHO in the Western Pacific Region, is committed to eliminate measles in line with the resolution of WHO Regional Committee for the Western Pacific in 2005 and 2012. The country with support from international partners, has made significant progress in improving the routine immunization and in implementing measles elimination activities. The reported routine measles vaccination coverage at national level increased from 40% in 2007 to 83%; 87% and 88% in 3 consecutive years 2013,2014 and 2015. Nation-wide Measles SIAs were conducted in 2007, 2011 and 2014 with high reported coverage of 96%, 97% and 100% respectively.

However, in 2012-2013 there were measles outbreaks reported in Phongsaly in November-December 2012 and in Luangnamtha in January-February 2013. Both measles outbreaks mainly affected children who should have been vaccinated and protected by the measles SIA in 2007 and 2011. Similarly, in 2014, the country experienced outbreaks in Houaphanh and Bolikhamxay with twelve deaths amongst around 500 affected children most of whom were less than 5 years. The laboratory confirmed cases detected in 2014 and 2015 were 70 and 56 respectively. An analysis of all confirmed measles cases in Lao PDR from 2011 through to 2014; shows around 80% of the cases were from Hmong (also written as Mong) and Akha ethnic community.

By 2016, the country is one of few countries/ areas of the WHO Western Pacific region that has not yet introduced routine measles second dose into the routine immunization schedule. With the increased of MR1 routine >80% and also successful MCV supplementary immunization activities for wide-age groups of population, MOH/NIP decided to include MSD for introduction in 2017 in the its comprehensive Multi-Year Plan for 2016-2020.

Request for support and Duration of Support:

The Government of Lao PDR seeks financial assistance for the introduction activities of the Measles-Rubella (MR) second dose of vaccine from the GAVI Alliance in the form of New Vaccine Introduction Grant amounting for USD 149,330 and vaccine & injection equipment supply for the period of 5 years 2017-2021. The vaccine support will be based on Gov't co-financing schedule.

As MCV1 dose has been used in the routine immunization is Measles-Rubella lyophylized vaccine in 10-dose vial presentation since 2007, so the same MR lyophylized vaccine in 10-dose vial is selected for introduction of the Measles Second Dose. The projected time of MSD introduction is Apr.-May 2017.

The financial investment in the MR (both doses MR1 and MR 2) vaccine and injection supply for 2017 is estimated at US \$ 369,429, of which GAVI will support 201,307 US\$ (54.5%)

Other relevant baseline data:

The reported administrative coverage for Penta3 (DTP-Hepb-Hib third dose) has increased from 49% in 2004 to 88% in 2014. The reported administrative national coverage for pentavalent vaccine has been consistent with the WHO-UNICEF estimates since 2007. National measles vaccination coverage both for MCV1 routine and MR in SIAs were presented in the above paragraph.

JRF- Joint Reporting Forms indicate that prior to 2010, over 60% of districts reported DTP-3 coverage below 80%. While in 2013 and 2014, only 30% and 21% of districts respectively reported coverage lower than 80%.

A data quality assessment was carried out in late 2015 and the findings are being finalized. The findings and the way forward from the EPI coverage survey and the data quality assessment have been analyzed by NIP for development of an improvement action plan in 2016 and beyond.

Country preparedness:

Routine immunization services has been managed and delivered via fixed-sites, outreach and mobile teams through out the country health care network with over 1,000 health facilities, 148 district health centres and 17 provincial health departments and Vientiane capital. The programme is well accepted by the population, as demonstrated by improved coverage and good uptake of new and underutilized vaccines in the last decade, and also the support for communication activities through immunization campaigns, mass media partnerships and local authority leaderships. Surveillance strengthening was reinforced from early 2000s and, though still requiring continous strengthening, provides a good foundation setting for disease elimination. In term of financial sustainability, investments in vaccine procurement by the Government have increased substantially in recent years, with the National Government now financing all traditional vaccines. Although health centre planning systems have been enhanced, the challenge for the programme is to reach out to the disadvantaged and remote population sub- groups in order to raise and maintain coverage to 95% in support of the measles and other VPD disease elimination goals. The attached cMYP 2016-2020 and HSS attached to this proposal outline the challenges and strategies as to how these challanges will be overcome.

The attached MSD introduction plan outlines the NIP programs readiness to invest in program strengthening to support the measles second dose application. Main activities planned for MSD introduction include: (i) planning and programme management, incl.EVM improvement activities, AEFI; (ii) Advocacy-communication, social mobilization and training, incl. launching of the introduction, (iii) AFR surveillance and (iv) Monitoring and Evaluation.

Cold chain and Vaccine management preparedness:

The last EVM assessment was conducted in 2014 with subsequent cold chain and vaccine management activities implemented in 2015 (refer to cold chain and vaccine management section in the proposal). Improvement of the country's cold chain system with installation of additional equipments, i.e.WICR 40m3 at national store and 90 refrigerators with distribution of more than 1,000 vaccine carriers for subnational storage levels in recent years means that with introduction of measles second dose, there will be adequate storage space to accommodate new vaccines (cold chain inventory and capacity assessment have been carried out to verify the cold chain readiness at National and sub-national levels for MSD introdution)

Stakeholder's participation in developing this proposal

The NIP in close collaboration with WHO and UNICEF country offices oversaw the development of this routine MSD introduction proposal with activity plan and the updating of the Multi Year Plan and costing. The proposal has been reviewed and endorsed by both the National Immunization Technical Advisory Group (NITAG), the Inter-Coordination Committee for Immunization (ICC) of the Ministry of Health. The rational and public health importance for the provision of the second dose of measles have been justified in the WPRO measles-rubella elimination strategies, which was presented at the recent WHO TAG in Manila July 2016.

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 Lao People's Democratic Republic would like to expand the existing partnership with the Gavi for the improvement of the infants routine immunisation programme of the country, and specifically hereby requests Gavi support for:

MR, 10 dose(s) per vial, LYOPHILISED in second dose routine introduction

The Government of Lao People's Democratic Republic 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 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. 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 **October**.

The payment for the first year of co-financed support will be around October 2017 for MR, 10 dose(s) per vial, LYOPHILISED in second dose.

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: 2 and 1 in Section 10. Attachments.

Ministe	r of Health (or delegated authority)	Minister of Finance (or delegated authority)		
Name Assoc.Prof.Dr. Phouthone MEUANGPARK, Vice-Minister of Health		Name	Dr.Somphone PHANGMANIXAY, Acting director of the Finance Dept.	
Date		Date		
Signature		Signature		

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

Full name	Position	Telephone	Email
	NIP manager-Deputy Director MCH Centre,MOH	+8562023010827	anonhxeuat 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, Health Sector Coordinating Committee (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		
Year of constitution of the current committee	1992		
Organisational structure (e.g., sub-committee, stand-alone)	sub-team		
Frequency of meetings	quarterly		

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:

The ICC was established to facilitate the coordinationa and support of the EPI programme and its activities. ICC key function is to bring together on regular basis the representatives of departments that are responsible for implementing EPI and related public and institutional health activities and those who provide funding and technical assitance to the programme activities.

The roles of the ICC include: technical, financial, policy and capacity building (Pls. refer to its TORs for more details)

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

WHO has provided insights with technical assistance and reference documents for preparation of the proposal. Collaboration with NIP on MSD introduction plan and consultation with UNICEF, esp. on communication and social mobilisation for implemention was made intensively during the process of development of the proposal. WHO and UNICEF and other partners, i.e. CDC had involved at consultative meetings, when the proposal was reviewed and endorsed by NITAGs and ICC.

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 05/09/2016 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 C of the 'Gavi HSS and NVS General Guidelines' for more information on ICCs.

Function	Title / Organisation	Name	Please sign below to indicate the attendance at the meeting where the proposal was endorsed	Please sign below to indicate the endorsement of the minutes where the proposal was discussed
Chair	Vice-Minister of Health	Assoc.Prof.Dr. Phouthone MEUANGPARK		
Secretary	National Immunization Programme	Dr. Anonh XEUATVONGSA		
	MOH Cabinet			
	Department of Planning and Int'l Cooperation			
	Department of Hygiene and Health Promotion			
Members	Department of Curative Care			
	Department of Diseases Control			
	Nat'l Centre for Laboratory and Epidemiology			
	University of Health Science			
	Mahosot Hospital			

	Pediatric Hospital		
	Mittaphab Hospital		
Mambara	World Health Organization		
Members	United Nation Children Funds		
	US-CDC		

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 (NITAG)

Has a NITAG been established in the country? Yes

We the members of the NITAG met on the 26/08/2016 to review this proposal. At that meeting we endorsed this proposal on the basis of the supporting documentation describing the decision-making process through which the recommendations were reached, attached as Document number 26.

4.2.1. The NITAG

Profile of the NITAG

Name of the NITAG	National Immunization Technical Advisory Groups, Nat'l Verification Committees		
Year of constitution of the current NITAG	2013		
Organisational structure (e.g., sub-committee, stand-alone)	stand-alone		
Frequency of meetings	Bi-annual meetings or more often if required		

Function	Title / Organisation	Name		
Chair	Director, Department of Hygiene and Health Promotion, MOH	Dr.Phat KEUNGSANETH		
Secretary	Deputy, MCH Center and Chief of NIP , MOH	Dr. Anonh XEUATVONGSA		
	MOH Cabinet	Dr. Nao BOUTA (Deputy)		
	Director, Department of Disease Control	Dr. Bounlay PHOMMACHACK (Deputy)		
	Director, Department of Health Care	Assoc. Prof. Dr. Chanphomma VONGSAMPHAN (Deputy)		
	Deputy-director, Department of Hygiene and Health Promotion	Dr.Kaisone CHOURAMANY		
	Deputy-director, Department of Planning and International Cooperation	Dr.Phasouk VONGVICHIT		
	Deputy-director, Department of Finance	Dr.Somphone PHANGMANIXAY		
Members	Director, Setthathirath Hospital	Dr.Khampea PHONGSAVATH		
	Director, Mahosoth Hospital	Dr.Lathtanaphone PHETHSOUVANH		
	Mental Health Dept., Mahosoth Hospital	Dr.Vykham SENGKHIYAVONG		
	Chief MCH Centre	Dr.Khampiew SIHAKANG		
	Director, NCLE	Dr.Phengta VONGPHACHANH		
	Deputy-director Dept. of Diseases Control	Dr.Lathtanaxay PHETHSOUVATH		
	Deputy-director Dept. of Medical Treatment	Dr.Pisith PHOUTHSAVATH		

Major functions and responsibilities of the NITAG

Key NITAGs roles and responsibilities:

- 1. Give advices to the Ministry of Health, National EPI programme on VPD Disease Elimination and Eradication in Lao PDR, i.e Polio, Measles, MNT
- 2. Review and adopt new proposals to be implemented to achieve and sustain National Immunization goals, i.e.Polio, Measles and others
- 3. Initiate meetings with Int'l collaborating agencies/ NGOs to share ideas for fund raising and technical support,i.e. development of strategies on VPD eradication and elimination
- 4. Identify the key strategies or National action plan to be performanced to succeed for specific objectives of VPD eradication and elimination as required.
- 5. Monitor and provide technical advices to reach and sustain specific VPD eradication and elimination goals.
- 6. Collaborate with WPRO Regional Verification and/or Certification Committees on Measles, Polio and others for timely progress review, report and other related activities.

In the absence of a NITAG, countries should clarify the role and functioning of the advisory group and describe plans to establish a NITAG. This document is attached as **(Document Number: 8)**

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 9. Please attach the cMYP costing tool as DOCUMENT NUMBER 10.
- 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 refer to the attached risk assessments in the case of yellow fever and meningitis A mass preventive campaigns.

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

	Figure	Year	Source
Total population	6,492,400	2015	МОН
Birth cohort	194,026	2015	JRF 2015
Infant mortality rate (per 1000)	54	2013	МОН
Surviving infants[1]	183,962	2015	JRF 2015
GNI per capita (US\$)	1,260	2012	World Bank
Total Health Expenditure (THE) as a percentage of GDP	5	2014	MOH 2014
General government expenditure on health (GGHE) as % of General government expenditure	12	2014	MOH 2014

[3] 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. If they are included in the Introduction Plan, please cite the section only. If this information is already included in NVIP/POA, please reference the document and in which section/page this information can be found.

Lessons Learned	Action Points		
Increased demand for immunization requires investment in advocacy-communication and social mobilisation	Additional strategies for community communication and social mobilization as well as community level monitoring via civil society organization's participation to be explored		
Limited competency based training at different levels	Staff that provide immunization services at diferrent levels need more competency based hand-on training. The training should be followed by supportive supervision		
Vaccine management and cold chain practices of health staff requires reinforcement through dissemination of revised guidelines, policy and SOPs, i.e refresher training and also regular supportive supervision by national, provincial levels	Accelerate implementation of recommendations on revision and development of guideline, policies and SOPs on vaccine and cold chain management from the latest EVM assessment and its improvement plan		

Limitation for supportive monitoring and supervision at subnational levels is a challenge for improving immunization program performance at local service delivery system,esp. in hard to reach areas of the country More investment to increase technical and financial capacity for subnational M&E is needed for MSD routine introduction. This can be realised through integration with strengthening supportive supervision under the EPI annual action plan and HSS

5.1.2 Health planning and budgeting

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

The fiscal year in Lao PDR runs from Jannuary to December

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

The current planning document is the 8th five-year Health Development Plan 2016-2020, Ministry of Health. Also of relevance 8th National Socio-Economic Development Plan 2016-2020, Ministry of Planning and Investment

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

Yes, The current cMYP 2016-2020 includes second dose of MRCV (Measles Second Dose- MSD) as one of the vaccine to be introduced into the routine immunization schedule to achieve the national goal #2 "Eliminate Measles and Rubella" as well as other programme priorities such as "In crease demand for immunization"; "Improve quality of immunization service delivery". MSD introduction is scheduled for 2017

Please indicate the national planning budgeting cycle for health

The first discussion of budget allocations start approximetely one year ahead of the fiscal year, in Q4 of the year prior. Plans from various departments of the MOH are formalized, aggregated and reviewed to develop annual health budget. Tis is approved by the Ministry of Health and submitted in May. An aggregated government budget is subsequently submitted for approval by the National Assembly at its meeting sessions in June. Final approval by the National Assembly is in August/September.

Please indicate the national planning cycle for immunisation

The national planning cycle for Immunization follows the health planning cycle above. The immunization budget is developed and submitted in early May for review and integration with the larger health sector buget plan.

5.1.3 Gender and equity

Please describe any barriers to access, utilisation and delivery of immunisation services at district level (or equivalent) that are related to geographic, socio-economic and/or gender equity. Please describe actions taken to mitigate these barriers and highlight where these issues are addressed in the vaccine introduction plan(s).

There are disparities in access of immunization services in Laos across wealth quintiles, geographic areas (urban, rural or low land and high mountainous area) and also ethnic groups of population. But there is no major differences in immunization service delivery for girls and boys and also in the age groups targeted by the routine programme. In Lao PDR both girls and boys receive immunization in the same way if the immunization services are delivered to the community.

According to the vaccine introduction plan, priority will be given to increase access, utilisation and delivery of immunization in the hard-to reach, high risk areas via Reach Every Community (REC) Approach- local microplanning as well as advocacy-communication and social mobilization activities, when specific ethnic-friendly materials will be developed and used, i.e. for H'mong people

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).

According to the vaccine introduction plan, priority will be given to increase access, utilisation and delivery of immunization in the hard-to reach, high risk areas via Reach Every Community (REC) Approach- local microplanning as well as advocacy-communication and social mobilization activities, when specific ethnic-friendly materials will be developed and used, i.e. for H'mong people

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

not available

Is the country currently in a situation of fragility (e.g. insecurity, conflict, post-conflict, refugees/and or displaced persons and recent, current or potential environmental disaster, such as flooding, earthquake or drought or others)? 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.

This section is not applicable for Lao PDR.

If available, please provide additional information and documents on subnational coverage data, e.g. comparing urban/rural districts or districts with highest/lowest coverage, etc.

The district wise coverage of all major antigens in Lao PDR shows wide variation. The Penta-3 (DTP-Hepb-Hib third dose) coverage for 2014 varied widely from 47% and 140% which also underpins the issues related to data quality (both reported figures of vaccinated children and population targets) apart from the programmatic and access issues. The denominator target used at all levels of the health system is always an estimate (projection) from the most recent census and thus, at the local health centre level measurement of performance becomes difficult as the real target population for immunization varies.

The joint reporting forms indicate that prior to 2010, over 60% of districts reported DTP-3 coverage below 80%. While in 2013 and 2014, only 30% and 21% of districts respectively reported coverage lower than 80%.

5.1.4 Data quality

Please attach a data quality assessment (DQA), report that has been completed within the previous 48 months with the most recently conducted national survey containing immunisation coverage indicators (DOCUMENT NUMBER: 27) and an immunisation data quality improvement plan (DOCUMENT NUMBER 11). If available, a progress report on the implementation of the improvement plan should also be submitted (DOCUMENT NUMBER: 28, DOCUMENT NUMBER: 11).

Please indicate what routine mechanisms to independently assess the quality of administrative data are in place, and if so what these mechanisms are and how they enable the country to track changes in data quality over time.

DQA assessment was conducted in 2015 and action plan for the improvement is under on-going process of development.

Please detail what household surveys have been conducted in recent years to independently assess immunisation coverage and equity, and describe any survey plans for the coming five year period.

Last EPI household cluster survey was conducted in 2015. Preliminary report is available for further analysis and use for strategic planning of the programme.

5.1.5 MCV Immunisation coverage

Evidence of self-financing MCV1

If the country is not currently fully financing with domestic resources the measles mono-valent vaccine component of routine measles first dose (MCV1), please provide evidence that the country can meet this requirement from 2018 onwards through a decision recorded in the ICC minutes AND a signed letter from the Minister of Health and the Minister of Finance (Please attach available documents AS DOCUMENT NUMBER 31 -- in Section 10. Attachments).

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

Coverage	20	13	2014 20		15	
Coverage	Administrative(1)	WUENIC(2)	Administrative(1)	WUENIC(2)	Administrative(1)	WUENIC(2)
Measles 1 <i>st</i> dose (%)	82	82	87	87	88	88
Measles 2 <i>nd</i> dose (%)						

Coverage	20	13	2014		2014 2015		15
Coverage	Administrative(1)	Coverage survey	Administrative(1)	Coverage survey	Administrative(1)	Coverage survey	
Supplementary Immunisation Activities (SIA) (%)			100	89			

Note:

- (1) National reported Administrative Coverage
- (2) WHO/UNICEF estimates of national immunization 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.

Number	Base Year		Baseline and Targets				
Number	2015	2017	2018	2019	2020		
Total births	194,026	186,662	188,902	190,980	192,890		
Total infants' deaths	10,064	10,052	10,168	10,276	10,374		
Total surviving infants	183,962	176,610	178,734	180,704	182,516		
Total pregnant women	194,026	186,662	188,902	190,980	192,890		
Target population vaccinated with OPV3[1]	162,843	167,779	169,797	171,669	173,390		
OPV3 coverage[2]	89 %	95 %	95 %	95 %	95 %		
Target population vaccinated with DTP1[1]	170,763	174,844	176,947	178,897	180,691		
Target population vaccinated with DTP3[1]	163,127	167,779	169,797	171,669	173,390		
DTP3 coverage[2]	89 %	95 %	95 %	95 %	95 %		
Wastage[3] rate in base-year and planned thereafter (%) for DTP	5	5	5	5	5		
Wastage[3] factor in base-year and planned thereafter for DTP	1.05	1.05	1.05	1.05	1.05		
Target population vaccinated with MCV2[1]	.0	105966.0	125114.0	144563.0	155139.0		
MCV2 coverage[2]	0 %	60 %	70 %	80 %	85 %		
First Presentation: MR, 10 dose(s) per vial, LYOPHILISED in second dose							
Wastage[3] rate in base-year and planned thereafter (%)	35	40	40	40	40		
Wastage[3] factor in base-year and planned thereafter (%)	1.54	1.67	1.67	1.67	1.67		
Maximum wastage rate value for MR, 10 dose (s) per vial, LYOPHILISED in second dose	40 %	40 %	40 %	40 %	40 %		
Target population vaccinated with 1st dose of MCV	162,261	162,481	169,797	171,669	173,390		
MCV coverage[2]	88 %	92 %	95 %	95 %	95 %		
Annual DTP Drop out rate [(DTP1 – DTP3) / DTP1] x 100	4 %	4 %	4 %	4 %	4 %		

^[1] Indicate total number of children vaccinated with either DTP alone or combined

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

^[3] The formula to calculate a vaccine wastage rate (in percentage): $[(A - B)/A] \times 100$. Whereby: A = the number of doses distributed for use according to the supply records with correction for stock balance at the end of the supply period; B = the number of vaccinations with the same vaccine in the same period.

Number	Baseline and Targets
Number	2021
Total births	194,888
Total infants' deaths	10,485
Total surviving infants	184,403
Total pregnant women	194,888
Target population vaccinated with OPV3[1]	175,183
OPV3 coverage[2]	95 %
Target population vaccinated with DTP1[1]	182,559
Target population vaccinated with DTP3[1]	175,183
DTP3 coverage[2]	95 %
Wastage[3] rate in base-year and planned thereafter (%) for DTP	5
Wastage[3] factor in base-year and planned thereafter for DTP	1.05
Target population vaccinated with MCV2[1]	165963.0
MCV2 coverage[2]	90 %
First Presentation: MR, 10 dose(s) per vial, LYOPHILISED in second dose	
Wastage[3] rate in base-year and planned thereafter (%)	40
Wastage[3] factor in base-year and planned thereafter (%)	1.67
Maximum wastage rate value for MR, 10 dose (s) per vial, LYOPHILISED in second dose	40 %
Target population vaccinated with 1st dose of MCV	175,183
MCV coverage[2]	95 %
Annual DTP Drop out rate [(DTP1 – DTP3) / DTP1] x 100	4 %

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

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

[3] 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. Targets for Preventive Campaign(s)

No NVS Prevention Campaign Support this year

5.4. Targets for One time mini-catchup campaign(s)

No One time mini-catchup campaign this year

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

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

If already included in detail in the Introduction Plan or Plan of Action, please cite the section only.

Disease	Title of the assessment	Date	Results
Rubella	Serosurvey of Reproductive Age Women to assess the susceptibility of rubella injection	2011	15-19 years: 35.5% susceptible 20-24 years: 19.4% susceptible 25-29 years: 14% susceptible 30-35 years: 7.7% susceptible
Measles	WHO/UNICEF Joint Reporting Form (JRFs)	2014-2015	A total of 358 and 631 suspected cases were notified in Lao PDR in 2014-2015 respectively. The laboratory confirmed cases detected in 2014 and 2015 were 83 and 56. The characteristic of all measles outbreaks in recent times in Lao PDR shows a preponderance of this outbreak among the Hmong Ethnic Population. An analysis of all confirmed measles cases in Lao PDR from 2011 through to 2014; shows around 80% of the cases were from Hmong (also written as Mong) and Akha ethnic community.

6.2. Requested vaccine (MR, 10 dose(s) per vial, LYOPHILISED in second dose)

As reported in the cMYP, the country plans to introduce MR, using MR, 10 dose(s) per vial, LYOPHILISED in second dose.

When is the country planning to introduce this vaccine? May 2017

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.

Please summarise the cold chain capacity (at central and other levels) and readiness to accommodate new vaccines, taking into consideration training, cold chain equipment and other logistical requirements. If cold chain expansion is required, state how it will be financed, and when it will be in place. The Independent Review Committee requires assurance that the cold chain is ready or will be ready for the routine introduction of the new vaccine, and evidence/plans need to be provided. All proposals that include Gavi- financing for cold chain equipment intended for vaccine storage shall need to procure equipment pre-qualified by WHO under their Performance Quality and Safety (PQS) program. The purchase of non-PQS equipment will only be considered on an exceptional basis, with justification and advance agreement from Gavi.

The cold chain capacity was assessed during the last EVM assessment in 2014. Presently the cold chain at all major vaccine store centres as well as sub-national levels is sufficient to accomodate the introduction of MSD routine vaccine. MR vaccine has been presented in Laos cold chain system since 2011 and it doesn't represent an issue with capacity and management.

One of the recommendations was to increase cold storage capacity with supply procurement of cold chain equipments. A new Walk-in Cold Room of 40 cubic metres was installed in 2015 and currently it's functioning well for the EVM improvement in the country. In 2016, following cold chain equipments were distributed to all 17 provinces and Vientiane Capital as well as 148 districts with 1,000 Health centres to increase vaccine storage capacity at sub-national levels: (i) 100 units of refrigerators HBC-B, (ii) 200 units of MK 144,(iii) 20 units of Solar refrigerators,(iv) 51 cold boxes and 1001 units of vaccine carriers.

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	Preparing transition phase				
	2017	2018	2019		
Minimum co-financing	0.30	0.35	0.40		
Your co-financing (please change if higher)	0.30	0.35	0.40		

	2020	2021
Minimum co-financing	0.46	0.52
Your co-financing (please change if higher)	0.46	0.52

6.2.2. Specifications of vaccinations with new vaccine

	Data from		2017	2018	2019	2020
Immunization coverage	Table 5.2	%	60%	70%	80%	85%
Number of children to be vaccinated with the first dose	Table 5.2	#	162,481	169,797	171,669	173,390
Number of children to be vaccinated with the second dose	Table 5.2	#	105,966	125,114	144,563	155,139
Country co-financing per dose	Table 6.4.1	\$	0.3	0.35	0.4	0.46

	Data from		2021
Immunization coverage	Table 5.2	%	90%
Number of children to be vaccinated with the first dose	Table 5.2	#	175,183
Number of children to be vaccinated with the second dose	Table 5.2	#	165,963
Country co-financing per dose	Table 6.4.1	\$	0.52

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

		2017	2018	2019
Number of vaccine doses	#	255,028	268,695	327,557
Number of AD syringes	#	192,218	181,202	220,099
Number of re-constitution syringes	#	28,309	29,826	36,360
Number of safety boxes	#	2,448	2,343	2,847
Total value to be co-financed by the Country [1]	\$	168,122	176,263	214,843

[1] The co-financing amount for intermediate and graduating countries indicates costs for the vaccines, related injection safety devices 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.

		2020	2021
Number of vaccine doses	#	388,478	455,962
Number of AD syringes	#	259,803	304,916
Number of re-constitution syringes	#	43,122	50,613
Number of safety boxes	#	3,363	3,947
Total value to be co-financed by the Country [1]	\$	254,752	299,002

^[1] The co-financing amount for intermediate and graduating countries indicates costs for the vaccines, related injection safety devices 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 Gavi (and cost estimate, US\$)

	2017	2018	2019
#	305,372	234,905	209,543
#	230,164	158,414	140,800
#	33,896	26,074	23,259
#	2,931	2,048	1,821
\$	201,307	154,092	137,434
	2020	2021	
#	165,322	119,038	
#	110,563	79,604	
#	18,350	13,213	
#	1,431	1,030	
	# # \$	# 305,372 # 230,164 # 33,896 # 2,931 \$ 201,307 2020 # 165,322 # 110,563	# 305,372 234,905 # 230,164 158,414 # 33,896 26,074 # 2,931 2,048 \$ 201,307 154,092 2020 2021 # 165,322 119,038 # 110,563 79,604

6.2.5. New and Under-Used Vaccine Introduction Grant

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

Year of New Vaccine Introduction	Births (from Table 5.2)	Share per Birth in US\$	Total in US\$
2017	186,662	0.80	149,330

This is a one-time cash grant of US\$0.80/child in a single birth cohort or a lump sum of \$100,000 (whichever is higher). It should be noted that for introduction applications submitted from January 2017 onwards and for all Gavi vaccine introductions planned for implementation in 2018 onwards, this grant will be adjusted according to transition stage of the country. Countries in preparatory transition phase (Phase 1) will be provided with \$0.70 per targeted person in a single birth cohort, and countries which have entered accelerated transition phase (Phase 2) \$0.60 per targeted person in a single birth cohort. For low income countries, the amount will remain at \$0.80 per targeted person.

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).

The grant will finance planning and preparation activities for MSD introduction, including enhanced training in micro planning implementation to ensure raising higher coverage for MCV1 and MCV2. As part of this refresher training for local health staff, immunization safety, EVM; AEFI surveillance and recording/reporting will also be included. It also contains support for development of appropriate advocacy-communication materials and launching of MSD introduction to raise public-care takers-health sector's awereness on measles rubella vaccination and elimination goal and as well as orientation of civil societies to conduct regular check of child immunization cards on MCV and other routine vaccines. In addition, the proposed budget supports enhanced active case-based surveillance for Acute Fever and Rash (AFR) to ensure timely detection, investigation and response to measles, esp. in high risk districts (according to the measles risk assessment 2016).

Finally, a Post Introduction Evaluation is also included

Please complete the 'Detailed budget for VIG / Operational costs' template provided by Gavi and attach as a mandatory document in the Attachment section.

Detailed budget attached as Document No. 22.

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.

Gaps for MSD vaccine introduction activities, incl. training for microplanning implementation for health centres at district level, advocacy-communication/social mobilisation, M&E and also strengthening of case-based AFR surveillance to be covered by other funding sources, i.e. HSS for the identified districts, UNICEF and WHO supports through EPI annual plans. Pls. refer for details in the MSD introduction plan attached with this application.

6.2.6. Technical assistance

Please describe any particular area(s) the Ministry would require technical assistance to support the introduction of MR.

Technical support for the MSD introduction is expected from WHO and UNICEF

7. NVS Preventive Campaigns

No NVS Prevention Campaign Support this year

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 or PAHO's Revolving Fund):

As for other routine traditional vaccines that have been self-financed, the country will include MR vaccine for the Measles Second Dose introduction into annual vaccine forecast. Lao PDR requests procurement of GAVI supported MR vaccine and injection safety supplies through UNICEF supply procurement system as is the current modality for procurement of other EPI vaccines for the MOH. Management for the MR vaccine will be strictly complied with the national EVM management procedures.

- b) If an alternative mechanism for procurement and delivery of vaccine supply (financed by the country or the Gavi) is requested, please document
 - A description of the mechanism and the vaccines or commodities to be procured by the country
 - Assurance that vaccines will be procured from the WHO list of pre-qualified vaccines, indicating the specific vaccine from the list of pre-qualification. For the procurement of locally-produced vaccines directly from a manufacturer which may not have been prequalified by WHO, assurance should also be provided that the vaccines purchased comply with WHO's definition of quality vaccines, for which there are no unresolved quality problems reported to WHO, and for which compliance is assured by a fully functional National Regulatory Authority (NRA), as assessed by WHO in the countries where they are manufactured and where they are purchased.

WHO pre-qualified vaccines are always be selected for NIP programme use in Lao PDR.

c) If receiving direct financial support from Gavi (such as operational support for campaigns or VIG activities), please indicate how the funds should be transferred by Gavi.

NIP of Lao PDR would request GAVI to transfer the new vaccine introduction grant of US\$ 149,330 to the bank account of MOH as indicated in the banking form, as enclosed at the end of this portal MSD application form, preferably in the second quarter of 2017 if the application accepted by GAVI to allow country to implement various pre-introduction activities

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

MOH in collaboration with MOF is responsible for co-financing budget

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

National financial management procedures will be applied for the management of the NVS direct financial support as well as vaccine-injection safety supply procurement

f) Please outline how coverage of the introduced vaccine will be monitored, reported and evaluated (refer to cMYP and Introduction Plan)

MSD vaccination will be monitored as other vaccines in the routine immunization schedule regularly by differrent service delivery levels, i.e. commune, district and province. Vaccination data will be recorded and consolidated for regular administrative report from health centres up to districts, provinces and NIP.

With introduction of the 2nd dose of measles vaccine, the child immunization cards, immunization registers, reporting forms as well as routine immunization schedule at the health facility will be revised accordingly.

The NIP, TWG (comprised of NIP, other MOH Dept.,WHO,UNICEF.e.t.c) and ICC will monitor the reported coverage data through regular reviews and analysis. Suportive supervision reports from routine immunization monitoring system will also be used for on-site monitoring.

According to the introduction plan, quarterly check of child immunization cards will be established with involvement of civil societies organizations, such as National-Provincial or District Commissions for Mothers and Children (NCMC-PCMC-DCMC) or Lao's Women Union at local levels. The results of card check will be reported for planning and implementation of vaccination to get missed children vaccinated and so increase coverage for MCV and other vaccines. Card check for children at school entry also be explored via collaboration with education sector to make sure that they all are fully immunized with two doses of MR and also with other vaccines according to the National vaccination schedule.

In addition to reporting mechanizm and monitoring of vaccine coverage data, the AFR surveillance at hospitals and health centre will be further strengthened with WHO technical support. Information on vaccination status of all suspected cases (incl. if they have received or not 2nd dose of MR) will be monitored

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)

No NVS Prevention Campaign Support this year

8.3 Product Licensure

For each of the vaccine(s) requested, please state whether manufacturer registration and/or national vaccine licensure will be needed in addition to WHO prequalification and, if so, describe the procedure and its duration. In addition, state whether the country accepts the Expedited Procedure for national registration of WHO-prequalified vaccines.

Note that the necessary time for licensure should be factored into the introduction timeline and reflected in the Vaccine Introduction Plan or Plan of Action.

MR vaccine for MCV1 as well as for SIAs, which met WHO pre-qualification and Lao PDR regulations, has been used in the country since early 2000s.

For each of the vaccine(s) requested, please provide the actual licensure status of the preferred presentation and of any alternative presentations, if required.

not applicable

Please describe local customs regulations, requirements for pre-delivery inspection, special documentation requirements that may potentially cause delays in receiving the vaccine. If such delays are anticipated, explain what steps are planned to handle these.

No delays are anticipated for receiving MR as well as other vaccines according to Lao PDR customs regulations for biological vaccine products.

Please provide information on NRA in the country, including status (e.g. whether it is WHO-certified). Please include points of contact with phone numbers and e-mail addresses. UNICEF will support the process by communicating licensing requirements to the vaccine manufacturers where relevant.

As Lao PDR has not produce vaccine locally yet, therefore NRA system has been established and functioned for the relevant functions according to WHO guidelines.

8.4 Vaccine Management (EVSM/EVM/VMA)

It is mandatory for countries to conduct an Effective Vaccine Management (EVM) assessment prior to an application for the introduction of a new vaccine. This EVM should have been conducted within the preceding **5 years**.

When was the EVM conducted? July 2014

Please attach the EVM improvement plan progress report (DOCUMENT NUMBER:21); and if not previously provided, please attach the most recent EVM assessment report (DOCUMENT NUMBER: 20,19,21) and the corresponding EVM improvement plan (DOCUMENT NUMBER: 19). 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.

When is the next Effective Vaccine Management (EVM) Assessment planned? January Not planned

8.5 Waste management

Countries must have a detailed waste management and monitoring plan as appropriate for their immunisation activities. This should include details on sufficient availability of waste management supplies (including safety boxes), the safe handling, storage, transportation and disposal of immunisation waste, as part of a healthcare waste management strategy. Please describe the country's waste management plan for immunisation activities (including campaigns).

A waste management plan exists that safety boxes will be supplied and used by HWs-vaccinators to dispose used syringes and needles (unrecapped) into the boxes and store them in a safe location. These adequately filled safety boxes will be collected for incineration at higher administrative levels, where incinerators are available. Immunization safety is always one of the topics of training for local health staff-vaccinators and Immunization is a leading health programme that has used AD syringes and safety boxes and has complied with universal precautions in practicing safe disposal of used syringes in the country.

Since many incinerators have been installed and used since early 2000s, so the NIP is planning to gradualy replace with new incinerators and the replacement plan has been included under HSS-GAVI support 2016-2020

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

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

The introduction of second dose of measles rubella containing vaccine has been recommended and thoroughly discussed at ICC as well as with the UNICEF and WHO, who have provided technical support for the development of all activities required for the MSD routine introduction.

10. List of documents attached to this proposal

10.1. List of documents attached to this proposal

 Table 1: Checklist of mandatory attachments

Document Number	Document	Section	File					
Endorsemer	Endorsements							
1	MoH Signature (or delegated authority) of Proposal	4.1.1	Vice Minister of Health signature.PDF File desc: Date/time: 08/09/2016 03:34:42 Size: 728 KB					
2	MoF Signature (or delegated authority) of Proposal	4.1.1	Finance delegated authority signature.PDF File desc: Date/time: 08/09/2016 03:35:22 Size: 728 KB					
4	Terms of Reference for the ICC	4.1.2	ICC TOR.pdf File desc: Date/time: 05/09/2016 07:16:37 Size: 1 MB					
5	Minutes of ICC/HSCC meeting endorsing Proposal	4.1.3	Minutes of ICC Meeting on MSD.PDF File desc: Date/time: 08/09/2016 11:31:29 Size: 862 KB					
6	Signatures of ICC or HSCC or equivalent in Proposal	4.1.3	Signatures ICC members.PDF File desc: Date/time: 09/09/2016 12:16:33 Size: 1 MB					
7	Minutes of last three ICC/HSCC meetings	4.1.3	ICC Minute on 16 May 2016.PDF File desc: Date/time: 05/09/2016 07:14:58 Size: 1 MB					
8	Role and functioning of the advisory group, description of plans to establish a NITAG	4.2.1	NITAGs,NVCommittees Eng.pdf File desc: Date/time: 08/09/2016 03:29:17 Size: 110 KB					
Planning, financing and vaccine management								
9	comprehensive Multi Year Plan - cMYP	5.1	cMYP Lao PDR Ver 2.0.pdf File desc: Date/time: 05/09/2016 07:25:40 Size: 2 MB					
10	cMYP Costing tool for financial analysis	5.1	cMYP_LAO_PDR_Costing FINAL Version.xlsx File desc: Date/time: 05/09/2016 07:05:46 Size: 3 MB					

11	M&E and surveillance plan within the country's existing monitoring plan	5.1.4	M and E plan within the existing EPI monitoring plan.PDF File desc: Date/time: 08/09/2016 04:46:43 Size: 587 KB
13	Introduction Plan for the introduction of RCV / JE / Men A / YF into the national programme	7.x.4	LAO JE NVIP 2014.pdf File desc: Date/time: 05/09/2016 07:10:29 Size: 1 MB
14	Annual EPI Plan with 4 year forward view for measles and rubella		Annual work plan 28 Jan 2015.xlsx File desc: Date/time: 02/09/2016 09:56:57 Size: 89 KB
17	Evidence of commitment to fund purchase of RCV for use in the routine system in place of the first dose of MCV	7.x.3	Evidence of commitment to fund purchase of routine vaccines (1).PDF File desc: Date/time: 07/09/2016 12:33:44 Size: 86 KB
18	Campaign target population documentation	7.x.1, 6.x.1	MR Campaign target population documentation 2014.pdf File desc: Date/time: 05/09/2016 07:18:15 Size: 136 KB
22	Detailed budget template for VIG / Operational Costs	6.x,7.x.2, 6.x.2	Detailed budget for MSD Lao PDR 8th Sept.pdf File desc: Date/time: 08/09/2016 04:25:09 Size: 243 KB
27	Data quality assessment (DQA) report	5.1.4	Lao PDR DQS Report Ver 2.0.docx File desc: Date/time: 02/09/2016 10:00:08 Size: 3 MB
28	DQA improvement plan	5.1.4	DQS improvement plan.PDF File desc: Date/time: 08/09/2016 04:47:43 Size: 391 KB
29	Plan of Action for campaigns	7.1, 7.x.4	Action Plan Proposal on MR-SIA 2014-NIP - Eng.pdf File desc: Date/time: 08/09/2016 08:14:02 Size: 350 KB

Table 2: Checklist of optional attachments

Document Number	Document	Section	File
	MoE signature (or delegated authority) of HPV Proposal		No file loaded

12	Vaccine introduction plan	5.1	MSD Vaccine introduction Plan NIP 8th Sept.pdf File desc: Date/time: 08/09/2016 04:22:24 Size: 635 KB
15	HPV roadmap or strategy	6.1.1	No file loaded
16	HPV summary of the evaluation methodology	5.1.6	No file loaded
19	EVM report	8.3	D1 EVM Report LaoPDR.pdf File desc: Date/time: 08/09/2016 12:47:28 Size: 10 MB
20	Improvement plan based on EVM	8.3	Lao cEVM Improvement 07 August 2015 (2).docx File desc: Date/time: 07/09/2016 07:20:31 Size: 388 KB
21	EVM improvement plan progress report	8.3	Progress report on EVM improvement plan Lao PDR Sept.2016.pdf File desc: Date/time: 08/09/2016 09:08:44 Size: 200 KB
23	Risk assessment and consensus meeting report for MenA. If the DPT was used instead, please include this.	7.1	No file loaded
24	National Measles (& Rubella) elimination plan if available		No file loaded
25	A description of partner participation in preparing the application	4.1.3	No file loaded
26	Minutes of NITAG meeting with specific recommendations on the NVS introduction or campaign	4.2	No file loaded
30	Other		ICC minute 8th May 2015.PDF File desc: Date/time: 07/09/2016 11:12:54 Size: 1 MB ICC meeting minute 7 Jan 2015.PDF File desc: Date/time: 07/09/2016 11:13:21 Size: 1 MB

			Banking form MSD application.PDF File desc: Date/time: 07/09/2016 11:13:56 Size: 470 KB
30	Other		Bank form BCEL.PDF File desc: Date/time: 07/09/2016 11:14:26 Size: 322 KB
			Check list for MSD introduction application.pdf File desc: Date/time: 09/09/2016 12:04:23 Size: 615 KB
31	Evidence of self-financing MCV1	5.1.5	No file loaded

11. Annexes

Annex 1 - NVS Routine Support

Total value to be co-financed by the Country [1]

Annex 1.1 - NVS Routine Support (MR, 10 dose(s) per vial, LYOPHILISED in second dose)
Table Annex 1.1 A: Rounded up portion of supply that is procured by the country and
estimate of relative costs in US\$

		2017	2018	2019	2020
Number of vaccine doses	#	255,100	268,700	327,600	388,500
Number of AD syringes	#	192,300	181,300	220,100	259,900
Number of re-constitution syringes	#	28,400	29,900	36,400	43,200
Number of safety boxes	#	2,450	2,350	2,850	3,375
Total value to be co-financed by the Country [1]	\$	168,500	176,500	215,000	255,000
		2021			
Number of vaccine doses	#	456,000			
Number of AD syringes	#	305,000			
Number of re-constitution syringes	#	50,700			
Number of safety boxes	#	3,950			

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

299,500

\$

		2017	2018	2019	2020
Number of vaccine doses	#	305,400	235,000	209,600	165,400
Number of AD syringes	#	230,200	158,500	140,800	110,600
Number of re-constitution syringes	#	33,900	26,100	23,300	18,400
Number of safety boxes	#	2,950	2,050	1,825	1,450
Total value to be co-financed by Gavi	\$	201,500	154,500	137,500	108,500
		2021			
Number of vaccine doses	#	119,100			
Number of AD syringes	#	79,700			
Number of re-constitution syringes	#	13,300			
Number of safety boxes	#	1,050			
Total value to be co-financed by Gavi	\$	78,500			

Table Annex 1.1 C: Summary table for vaccine MR, 10 dose(s) per vial, LYOPHILISED in second dose

ID		Data from		2017	2018	2019	2020
	Number of surviving infants	Table 5.2	#	176,610	178,734	180,704	182,516
	Immunization coverage	Table 5.2	%	60%	70%	80%	85%
	Number of children to be vaccinated with the first dose	Table 5.2	#	162,481	169,797	171,669	173,390
	Number of children to be vaccinated with the second dose	Table 5.2	#	105,966	125,114	144,563	155,139
	Number of doses per child	Parameter	#	1	1	1	1
	Estimated vaccine wastage factor	Table 5.2	#	1.67	1.67	1.67	1.67
	Number of doses per vial	Parameter	#	10	10	10	10
	AD syringes required	Parameter	#	Yes	Yes	Yes	Yes
	Reconstitution syringes required	Parameter	#	Yes	Yes	Yes	Yes
	Safety boxes required	Parameter	#	Yes	Yes	Yes	Yes
СС	Country co-financing per dose	Table 6.4.1	\$	0.3	0.35	0.4	0.46
са	AD syringe price per unit	Table Annexes 4A	\$	0.041	0.041	0.041	0.041
cr	Reconstitution syringe price per unit	Table Annexes 4A	\$	0.004	0.004	0.004	0.004
cs	Safety box price per unit	Table Annexes 4A	\$	0.005	0.005	0.005	0.005
fv	Freight cost as % of vaccines value	Table Annexes 4B	%	2.95%	2.95%	2.95%	2.95%
fd	Freight cost as % of devices value	Parameter	%	0	0	0	0

ID		Data from		2021
	Number of surviving infants	Table 5.2	#	184,403
	Immunization coverage	Table 5.2	%	90%
	Number of children to be vaccinated with the first dose	Table 5.2	#	175,183
	Number of children to be vaccinated with the second dose	Table 5.2	#	165,963
	Number of doses per child	Parameter	#	1
	Estimated vaccine wastage factor	Table 5.2	#	1.67
	Number of doses per vial	Parameter	#	10
	AD syringes required	Parameter	#	Yes
	Reconstitution syringes required	Parameter	#	Yes
	Safety boxes required	Parameter	#	Yes
СС	Country co-financing per dose	Table 6.4.1	\$	0.52
са	AD syringe price per unit	Table Annexes 4A	\$	0.041
cr	Reconstitution syringe price per unit	Table Annexes 4A	\$	0.004
cs	Safety box price per unit	Table Annexes 4A	\$	0.005
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 MR, 10 dose(s) per vial, LYOPHILISED in second dose, associated injection safety material and related co-financing budget (page 1)

		Formula		2017	
			Total	Government	Gavi
Α	Country co-finance	V	45.51 %		
В	Number of children to be vaccinated with the first dose	Table 5.2	162,481	73,942	88,539
B1	Number of children to be vaccinated with the second dose	Table 5.2	105,966		
С	Number of doses per child	Vaccine parameter (schedule)	1		
D	Number of doses needed	(B + B1) x C	268,447	122,166	146,281
Е	Estimated vaccine wastage factor	Table 5.2	1.67		
F	Number of doses needed including wastage	DxE	448,307	204,016	244,291
G	Vaccines buffer stock	Buffer on doses needed = (D - D of previous year) x 25% Buffer on wastages = ((F - D) - (F of previous year - D of previous year)) x 25%, = 0 if negative result G = [buffer on doses needed] + [buffer on wastages]	112,077	51,005	61,072
ı	Total vaccine doses needed	Round up((F + G) / Vaccine package size) * Vaccine package size	560,400	255,028	305,372
J	Number of doses per vial	Vaccine parameter	10		
K	Number of AD syringes (+ 10% wastage) needed	(D + G) x 1.11	422,382	192,218	230,164
L	Reconstitution syringes (+ 10% wastage) needed	(I / J) x 1.11	62,205	28,309	33,896
M	Total of safety boxes (+ 10% of extra need) needed	(K + L) / 100 x 1.11	5,379	2,448	2,931
N	Cost of vaccines needed	I x vaccine price per dose (g)	341,844	155,567	186,277
0	Cost of AD syringes needed	K x AD syringe price per unit (ca)	17,213	7,834	9,379
Р	Cost of reconstitution syringes needed	L x reconstitution price per unit (cr)	259	118	141
Q	Cost of safety boxes needed	M x safety box price per unit (cs)	25	12	13
R	Freight cost for vaccines needed	N x freight cost as of % of vaccines value (fv)	10,088	4,591	5,497
s	Freight cost for devices needed	(O+P+Q) x freight cost as % of devices value (fd)	0	0	0
Т	Total fund needed	(N+O+P+Q+R+S)	369,429	168,122	201,307
U	Total country co-financing	I x country co- financing per dose (cc)	168,120		
V	Country co-financing % of Gavi supported proportion	U/T	45.51 %		

Table Annex 1.1 D: Estimated numbers for MR, 10 dose(s) per vial, LYOPHILISED in second dose, associated injection safety material and related co-financing budget (page 2)

		Formula		2018	
			Total	Government	Gavi
Α	Country co-finance	V	53.35 %		
В	Number of children to be vaccinated with the first dose	Table 5.2	169,797	90,595	79,202
B1	Number of children to be vaccinated with the second dose	Table 5.2	125,114		
С	Number of doses per child	Vaccine parameter (schedule)	1		
D	Number of doses needed	(B + B1) x C	294,911	157,349	137,562
Е	Estimated vaccine wastage factor	Table 5.2	1.67		
F	Number of doses needed including wastage	DxE	492,502	262,774	229,728
G	Vaccines buffer stock	Buffer on doses needed = (D - D of previous year) x 25% Buffer on wastages = ((F - D) - (F of previous year - D of previous year)) x 25%, = 0 if negative result G = [buffer on doses needed] + [buffer on wastages]	11,049	5,896	5,153
ı	Total vaccine doses needed	Round up((F + G) / Vaccine package size) * Vaccine package size	503,600	268,695	234,905
J	Number of doses per vial	Vaccine parameter	10		
K	Number of AD syringes (+ 10% wastage) needed	(D + G) x 1.11	339,616	181,202	158,414
L	Reconstitution syringes (+ 10% wastage) needed	(I / J) x 1.11	55,900	29,826	26,074
M	Total of safety boxes (+ 10% of extra need) needed	(K + L) / 100 x 1.11	4,391	2,343	2,048
N	Cost of vaccines needed	I x vaccine price per dose (g)	307,196	163,904	143,292
0	Cost of AD syringes needed	K x AD syringe price per unit (ca)	13,840	7,385	6,455
Р	Cost of reconstitution syringes needed	L x reconstitution price per unit (cr)	233	125	108
Q	Cost of safety boxes needed	M x safety box price per unit (cs)	21	12	9
R	Freight cost for vaccines needed	N x freight cost as of % of vaccines value (fv)	9,065	4,837	4,228
s	Freight cost for devices needed	(O+P+Q) x freight cost as % of devices value (fd)	0	0	0
Т	Total fund needed	(N+O+P+Q+R+S)	330,355	176,263	154,092
U	Total country co-financing	I x country co- financing per dose (cc)	176,260		
V	Country co-financing % of Gavi supported proportion	U/T	53.35 %		

Table Annex 1.1 D: Estimated numbers for MR, 10 dose(s) per vial, LYOPHILISED in second dose, associated injection safety material and related co-financing budget (page 3)

		Formula		2019	
			Total	Government	Gavi
Α	Country co-finance	V	60.99 %		
В	Number of children to be vaccinated with the first dose	Table 5.2	171,669	104,695	66,974
B1	Number of children to be vaccinated with the second dose	Table 5.2	144,563		
С	Number of doses per child	Vaccine parameter (schedule)	1		
D	Number of doses needed	(B + B1) x C	316,232	192,858	123,374
Е	Estimated vaccine wastage factor	Table 5.2	1.67		
F	Number of doses needed including wastage	D x E	528,108	322,073	206,035
G	Vaccines buffer stock	Buffer on doses needed = (D - D of previous year) x 25% Buffer on wastages = ((F - D) - (F of previous year - D of previous year)) x 25%, = 0 if negative result G = [buffer on doses needed] + [buffer on wastages]	8,902	5,429	3,473
I	Total vaccine doses needed	Round up((F + G) / Vaccine package size) * Vaccine package size	537,100	327,557	209,543
J	Number of doses per vial	Vaccine parameter	10		
K	Number of AD syringes (+ 10% wastage) needed	(D + G) x 1.11	360,899	220,099	140,800
L	Reconstitution syringes (+ 10% wastage) needed	(I/J) x 1.11	59,619	36,360	23,259
М	Total of safety boxes (+ 10% of extra need) needed	(K + L) / 100 x 1.11	4,668	2,847	1,821
N	Cost of vaccines needed	I x vaccine price per dose (g)	327,631	199,810	127,821
0	Cost of AD syringes needed	K x AD syringe price per unit (ca)	14,708	8,970	5,738
Р	Cost of reconstitution syringes needed	L x reconstitution price per unit (cr)	248	152	96
Q	Cost of safety boxes needed	M x safety box price per unit (cs)	22	14	8
R	Freight cost for vaccines needed	N x freight cost as of % of vaccines value (fv)	9,668	5,897	3,771
s	Freight cost for devices needed	(O+P+Q) x freight cost as % of devices value (fd)	0	0	0
Т	Total fund needed	(N+O+P+Q+R+S)	352,277	214,843	137,434
U	Total country co-financing	I x country co- financing per dose (cc)	214,840		
V	Country co-financing % of Gavi supported proportion	U/T	60.99 %		

Table Annex 1.1 D: Estimated numbers for MR, 10 dose(s) per vial, LYOPHILISED in second dose, associated injection safety material and related co-financing budget (page 4)

		Formula		2020	
			Total	Government	Gavi
Α	Country co-finance	V	70.15 %		
В	Number of children to be vaccinated with the first dose	Table 5.2	173,390	121,629	51,761
B1	Number of children to be vaccinated with the second dose	Table 5.2	155,139		
С	Number of doses per child	Vaccine parameter (schedule)	1		
D	Number of doses needed	(B + B1) x C	328,529	230,456	98,073
Е	Estimated vaccine wastage factor	Table 5.2	1.67		
F	Number of doses needed including wastage	D x E	548,644	384,861	163,783
G	Vaccines buffer stock	Buffer on doses needed = (D - D of previous year) x 25% Buffer on wastages = ((F - D) - (F of previous year - D of previous year)) x 25%, = 0 if negative result G = [buffer on doses needed] + [buffer on wastages]	5,134	3,602	1,532
ı	Total vaccine doses needed	Round up((F + G) / Vaccine package size) * Vaccine package size	553,800	388,478	165,322
J	Number of doses per vial	Vaccine parameter	10		
K	Number of AD syringes (+ 10% wastage) needed	(D + G) x 1.11	370,366	259,803	110,563
L	Reconstitution syringes (+ 10% wastage) needed	(I / J) x 1.11	61,472	43,122	18,350
М	Total of safety boxes (+ 10% of extra need) needed	(K + L) / 100 x 1.11	4,794	3,363	1,431
N	Cost of vaccines needed	I x vaccine price per dose (g)	337,818	236,972	100,846
0	Cost of AD syringes needed	K x AD syringe price per unit (ca)	15,094	10,589	4,505
Р	Cost of reconstitution syringes needed	L x reconstitution price per unit (cr)	256	180	76
Q	Cost of safety boxes needed	M x safety box price per unit (cs)	23	17	6
R	Freight cost for vaccines needed	N x freight cost as of % of vaccines value (fv)	9,969	6,994	2,975
s	Freight cost for devices needed	(O+P+Q) x freight cost as % of devices value (fd)	0	0	0
Т	Total fund needed	(N+O+P+Q+R+S)	363,160	254,752	108,408
U	Total country co-financing	I x country co- financing per dose (cc)	254,748		
V	Country co-financing % of Gavi supported proportion	U/T	70.15 %		

Table Annex 1.1 D: Estimated numbers for MR, 10 dose(s) per vial, LYOPHILISED in second dose, associated injection safety material and related co-financing budget (page 5)

		Formula		2021	
			Total	Government	Gavi
Α	Country co-finance	V	79.30 %		
В	Number of children to be vaccinated with the first dose	Table 5.2	175,183	138,917	36,266
B1	Number of children to be vaccinated with the second dose	Table 5.2	165,963		
С	Number of doses per child	Vaccine parameter (schedule)	1		
D	Number of doses needed	(B + B1) x C	341,146	270,522	70,624
Е	Estimated vaccine wastage factor	Table 5.2	1.67		
F	Number of doses needed including wastage	DxE	569,714	451,771	117,943
G	Vaccines buffer stock	Buffer on doses needed = (D - D of previous year) x 25% Buffer on wastages = ((F - D) - (F of previous year - D of previous year)) x 25%, = 0 if negative result G = [buffer on doses needed] + [buffer on wastages]	5,268	4,178	1,090
ı	Total vaccine doses needed	Round up((F + G) / Vaccine package size) * Vaccine package size	575,000	455,962	119,038
J	Number of doses per vial	Vaccine parameter	10		
K	Number of AD syringes (+ 10% wastage) needed	(D + G) x 1.11	384,520	304,916	79,604
L	Reconstitution syringes (+ 10% wastage) needed	(I / J) x 1.11	63,826	50,613	13,213
M	Total of safety boxes (+ 10% of extra need) needed	(K + L) / 100 x 1.11	4,977	3,947	1,030
N	Cost of vaccines needed	I x vaccine price per dose (g)	350,750	278,137	72,613
0	Cost of AD syringes needed	K x AD syringe price per unit (ca)	15,670	12,426	3,244
Р	Cost of reconstitution syringes needed	L x reconstitution price per unit (cr)	266	211	55
Q	Cost of safety boxes needed	M x safety box price per unit (cs)	23	19	4
R	Freight cost for vaccines needed	N x freight cost as of % of vaccines value (fv)	10,351	8,209	2,142
s	Freight cost for devices needed	(O+P+Q) x freight cost as % of devices value (fd)	0	0	0
Т	Total fund needed	(N+O+P+Q+R+S)	377,060	299,002	78,058
U	Total country co-financing	I x country co- financing per dose (cc)	299,000		
V	Country co-financing % of Gavi supported proportion	U/T	79.30 %		

No NVS Routine - Preferred Second Presentation requested this year **Annex 3 - NVS Preventive campaign(s)** No NVS Prevention Campaign Support this year

Annex 2 - NVS Routine – Preferred Second Presentation

Annex 4

Table Annex 4A: Commodities Cost

Estimated prices of supply are not disclosed

Table Annex 4B: Freight cost as percentage of value

Vaccine Antigen	Vaccine Type	2017	2018	2019
MR, 10 dose(s) per vial, LYOPHILISED in second dose	MR2	2.73 %	2.73 %	2.73 %

Vaccine Antigen	Vaccine Type	2020	2021
MR, 10 dose(s) per vial, LYOPHILISED in second dose	MR2	2.73 %	2.73 %

Table Annex 4C: Preparing transition phase - Minimum country co-payment per dose of cofinanced vaccine

Vaccine	2017	2018	2019
MR, 10 dose(s) per vial, LYOPHILISED in second dose	0.3	0.35	0.4
Vaccine	2020	2021	
MR, 10 dose(s) per vial, LYOPHILISED in second dose	0.46	0.52	

Table Annex 4D: Wastage rates and factors

The following table shows the wastage rates for routine and campaign vaccines, set for 2017.

Vaccine	dose(s) per vial	Maximum Vaccine wastage rate*		Benchmark Wastage Rate**
HPV bivalent, 2 dose(s) per vial, LIQUID	2	10 %	0 %	
HPV quadrivalent, 1 dose(s) per vial, LIQUID	1	5 %	0 %	
JE, 5 dose(s) per vial, LYOPHILISED	5	10 %	10 %	
Measles, 10 dose(s) per vial, LYOPHILISED in second dose	10	40 %	0 %	
Meningococcal A, 10 dose(s) per vial, LYOPHILISED	10	50 %	10 %	
MR, 10 dose(s) per vial, LYOPHILISED in second dose	10	40 %	15 %	
Pneumococcal (PCV10), 2 dose(s) per vial, LIQUID	2	10 %	0 %	
Pneumococcal (PCV13), 1 dose(s) per vial, LIQUID	1	5 %	0 %	
Rotavirus, 2-dose schedule	1	5 %	0 %	
Rotavirus, 3-dose schedule	1	5 %	0 %	
Yellow Fever, 10 dose(s) per vial, LYOPHILISED	10	40 %	0 %	
Yellow Fever, 5 dose(s) per vial, LYOPHILISED	5	10 %	0 %	

Comments:

Note: HPV demonstration project wastage rates are the same as for the national introduction of 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	DT	liquid	IM	3	10	3	
Diphtheria-Tetanus- Pertussis	DTP	liquid	IM	3	20	2.5	
Diphtheria-Tetanus- Pertussis	DTP	liquid	IM	3	10	3	
DTP liquid + Hib freeze-dried	DTP+Hib	liquid+lyop.	IM	3	1	45	
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	
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	

^{*} Source - WHO indicative wastage rates

^{**} Source - Country APRs and studies, approved by WHO, UNICEF, and the Gavi Secretariat

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)
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	
DTP-Hib combined liquid	DTP+Hib	liquid+lyop.	IM	3	10	12	
DTP-Hib combined liquid	DTP-Hib	liquid	IM	3	1	32.3	
Hepatitis B	НерВ	liquid	IM	3	1	18	
Hepatitis B	НерВ	liquid	IM	3	2	13	
Hepatitis B	НерВ	liquid	IM	3	6	4.5	
Hepatitis B	НерВ	liquid	IM	3	10	4	
Hepatitis B UniJect	НерВ	liquid	IM	3	Uniject	12	
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
Hib liquid	Hib_liq	liquid	IM	3	1	15	
Hib liquid	Hib_liq	liquid	IM	3	10	2.5	
Human Papilomavirus vaccine	HPV	liquid	IM	3	1	15	
Human Papilomavirus vaccine	HPV	liquid	IM	3	2	5.7	
Japanese Encephalitis	JE_lyo	lyophilized	sc	1	5	2.5	2.9
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-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
Measles-Rubella freeze dried Measles-Rubella	MR	lyophilized	SC	1	1	26.1	26.1
freeze dried	MR	lyophilized	SC	1	2	13.1	13.1
Measles Rubella Measles Rubella	MR	lyophilized	SC	1	5	5.2	7
Measles-Rubella freeze dried	MR	lyophilized	sc	1	10	2.5	4
Meningitis A conjugate	Men_A	lyophilized	IM	1	10	2.6	4
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
Meningitis W135	MV_W135	lyophilized	sc	1	10	2.5	4
Meningococcal A/C/W/	MV_A/C/W	lyophilized	SC	1	50	1.5	3

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)
Meningococcal A/C/W/Y	MV_A/C/W/Y	lyophilized	sc	1	10	2.5	4
Monovalent OPV-1	mOPV1	liquid	Oral		20	1.5	
Monovalent OPV-3	mOPV3	liquid	Oral		20	1.5	
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	OPV	liquid	Oral	4	10	2	
Polio	OPV	liquid	Oral	4	20	1	
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	
Rota vaccine	Rota_liq	liquid	Oral	2	1	17.1	
Rota vaccine	Rota_liq	liquid	Oral	3	1	45.9	
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	
Tetanus-Diphtheria	Td	liquid	IM	2	10	3	
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

12. Banking Form

			e Gavi, the Government of Lao People's via electronic bank transfer as detailed		
Name of Institution (Account Holder):	MINISTRY OF PUBLIC HEALTH- LAO VIENTIANE				
Address:	SIMEUENG Street, Simeueng	√illage, Sisatana	ark District		
City Country:	Vientiane Capital-Lao PDR				
Telephone no.:	(+856-21)214002	Fax no.:	(+856-21)214003		
	Currency of the bar	nk account:	US Dollars		
For credit to:		•			
Bank account's title:	MINISTRY OF PUCBLIC HEALTH-LAO VENTIANE				
Bank account no.:	010110100391105001				
Bank's name:	BANQUE POUR LE COMMERCE EXTERIEUR LAO PUBLIC				

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

By who is the account audited?

Signature of Government's authorizing official

Name:	Dr. Somphone PHANGMANIXAI	Seal
Title:	Acting Director of Department of Finance, MOH Lao PDR	
Signature:		
Date:	07/09/2016	

	FINANCIAL INSTITUTION	CORRESPONDENT BANK (In the United States)
Bank Name:	BANQUE POUR LE COMMERCE EXTERIEUR LAO PUBLIC	
Branch Name:	Head Office	
Address:	No 1 PANG KHAM Street	
City Country:	VIENTIANE, LAO PDR	
Swift Code:	LOEBLALA	
Sort Code:		
ABA No.:		
Telephone No.:	(+856-21)213200-1, 223243-4	
FAX No.:	(+856-21)213202, 214944	T

I certify that the account No 010110100391105001 is held by Ministry of Public Health at this banking institution

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

1	Name:		
	Title:		
2	Name:		
	Title:		
3	Name:		
	Title:		
Name of ba	ank's authorizing official	l	
Signature:			
Date:			9/7/2016 12:00:00 AM
			9/1/2016 12:00:00 AW
Seal:			