

**Internal Appraisal 2014**  
**LAO PDR**

**1. Brief Description of Process**

The timing of the appraisal was aligned with a planned country mission to discuss the coverage evaluation survey. The country appraisal was coordinated by GAVI CRO using the APR documents and information collected during the country mission in the last week of June 2014. Other mission members consisted of the WHO regional colleague for EPI (Dr. J. Mendoza) and Dr. Ataur Rahman from UNICEF Country office. WHO Regional colleagues for HSS could not participate in the mission due to their participation in a global meeting happening in Geneva at same time, and other priorities. The mission partially benefited from an on-going EVM assessment at the time of in-country appraisal as well as participation of colleagues working with the country to conduct an immunization survey - George Pariyo from GAVI secretariat, Anthony Burton from WHO HQ and David Brown from UNICEF HQ. Review of HSS progress was conducted by Dr. G. Pariyo from GAVI Secretariat with his experience as GAVI IRC member.

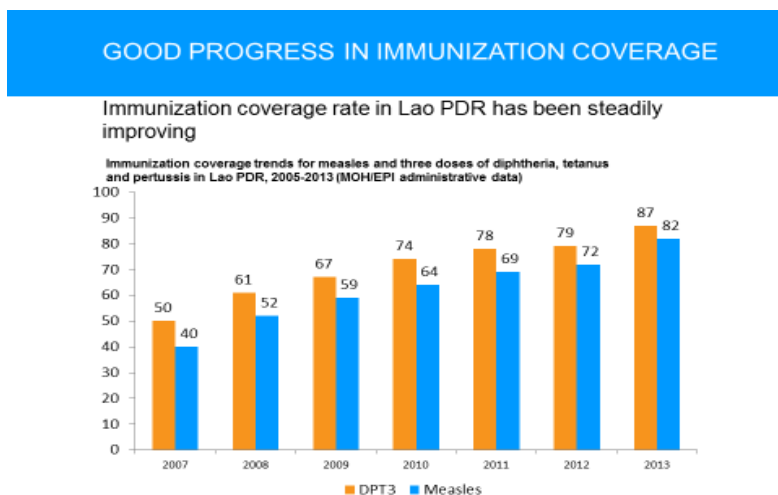
Besides reviewing the documents provided with the APR and the Joint Reporting Format for 2013, discussions were held with the Government officials during the mission. HSS pre-assessment carried out in Geneva was not available at the time of the in-country mission. A copy of the Sector Reform Framework Lao PDR to 2025 was also shared by WHO colleagues.

The National Vaccine Store was visited to look at the Inventory management system as well as the vaccine stocks on the day of the visit. The pharmacy store was also visited to get an idea about stocks of auto disable syringes. The HLRP will be provided with the report of the EVM assessment, if a draft becomes available before its review in last week of July 2014. The inputs to the appraisal template were provided by the mission members.

**2. Achievements and Constraints**

Launched in 1979, the Lao EPI programme established a system of outreach that can deliver vaccines and, more recently, other preventive services to children and women in every village of the country. Immunization coverage has been increasing steadily since the mid-2000s. The coverage with three doses of the diphtheria, pertussis, tetanus (DPT3) vaccine increased from 50 per cent in 2007 to 87 per cent in 2013, and measles coverage increased from 40 per cent in 2007 to 82 per cent in 2013 (Figure 1).

The upwards trends in immunization coverage reported by the administrative data have been confirmed by the LSIS 2011-2012. The results of the survey showed that over the past 6 to 7 years DPT3 and Measles coverage climbed from 32 per cent and 33 per cent in 2006 to 52 per cent and 55 per cent in 2011, respectively. The data quality issues are further described in Section 6 of this report.

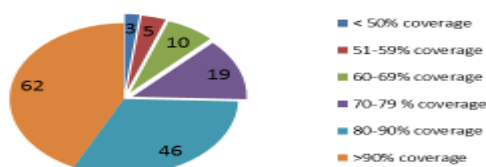


## UNEVEN PERFORMANCE IN IMMUNIZATION COVERAGE (DPT3)

In 2013 in Lao PDR:

- 62 districts have reached over 90% immunization coverage with DPT3
- 37 districts reported DPT3 coverage below 80%

Number of districts by DPT3 immunization coverage rate,  
Lao PDR 2013 (MOH/EPI)

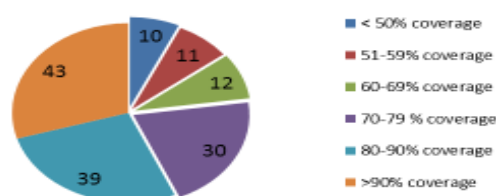


## UNEVEN PERFORMANCE IN IMMUNIZATION COVERAGE (Measles)

In 2013 in Lao PDR:

- 43 districts have reached over 90% immunization coverage with measles
- while 63 districts reported measles coverage below 80%

Number of districts by Measles immunization coverage rate,  
Lao PDR 2013 (MOH/EPI)



As of December 2013, Lao PDR has validated the maternal and neonatal tetanus elimination and has made a remarkable progress in the area of measles control. Furthermore, while striving to improve the coverage of traditional vaccines, the NIP has been actively adopting and implementing new and underutilized vaccines. The country launched pneumococcal vaccine in October 2013.

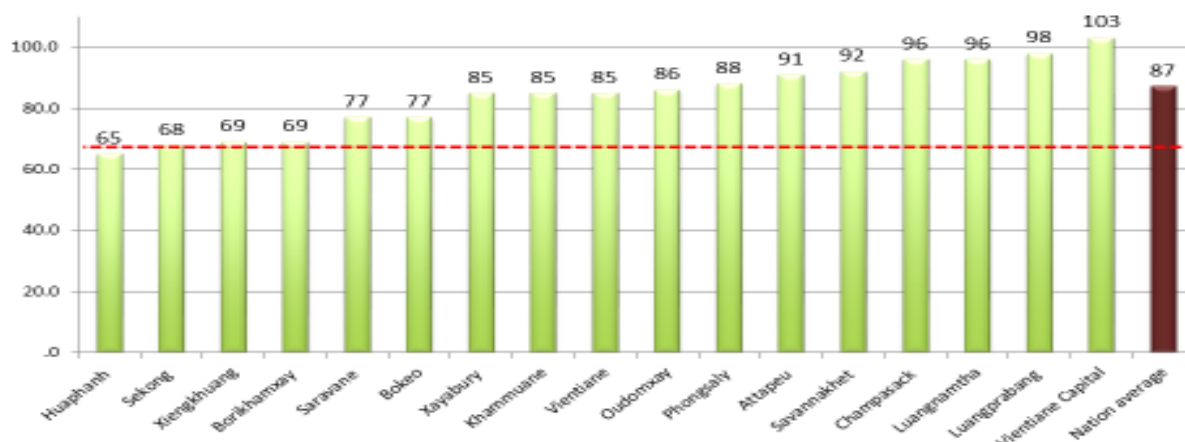
In order to sustain the current achievements and accelerate further progress in the area of immunization, Lao PDR needs to address two key challenges:

1. Addressing equity issues in immunization coverage: Despite gradual improvements in immunization coverage rates, high inequities persist across provinces and districts. The latest available administrative data for the first nine months of 2013 show significant disparities in DPT3 immunization coverage across provinces, from 57 per cent in Hoaphan to 98 per cent in Vientiane Capital. These inequities can be effectively addressed by ensuring that health outreach sessions delivering immunization services as part of integrated maternal, newborn and child health services take place in all villages at least four times a year.

There are significant disparities in the immunization coverage rates across provinces and districts in Lao PDR

### DPT3 immunization coverage

38% difference between the best and the worst performing province

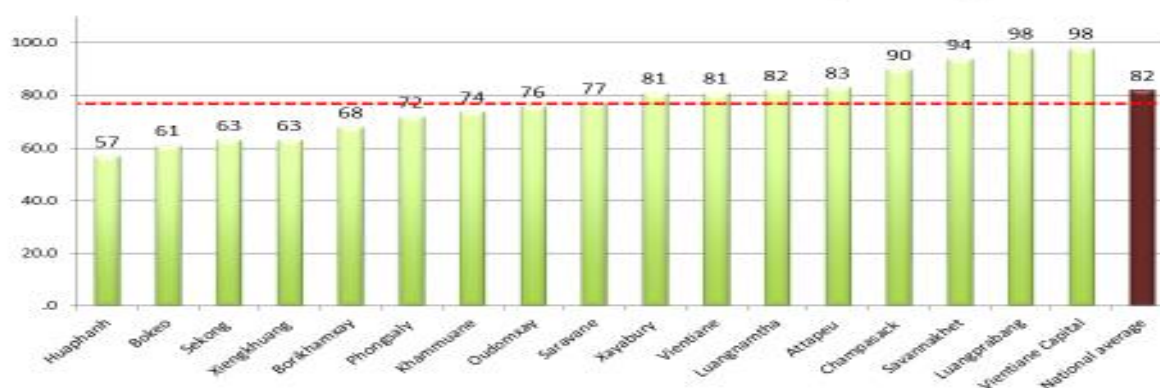


Source: Routine EPI data/MOH 2013

There are significant disparities in the immunization coverage rates across provinces and districts in Lao PDR

### Measles immunization coverage

41% difference between the best and the worst performing province



Source: Routine EPI data/MOH 2013

2. Increasing national budget allocation and reducing dependency on unpredictable external funding: As highlighted by the 2012 National Immunization Review, the functioning of the NIP is highly dependent on external funding, which covers more than 90 per cent of all recurrent costs, including vaccines, injectable devices and the operating costs for health outreach activities, the main delivery channel for immunization services. One of the main recommendations of the NIP Review for the Lao Government is to increase domestic fund allocation and expenditure on EPI, including traditional vaccines, from the current \$2 per child year to \$8 per child over the next three years.

It is essential, however, that while the Government of Lao PDR gradually increases its domestic allocation and strives to achieve self-sufficiency, external financing is being maintained to allow filling in the funding gaps for the procurement of vaccines, capacity building and operating costs for health outreach, monitoring and supervision. The 2013 year was crucial to keep the

momentum of efforts made in the last five years to ensure steady increase of coverage and to build up a strong foundation for integrated maternal, neonatal and child health services.

### 3. Governance

There is a single ICC/HSCC managing GAVI support, both vaccines and health systems. No NITAG has been created. Lao PDR is a socialist country with little NGO presence or participation. The only available minutes of the ICC/HSCC list Government officials, WHO, UNICEF and LuxDev (bilateral organization) as its members. There is unitary program management for both windows of GAVI support.

During the in-country mission, the WHO Representative briefed the mission about the strategic work relating to Health Sector Reform emphasizing that new HSS proposal for future GAVI support should take that as an important piece of work to determine future directions.

### 4. Programme Management

The national immunisation programme is led by the EPI Manager and the Deputy Manager, and one of their main duties is to oversee the cold chain.

For 2013 the national immunisation programme claims to have reached the following: BCG: 82%; DPT3: 87%; OPV3: 86%; MR: 82%, which represent an increase of 8-99% as compared to 2012. This increase may be due to the early release of funds and to the increase in the number of outreach sessions. Other programme achievements have been: reaching MNT elimination status, introducing PCV vaccine, the HPV demonstration project delivering the third dose and a coverage survey conducted in early 2014, and JE vaccination has started. Nevertheless, Hepatitis B third dose remains low, at 48%, because of low delivery rate at health facilities.

In about 40% of the population, vaccination services rely almost exclusively on outreach. Delays in outreach activities are relatively frequent and contribute to the decrease in the level of vaccination performance. Challenges are also related to the health system, including shortage of skilled human resources.

### 5. Programme Delivery

This section captures observations made during visit to National Vaccine Store and National Vaccine Store. At the time of appraisal mission, an international team was conducting an EVM assessment. The earlier assessment was carried out in October 2010. The appraisal team found good management of the stock inventory. A crude assessment of the vaccines supported by GAVI, namely PCV and Pentavalent, was quickly carried out. The number of the PCV doses in the store almost matched the number mentioned in the stocks. However, there was substantial difference for Pentavalent vaccine. This is assumed to be due to some mistake in counting or otherwise. This is a flag to advise the country to carry out a physical verification of Pentavalent vaccine stocks within a quarter. Similarly, information provided by the Medical Stores department estimated that the stocks of 0.5 ml AD syringes at time of the visit was in the range of 28 million pieces. This needs to be reconciled with a physical verification and alignment with further supplies, keeping in view that Lao PDR's birth cohort is less than 190,000.

A notable activity at end of 2014 is a wide age range (9 months to 10 years) SIA with MR vaccine as Measles outbreak have been reported from parts of the country. The SIA is being funded by WHO and UNICEF, with resources from Measles-Rubella Initiative. As a post SIA coverage survey is required, Lao PDR will integrate this with GAVI supported coverage survey into a single activity.

Vaccine introductions have been generally as planned. However, as nationwide implementation of PCV seems to have found problems, an assessment should be conducted as soon as possible. The roll out seems to have been slower than planned. As such, being a low coverage country an in-depth PIE in Lao is warranted. An alternative could be an implementation analysis report and explanation for delayed nationwide use.

## 6. Data Quality

The Country has no discrepancy between DTP3 admin data and WUENIC estimates for 2012. However, there was low (1 star) grade of confidence (GoC) on the WUENIC estimates for 2012 (two stars). WUENIC for 2013 will become available in mid-July before the HLRP meeting. While WUENIC and admin estimates for 2012 were consistent, the Lao Social Indicator Survey (LSIS) 2011-2012 estimates for DTP3 which covered 2010-11 cohort shows more than 20 percentage point difference from the WUENIC estimates for 2012 and LSIS findings. The EPI review highlighted issues like delayed and insufficient funding, shortage of health workforce, equipment maintenance and logistics difficulties, remote and hard to reach areas, low population demand for immunization as barriers for reaching high coverage in Lao PDR. The Government reportedly has made some increased efforts to increase funding, but most of the other constraints largely persist.

There are reports that some children vaccinated after 12 months of age may not be captured in the reported statistics. There is thus a perception that coverage reported from the administrative system is correct hence the Government did not adjust the official estimates, reporting exactly the same as the administrative reported system provides. The Government also reportedly took time to release the LSIS survey report (completed in Dec 2012 but released July/August 2013) because of concerns that the report did not do justice to the immunization coverage estimates. The other sectors covered in the report did not seem to have had problems accepting the LSIS report. Furthermore, the documentation of the methods and technical support (from ICF/DHS and MICS technical experts) does not convey any reasons for doubting that the LSIS was conducted with any less rigour and thoroughness than the standard MICS and DHS surveys.

The Lao PDR EPI review conducted in 2012 pointed out that the MOH and Lao Statistics Bureau population estimates differed by up to 17%. However, JRF officially reported population of surviving infants for 2013 (177,044) is generally close to UN population estimates (174,682). However, province and district level denominator population estimates are reportedly unreliable, hence the basis of the routinely reported coverage figures from those levels are unclear. This is being addressed as the MOH has now moved to use the same set of figures as the Lao Statistics Bureau. Furthermore, the country has initiated planning for a new census to be conducted in 2015.

There has been as yet no major data quality system assessment. There is some mention of previous data management training done as part of MLM training for EPI staff in 2013, followed by data reviews and feedback to subnational levels on quarterly basis. The agreed actions include: (a) GAVI and partner joint mission and discussions with the Government for GAVI supported immunization coverage survey in early 2015; and (b) The country will need support to conduct a data quality assessment and subsequent data quality system improvements.

## 7. Global Polio Eradication Initiative, if relevant

Lao PDR last polio case was detected in 1996 and has remained polio free ever since. Nevertheless, reducing immunity gaps in the population at sub-national level and improved acute flaccid paralysis surveillance are areas that need to be strengthened according to the Regional Certification Commission for Polio Eradication yearly review of its status. The country is planning to introduce IPV in October 2015, in compliance with the Polio End Game Strategy. It's IPV application has been recommended for approval by the June 2014 IRC. .

## 8. Health System Strengthening

The HSS grant is approved for 2012 to 2015, and Lao PDR is one of the 7 countries approved for PBF phase 1. The reported achievements include; implementing an integrated MNCH/EPI activities, increased DTP3 coverage from 79% (2012) to 87% (2013) and measles from 72% (2012) to 82% (2013); 108 (73%) of 145 districts achieved more than 80% DTP3 coverage. Others reported include; "improved staff capacity in managing EPI services" but no detail provided so hard to know how this was assessed; supportive supervision, standardised microplanning for hard to reach areas, increased awareness and community participation (no specific indicator or specific example provided), and strengthened MNCH/EPI information system.

The National Immunization Programme (NIP) has developed software for electronic enrolment for pregnant women, new-borns, vaccinations and even ANC attendance, all integrated into one system, which links from the facilities to a central server at EPI. This system has been piloted in the 5 districts targeted by GAVI HSS support and will eventually be extended to other areas. Every pregnant woman receives a barcode for identification.

Another achievement has been the provision of transport to pregnant women and for vaccinations. Increased health worker focus on vaccinations was partly achieved by increased government funding, and a response to wide dissemination of information on anticipated performance based payments to health workers to be based on number of vaccinations. Modality of payments was changed from advance payments to payments based on actual vaccinations performed. As part of this process audits were introduced on quarterly basis which has reportedly helped improve data quality. However, in the absence of any DQ assessments it is hard to quantify, this.

On performance based funding (PBF) expectations, Lao PDR appears to fulfil the conditions for countries with DTP3 coverage under 90%, namely; their coverage has increased based on administrative coverage - DTP3 from 79% (2012) to 87% (2013) and Measles (first dose) from 72% (2013) to 82%

However, last year the Monitoring IRC did not recommend the PBF reward after reviewing the LSIS of 2011 that showed DPT3 coverage as 51%. The survey report was not available to WHO and UNICEF when the estimates were being worked out. The survey is being inputted into this year (2013) estimation of the coverage estimates. There is strong possibility that this survey would impact the estimation. A difference of 5% or more between the country reported coverage and WUENIC will disqualify the country from PBF rewards. On the request of the country, a new coverage survey (integrated with post MR SIA) is planned to take place in January 2015. This is being supported by GAVI with technical oversight by WHO and UNICEF. In fact, in-country JAR mission also covered the objective on proposed EPI survey with participation of technical experts from WHO and UNICEF.

There is reported progress in implementing planned activities, although baselines and actual specific improvements are often not stated in quantifiable terms.

Key challenges that still persist include; staff shortages, inadequate supervision from province to district to health facility, quality of data recording and reporting, delayed release of funds, and cultural issues e.g., men providing ANC to pregnant women. Inequity in immunization coverage is still a major problem. For instance, there is a 38% difference in DTP3 coverage between the lowest (65%) and highest (103%) provinces, 41% difference for measles vaccine coverage (MCV1) between the lowest (57%) and the highest (98%). Transportation and seasonal access to some hard to reach areas is another major constraint. Some villages are hard to reach and sparsely populated as well, e.g., you may need one day travel to reach a village of 50 households. IEC and communication could be increased to help raise community demand for immunization.

One weakness of the results reporting is that baselines and specific indicators, and reported improvements are often not stated apart from the DTP3 and MCV1 coverage figures.

Meanwhile the HSS pre-assessment has been completed by a Consultant and this also points out same deficiencies in country's reporting.

Lao PDR informed GAVI that it would present a new application for HSS support by September 2015 deadline. The country's allocations have gone up by almost 2.5 times. According to the current Director of HSS program, three priorities for next grant are scale up of current integrated package of MCH services from 5 to 12 districts including current 5, another full province with 5 districts plus 2 more districts; implementation of RED strategy in 40-45 districts; and, improvements in data recording and reporting. Immunization is an integral part of the MCH package.

## 9. Use of non-HSS Cash Grants from GAVI

The non-HSS grant made available to Lao PDR comprised of vaccine introduction grant for introduction of PCV and launch of demonstration project for HPV. Both vaccines were introduced in a highly visible ceremony on 2 October 2013. There are separate reporting requirements for HPV project and this has not been covered in the APR documentation from Lao PDR.

## 10. Financial Management

The PFO team keeps track of the pending requirements and clarifications for financial management. The current status, as provided by PFO, is appended at end of Section 14 of this report. It should be noted that prior to any cash disbursement to the country, the importance of pending financial requirements/clarifications is carefully considered by the CRO vis-à-vis implementation of the planned activities ensuring critical milestones like a vaccine launch are not impacted.

## 11. NVS Targets

PCV13 vaccine was introduced into the routine programme in October 2013. The country has not introduced second-dose of measles-containing-vaccine (MCV) though it uses measles-rubella (MR) vaccine as the MCV first-dose. JE vaccine has been introduced in the routine programme in high-risk provinces in the Northern part of the country; the programme conducted two JE vaccination campaigns in March 2013 and April 2014 targeting persons 1-14 years old.

The country claims having successfully concluded the first phase of an HPV demonstration project in the capital Vientiane and in Vientiane province. A post introduction evaluation (PIE) was conducted in April 2014 and a coverage survey is almost ready to be implemented in July 2014. The country will like to continue with three doses of HPV for second year cohort of demonstration project as shifting to a two doses schedule, following recent SAGE recommendation, will add significant burden to the programme to prevent confusion from health workers and potential mistrust from the population.

It should be noted that the APR for 2013 is sketchy and as such experiences on large scale vaccine introduction such as Pentavalent and Pneumococcal vaccines should be drawn from Post Introduction Evaluations (PIEs). Informally the mission was told that PCV was not yet fully rolled out in whole country. This could not be confirmed.

The country is making efforts to increase routine vaccination coverage to levels compatible with current global and regional target and with proposed targets as per the application document; nevertheless, as stated above, a high degree of variation in coverage exists among districts. A national representative population-based vaccination coverage survey has been agreed and will be conducted at the start of 2015.

## 12. EPI Financing and Sustainability

On sustainability, the Government has been gradually increasing its contribution to immunizations. The 2012 EPI review found that the Government only provided 10% of funding for vaccinations. In 2012 Government only provided about US \$ 24,000 for vaccinations, which was significantly increased to US \$ 226,000 in 2013 and to about US \$ 450,000 in 2014.

In November 2013 an assessment was carried out to develop a financial sustainability plan (FSP) for EPI activities. The assessment suggests that although the macroeconomic outlook is positive, the risk of financial/budgetary crisis and its implication on the financial sustainability of the EPI could not be written off. At this point it is hard to predict the scale/severity of a possible budget crisis, nor the probability of the risk to materialize.

Although the government centralized the budget management, the administrative mechanisms at the national level to control proper execution of healthcare budgets by sub-national authorities are cumbersome and inefficient. In result, there is mismatch between the responsibility for the success of immunization born exclusively by the EPI manager and the authority to influence

decisions and actions at sub-national levels that determine the success of the EPI. Although there are some mechanisms of formal interaction and consultations between the high-level health and provincial officials, it does not seem to be sufficient to manage efficiently the implementation of the NIP at all administrative levels. Therefore, although the EPI is considered as “a vertical disease/health program”, it is vertical only partially (e.g. related to the storage and supply of vaccines) and is heavily dependent on “horizontal” arrangements for service delivery (management by sub-national health authorities).

The FSP assessment concludes and recommended that

- 1) Financial sustainability of the NIP of Lao PDR is not just the matter of the availability of funds but prioritization of available funds for delivery of essential preventive child health services critical to achieve MDG4 targets. There are two critical areas for achieving and sustaining success of the NIP by 2015:
  - Uninterrupted supply of vaccines
  - Delivery of quality integrated MNCH outreach services
- 2) Funding for outreach services from domestic sources increased recently. However, it is not clear if additional money is sufficient to deliver desired immunization outcomes considering:
- 3) Develop a detailed operational and financial plan tailored to the district context and linking financial resources with desired outcomes and enforce its implementation by all actors
  - a. Identify clear functional and budget assignment for Integrated MNCH outreach within the Ministry of Health
  - b. Develop budget norms for Integrated MNCH outreach to a) assist provincial planning, budgeting and prioritization of funds for outreach, b) improve predictability of funds from all sources over the medium term, c) harmonize partners’ inputs into outreach
  - c. Develop systems for tracking timely inputs for integrated MNCH outreach from both internal and external funding, up to the service delivery point
- 4) Develop a partnership framework with a clear set of rules, expectations (performance benchmarks, quality requirements) and sustainability strategies through a consultative process

Additional comments from WHO WPRO: Government was unable to fund NIP even for traditional vaccines. This has major implications especially as a large part of the government (and donor) funding is being used for the new vaccines, therefore crowding out funding for the traditional ones, and in my opinion, the more important vaccines (as well as possible other essential public health services). Now the issue may have been solved in the meanwhile, but this is not a one-off situation. As far as I am aware having worked and been involved with Laos since 2008, this has been an annual recurring issue. This is partially due to government administrative systems but also to actual funding availability.

Comments from Financial Sustainability Team: Lao started paying for traditional vaccines in 2012 and their contribution has increased in 2013 with the intention to increase the country’s share in an annual manner. The country started co-financing GAVI-supported vaccines in 2009. While the country is facing funding availability challenges, based on available evidence, it cannot be stated that in absence of the co-financing requirement, the country would allocate higher funding to traditional vaccines. To the contrary, given that in times of overall funding shortage, the country would first prioritise government obligations for their international loan/grant agreements (then would see which areas are well supported by donors and then only prioritise government programmes), it appears that the international commitment nature of co-financing obligations may be actually safeguarding at least that co-financed amount for



vaccines and in the absence of that commitment the amount allocated to vaccines could be even lower. Overall, additional efforts need to be done to increase the government's budget for immunisation but the available evidence to prove a "crowding out effect" caused by the co-financing requirement appears insufficient.

### 13. Renewal Recommendations

Topic	Recommendation
Pentavalent vaccine	Renewal based on calculations made by GAVI secretariat
Pneumococcal vaccine	Renewal based on calculations made by GAVI secretariat
HPV vaccine	Provide vaccine doses and immunization supplies as per original plans
HSS	Release of last tranche of \$600,026

### 14. Other Recommended Actions

Topic	Action Point	Responsible	Timeline
Vaccine inventory	Carry out a physical inventory of Pentavalent vaccine at National Vaccine store	NIP	End October 2014
Inventory of AD syringes	Carry out a physical inventory of AD syringes at National Drug store and adjust future supplies accordingly	NIP	End October 2014
HPV demonstration project	Provide the progress report, survey results and financial report as per original communications	NIP	
Post Introduction Evaluation	Carry out a PIE for PCV. Alternatively an implementation analysis should be carried out for delayed nationwide use of PCV	WHO, UNICEF with NIP	
Coverage survey	Plan, conduct, analyze and report on a population based immunization survey for routine EPI and for MR SIA taking place in December 2014	NIP, NIPH, Statistics Bureau	Complete by February 2015
Data Quality Assessment	GAVI secretariat to discuss conducting a DQA	NIP	End 2015
New HSS application	Prepare a new application for HSS support (Consultant identified by WHO Country office)		15 September 2014

#### List of financial clarifications recommended by PFO:

#### *HSS*

\* Country to explain the difference of \$ 10,596 between the opening balance in the 2013 APR (\$10,693) and the opening balance in the 2013 financial statements (\$ 124)

\* Country to provide an unaudited 2013 HSS financial statement for the period January 1 to December 31, 2013 showing opening balance, funds received, detailed expenditure and closing balance.

\* 2013 Audit report / audited financial statement covers August 1, 2013 to January 31, 2014. Country to have future audit reports covering one calendar year, i.e. January 1 to December 31.

*NVS (VIG)*

\* Country to report on use of 2013 NVS (Vaccine Introduction grant) funds in table 7.3.1 of the APR (current figures in table 7.3.1 appear to related to HSS funds)

\* Country to provide a 2013 financial statement showing opening balance, funds received, detailed expenditure and closing balance. If 2013 NVS (VIG) expenditure is above \$ 250,000, a 2013 audit report covering 2013 expenditure is to be provided.