

Joint Appraisal report 2018

Country	Cambodia
Full JA or JA update	full JA □ √ JA update
Date and location of Joint Appraisal meeting	6 November 2018
Participants / affiliation ¹	MOH, WHO, UNICEF
Reporting period	2017-2018
Fiscal period ²	2018
Comprehensive Multi Year Plan (cMYP) duration	2016-2020
Gavi transition / co-financing group	Preparatory transition phase

1. RENEWAL AND EXTENSION REQUESTS

Renewal requests were submitted on the country portal

Vaccine (NVS) renewal request (by 15 May)	Yes √□	No □	N/A □
HSS renewal request	Yes √□	No □	N/A □
CCEOP renewal request	Yes □	No √□	N/A □

Observations on vaccine request

Population	16,072,931		
Birth cohort	355,658		
Vaccine	Pentavalent	PCV	IPV
Population in the target age cohort	356775	356775	356775
Target population to be vaccinated (first dose)	347,468	347,468	347,468
Target population to be vaccinated (last dose)	347,468	347,468	347,468
Implied coverage rate	100%	100%	100%
Last available WUENIC coverage rate	93% (Penta3-2017)	82% (PCV3-2017)	74% (2017)
Last available admin coverage rate	99%	91%	101%
Wastage rate	3%	5%	15%
Buffer	3 months	3 months	3 months
Stock reported	Yes	Yes	Yes

Above figure is from JRF 2017. There were stock-outs of vaccines (OPV, JE and Hep B monovalent) at national and sub-national levels due to some delay in budget transferred for procurement of vaccines. For 2019, NIP and partners take advantage to submit the Cost Estimation for vaccine procurement at the very early 2019 as well as conducting regular follow up with different department within the MoH and MOEF.

Indicative interest to introduce new vaccines or request Health System Strengthening support from Gavi in the future³

Indicative interest to introduce new vaccines or request HSS	Programme	Expected application year	Expected introduction year
support from Gavi	HPV vaccine	January 2019	2021

¹ If taking too much space, the list of participants may also be provided as an annex.

² If the country reporting period deviates from the fiscal period, please provide a short explanation.

³ Providing this information does not constitute any obligation for either the country or Gavi, it merely serves for information purposes.

2. RECENT CHANGES IN COUNTRY CONTEXT AND POTENTIAL RISKS FOR NEXT YEAR

The overall country context remains same in Cambodia from the last report. Following are the updated information:

- General election was held on 29 July 2018 and subsequently a new government was formed.
- The number of operational districts remains same, however, health centres has increased from 1,188 to1,198 until JA report writing time as per government's commitment to extend services close to people.
- The Minimum Package Activity (MPA) clinical and management guidelines is approved and distributed to all levels.
- Increasing trend of mobile population inside and outside country
- Two laboratory confirmed measles were reported in September 2018. Three laboratory confirmed rubella cases were reported from two provinces as of 7 November 2018. Two cutaneous diphtheria cases were reported in August 2018. Increased number of pertussis cases in 2018 compared to 2017.

Country doesn't anticipate any issue/challenge in next one year that can affect immunization coverage, Gavi grants and its related performances.

Pertussis outbreak may continue to occur in some selected areas; NIP with partners is closely monitored the health facilities with high dropout rates and initiate to develop effective default tracking mechanism to reduce the dropout. The internal migration (either seasonal or periodic migration) of the parents/care givers will continue; specific intervention needs to develop especially for periodic catch up them at the appropriate event throughout the year.

3. PERFORMANCE OF THE IMMUNISATION PROGRAMME

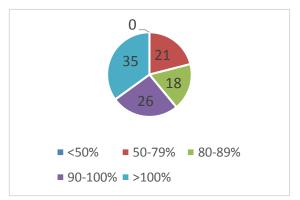
3.1. Coverage and equity of immunisation

Starting from 2017, Department of Planning and Health Information (DPHI), of the Ministry of Health used "Population Projections for Cambodia 2013 to 2023" made available from the National Institute of Statistics, of Ministry of Planning. The "Population Projections for Cambodia 2013 to 2023" was based on the results of Cambodia Inter-Censal Population Survey (CIPS) 2013 as well as its Cambodia Demographic and Health Survey (CDHS) 2014 data. The projection exercise was undertaken by the National Institute of Statistics (NIS) in collaboration with World Health Organization (WHO) Country Office in Cambodia.

With this new set of projected under one-year old children, the reported national Penta 3 coverage in 2017 was high. WHO and UNICEF with the National Immunization Programme conducted extensive data analysis in January 2018 and March 2018 when preparing the 2017 Joint Reporting Form.

Of the total 100 operational districts (OD) in the country, 35 (35%) of total operational districts reported Penta 3 coverage above 100%. A total 21 (21%) OD reported immunization coverage below 80%. Below is the 2017 Reported Penta 3 coverage by group of Operational Districts.

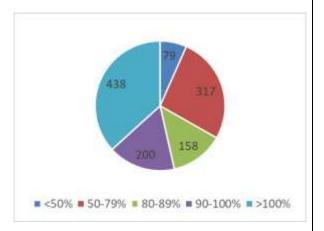
Penta 3	Numbers and % of Opeartional Districts						
<50%	0	0%					
50-79%	21	21%					
80-89%	18	18%					
90-100%	26	26%					
>100%	35	35%					
Total	100	100%					



Looking the data at the health center level, of the total 1,192 health centers (HC) in the country, 438 (37%) of total operational districts reported Penta 3 coverage above 100%. At the same time, a total 396 (34%)

HC reported immunization coverage below 80% for various reasons. Below is the 2017 Reported Penta 3 coverage by group of HCs.

Penta 3	Number and % of Health Centers					
<50%	79	7%				
50-79%	317	27%				
80-89%	158	13%				
90-100%	200	17%				
>100%	438	37%				
Total	1192	100%				



Current HMIS data do not separate between doses administer to children living within the health center catchment areas (Village in zone A and B) and outside the health center catchment areas (Zone C). The local authorities also have no annual head count data of the children under one year of age.

Dropout is also a challenge for fully immunized children. In 2017, a total 359 health centers had dropout rate for Penta1-3 above 10%. Two most common reasons for high dropout of MCV1 and MCV2 in Cambodia are: 1). There is no effective default tracking system developed jointly between the service provider and the community or village volunteer or support network. 2). The internal migration (either seasonal or periodic migration) of the parents and families. These reasons apply for across the all vaccines.

Due to undergoing enormous economic development in Phnom Penh and some other big cities, there is influx of people from other provinces to these cities and at the same time there are large infrastructure projects and employment in new industries in both urban and rural areas. These made difficult in service delivery and to reach each and every child. There is increasing economic integration, ease of transport and increased connectivity among populations in the region, as well as major population movements through new economic corridors in the GMS, these also impacted in immunization services and coverage.

Based on the findings from in depth 2017's immunization coverage data analysis up to the health service delivery level, NIP with partners had selected few health centers to conduct the assessment on use of denominator at the local level, conduct the assessment of the data accuracy and conduct health service delivery assessment; which reflected in the concept notes for data quality management under WHO/ UNCEF TCA. These TCA activities are ongoing until the end of the 2018 and a review meeting is going to conduct during the early 2019 before it is going to scale up.

3.2. Key drivers of sustainable coverage and equity

- The National Immunization Program conducted extensive training of the immunization in practices contributing to the increase of the capacity of the health staff to deliver immunization services especially the new staff at the service delivery level.
- The implementation of the recommendations from the EPI review and the missed opportunity workshop provided the opportunity to improve the quality of immunization service delivery and to reduce dropout rates.
- The enforcement of daily immunization service at each health facility after measles outbreak in 2006-2017 as well as the reinforcement of health staff to screen children for vaccination reduce the missed opportunity for vaccination among children coming to the health facilities.
- Replacement of old cold chain equipment had been the opportunity to allow health staff to deliver immunization service more regularly. In addition, the deployment of new cold chain equipment to more new health centers allow health staff to deliver regular immunization services closer to the population. In the last few years, more new health centers were built and NIP has been able to deploy more cold chain equipment with funding made available through Gavi-HSS.
- Printing and distribution of IEC materials at health center and community supported to increase demand, hence, sustaining and increasing coverage in hard to reach areas/high risk communities.

- Supervision and monitoring was very helpful to increase quality, however needed more frequent supervision and monitoring visit from PHD and OD level.
- Opportunity remains to strengthen HR capacity at lower level.
- The MOH has taken stronger steps in advocating the local authorities and community volunteer network on immunization through organizing immunization week in every province involving key social mobilizers from the commune level up to the provincial level. The health center management committee (HCMC) meeting is a regular interactive forum between health staff with local authorities and representative/ key informant from the community. The performance qualities of the HCMC meetings have been regularly monitored in 2018.
- Regular registration of target children initiated in few selected urban poor communities by trained village health support group (VHSG). The trained VHSG informed the parents and care givers newly arrived of where they can have their children vaccinated as well as provide support to the outreach team from the health center when they come to the community to provide the services.

3.3. Data

The reporting system of the administrative vaccination data has been integrated into the MoH's HMIS since 2014. Until 2018, 68% of HCs have access to the internet and entering the data into the HMIS directly by themselves. The remaining 32% of HCs have to send data in hard copy to ODs for entering into web base HMIS. The strengths and weakness as following:

Strengths:

- The administrative vaccination data are mostly complete and timely. In compliance with Gavi's data
 quality improvement, the quality of immunization data and accuracy of the report, the Department
 of Planning and Health Information (DPHI) of Ministry of Health together with NIP have verified and
 reviewed through the web based system by HCs and by month. The DPHI and NIP have also
 conducted cross checking at some selected Operational Districts (ODs) as well as health centres
 (HCs).
- The VPD surveillance is NIP's responsibilities, maintaining case-based surveillance for several VPDs since more than two decades. Data readily available and routinely analysed. Measles/rubella and AFP case's data are in web based system. Event based surveillance of some Vaccine Preventable Diseases (VPDs) surveillance are also report to Communicable Disease Control department of MOH and NIP works closely with this department. A simple booklet for VPD surveillance developed/printed at the end of 2017/beginning of 2018 which increased the knowledge of health care workers, hence increased reporting of cases and surveillance quality in 2018.
- Data accuracy and its template and denominator used at local level was assessed as pilot project under TCA funds and found some inaccuracy/inconsistency of data and capacity gaps of monitoring coverage in HC level. It is planned to implement nationally in 2019. Two health centers (HC) were selected to conduct the assessment of denominator used at the service delivery level. One of the selected health centers represented urban area (Takhmao HC reported 333% Penta3 coverage in 2017) and another one represented rural area (Lvea Krang HC reported 150% Penta3 coverage in 2017). The initial finding from the assessment in those two health centers showed that high proportion of children living outside the health center catchment areas (Zone C) received vaccination in those health centers.
- NIP, HIS/DPHI, WHO and UNICEF reviewed existing data quality improvement plan, identified priorities and revised improvement plan. As per plan, HIS/DPHI already started implementing activities.
- National vaccine stocks are managed through a web-based vaccine stock inventory by the Central Medical Store (CMS). According to the EVM recommendation, a second cold chain staff at CMS has been assigned in early 2018. Stock management forms are readily available and used at Provincial Health Department (PHD), OD and HC levels. The cold chain equipment management was also managed through web base system for PHDs, ODs and HC level.

Challenges/issues:

Administrative vaccination data

- The limitation of the cross checking on the accuracy of the administrative vaccination data at HC level by NIP, DPHI, PHD and partners was accomplished only 1/3 of total HC annually.
- Due to the population movement (denominator), the coverage rate of in some health facilities achieved more than 100% and in contrast some health facilities achieved less than 60%.

VPD surveillance & AEFI

- VPD surveillance from private sector is still challenging.
- The fever and rash case report from community is still low.
- Severe under reporting of AEFI cases.

Supply chain data

- Regarding the EVM assessment recommendations, the assignment of second responsible staff for cold chain at all health facilities is still challenging, because of limited human resources.
- Delay in refrigerator maintenance and repair is due to capacity gaps of local technician and some provinces was not able to repair and depending on the technician from the national level.

The repair and maintenance work in Cold Room at CMS is still an issue.

3.4. Immunisation financing

- 1. Availability of national health budget:
 - National budget have spent for vaccine procurement which includes traditional vaccines' cost and
 co-financing of New Vaccine with Gavi and amount is US\$ 2,501,900 in 2018. The operational
 cost of routine immunization outreach services have been integrated as HC outreach package
 activities. Printing yellow card/TT card, Immunization register and other data management forms
 was funded by national budget according to the annual operational plan (AOP).
 - Donors/Partners fund included Gavi-HSS support in 2018 (as of mid-November) is US\$ 4,973,489.46, Gavi-HPV: US\$ 11,694.90, Gavi-NVS is US\$ 5,394,500, WHO: US\$ 55,009.60 and UNICEF: US\$ 46,954
- 2. At all levels, all sources of funding for national health budget for immunization program/services have been integrate for vaccines, equipment, and other operational costs.
- HSS2 grant allocation for 2018 received by Cambodia in September which made difficulties to implement activities in timely manner. As per usual system, the disbursement of funding from national Gavi-HSS to all 25 PHDs is always done right after receiving fund disbursement from Gavi secretariat.
- 4. The financial report from all 25 PHDs is monthly and from Cambodian Gavi-HSS to Gavi secretariat is quarterly.
- 5. Funding for routine outreach services are usually from the government source. However, it was observed that some ODs are not regularly allocating/releasing funds for outreach services.

4. PERFORMANCE OF GAVI SUPPORT

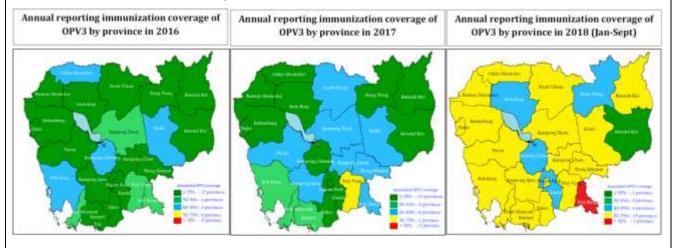
4.1. Performance of vaccine support

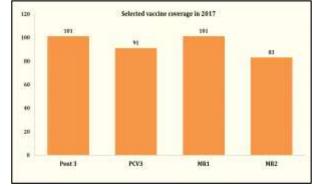
Cambodia has been making remarkable progresses including increasing trend of national immunization coverage; sustaining polio eradication, measles elimination and maternal and neonatal tetanus elimination status since it achievements. In May 2018, Cambodia achieved hepatitis B control goal by demonstrating HBsAg rate 0.56% among five years old children. Efforts are in place to achieve the HBsAg rate ≤0.1 by 2030 as part of triple elimination. National Immunization Programme also has been working hard towards achieving the Rubella elimination goal in near future.

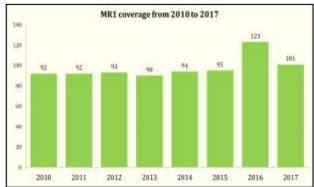
Targets in grant performance framework already achieved in this JA period, however, there is uneven immunization coverages at operational district and health center level; hence there are population immunity

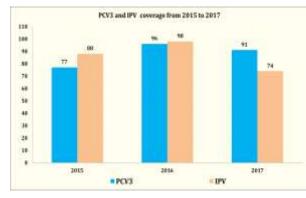
gaps in communities. At the same time, varied performances and quality of vaccine preventable diseases surveillance by provinces.

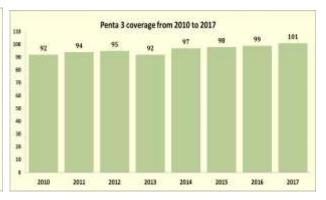
From January 2015 to March 2016, Cambodia introduced three new and underutilized vaccines (PCV, IPV, and JE) into routine immunization system and efforts made to increase the vaccines uptake. Human Papillomavirus (HPV) vaccine demonstration programme was launched in January 2017 and three rounds were already completed with high coverage. Remaining round of year 2 will be conducted in November/December 2018. Because of Global shortage of vaccine, Cambodia is unable to introduce HPV vaccine nationally in 2019; hence, there will be discontinuation for two years.











With the support from Gavi, Cambodia conducted MR campaign in March-May 2017, which ultimately impacted to interrupt transmission of measles virus, no further cases reported more than a year and Cambodia was able to sustain measles elimination status. However, in August 2018, two laboratory confirmed measles cases were reported and conducted successful responses for stopping the transmission. Cambodia also reported two cutaneous diphtheria cases in 2018 and country has been planning to switch TT to Td vaccine in 2020.

Cambodia has taken initiative to implement the many recommendations of comprehensive EPI review conducted in October 2017, it is evident that there are improvements in many areas; however, stock-out of vaccines due to delayed transfer of funds from government to UNICEF is the impediment of coverage in 2017 and 2018.

As per EPI review findings, at present only 16 private clinics providing only three NIP vaccines however, there is an enormous opportunity to include more private clinics for immunization service by providing them all vaccines and getting coverage report regularly.

With the support from WHO, MOH is preparing HPV vaccine application package and has planned to submit to Gavi Secretariat in January 2019.

4.2. Performance of Gavi HSS support (if country is receiving Gavi HSS support)

Cambodia has been receiving Gavi HSS2 grant from 2016 and implementing activities as planned through annual operational plan (AOP). By September 2018, there was balance of \$ 569,771 from previous year's HSS2 grant's disbursement and in same month MOH received \$ 2,000,000 as part of \$3.439, 978 of 2018 allocation. Country received remaining \$1,439,978 of same 2018 allocation in middle of November. Gavi Secretariat staffs visited in September and informed about additional \$9 million that can be taken by Government of Cambodia and needs to be used by the end of HSS2 grant period 2020. In view of this, NIP has been in discussion with MOH. Discussions held and NIP planned to use the new budget template given by Secretariat and to include reallocation of budget of HSS2 grant from 2019.

In this JA period, many activities were conducted under different objectives in annual plan, however due to delayed and portion of funds received by MOH from Gavi, some major activities were unable to implement in a timely manner and pushed towards the end of 2018.

National immunization Programme conducted three rounds of HRC immunization outreach services and two rounds of catch-up vaccination by the time of JA report wiring in 2018 and remaining one round of above two activities planned to be conducted in November/December 2018.

Round	Number of children reviewed vaccines in two rounds of HRC outreach services in 2018						3							
Rounu	BCG	OPV1	OPV2	OPV3	IPV	PCV1	PCV2	PCV3	Penta 1	Penta 2	Penta 3	JE	MR1	MR2
First round	1014	2910	3246	3538	2638	2959	3261	3510	2926	3223	3547	4876	4663	5187
Second round	845	2738	3290	3660	3208	2815	3211	3614	2857	3265	3599	3817	4601	5187
Total	1859	5648	6536	7198	5846	5774	6472	7124	5783	6488	7146	8693	9264	10374

Danis A	Number of children reviewed vaccines in first round of catch up vaccination in 2018													
Round	BCG	OPV1	OPV2	OPV3	IPV	PCV1	PCV2	PCV3	Penta 1	Penta 2	Penta 3	JE	MR1	MR2
First round	3387	9185	9468	10731	10035	9340	9802	11110	9475	9797	11051	12525	14805	15880
Total	3387	9185	9468	10731	10035	9340	9802	11110	9475	9797	11051	12525	14805	15880

Note: Report only for two rounds HRC outreach services, one round of catch-up vaccination

There has been improvement in VPD surveillance system especially measles and AFP surveillance performance indicators in 2018. With the support from WHO, a simple booklet on VPD surveillance was prepared and distributed throughout the country at the end of 2017 and beginning of 2019. National workshop for AEFI surveillance was conducted in September 2018 towards increasing detection and reporting case.

There has been progress in implementing the activities EVM improvement plan. Cold chain assessment was conducted and receiving update of inventory of cold chain equipment quarterly from the provinces. National Immunization Programme has been replacing the old cold chain equipment as per plan by using HSS2 grant.

Data quality is an issue in Cambodia which needs to improve and efforts put in place from 2017. Existing data quality improvement plan of HIS/DPHI of MOH was reviewed, identified priorities in immunization programme area and revised the improvement plan in 2018. HIS/DPHI has started implementing the activities including review workshop, etc. as per improvement plan.

Immunization service delivery system composed of fixed site vaccination at HC and routine outreach services. With the support from Gavi, NIP has been conducting an extra outreach services in identified 1832 high risk communities (identified in 2013) from 2014 and catch-up vaccination for missed children in non-high risk communities from 2017.

However, routine outreach services were stopped for almost two years from 2014 to 2015 in most places. It is evident that outreach services are not happening everywhere as needed. At the same time, EPI review and HLRP recommended to conduct service delivery assessment for finding out real high risk communities and communities with missed children. In view of this, with TCA funds, NIP developed methodology,

assessment template with indicators and conducted pilot studies in selected two provinces. This activity is at end stage and documentations are under preparation to introduce it nationally in 2019.

Similar to service delivery assessment, with TCA funds, NIP conducted three more following pilot studies to scale-up nationally in 2019. 1. Development of session plan, 2. Data accuracy, 3. Denominator use at local level. These pilot studies are also at end stage of completion.

A review meeting was conducted in communication and social mobilization areas at the beginning of 2018. IEC materials in different areas of immunization programme were developed, printed and distributed by using Gavi HSS2 grant and WHO TCA funds in 2018. A communication consultant was hired by using UNICEF TCA funds to support to develop communication strategies for immunization programme in 2018.

NIP follows its comprehensive multi-year plan which is aligned with National Health Strategic Plan's cycle. NIP's plans and achievements are discussed in ICC (TWGH) annually and when needed and all partners are present there.

Objective 1	
	Increase immunization coverage in high risk communities
HSS proposals or PSR)	
Priority geographies / population	1832 communities
groups or constraints to C&E	
addressed by the objective	
% activities conducted /	100%
budget utilisation	
Major activities implemented & Review of implementation progress including key successes & outcomes / activities not implemented or delayed / financial absorption	1. Conducted quarterly outreach visits to high-risk communities. 2. Supported VHSG to get data on numbers of women and children in high-risk communities not vaccinated and report quarterly to HCs (Perdiem VHSGs). 3. Purchased motorbikes and helmets for HC staff serving high-risk communities to allow outreach visits. 4. Prepared and distributed immunization package to high risk communities. 5. Conducted training VHSG at selected HCs (1 VHSG/selected villages). 6. Supported quarterly supervision visits to high-risk communities and 7. Conducted quarterly workshops to review immunization coverage in high-risk communities. 8. Conducted three rounds of high risk communities vaccination by October 2018 and as plan fourth round will be conducted in November/December 2018.
Major activities planned for upcoming	Similar major activities are in plan to implement in 2019
period	
(mention significant changes / budget	
reallocations and associated needs	
for technical assistance ¹¹	
Objective 2:	Cturn with an early obein acceptant through improved anytinment and
HSS proposals or PSR)	Strengthen cold chain system through improved equipment and management
Priority geographies / population	Whole country
groups or constraints to C&E	
addressed by the objective	
% activities conducted /	100%
budget utilisation	Equipped the appropriate cold chain equipment at health facilities
Major activities implemented & Review of implementation progress including key successes & outcomes / activities not implemented or delayed / financial absorption	as plan. 2. Developed EVM improvement plan 2015-2018. 3. Conducted repair and maintenance the cold chain equipment as per request. 4. Developed the SOPs as per the EVM recommendations. 5. Trained health staff on SOPs and 6. Conducted the cold chain assessment in selected provinces.
Major activities planned for upcoming period (mention significant changes / budget reallocations and associated needs for technical assistance ¹¹	Implementation of EVM improvement plan and other activities in AOP in 2019

Objective 3:	
,	Increase community awareness of, and demand for,
	immunization
Priority geographies / population	Whole country
groups or constraints to C&E	
addressed by the objective	
% activities conducted /	68%
budget utilisation	
Major activities implemented &	Produced IEC and communication materials. 2. Conduct
Review of implementation progress	dissemination workshop of findings. 3. Started to develop
including key successes & outcomes	communication strategies to gradually build communication capacity
	at all levels and to address certain emerging challenges (e.g. left-
	behind children).
Major activities planned for upcoming	Plan to start implementation of activities as recommended in the
period	communication strategies.
(mention significant changes / budget	
reallocations and associated needs	
for technical assistance ⁴	

4.3. Performance of Gavi CCEOP support (if country is receiving Gavi CCEOP support)

Not applicable

4.4. Financial management performance

- Based on available data in 2017, the financial absorption rate is 74.71%.
- The financial report of the project has always followed and complied as per the FM guideline (Financial Management guideline) of Ministry of Economy and Finance. The frequency of financial report from all 25 PHDs is monthly and to Gavi secretariat is quarterly. Country has excellent history and performances of compliance with financial reporting and audit requirements noting each grant.
- The issues related to the financial management have been found during the supervision and monitoring
 of finance team and recommendations from external audit report was considered and took into account.
- The finance team of NMCHC was managing the all source of funding included national budget, Gavi-HSS, Gavi New Vaccine, WHO, UNICEF and others. The financial management system is strictly followed the FM guideline of Ministry of Economy and Finance.

4.5. Transition planning (if applicable, e.g. country is in accelerated transition phase)

2018 is the second year of the Preparatory Transition phase for Cambodia. The country is moving from a flat government contribution per dose of Gavi supported vaccines to a 15% annual increase in contributions.

The Government is committed to immunization programme and as a whole health system and increasing allocation of funds in every year of its budget. However, there is need to increase allocation at sub-national levels especially regular funds for outreach services. At the same time, Ministry of Health strictly follow the government financial management system and established good governance in financial management.

The Government of Cambodia procures the routine vaccines and ancillaries of the National Immunization schedule and meets the co-financing requirements related to Gavi supported vaccines.

4.6. Technical Assistance (TA)

WHO:

Activities under Targeted Country Assistance were planned and implemented in collaboration with the

⁴ Note: When specifying Technical Assistance (TA) needs, do not include elements of resource requirements. These will be discussed in the context of the Targeted Country Assistance (TCA) planning. The TCA planning will be informed by the needs indicated in the JA. TA needs should however describe - to the extend known to date - the type of TA required (staff, consultants, training, etc.), the provider of TA (core/expanded partner) the quantity/duration required, modality (embedded; sub-national; coaching; etc.), and any timeframes/deadlines. JA teams are reminded to both look back (TA which was not completed/successful in the past) and forward (planned vaccine introductions, campaigns, major upcoming HSS activities, etc.) when specifying TA priorities for the coming year. The TA menu of support is available as reference guide.

National Immunization Programme. Mid-year milestones in 2018 were achieved and reported. Some yearend milestones were completed and some are on track. One activity related to HPV vaccine introduction was reprogrammed upon discussions with all as HPV vaccine will not be able to introduce nationally in 2019 because of global shortage.

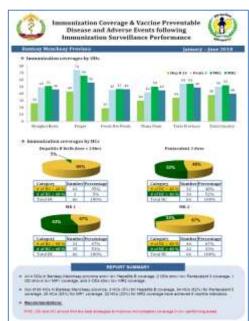
WHO has been continuing to support NIP and Ministry of Health to implement activities funded through Gavi HSS grants, these include right from planning to monitor the implementation of activities and their outcomes.

As per EPI review findings and subsequently as TCA activities, following four pilot studies were planned, prepared and implemented in selected provinces.

- 1. Immunization services delivery assessment
- 2. Review of immunization sessions plans at HC
- 3. Review of denominator used at local level
- 4. Review immunization data accuracy

Documentation is under development and final visit will be conducted in these selected provinces to finalize the implementation guidelines to introduce nationally in 2019.

Several meetings were conducted with NIP, HIS/DPHI of MOH to review the existing data quality improvement and supported to identify priority activities in immunization programme area and revised the improvement plan. This revised improvement plan is now annex of original plan and HIS/DPHI already started to implement activities. WHO supported NIP to conduct analysis of routine immunization coverage data up to health center level regularly. In early 2018, data for 2017 was analysed, prepared presentation with action points by province and shared to NIP and all provinces to use (523 HCs out of 1192 reached Penta3 coverage was >95%, 52 ODs out of 100 reached Penta3 coverage was >95%) . Moreover, WHO along with NIP made advocacy visit to some low performing provinces to strengthen the system and increasing the immunization coverage including allocating funds for routine outreach services. Similarly, 6 months immunization coverage data of 2018 was analysed, prepared bulletin by province and shared to provinces and ODs.



PROPERTY AND A PROPERTY OF STREET	and other	estima:	SEPTEM EXCELLEN
MEANING WHILE !			
Total number of expected these as seen reported	18	. 10	-2: 37 suspected values commonweal.
Your number of CO reported auspected Masses	-	9 (expending the humber of expedied reside. • Dath of CODs. Manager Birms (2%)
Turns runtime of purposited communications of the beautiful desired by sales plays:	-		Poper P., pio Phris Pust of remited the corporated rates. Pro- tos Phase GO has not reported any
Value reprinted of equipment content performed as Particular to successfully	-	1.41	numerite chinemes Lase or Bits. parket.
Proposition of OCs, reporting (2) new reasoning mon- rolled in cases par 100 800 proposition	1400	TWO .	The pro-expensed open strongs recommended to the pure strongs open strongs on the strongs open strongs on the strongs open strongs open strongs on the strongs open strongs on the strongs open strongs on the strongs of the strongs on the strongs on the strongs on the strongs of the strongs on the strongs of the strongs on the strongs on the strongs of the strongs on the strongs of the strongs on the strongs on the strongs of the strongs on the strongs of the strongs on the strongs o
Proposition of transported Massess Japan — III. Adequate investigation	£100%	2410	cellaboration with longing particulars, 1900, progres habits (guides and lateral folgotals from alternating
Proportion of ecoperand leasures cake with adequate specimen subsidies.	£.00%	180%	NAMES AND THE PERSONS OF
ACUTE FLACCIO FABRILYBIE (APP)			
Total number of AFF option	.1	- t	+ 1 MS cases now reperted by 2
Type symbol of SS beyoned APP passes	. T.	-2	ODe Hospiel Book Trans From Set Plant III, Proper and Trans
Amount legisting time of non-polic AFE cause of the rescord level or 1 January 10 (20) 000 population 119 pages of legis	Alt.	4	Fruit Otto never net reported, will specify the period. * Second mental blocks. The United Second and Second second
Proposition of reporter cases manifestated within He found of indiffuence	2800	- saps:	the purchased system by applica- action rate to all techniquess and
Proportion of AFF cases with arternate street	4.60%	180%	productivables.
SECRETAL TEXASSERVEY AND MEDIATRIC DEATH.	MD.		
TOTAL PLANTAGE OF TAXABLE		1(7)1	Participant Attitude Port OCA Manufal Impact Not cause in catalogues with recognitive and
Total number of the cases constituted as fift	. 4.	000	HCs. HCs served anguage 1990), offinge used and adversy look for title during colleges communication servers.
BORDETELLA PERFURSE ORBETELLA PERFURSE.			
Total rumber of purposed Exemples Revision classes recorded	14		* Equipmentation: At other broad improve services
Total revision of purificus Particus cosmicts soccords	-		perfection sales in contact time of loggraph ratio, and colors, other of street.
ANNOSE EVERTS POLLTERED BREITENESS (AD	re ·		1100
Total number of HEP1	-		+ Beurenstetung
Misson AEFr			An other mount sharingt an ABPA for remaining contain and report ABPA
Dring (PT)			1998

Note: example of provincial bulletin for six months immunization coverage data and surveillance performances

As of October, 19 provinces reported AFP cases and the number of AFP case report was increased in 2018 in compare to 2017 (October 2018: 62 vs 58:2017). All 25 provinces and 89 ODs out of 100 reported suspected measles/rubella cases, most performance indicators of measles surveillance increased in 2018 compare to 2017 (October 2018: 908 vs 879:2017). WHO supported NIP to prepare monthly VPD surveillance bulletin and shared to all provinces and ODs in a timely manner. Six months VPD surveillance data was analysed and prepared a bulletin along with routine immunization coverage data and shared to all levels. Moreover, a booklet for VPD surveillance was prepared, printed and distributed to all levels at the end of 2017 and beginning of 2018. AEFI case report has been severely under-reporting, therefore, supported NIP to conduct national AEFI training workshop which will further help to increase detection and reporting of AEFI cases throughout the country.

Supported to conduct Missed opportunity workshop and plan of action developed by the participants and incorporated in AOP.

As per plan, several IEC materials were developed and printed in 2018 in order to promote vaccine demand, to gain knowledge and awareness towards increasing coverage, equity and improvement of surveillance performances. At the same time, as per discussion, need and agreement, WHO supported to reprint HPV related IEC materials for the 2nd round of 2nd year vaccination.

UNICEF:

Capacity development in web-based cold chain inventory for the district level immunization managers

UNICEF continued to provide technical support to NIP and provincial managers to update through a web-based cold chain inventory. A two days review workshop of web-based cold chain inventory was conducted in first quarter 2018 to identify any barriers for the provincial EPI managers encountered after all NIP staff and provincial EPI managers trained to use it. The review was divided into two groups involved all the 56 NIP staff and provincial EPI managers trained to share their experiences how to update the cold chain inventory timely and completely. The common barriers for updating the cold chain inventory timely and completely in some provinces were how to transfer a refrigerator from one health facility to another one (when there is regular electricity in some areas using gas refrigerator), creating user account for the new user and old cold chain equipment with no reference document and staff turned over. It is the first time when NIP could access to the most up to date cold chain inventory by health facility in each of 25 provinces for a replacement purpose, although there have been some remaining issues identified. One of the review recommendation is that NIP should expand the training to the district level. As result, NIP included in the AOP 2018 using Gavi HSS fund and the training is scheduled in by end of November.

Capacity development for provincial and district level in refrigerator maintenance and minor repairs

UNICEF provide support to build capacity of 10 selected talent group from provincial and district level in refrigerator maintenance and minor repairs. Each of them attended two separate training courses in refrigerator maintenance and minor repairs were conducted. Each of participant was equipped with the basic repair tool kit for practical sessions and bring back to their own province after the training. NIP has assured sufficient spare parts for repair purposes. NIP technician and UNICEF funded staff conducted on site coaching after the training to assure that they could perform their work better. A total 15 staff from the subnational level (5 staff in 2017 and 10 in 2018) were equipped with basic knowledge and skills to refrigerator maintenance and minor repairs with UNICEF support under this TCA. Training of staff at from sub-national level is a transitional strategy and it is part of the institutional capacity development before each province or district could have the ability for out sourcing or using the mixed strategy.

Disseminate/ Implementation of SOP for immunization supply chain

UNICEF support the dissemination and implementation of SOP for immunization supply chain. This activity has been slightly delayed for conducting training of trainer (TOT). However, it was rescheduled to conduct in December and will follow by training of health center level when second Gavi-HSS funding made available in November.

Capacity development for Central Vaccine Cold Store managers in temperature monitoring for vaccine distribution to the provincial level

Before 2018, central vaccine store of the Central Medical Store (CMS) had only a trained central vaccine store manager with direct supervision of the Deputy and Director level. In 2017, CMS assigned a new staff as "alternate vaccine store manager". UNICEF provide technical support to build knowledge and skills for vaccine store managers in temperature monitoring for packaging of vaccines and distribution to the provincial level. The coaching has been focus on one newly assigned "alternate vaccine store manager" in a two types of temperature monitoring devices.

For vaccine distribution, the newly assigned staff was trained in using Freeze Tag (PQS: E006/007). All vaccine cold boxes with freeze sensitive vaccines distributed to the provinces have a Freeze Tag. The vaccine store manager filled first part of vaccine arrival report form when prepared for vaccine packaging and send it along with the vaccine cold boxes to the province. The provincial store manager filled the other part of vaccine arrival report form when received vaccines and returned a copy back to CMS.

For vaccine storage, the newly assigned staff was also participated in the training of the use of remote temperature monitoring (RTM) devices which were installed for vaccine cold rooms and freeze room. The training was conducted by the supplier as part of UNICEF installation contract agreement.

Development of communication strategic plan for immunization

UNICEF recruited a consultant to support the National Immunization Program for the Development of Communication Strategic Plan for Immunization and operational plan with costing for implementation. The consultant has been on board since 1st November 2018. Based on the latest workplan, the national communication strategic plan for Immunization and operational plan with costing should be finalized by first week of end January 2019. Since the start of consultancy, there has been good progress based on the workplan.

Review denominator used for immunization programme at local level for improving data quality (Jointly organize by WHO and UNICEF)

Early 2018, NIP central team, WHO, UNICEF conducted extensive data analysis using 2017's HIS data. The team identified 453 health centres (38%) of total 1192 health centres reported penta 3 above 100%, and 37 operational districts (37%) of total 100 operational districts reported above 100% through HMIS in 2017. NIP central team, with WHO, UNICEF also identified some health facilities which used to report high immunization coverage became low coverage report.

Two health centers (HC) were selected to conduct the assessment of denominator used at the service delivery level. One of the selected health centres represented urban area (Takhmao HC with 333% Penta3 coverage in 2017) and another one represented rural area (Lvea Krang HC reported150% Penta3 coverage in 2017). A draft concept note with a short guideline was produced before conducting the assessment. The finding from Takhmao HC represented urban area showed that high proportion of children (more than two folds comparing to the estimated target population for the health center) living outside the health center catchment area received vaccination in that health center and in Lvea Krang HC.

5. UPDATE OF FINDINGS FROM PREVIOUS JOINT APPRAISAL

Pri	oritised actions from previous Joint Appraisal	Current status
1.	NIP i) Active response activities taken in response to the importation of viruses/import related cases in 2016-2017 and will have similar responses if any virus import again.	Two laboratory confirmed measles cases were reported and similar responses were conducted.
	ii) Ensure HC use the outreach guidelines.	
	Ensure efficient management of funds at PHD / OD for outreach service delivery based on the costed immunization session plan developed by the HC.	On going Ongoing
	Develop transition plan to replace retirement age staff (by mapping EPI focal point at each level; and multi-strategy approach	On going

	such specific training/ coaching for the staff to be replaced.	
	Develop/ update list of alternate staff responsible for immunization supply chain and logistics at all level and equip them with the required knowledge and skills to perform their tasks when the focal points is absent.	Ongoing
	iii) Development of a methodology to review the current service delivery strategies taking into consideration the rapidly evolving HRC ranking. Methodology to be ready for use across all 25 provinces in 2019 at the latest with possible funding coming from the additional HSS ceiling amount.	Ongoing (at the end stage, documentations under preparation for testing and national scale-up)
	Conduct a review of vaccination session plans and how their implementation meets actual needs. Initially focusing on two districts in 2018 but with the aim to develop and test a mechanism for regular monitoring of implementation.	Ongoing (at the end stage, documentations under preparation for testing and national scale-up)
	iv) Review and revise the existing data quality improvement plan in collaboration with the DPHI using the EPI Review findings to identifying priority activities that can be implemented using additional Gavi HSS ceiling funds.	Completed
	 Planning for nationwide introduction through stakeholder meetings for decision making on delivery strategy, target age group etc based on lessons learned from the demonstration project. Development of application. 	Ongoing
	Development and printing of national HPV vaccine implementation guidelines and related IEC material	Reprogrammed (HPV vaccine introduction delayed because of global shortage)
2.	WHO i) Active response activities taken in response to the importation of viruses/import related cases in 2016-2017 and will have similar responses if any virus import again.	Two laboratory confirmed measles cases reported and similar responses were conducted.
	ii) Ensure HC use the outreach guidelines.	On going
	Ensure efficient management of funds at PHD / OD for outreach service delivery based on the costed immunization session plan developed by the HC.	Ongoing
	Develop transition plan to replace retirement age staff (by mapping EPI focal point at each level; and multi-strategy approach such specific training/ coaching for the staff to be replaced.	On going

Develop/ update list of alternate staff responsible for immunization supply chain and logistics at all level and equip them with the required knowledge and skills to perform their tasks when the focal points is absent.

iii) Development of a methodology to review the current service delivery strategies taking into consideration the rapidly evolving HRC ranking. Methodology to be ready for use across all 25 provinces in 2019 at the latest with possible funding coming from the additional HSS ceiling amount.

Conduct a review of vaccination session plans and how their implementation meets actual needs. Initially focusing on two districts in 2018 but with the aim to develop and test a mechanism for regular monitoring of implementation.

- iv) Review and revise the existing data quality improvement plan in collaboration with the DPHI using the EPI Review findings to identifying priority activities that can be implemented using additional Gavi HSS ceiling funds.
- Planning for nationwide introduction through stakeholder meetings for decision making on delivery strategy, target age group etc based on lessons learned from the demonstration project. Development of application.

Development and printing of national HPV vaccine implementation guidelines and related IEC material

For TCA activities which also addressed above in section 4.6

- Technical support to NIP in implementation of Gavi HSS grant supported activities as per NIP AOP including planning and monitoring of high risk community outreach services and catch-up vaccination
- Conduct review of vaccination session plan, its implementation and actual needs by using structured template in two provinces (1. province with >100% penta3 coverage, 2. province with <90% penta3 coverage)
- Development of methodology to review the current service delivery strategies focusing on revision of status of high risk communities

Ongoing

Ongoing (at the end stage, documentations under preparation for testing and national scale-up)

Ongoing (at the end stage, documentations under preparation for testing and national scale-up)

Completed

Ongoing

Reprogrammed (HPV vaccine introduction delayed because of global shortage)

Ongoing

Ongoing (at the end stage, documentations under preparation for testing and national scale-up)

Beyond methodology and template, it was implemented as pilot. This activity is still ongoing (at the end stage, documentations under preparation for testing and national scale-up)

Additional significant IRC / HLRP recommendations (if applicable)	Current status
UNICEF National Officer (NO2 level) has beer funded with TCA from the last two years.	 Ongoing (need to have same level of support for the subsequent years).
 For UNICEF Provides technical support to implement the Gavi HSS focusing on the following objectives 1, 2, 3 and 5. Technical support to national and subnational level for the update of cold chain equipment inventory to improve cold chain equipment replacement plan and to accelerate refrigerator maintenance/ repair. Technical support for refrigerator maintenance and repair. Technical support for conducting periodic EVM assessment and implementation of EVM improvement Plan Technical support to procure of cold chain equipment/ spare parts and timely distribution. 	 Ongoing (need to continue support for subsequent years) Ongoing Ongoing (with international technical
 AEFI surveillance Retraining of PHD and OD NIP staff and awareness of PHD and OD's accountability for VPD outbreak responses 	Ongoing
 Conduct training on VPD surveillance including data management at sub-national level Development of SOP/Booklet for VPD and 	Ongoing Completed
 Review accuracy of routine immunization coverage data in one province (>100% coverage) by using structured data verification template Monitoring VPD surveillance performance indicators/reporting and AEFI by national/provinces/ODs 	Ongoing (at the end stage, documentations under preparation for testing and national scale-up) Ongoing
 Review denominator used for immunization programme at local level for improving data quality (Jointly organize by WHO and UNICEF) 	Ongoing (at the end stage, documentations under preparation for testing and national scale-up)
Review and revise of existing data quality improvement plan of MOH including	Completed

If findings have not been addressed and/or related actions have not taken place, provide a brief explanation and clarify whether this is being prioritised in the new action plan (section 6 below).

Not applicable

6. ACTION PLAN: SUMMARY OF FINDINGS, ACTIONS AND RESOURCE/SUPPORT NEEDS IDENTIFIED AND AGREED DURING THE JOINT APPRAISAL

Key finding / Action 1	Implementation of Gavi HSS grant's funded activities including identified activities for additional funds and other Gavi supported activities; Use new budget template including for reallocation			
Current response	Good achievements have been maintained in last two years including high rates of expenditure with quality implementation of activities following FM guidelines.			
Agreed country actions	Adequate plan preparation implementation and monitoring of Gavi HSS grant's			
Expected outputs / results	All activities planned in AOP are implemented			
Associated timeline	2019			
Required resources / support	WHO and UNICEF will provide support in planning, preparation, implementation and monitoring of activities			
Key finding / Action 2	Identify priority populations based on combination of HRC, number of unimmunized, others. Denominator, data management and quality improvement plan			
Current response	Immunization services delivery assessment template, methodology were developed and conducted assessment in selected two HCs in two provinces. As linked, session plan template was developed and piloted in selected two HCs in two provinces. As different sources of denominator are used by different HC and found inconsistency of data and its quality two more pilot studies on denominator used at local level and data accuracy were conducted in two selected HCs of two provinces. At the same time, first time ever, HIS/DPHI existing data quality improvement plan was revised with prioritized activities.			
Agreed country actions	National scale-up of following four activities which are piloted in 2018 Immunization services delivery assessment Review of immunization sessions plans at HC Review of denominator used at local level Review immunization data accuracy 2. Data management and implementation of data quality improvement plan			
Expected outputs / results	All four activities implemented nationally			
Associated timeline	2019			
Required resources / support	WHO and UNICEF will provide technical assistance to implement national scale-up; data management and analysis of immunization and surveillance programme; and implementation of data quality improvement plan			
Key finding / Action 3	Preparedness and response to VPDs outbreak			
Current response	Two laboratory confirmed measles cases, two diphtheria cases, three laboratory confirmed rubella cases and 23 laboratory confirmed pertussis cases were reported in 2018 and responded immediately Country preparedness for VPD outbreak(s) and responses			
Agreed country actions Active response activities for import/import related measles case ar cases				
Expected outputs / results	Country prepared and responses conducted			
Associated timeline	2019			
Required resources / support	WHO and UNICEF will provide technical assistance for preparedness and responses			
Key finding / Action 4	Immunization Supply Chain			

Current response	Substantial progress has been made in supply change management including procurement of equipment, implementation of EVM improvement plan.			
Agreed country actions	Continue to implement EVM improvement plan. Progress has been made to implement the recommended EVM Improvement plan. As of November 2018, among the total 26 EVM recommendations since 2015, 7 recommendations were completed while 12 recommendations are progressing and 7 have not yet been implemented.			
Expected outputs / results	Activities in EVM improvement plan implemented			
Associated timeline	2019			
Required resources / support	WHO and UNICEF will provide technical assistance in supply chain management			
Key finding / Action 5	Development of key documents for national immunization programme			
Current response	cMYP is ending by 2020, Country is planning to switch from TT to Td			
Agreed country actions	Development of cMYP plan 2021-2024 following national health strategic plan Development of implementation guidelines and other related documents for switching TT to Td			
Expected outputs / results	Increased demand, immunization programme better managed and sustained, switching from TT to Td implemented			
Associated timeline	2019-2020			
Required resources /	WHO and UNICEF will provide technical support to develop these documents and its			
support	implementation			
Key finding / Action 6	Sub-national level coverage monitoring			
Current response	Along with central NIP and PHD NIP staffs, WHO and UNICEF staffs extensively monitor the immunization coverage and surveillance performances at sub-national levels			
Agreed country actions	Strengthen monitoring of immunization coverage and surveillance			
Expected outputs / results	Low performing HCs and ODs identified and extensively monitored			
Associated timeline	2019			
Required resources / support	WHO and UNICEF will provide support and actively monitor at sub-national level			

Overview of key activities planned for the next year: (2019)

For UNICEF

- 1. Technical support to improve knowledge and skills of six newly assigned PHD-NIP Managers in immunization supply chain management.
- 2. Technical support to one newly assigned staff at central vaccine stores to have knowledge and skills to perform as alternate vaccine store manager.
- 3. Technical support to scale up training in SOP for immunization supply chain to all provincial and OD Managers and service delivery level.
- 4. Joint technical support (WHO/UNICEF) to scale up immunization data quality improvement plan (annual service delivery assessment, annual session plan, quarterly data accuracy check, annually dissolving the denominator related issues)
- 5. Technical support to implement the Communication Strategic Plan for Immunization
- 6. Technical support to immunization supply chain management
- 7. Technical support to conduct EVM assessment and development of improvement plan and conduct bi-annual review the progress in implementation of EVM improvement plan
- 8. Technical support to five remote north-east provinces to reduce dropout rates for immunization in health centers (with Penta1-3 or MCV1-2 above 10% in 2018)
- 9. Technical support to promote demand (based on for Immunization in 12 health centers in five north-east provinces focusing on difficult access areas, ethnic minorities villages
- 10. Technical support to update the cold chain inventory of 109 health facilities in five remote northeast provinces.

For WHO:

1. Technical support to NIP in implementation of Gavi HSS grant's supported activities as per NIP AOP (all objectives) including planning, preparation, implementation and monitoring of high risk community outreach services and routine catch-up vaccination.

- 2. Technical support to develop the comprehensive multi-year plan (2021-2024).
- 3. Technical assistance in national scale up and monitoring of following activities which was piloted in 2018 under Gavi TCA funds
 - Immunization service delivery assessment
 - Development of session plan
 - Data accuracy
 - Denominator use at local level.
- 4. Technical support to NIP to establish a NIP model village in each of two provinces with <90% penta3 coverage and explore integration of other services with ultimate target towards model health village.
- 5. Technical assistance to NIP for developing national implementation guidelines and other related documents for switching TT to Td and preparation for implementation.
- 6. Analysis and monitoring of routine immunization coverage and VPD surveillance performance indicators/reporting by national/ provinces/ODs/HCs.

7. JOINT APPRAISAL PROCESS, ENDORSEMENT BY THE NATIONAL COORDINATION FORUM (ICC, HSCC OR EQUIVALENT) AND ADDITIONAL COMMENTS

The JA report along with TCA plan will be presented during Technical working Group for Health (TWGH) meeting on13/12/2018 for endorsement.

8. ANNEX: Compliance with Gavi reporting requirements

	Yes	No	Not applicable
Grant Performance Framework (GPF) * reporting against all due indicators	Х		
Financial Reports *			
Periodic financial reports	Х		
Annual financial statement	Х		
Annual financial audit report (2016-2017)	Х		
End of year stock level report (which is normally provided by 15 May as part of the vaccine renewal request) *	Х		
Campaign reports *			
Supplementary Immunisation Activity technical report			Х
Campaign coverage survey report			Х
Immunisation financing and expenditure information	Х		
Data quality and survey reporting			
Annual data quality desk review		X (conducted with EPI review in 2017)	
Data improvement plan (DIP)	X (started in 2018)		
Progress report on data improvement plan implementation			Х
In-depth data assessment (conducted in the last five years)			Х
Nationally representative coverage survey (conducted in the last five years)	X		
Annual progress update on the Effective Vaccine Management (EVM) improvement plan	Х		

Joint Appraisal

CCEOP: updated CCE inventory		Х
Post Introduction Evaluation (PIE)		Х
Measles & rubella situation analysis and 5 year plan	Х	
Operational plan for the immunisation programme	Х	
HSS end of grant evaluation report	Х	
HPV specific reports	Х	
Reporting by partners on TCA and PEF functions	X	

In case any of the required reporting documents is not available at the time of the Joint Appraisal, provide information when the missing document/information will be provided.

NI/A			
IN/A			
			ļ