Joint Appraisal report 2017

Country	Cambodia
Full Joint Appraisal or Joint Appraisal update	Full joint appraisal
Date and location of Joint Appraisal meeting	25-26 October 2017
Participants / affiliation[1]	
Reporting period	2016
Fiscal period[2]	Jan - Dec
Comprehensive Multi Year Plan (cMYP) duration	2016-2020

1. SUMMARY OF RENEWAL AND EXTENSION REQUESTS

As part of the ongoing grant cycle, Gavi reviews and renews its support to the country annually (referred to as "renewal"). If a country's new and underused vaccine support (NVS) is coming to an end and the country is still eligible for Gavi support, it may submit a request to extend the support (referred to as "extension").

Below tables 1.1 to 1.4 will be pre-populated by the Gavi Secretariat based on the country information submitted through the Country Portal on 15 May and four weeks before the Joint Appraisal meeting. If there are any changes to be made, these changes should be discussed during the Joint Appraisal and flagged in the Joint Appraisal report.

1.1. New and Underused Vaccines Support (NVS) renewal request(s)

Type of support (routine or campaign)	Vaccine	End year of support	Year of requested support	Target (population to be vaccinated)	Indicative amount to be paid by country	Indicative amount to be paid by Gavi
Routine	IPV	2018	2018	334,694	US$0	US$ 816,000
Routine	PCV	2018	2018	348,640	US$ 318,000	US$ 3,939,500
Routine	Penta	2018	2018	348,640	US$ 107,000	US$ 1,310,500

1.2. New and Underused Vaccines Support (NVS) extension request(s)

If 2017 is the last year of an approved multiyear support for a certain vaccine and the country wishes to extend Gavi support, please do so by requesting an extension of the vaccine support. The extension can be requested maximum for the duration of the Comprehensive Multi-Year Plan (cMYP), which must be submitted to Gavi.

Type of Support	Vaccine	Starting year	Ending year
	HPV	2016	2018

1.3. Health System Strengthening (HSS) renewal request

Gavi commits to Health System Strengthening grants up to a five year period, with the first tranche approved with the approval of the proposal. In subsequent years, the country should submit a renewal request for the approval of the following HSS funding tranche.

*Below table summarises key information concerning the amount requested for the next year. Please note that funds previously requested and approved may be pending disbursement and do **not** require further approval.*

[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.

Total amount of HSS grant	US$ 18,055,250
Duration of HSS grant (from…to…)	2016-2020
Year / period for which the HSS renewal (next tranche) is requested	2018
Amount of HSS renewal request (next tranche)	US$ 3,439,978

1.4. Cold Chain Equipment Optimisation Platform (CCEOP) renewal request

Similar to the Gavi HSS support, the Cold Chain Equipment Optimisation Platform provides phased support for a maximum duration of five years, which is subject to an annual renewal decision.

Below table summarises key information concerning the amount requested for the next year.

Total amount of CCEOP grant	NA	
Duration of CCEOP grant (from…to…)		
Year / period for which the CCEOP renewal (next tranche) is requested		
Amount of Gavi CCEOP renewal request	US$	
Country joint investment	**Country resources**	US$
	Partner resources	US$
	Gavi HSS resources[3]	US$

1.5. Indicative interest to introduce new vaccines or request Health System Strengthening support from Gavi in the future[4]

Indicative interest to introduce new vaccines or request HSS support from Gavi	**Programme**	**Expected application year**	**Expected introduction year**
	HPV	2018	2019

[3] This amount must be included either in an earlier HSS approval or else in the current HSS renewal request in section 1.4 above.

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

2. CHANGES IN COUNTRY CONTEXT SINCE LAST JOINT APPRAISAL

The overall country context for Cambodia is unchanged from the last JA report, however the following events and trends can be noted:

- As part of Government policy for expansion of health system, the number of operational districts and health centres has continued to increase. There are now 100 Operational Districts (and 1188 health centres) in 2017 up from 79 in 2012.
- Commune council election was held in June 2017 where general people and officials were involved.
- Ministry of Health with communication and negotiation with Ministry of Economy and Finance solved the issue related to sub-decree 216 (related to per diem) in 2015 which directly impacted outreach services.
- The health centres (the lowest service delivery level) have now received direct government funds for operational costs.
- Increasing trend of mobile population inside and outside country:
    - People are moving from rural to provincial town and also moving especially from one province with higher population density to another province with lower population density for find work.
    - Cambodian workers are also going to bordering countries, especially Thailand and other to find work.
    - As a result some communities previously considered low risk are now becoming high risk and some previously classified as high risk are becoming low risk.
- A total of 66 imported and import related measles cases reported from January 2016 to June 2017 in Cambodia. Government of Cambodia conducted detailed case investigation and several small and large scale SIAs. Regional Verification Commission of measles elimination of WHO Western Pacific Region reviewed the National Verification Committee's report and concluded that Cambodia sustained measles elimination status.
- From 2017 onwards the financial management and transactions of the Gavi HSS grant and other cash support is managed by the National Maternal Child Health Centre (NMCHC) of the Ministry of Health (MoH).
- An EPI Review was conducted from 16-24 October 2017. Key strengths and challenges across seven thematic areas were identified by the reviewers and recommendations were provided to the Ministry of Health. The findings and recommendations of the EPI Review are reflected in the different sections of this JA Report.

3. PERFORMANCE OF THE IMMUNIZATION SYSTEM IN THE REPORTING PERIOD

3.1. Coverage and equity of immunization

As shown in Figure 1, vaccination coverage for DPT3 and MR1 in 2014-2016 has remained at the same level nationwide and dropout rates from MR1 to MR2 appeared high.

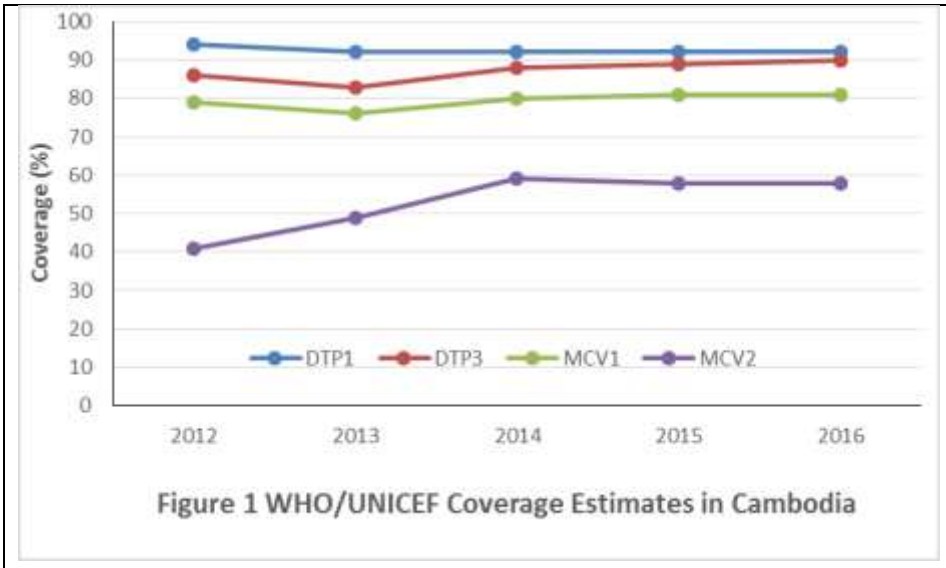


Figure 1 WHO/UNICEF Coverage Estimates in Cambodia

There are differences by province in terms of number of children unimmunized and coverage for DPT3. The provincial immunization maps, as reflected in Figure 2, can help identify priority districts for intensified action.

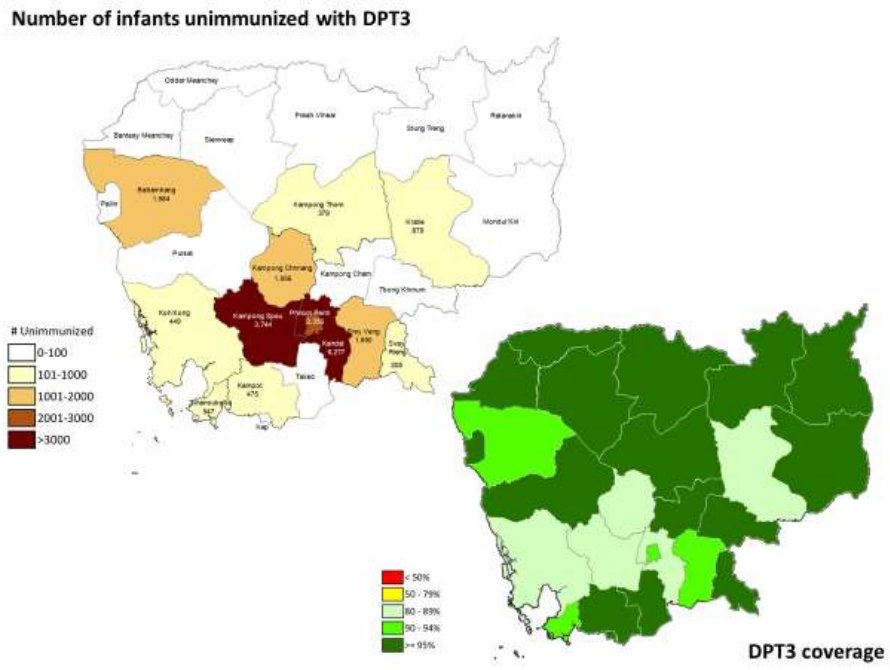
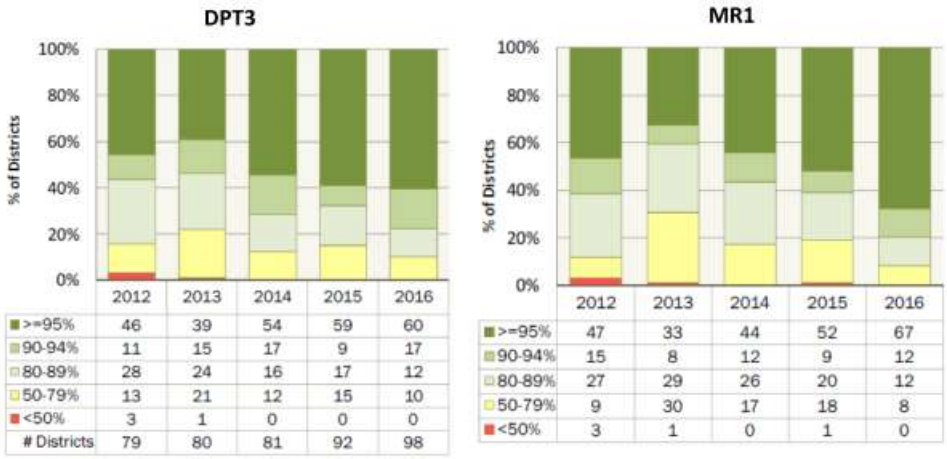


Figure 2 Provincial DPT3 Maps, 2016, Cambodia

In terms of district level, in recent years the numbers of operational districts have been rapidly increasing in Cambodia, from 79 in 2012 to 98 in 2016. Due to the quick change in OD number and geographic boundaries, development of district DPT3 maps is not possible at this stage. Instead, Figure 3, presenting administrative data, reveals that the proportion of ODs with at least 95% coverage increased and the proportion of ODs with less than 80% decreased in 2016 compared to 2014-2015.



DPT3	2012	2013	2014	2015	2016
>=95%	46	39	54	59	60
90-94%	11	15	17	9	17
80-89%	28	24	16	17	12
50-79%	13	21	12	15	10
<50%	3	1	0	0	0
# Districts	79	80	81	92	98

MR1	2012	2013	2014	2015	2016
>=95%	47	33	44	52	67
90-94%	15	8	12	9	12
80-89%	27	29	26	20	12
50-79%	9	30	17	18	8
<50%	3	1	0	1	0

Figure 3 Coverage by Percentage of Operational Districts, Cambodia

The 2014 DHS data indicates the existence of inequities in vaccination coverage, particularly associated with geographic locations (by province), education of caregivers and wealth status (See Figure 4). The coverage ranged between 98% in Takeo and 56% in Mondol Kiri; the coverage was 94% among children whose mothers had at least college education and 69% among children whose mothers had no education. The coverage was 96% among the richest and 72% among the poorest. Comparison with 2010 data shows minimal change in these disparities over time.

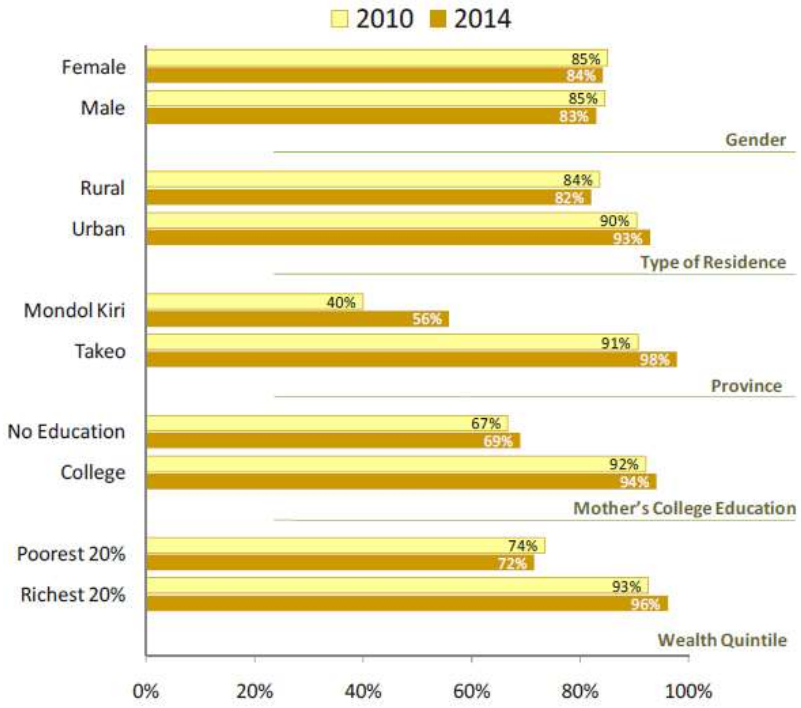


Figure 4 Disparity in DPT3 coverage by characteristic among children aged 12-59 months (DHS)

Based on a global database, 55% of the urban dwellers live in slums (2014-Data source: http://mdgs.un.org/unsd/mdg/dData.aspx). Figure 5 shows that the difference in DPT3 coverage among children 12-59 months by residence and wealth, indicating 99% coverage among the richest and 87%

among the poorest urban residents. However it should be highlighted that the CDHS survey often does not include informal settlements in sampling; thus there is a possibility of problem of real coverage (among the urban slums, remote rural). This has been proven by the recent rapid coverage assessment results in one district in the Capital.

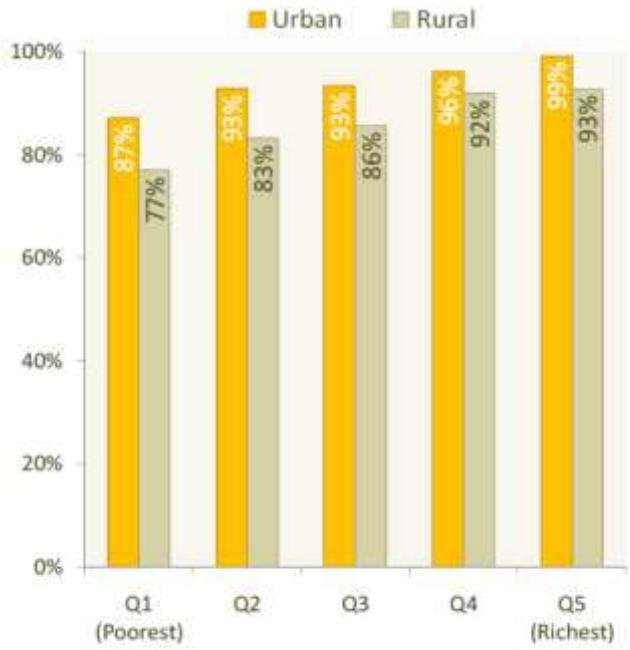


Figure 5 Disparity in DPT3 coverage by residence (urban/rural) and Wealth (DHS 2014).

Cambodia has a High Risk Communities (HRCs) Strategy, “immunization outreach services” (a modified Reaching Every Community strategy for immunization) in place, which has been funded through the HSS Gavi grant from 2014. The number of HRCs is 1832 village in 22 provinces; these are selected in 2013 based on particular coverage criteria. A total of 19,291 and 27,221 children were immunized for pentavalent 3 and measles-rubella 1 dose against targeted 53,646 children respectively in 2016 through the HRCs approach. It should be recognized HRCs are often hotspots for outbreaks of measles and other preventable diseases; in other words, the contribution of HRCs to measles elimination and prevention of other VDP outbreaks is expected to be significant. On the other hand, the risk status of communities evolves, there is therefore a need to regularly review and update the list of HRCs.

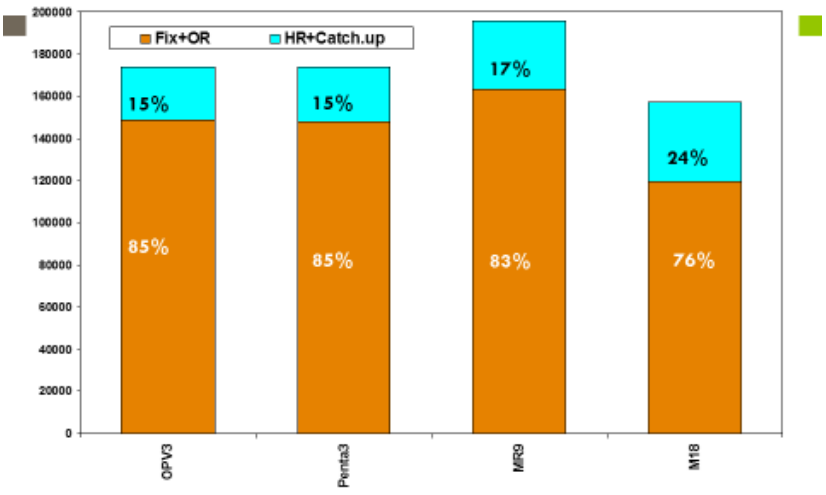


Figure 6 Proportion of Immunization coverage from January to June 2017 (Outreach-Fixed site VS HR+ Catch-up)

From 2016, in order to reduce missed opportunities for essential IMCI interventions including vaccination, the MOH required all health facilities (particularly big hospitals) to scan all under five children who come to seek medical services and refer for missed vaccinations. Positive results were observed with varied status of implementation by province.

3.2. Key drivers of low coverage/ equity

The EPI review conducted in October 2017 indicates there are certain factors impacting the immunization system including service delivery in the country (for more details see attached EPI Review). In recent years many health facilities have been facing a challenge in adequately planning and implementing regular routine outreach services for immunization and other integrated health services. This is a result of a number of factors, including a change in financial policy (e.g. related to staff per diem), financial management (e.g. complex liquidation process for reimbursement) and programme management (e.g. gaps in quality microplanning, gaps in quality support & supervision from ODs).

Based on analysis by the National Immunization Programme, aging cold chain equipment has impacted immunization services; however response action (procurement and installation of new cold chain equipment) has been undertaken with funding secured through the Gavi HSS2 grant.

In the area of demand, the EPI Review teams observed high demand for vaccination among the general public; while recognizing the need to increase demand among certain population groups (e.g. migrants, urban dweller, minorities, remote populations), through evidence-based and tailored communication strategies/action plans.

Cambodia continues to improve accessibility of health services and recently action is under way to increase the numbers of ODs and health centers. This will improve public health systems in the long term; while in the immediate term it requires rapid adaptation in management and close monitoring, to prevent confusion and potential management vacuums in new administrative areas.

In terms of equity in immunization, as highlighted by the 2014 DHS data (Figure 3), certain socio economic factors significantly impact uptake of vaccination, including wealth, education and residence. Figure 2 also echoes that there is also variation in coverage among provinces and operational districts, requiring focused approaches.

Also as showed in Figure 7, the 2010 review pictured who and where the unimmunized children were, and it concluded 58% were in fact from urban areas. With rapid urbanization in the country since 2010, likely the proportion of the un/under immunized children who live in urban or peri-urban settings has increased.

Many villages of urban areas are in list of HRCs and since 2014 these villages have been covered under HRCs immunization outreach services using the Gavi HSS grant (for example 256 villages out of total 953 in Phnom Penh). At the same time, NIP is assessing and conducting an analysis of programme implementation in urban areas including working on broader context of health system and will plan to develop urban immunization strategies in future.

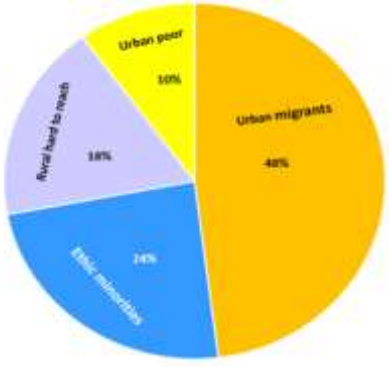


Figure 7 Proportion of unimmunize children (2010 EPI Review, N=330)

The 2016-17 measles outbreak in the country, with around 40 cases out of 66 reported from cities, again emphasized a need for an intensified strategy tailored to rapidly urbanizing settings, with continued or improved service delivery in other areas.

3.3. Data

Routine assessment of quality of HMIS data has been conducted by HMIS staff in 13 ODs in 2016. These were not specific to vaccination data, and recommendations from these have not been shared widely. Follow up on the results from these has not yet been conducted.

An EPI Review with a strong focus on data took place in Cambodia in October 2017. The key findings from the review are the following:

Strengths

Administrative vaccination data are available and mostly complete and timely. Yellow cards, immunization register, tally sheet are routinely used at health center and monthly reports are entered directly into the electronic HMIS. Operational Districts (OD) routinely verify monthly report data from health centres (HC) and monitor coverage. At OD/HC levels coverage monitoring charts are mostly correctly used and updated. OD provides feedback to HC chiefs on immunization performance through regular monthly meetings. The National Immunization Programme (NIP) has case-based surveillance data readily available, and routinely analysed. Routine case reporting is provided to other areas of the Ministry (Communicable Disease Control). National vaccine stocks are managed through a web-based vaccine stock inventory by the Central Medical Store (CMS). Stock management forms are readily available and used at Provincial Health Department (PHD), OD and HC levels.

Challenges

Administrative vaccination data

- Gaps in data management at sub-national level (PHD, OD and HC), including incomplete/inaccurate reporting of doses administered (e.g. no systematic use of tally sheet, recording of MR doses from campaign as routine dose, using used vials to complete the tally sheet).
- Denominator data are initially based on projections from the census 2008. Health centres may report their own population data which is included in HMIS but there is incongruence between this and census-projected population data with mix of under and over-estimation, often > 10%. These dynamic and frequently inaccurate denominators for calculation of immunization coverage are leading to inaccurate coverage estimates.
- <1year old population is used as proxy to calculate the 2nd year of life (MCV18mths).
- Limited or inaccurate monitoring of immunization data at HC level, including drop out and coverage. Current data recording forms do not distinguish between doses administered to children within and outside catchment area or by village. Limits utility of data for monitoring coverage at HC or village level.
- No/poor mechanism for recording results from yellow cards checking/spot checking to validate administrative reported data.
- Parallel reporting system for doses delivered through HRC and catch-up strategies. Doses from these strategies are known to be reported in the HMIS, mostly as “outreach” doses.

VPD surveillance & AEFI

- Parallel reporting systems for certain notifiable VPDs, for example HMIS includes report for cases of VPDs and Communicable Disease Control Department (CDC) has a web-based zero report system which includes reporting AFP. NIP does not have access to the zero report system managed by CDC. All Referral Hospital use Patient Monitoring Record System (PMRS) data base. The PHD and OD-NIP manager has no user access to the data.
- Low knowledge and motivation of ODs to conduct active surveillance at the referral hospital and HC staff to conduct active surveillance in the community. This leads to incomplete, inaccurate or unavailable data.

- EPI review highlighted very limited knowledge of AEFI among HC, OD and PHD staff. Highlights potential gap in identification and reporting of cases, leading to limited and/or inaccurate data.
- Incomplete and inaccurate reporting of case-based surveillance data and AEFI.
- Limited routine analysis and monitoring of VPD surveillance indicators at sub-national level.

Supply chain data

- Insufficient recording practices at HC level, including timely and incomplete stock record form (stock card) for vaccines and injection devices. Data on doses used or wasted most common data omitted.
- HC appears of have inadequate stock management leading to overstocking, expired vaccines and stock outs.
- Gap for both knowledge and practices for OD ad HC level calculating/ estimating the annual/ quarterly vaccine requirement;
- Insufficient knowledge in temperature monitoring where 30 DTR has been used for the refrigerators
- Limited utilization of maximum stock levels, particularly at HC level leading to overstock observed.
- Limited or no trained alternate staff for supply chain management observed especially at OD and HC level leading to inappropriate transition especially when the focal point retired or move out.
- Delay in refrigerator repair maintenance due to the gap in local capacity in the local technician and depending on the technician from the national level.
- Central Medical Store (CMS) have one staff member, and one new staff member. Thus, capacity to ensure high quality recording and reporting of vaccine stock data and temperature monitoring are limited especially for vaccine distribution to the provincial level.

Areas for data quality improvement based on the EPI Review findings are highlighted in Section 6 of the JA Report.

Status of Gavi's data quality requirements

- *In-depth review of quality of vaccination data every 5 years:* A data quality assessment was incorporated in the 2017 EPI review. This is felt to have identified key issues with the data management, quality and use to inform the development of a data quality improvement plan.
- *Strategic quality improvement plan:* HMIS has a data quality improvement plan but this is not specific to vaccination data. In 2018 the NIP and DPHI with support from WHO will review and revise the plan based on the findings of the EPI review.
- *Annual desk review of data quality improvement plan:* None specific to vaccination data.
- *Nationally representative immunization coverage survey to at least provincial level every 5 years:* Last coverage survey is from 2014, based on 2012 data.

3.4. Role and engagement of different stakeholders in the immunization system

- The Technical Working Group on Health (TWGH) provides advisory and decision making support to the National Immunization Programme and oversight over the Gavi HSS grant. The TWGH meets every month, chaired by Secretary of State of Ministry of Health and co-chaired by WHO Representative, has members from the Government (both National and Provincial) and development partners, with decision follow up on required actions.
- NIP is a member of the Sub-TWG on Mother and Child Health (MCH) and activities are coordinated among programmes and departments.

- Gavi is the only donor for National Immunization Programme. Beyond technical support, WHO and UNICEF also provide financial support to the National Immunization Programme where required. However, several other donors/development partners have been supporting the Ministry of Health for Health System Strengthening activities, though the trend of support is decreasing.
- There has been increasing trend of collaboration between Ministry of Health and the private sector in different areas of health programmes. However, in particular to the immunization programme, there are only 16 private hospital/clinics listed that provide selective vaccines on the NIP's schedule. As per NIP review findings, there is a need to review the capacity and performance of private hospitals/clinics throughout the country and an urgent need to expand services including all vaccines on the NIP schedule.
- The Ministry of Health and in particular the National Immunization Programme, has established good collaboration with the Ministry of Education, Youth and Sport and received support for campaigns and the HPV vaccine demonstration programme.

4. PERFORMANCE OF GAVI GRANTS IN THE REPORTING PERIOD

4.1. Programmatic performance

Cambodia has demonstrated an increasing trend of immunization coverage of all antigens in the national schedule in the review period. Beyond sustaining polio eradication status since 2000, Cambodia also has been sustaining measles elimination and MNT elimination status since 2015. With the support of WHO and Hiroshima University of Japan, NIP conducted Hepatitis B serosurvey in early 2017 among children aged ≥ 5- to 7 years old. As per preliminary results, the prevalence is 0.56%, below the target of regional goal <1% HBsAg prevalence by 2017. This indicates that Cambodia is on its way to achieve the Hepatitis B control goal.

Cambodia has made important progress with the introduction of new and underutilized vaccine into the national schedule. Following three vaccine (PCV, IPV and JE) introductions from 2015-2016, Cambodia started implementation of an HPV vaccine demonstration project in six operational districts of two provinces in January 2017. Three evaluations of the HPV vaccine demo programme were also conducted and the report is ready to use.

Figure 8: Target Achievement for NVS 2014-17 (#Vaccinated)

From January 2016 to June 2017, a total of 66 imported or import-related measles cases were reported in Cambodia. The National Immunization Programme and Ministry of Health took all the necessary

measures including immediate investigation of cases and conducted several small and large scale SIAs including catch-up vaccination in 17 provinces in November to December 2016. Cambodia also conducted an MR follow-up campaign from March to May 2017 with support from Gavi. Administrative coverage of MR campaign showed 90% however, the post MR campaign coverage survey found 75% coverage. There were multiple factors and challenges related to low coverage (Multiple doses were given before MR SIA, working mothers and weak social mobilization…) however, NIP conducted catch-up vaccination and outreach services in high risk communities to cover the missed children. The independent institute that conducted this post campaign survey concluded that "the overall coverage of the MR-SIA campaign was 74.9%. Combining with the coverage from the MR routine programme, the proportion of children protected against MR was 94% which is high enough to prevent further spread of MR imported cases in the country". However, it is believed that MR follow-up campaign helped country to sustain the measles elimination status.

Cambodia received its first year of HSS2 grant allocation in 2016 instead of 2015 and started implementing several activities immediately as planned, including outreach services, procurement of cold chain equipment, training of health staff, review meetings, IEC materials development and printing, etc. Implementation rate is satisfactory. Some funds from the HSS grant were also allocated to outbreak response.

Outcome of activities implemented by using Gavi HSS grant is evident. The numbers of children immunized with Panta3 immunization increased by 11,598 in 2016 comparing to the 2015; from 225,846 in 2015 to 347,444 in 2016 (JRF). Increased numbers of Penta3 has been observed in 2017 (HMIS - Jan-Nov 2016 & 2017). At the same time, number of VPD cases reported higher than previous years (eg: 719 suspected measles cases in 2016 and 844 suspected cases from January to September 2017)

To further improve the outcomes of the immunization, the National immunization Programme will be focusing on the development of AOP 2018, taking into account the key recommendations and activities suggested from EPI review, EVM Improvement Plan, MOV and JA.

In line with the new Gavi Health Systems and Immunization Strengthening (HSIS) policy, Cambodia is eligible to access its full HSS ceiling of US$ 21,500,000 over five years. This translates into an additional US$ 3,441,952 that will be programmed in support of existing objectives under the HSS grant, in particular focusing on achieving sustainable improvements in coverage and equity. In-country discussions on the use of the additional funds will be held in early 2018 following which an updated HSS budget, including any additional or revised activities, will be endorsed by the TWGH, before submitting to the Gavi Secretariat for review and approval. The additional programmed funds will be integrated into the country's operational planning and monitoring, and reporting process to Gavi.

As recommended by WHO and Gavi, an NIP review and JA were conducted together in 2017. The NIP review took place from 16-24 October 2017 and following are the key strengths and challenges in seven thematic areas found in this extensive review by the reviewers. Suggested recommendations were provided to the Ministry of Health and senior officials expressed their commitment to implement the recommendations as a priority immediately during NIP review team debriefing and also senior officials directed the sub-national staffs to implement recommendations in an NIP quarterly review workshop in 6 December 2017.

1. **Programme management and financing**

   Strengths

   - All levels (NIP, PHD and OD) are required to develop an Annual Operational Plan (AOP)

   Challenges

   - Immunization session plan at HC does not reflect the actual needs for immunization service in its catchment area in most places
   - Liquidation process for reimbursement of outreach activity costs is complex and takes long time in some places

2. **Human resource management**

Strengths

- EPI focal points assigned to all levels (from national to HC levels) including the trained alternate to assure effective phase transition when staff moved or retire.
- Communities plays critical role in communication and social mobilization for immunization service delivery

Challenges

- Technical capacity among EPI focal points is still not strong enough in (i) supportive supervision (PHD & OD) and (ii) involvement of communities (HC)
- New EPI focal points tends to be assigned to duty without sufficient technical knowledge and skills

3. Immunization supply chain

Strengths

- Cold chain equipment (e.g. refrigerators, vaccine carriers and electronic monitoring devices) is available in good conditions in most places
- Knowledge and skills of EPI focal points on immunization supply chain management are fairly good at all levels

Challenges

- Stock outs of multiple vaccines in 2016-2017: (i) stock out of JE vaccines; (ii) short-term stock outs of Hep B, MR and PCV at some provinces and ODs due to central vaccine level stock out as well as vaccine stock management especially at service delivery level; and (iii) IPV shortage due to global supply shortage
- Annual stock out of yellow cards

4. Service delivery

Strengths

- Vaccination is free of charge
- Vaccination service is available through fixed site at minimum 5 days/week
- strategy continues to improve immunization services

Challenges

- Fixed sites are still underutilized by several communities
- 10/24 (42%) of HC visited during the review had interrupted implementation of routine outreach in 2016
- Nature of communities is changing continuously and risk level is too (e.g. mobile, migrant, urban population). Some of previous non-HRCs now become HRCs, and vice versa

5. Data management and monitoring

Strengths

- EPI data is timely available from all reporting units

Challenges

- Target population estimates are inaccurate at local level, affecting preparation of reliable immunization session plan at HC, calculation of service delivery cost and estimation of vaccination coverage at local level
- Inadequate handling and management of EPI data (e.g. inconsistencies, duplications, etc.)

6. VPD surveillance and AEFI

Strengths

- VPD surveillance system continues to be enhanced (e.g. policies, web-based reporting, training, etc.)
- Measles surveillance performance continues to be improved

Challenges

- Active surveillance in referral hospitals is sub-optimally conducted
- Preparedness for outbreak response at OD level is still not sufficient
- AEFI surveillance is not yet functional (staff knowledge, reporting, expert committee)
- Reporting of VPD cases from private HFs is limited

7. Communications, Social Mobilization and Community Engagement

Strengths

- Good awareness on importance of immunization in communities
- High demand for vaccination among general public
- Trust to immunization service providers

Challenges

- Lower demand for vaccination among certain population groups (e.g. minorities, remote populations, migrants, urban dweller, etc.)

4.2. Financial management performance (for all cash grants, such as HSS, vaccine introduction grants, campaign operational cost grants, transition grants, etc.)

Table 1: Overview of Gavi cash grants to Cambodia 30 June 2017 (in US$)

Grant	Approved Grant	Disbursed	Transfer from old grants	Expenditure	Cash balance	Util. rate	Undisb.	Source
HSS1	10,315,500	10,315,500	-	10,315,500		100%	-	Fin. Reports
HSS2	18,058,048	7,735,430	822,765	4,146,168	4,418,078[5]	54%	10,319,134	Fin. Reports
HPV	216,500	191,480		98,123	93,357	51%	25,000	Fin. Reports
MR SIA		1,049,032		984,636	64,396	94%		Fin. Reports

Two disbursements have been made under HSS2, the first in January 2016 and the second in May 2017 amounting to a total disbursed of $7,735,430. In addition, $822,765 of unspent balances from HSS1 and previous VIGs have been transferred to HSS2.

HSS cash utilisation as of June 2017 remained a low 54% with a cash balance of $4,418,078 in country. However more recent figures indicate that implementation and cash utilisation has picked up considerably in quarter 3 with an in country cash balance of $2,872,937 at the end of September 2017. The low absorption was mainly because of transition of responsibility of Gavi funding management from

[5] Cash balance includes bank interest

Department of Budget and Finance (DBF) to National Maternal and Child Health Center (NMCH) of Ministry of Health.

Cambodia has been compliant with Gavi financial reporting requirements, with quality reports submitted in a timely manner. The 2016 internal audit took place on time and report submitted to Gavi, however as per Gavi requirements an English translation will need to be provided.

2017 saw an important change in financial management arrangements as the management of HSS2 funds was transferred from the Department of Budget and Finance (DBF) to the National Maternal and Child Health Center (NMCHC).

A Programme Capacity Assessment (PCA) was carried out in 2016 with detailed Grant Management Requirements (GMRs) shared with the country in early 2017. A key area of focus of the PCA was the financial management capacity of the NMCHC. As the PCA was delayed the first HSS2 disbursement in 2016 was made to the DBF but the second was made to the NMCHC.

At the time of the JA in October 2017, ten out of eighteen GMRs have been fully met with the remaining well on track to be met by early 2018.

4.3. Sustainability and (if applicable) transition planning

Cambodia entered into the first year of the Preparatory Transition phase in 2017. In the new phase, which is open ended, the country moves from a flat government contribution per dose of Gavi supported vaccines to a 15% annual increase in contributions where the co-financing requirement is a percentage of the price of vaccines, the absolute amount therefore varying from vaccine to vaccine.

Considering the changes of the preparatory transition phase, though challenging, Ministry of Health is working with the Ministry of Economy and Finance, looking for these additional funds and will follow Gavi requirements. The Government is committed to the health and wellbeing of Cambodian people and exerting all efforts including expansion of health system and allocation of more funds in every year health budget. 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. Moreover, the Government provides all the related data management tools of the immunization programme. Funds for integrated supervision are also available for all MOH staff.

However, as per the recently conducted EPI Review, there is a decreasing trend of financing for the immunization programme at the sub-national level impacting mainly routine outreach services. This is a challenge to increasing/sustaining immunization coverage for all antigens. During the post EPI Review debriefing, Ministry of Health demonstrated commitment to look into this matter and work further.

4.4. Technical Assistance (TA)

WHO:

Activities under Targeted Country Assistance were planned and implemented in collaboration with the National Immunization Programme. Mid-year milestones in 2017 were achieved and year-end milestones are on track.

WHO supported outreach services in high risk communities and there is evidence of increased immunization coverage. Three evaluation activities for the HPV vaccine demo programme were planned and conducted,. It was well monitored but no AEFI case related to HPV vaccine were reported in the demo programme implementation. A 2017 NIP Review was planned, coordinated and implemented with a report currently being drafted. Preparations are completed to conduct a workshop on missed opportunities for vaccination from 28-30 November 2017. Measles surveillance performance indicators improved and WHO is planning to support VPD surveillance training to hospitals staff including private hospitals in the fourth quarter of 2017. VPD outbreak response training was provided along with national MR SIA ToT and also

with National ToT for Immunization Practices and Cambodia successfully sustained its measles elimination status.

UNICEF:

In line with planned Targeted Country Assistance UNICEF provides support to implement the following activities:

In 2017, UNICEF supported the development of a web-based cold chain inventory (http://www.inndec.com/medinventory/login_frm.php) allowing each province to update the cold chain inventory timely. A total of 56 staff from the National Immunization Programme (N=6) and the provincial level (N=50) participated in the training of web-based cold chain inventory. Following the trained to all provinces (N=25), at least 80% (N=20) of the provinces updated their cold chain equipment status.

MoH used Gavi-HSS funding to procure cold chain equipment, spare parts and temperature monitoring devices (Fridge Tag2). Among them 498 refrigerators were procured through UNICEF procurement service. All the commodities arrived early 2017. A special distribution by the Central Medical Store (CMS) to all provinces distributed and installed100% of refrigerators..

In 2017, UNICEF provided support to NIP technician (in collaboration with the technicians from the National MCH Center) to conduct training for provincial staff (N=50) in cold chain maintenance, including on hand coaching for the repair. At the same time, NIP also identified talent staff (N=5) from provincial and district level to provide additional technical training and on hand coaching. The talent group acted as facilitators for the hands on practical sessions during the training of the other provincial staff in cold chain maintenance.

In 2017, UNICEF provided technical support to the National Immunization Programme to develop standard operation procedures (SOP) for immunization supply chain and logistics. A total of 25 SOP were developed followed by two rounds of consultative meetings with the provincial and district level conducted. Finalization with MoH approval in Dec. Two rounds of consultative meetings were conducted involving the provincial, district and few selected health centers to ensure that the SOPs developed are practical and simple enough.

UNICEF also supported the development of communication strategic plan using the findings from the small scale rapid baseline assessment of parent knowledge living in selected high risk communities (both in urban poor and in two remote villages of north-east provinces).

5. UPDATE OF FINDINGS FROM PREVIOUS JOINT APPRAISAL

Prioritised actions from previous Joint Appraisal	Current status
1. <u>For the country</u> (associated timeline for completing the actions is 2016/2017)	
• Sustain/improve coverage through fixed site, routine and high risk communities' outreach immunization activities	Ongoing
• Improve the quality of immunization services	Ongoing
• Build staff capacity and community awareness	Ongoing
• Implementation of HPV demo project	Ongoing
• EVM Improvement plan implementation	Ongoing
• Conduct EPI coverage survey and EPI review	Completed (EPI coverage was conducted along with post MR SIA coverage survey)
• Strengthen NIP management capacity and timely procurement	On going

2. <u>For WHO</u> (associated timeline for completing the actions is 2016/2017)	
• Technical support will be provided to NIP/MOH to implement HSS objectives 1, 2,3, 4 and 5 with following focus	Ongoing
• Increase national wide immunization coverage especially in implementation of high risk communities' strategies; strengthening VPD surveillance system; and building staff knowledge and capacity to maintain NIP's achieved goals and attain new goals:	Ongoing
• 50 activities and 97% HSS funds will be handled by the National Immunization Programme throughout the grant period. Therefore, NIP needs regular technical support and huge amount of staff-time investment from WHO. Given the human resource capacity in WHO CO- Cambodia, there is critical need to get additional support.	Ongoing
(1) WHO will hire one additional international professional staff/consultant to support NIP for timely implementation of the HSS activities with quality with especial focus on creating demand for immunization and reducing the number of high risk communities and ensuring that geographic and wealth disparities in coverage are minimized; and improving knowledge and staff capacity including management.	Completed for the period, needs to have same support for subsequent years
(2) Current National Professional Officer (NPO) will actively involve in VPD surveillance activities under HSS with an aim to reduce the variation of quality across the country and improve the performance indicators of VPD surveillance; and in development of NIP's staff capacity across the country for various areas of EPI. However, at present, there is no allocation of particular funds for the NPO and there is an insecurity of funds in coming years too.	Completed for the period, needs to have same support for subsequent years
3. <u>For UNICEF</u> (associated timeline for completing the actions is 2016/2017)	
• Technical support to implement the HSS objectives 1,2,3 and 5, with following focus:	Ongoing
• Improvement of immunization supply chain with focus on cold chain maintenance:	Ongoing.
• In 2016, UNICEF will hire an international consultant to conduct the cold chain maintenance system and at the same time will hired a national cold chain maintenance technician to support the NIP to carry out activities to improve the cold chain maintenance system. UNICEF need to maintain the national cold chain maintenance technician. The national consultant will work closely with the technician of the National Immunization Programme and the working group to undertake the following tasks:	Hire consultant to conduct the assessment of cold chain maintenance system postponed to next year.
• Provide technical support to the NIP cold chain technician to develop the capacity provincial and	Ongoing. needs to have same support for subsequent years

district level managers in small cold chain maintenance. • Provide technical support to NIP managers for maintaining up to date cold chain inventory and use for replacement purpose. • Provide technical support to NIP for installing new refrigerators based on the NIP cold chain replacement plan. • **UNICEF Country Office (CO) National Health Officer:** UNICEF has been facing a significant HR constraint in supporting immunization programme with only one national staff responsible to provide technical support to the NIP to carry out the implementation of EVM Improvement Plan, provide technical support to implement high risk immunization strategy as well as promote demand for immunization.	Ongoing. needs to have same support for subsequent years Ongoing. needs to have same support for subsequent years Ongoing. Needs to have same support for subsequent years
Additional significant IRC / HLRP recommendations (if applicable)	**Current status**
HLRP noted the country's upcoming MR campaign and emphasised the need to align it with the new Gavi measles rubella strategy - which is focused on disease control, not elimination - as well as exploring possibility of scope and scale of campaign.	

6. ACTION PLAN: SUMMARY OF FINDINGS, ACTIONS AND TECHNICAL ASSISTANCE NEEDS IDENTIFIED AND AGREED DURING THE JOINT APPRAISAL

Overview of key activities planned for 2018:

Sustain measles free status

Preparedness/ Response:
- Ensure timely availability of additional MR vaccine beyond the routine from Government funds.
- Regular data analysis to identify district/health facility implementation of out of target children.
- 3 rounds of quality catch-up vaccination in 2018 by using Gavi HSS grant: Based on strong needs assessment, PHD/OD levels need to know the funding availability including amount and timelines for catch-up and implemented with strong monitoring to ensure the quality (Rapid Coverage Assessment). Conduct evaluation of catch-up strategy, its implementation and situation analysis at the end of 2018.
- Screening of children under 5 years to identify unvaccinated.
- Conduct local small scale responses (if any) by using VPD response funds of Gavi HSS grant.
- Measles surveillance and response: reinforce accountability of PHD/OD in case investigation and outbreak response.

Sustain polio eradication
- Preparedness/response for VDPV/wild polio virus.
- Regular data analysis to identify district/health facility implementation of out of target children.
- Conduct local small scale response (if any) by using VPD response funds of Gavi HSS grant.
- AFP surveillance and VDPV/WPV response: reinforce accountability of PHD/OD in case investigation and outbreak response(if any).

Routine immunization: timely identification and closing of immunity gaps

Development of a methodology to review the current service delivery strategies taking into consideration the rapidly evolving HRCs 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.

Identify areas with routine outreach services interrupted or decreased in 2016-2017. Use the findings from any decline or interrupted areas to advocate to policy level at national and provincial and operational district to allocate fund for outreach and improve collaboration with local authorities and community health networks. Outreach spot check should be regularly implemented to timely identify areas with interrupted or decreased immunization activities.

Although there was evidenced of increasing effort to screen children seeking OPD consultation in 2016 after the MoH issued memo and short guideline encouraging the all health facilities, especially the hospitals to screen all the children, continuous monitoring will be done to avoid missed opportunities as identified in the NIP review 2017 and MOV ' s workshop.

Catch-up immunization activities should be conducted both within the areas implementing fixed site immunization strategies as well as hard to reach communities.

Surveillance:

VPDs/ AEFI: Revision of VPD related activities in the HSS annual operational plan 2018 and onward and allocate budget to ensure continued strengthening of VPD and AEFI surveillance.

Improve data quality:

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. Key areas to improve data quality identified from EPI Review include improving target population estimates at local level and strengthening the handling and management of EPI data at the PHD and OD levels.

To this end a review of denominators used for the immunization programme at the local level will be carried out in two provinces with over 100% coverage as a pilot. A review of the accuracy of routine immunization data will also be carried out in one of these provinces with the aim to create a mechanism that can be used in other provinces.

Communications and social mobilisation

Desk review of available KAP data to take place by Q1 2018 to generate evidence to better understand different types of underserved communities (trust on health systems, cultural barriers) and enabling the development of evidence-based and tailored strategies to address lower demand from vulnerable populations (e.g. urban poor, ethnic minorities)

A communication plan will also be developed using the existing informative research and findings from rapid baseline assessment of parent knowledge living in selected high risk communities (both in urban poor and in two remote north-east provinces).

Continue improving immunization supply chain systems and management:

- Ensure timely release of Government funds to UNICEF for vaccine procurement in each year.

- Procurement and installation of CCE according to Annual Operational Plan by using Gavi funds.
- Optimize maintenance management systems at all levels.
- Accelerate and closely monitor progress towards EVM improvement plan developed in 2015.
- Ensure availability of regular funding for yellow card, data management/monitoring tools printing and distribution

Preparations for an HPV application

Cambodia is planning to prepare the application for HPV vaccine introduction support and submit to Gavi in late 2018. WHO will support NIP in preparing the application using lessons learned from the currently ongoing HPV demonstration project.

Key finding 1	Good achievement in elimination of measles, however with high possibility of measles virus importation and great challenges to sustain measles free status.
Agreed country actions	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.
Associated timeline	Ongoing throughout the year
Technical assistance needs	WHO will continue to provide technical support in this area under TCA
Key finding 2	Programme management, financing and human resources needs strengthening (see attached PPT from EPI review)
Agreed country actions	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. 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. 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.
Associated timeline	Ongoing throughout the year
Technical assistance needs	WHO and UNICEF will continue to support NIP in this area
Key finding 3	Need for evaluation of service delivery strategies and classification in light of emerging concerns (urbanisation, mobile populations and evolving private sector)
Agreed country actions	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.
Associated timeline	Throughout 2018.
Technical assistance needs	WHO and UNICEF will support this activity through TCA funding.

Key finding 4	An EPI data quality improvement plan should be developed
Agreed country actions	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.
Associated timeline	First half of 2018 for development of plan. Second half of 2018 to start implementation.
Technical assistance needs	WHO and UNICEF will support this activity through TCA funding.
Key finding 5	Preparations for HPV vaccines application in late 2018
Agreed country actions	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
Associated timeline	January – September 2018
Technical assistance needs	WHO will provide technical assistance funded through TCA

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

NIP present the JA report to the TWGH meeting on 11 January 2018 where the report was endorsed.

8. ANNEX

Annex 1: Compliance with Gavi reporting requirements

Please confirm the status of reporting to Gavi, indicating whether the following reports have been uploaded onto the Country Portal.

It is important to note that delayed reporting may impact the decision by Gavi to renew its support.

	Yes	No	Not applicable
Grant Performance Framework (GPF) reporting against all due indicators	x		
Financial Reports			
Periodic financial reports	x		
Annual financial statement	x		
Annual financial audit report	x (In Khmer)		
End of year stock level report	x		
Campaign reports	x		
Immunization financing and expenditure information	x		
Data quality and survey reporting			
Annual desk review		x	
Data quality improvement plan (DQIP)		(Existing plan does not include immunisation specifically)	
If yes to DQIP, reporting on progress against it		As above	
In-depth data assessment (conducted in the last five years)		As above	
Nationally representative coverage survey (conducted in the last five years)	x		
Annual progress update on the Effective Vaccine Management (EVM) improvement plan	x		
Post Introduction Evaluation (PIE)			x
Measles-rubella 5 year plan	x		
Operational plan for the immunization programme	x		
HSS end of grant evaluation report			x
HPV specific reports		Not yet finalised	
Transition Plan			x

Annex 2: Updated status of Grant Management Requirements (GMR)

This Annex 6 sets out the Grant Management Requirements governing the management and oversight of vaccines and related supplies and financial support provided by Gavi to the Government of Cambodia. The Grant Management Requirements replace the Aide Memoire currently set out in Annex 6 of the Agreement. The GMR shall become effective as set out under paragraph 4 below. Capitalised terms used but not defined herein have the meanings ascribed to them under the Agreement.

1. This Annex specifies the terms and conditions for programme management, financial management and vaccine and cold chain management of Gavi support to the Government of Cambodia.
2. The Parties understand that failure to comply with the terms of the Annex may result in the suspension or termination of funding, as set out in the Agreement.
3. Gavi may withhold disbursements if GMRs are not achieved in the stipulated timelines, in the expected format and / or with the expected quality.
4. In accordance with section 17.6 of the PFA, this amendment shall apply as of the date of notification to the Government of the final GMR / Annex 6 unless the Government notifies Gavi within thirty (30) calendar days of its disagreement with any of the changes proposed by Gavi in this Annex.
5. Provided along with the GMR are the Grant Management Actions (GMAs). These are findings and recommendations that do not form part of the GMR, but are nonetheless considered useful for the management of the Gavi funded programmes. NMCHC is strongly encouraged to implement these actions and Gavi will take under consideration the implementation of these GMAs in providing further support in order to enhance the overall programme capacity.
6. Disbursement Conditions
   a. The following requirements must be met for the initial and/or continued disbursement of HSS funds and other cash grants as indicated below:

I. Programme Management Requirements

Requirement	Timelines	Responsible	Status
a) Oversight on immunization activities • The Ministry of Health (MoH) will revise Terms of Reference (ToRs) for the Technical Working Group for Health (TWGH) to explicitly provide for oversight and coordination roles for immunization activities, including Gavi programmes. The revision will be based on Gavi's guidance for Coordination Forums and adhere to the requirements outlined within (see http://www.gavi.org/support/coordination/) • MoH will revise ToRs for MNCHC Sub-Technical Working Group (TWGH), to at least include: ○ Mandate of the Sub TWGH ○ Key objectives, plans, targets/ milestones and , deliverables as possible. ○ Guiding principles including how it links with TWGH ○ Roles and responsibilities of the Sub TWGH ○ Structure of the Sub TWGH ○ Composition and selection of members ○ Roles and responsibilities of members ○ Governance rules (e.g. frequency of meetings) ○ Conflict of interest clause	Within the first 6 months from effective date of this annex.	MoH	Ongoing (See attached file 1)

• At a minimum, MoH will ensure the inclusion of the types of institutions outlined as requirements in Gavi's guidance for Coordination Forums in the NMCH Sub-TWGH and clarify the role of the NIP working group within the NMCHC Sub-TWGH TORs.			
b) Filling of vacant positions National Mother Neonatal Child Health Center (NMCHC) will appoint/assign staff for the following positions to ensure all established staff positions appropriately and rapidly filled: • HMIS IT Officer to manage HMIS system and provide real time changes and visibilty to the central EPI team	Within the first 3 months from effective date of this annex	NMCHC	Ongoing
• Communication Officer to develop communication plan to be aligned with WHO and UNICEF experience in the region	Within the first 6 months from effective date of this annex.	NMCHC	

II. Financial Management Requirements

Requirement	Timelines	Responsible	Status
c) Bank accounts and funds flow modalities Gavi will disburse funds for all cash grants to the following Gavi-specific USD bank account held at the Acleda Bank and managed by the NMCHC:	Before first disbursement	NMCHC	Done

• Account name: National Maternal and Child Health Center • Account number: 0001-02-240785-15 • Currency: USD • Bank name and address: Acleda Bank Plc, Phnom Penh • Swift code: ACLBKHPP • Correspondent bank: Standard Chartered Bank • Signing mandate - at least two signatories from the following list *1. Director of NMCHC and Project Director 2. Deputy Director of NMCHC 3. Chief Accountant / Finance manager*			
At the provincial level there will be a joint signatory mechanism to the checks to be signed by the PHD Director and the provincial level Chief Accountant.	Ongoing		Done
d) Oversight Department of Budget and Finance (DBF) of the MoH shall provide an oversight as a controlling function to NMCHC to ensure financial management responsibilities are carried out effectively. The Standard Operating Procedure (SOP) shall be applied for the DBF oversight responsibilities over management of Gavi funds.	Ongoing	DBF/ NMCHC	Ongoing (See the attached file 2)
e) Financial accounting and reporting system MNCHC will ensure that the QuickBooks software currently used at the DBF is configured for use in accounting and reporting for all Gavi cash grants. The use of the software will	Within the first 3 months from effective date of this annex.	NMCHC	Done

enable the NMCHC to adhere to the Gavi Financial Management & Audit Requirements.			
f) Disbursements to districts The NMCHC will use ACLEDA bank for district based activities which require payment of allowances to participants through mobile banking and/or direct cash transfers (Agree to remove). The DBF shall support the disbursements to districts via providing oversight and training to NMCHC and provincial finance staff	Ongoing	NMCHC/DBF	ongoing
g) Procurement for non-vaccine nor cold chain items Except for the items to be procured through UNICEF, other additional procurement funded through Gavi grants will be conducted through the MoH's Procurement Unit, with oversight from the DBF. The procurement team will ensure that supplier contracts have relevant clauses relating to warranties and after-sale services and that these are invoked where necessary.	Ongoing	NMCHC/MoH	Done
h) Tax exemption NMCHC will ensure that the relevant exemptions from taxes and duties are obtained from the respective ministries, departments and agencies in line with the provisions of the Partnership Framework Agreement dated November 2013.	Before first disbursement and ongoing	NMCHC	Done (See the attached file 3)
i) Fixed assets management NMCHC will ensure that the fixed assets policy is applied and will maintain a comprehensive Fixed Asset Register (FAR) for all assets procured through Gavi grants to Cambodia. NMCHC in close coordination with the NIP will	FAR set up within six months from	NMCHC	Ongoing

ensure tagging of all assets procured with Gavi funds with unique identifiers and will carry out asset verifications at least annually, reconciling the physical assets to the FAR at all levels.	effective date of this annex.		
j) External audit arrangements Annual audit of the Gavi grants will be outsourced to suitably qualified audit firms approved by the National Audit Office and will be carried out using Terms of Reference (ToR) to be agreed in advance with Development Partners, including Gavi. Three-year rotation policy will be observed. Copies of the audit reports, management letters and responses of the NMCHC in addressing previous audit findings will be submitted to Gavi. Gavi reserves the right to conduct its own additional audits of Gavi expenditures, including audits conducted by the Gavi Program Audit team.	Annual, within six months of the reporting period end	NMCHC	Ongoing (See the attached file 4)
k) Internal audit plan and reports The MoH internal audit unit will share its annual risk- based audit workplan, clearly showing planned coverage of Gavi programmes and make available to Gavi all relevant internal audit reports.	Throughout the term of Gavi support	MoH	Done

III. Vaccine and cold chain management

Requirement	Timelines	Responsible	Status

l) Follow up and reporting on EVM Improvement Plan NMCHC will ensure that implementation of actions recommended in the latest Effective Vaccine Management Assessment (2015) improvement plan (EVM IP) is tracked and reported to the TWGH and Gavi, at least on a quarterly basis.	Ongoing	NMCHC/NIP	ongoing
m) Procurement of cold chain equipment and vehicles Procurement of all cold chain equipment (CCE) including cold rooms, freezer rooms and other related vaccine store equipment; refrigerators, freezers; insulated cooling containers, temperature monitoring devices, cold chain accessories, spare parts for CCE; sharp disposal equipment and vehicles (including notably refrigerated and non-refrigerated trucks and vehicles) will be conducted by UNICEF. Procurement of the CCE will be based on the latest available version of the "WHO PQS devices list catalogue, pre-qualified equipment for Expanded Programme on Immunization (EPI). UNICEF and the NMCHC will agree on the items to be procured (type, quantity, storage capacity) before procurement orders are placed by UNICEF SD and Gavi will directly transfer funds for such procurements to UNICEF SD as per the standard Gavi- UNICEF practice. NMCHC will be responsible to meet all costs related to in-country clearing and warehousing of all items	Ongoing	NMCHC, Gavi and UNICEF	Done

procured through Gavi funds, including those procured through UNICEF.			
n) Repair and maintenance plans and logs NMCHC will come up with a comprehensive planned preventive maintenance plan for cold chain equipment at all levels. Appropriate training and refreshers will be conducted for cold chain technicians. Repairs and maintenance logs will be maintained at a minimum at national and regional levels, showing details of date of servicing, officer servicing, details of breakdowns (date, description) and repair dates.	Planned preventive maintenance plan developed within six months from effective date of this annex.	NMCHC/NIP	Ongoing
o) Security and safety of vaccine stores NMCHC will ensure proper measures are put in place to enhance security and safety of the cold chain stores at national, regional and district levels. Access will be restricted to appropriate officers and periodic servicing of fire extinguishers ensured.	Ongoing	NMCHC/NIP	Ongoing
p) Vaccine stock management NMCHC will review vaccine stocks at national and district levels on a regular basis with partners (e.g. monthly, quarterly), conduct physical assessments regularly, and notify the Gavi Sec of shortages and significant closed or open vial wastage.	Ongoing	NMCHC/NIP	Done
q) Insurance NMCHC will obtain insurance cover or agreed upon alternative measures for vaccine inventory and cold chain	Within six months from	NMCHC	Done (MoH paid

equipment held at least at central and regional warehouses against theft and fire. NMCHC will develop contingency plan in case of failure of vaccine warehousing at all levels.	effective date of this annex		insurance for CMS)