Joint Appraisal

Joint Appraisal report 2018 (Myanmar) – version for HLRP review

Country	Myanmar
Full JA or JA update	☑ **full JA** ☐ JA update
Date and location of Joint Appraisal meeting	25 June to 2 July 2018
Participants / affiliation	MoHS, WHO, UNICEF, Gavi, ICC members Please see Annex 2 for full list of participants
Reporting period	July 2017 - June 2018
Fiscal period	July to June
Comprehensive Multi Year Plan (cMYP) duration	2017-2021
Gavi transition / co-financing group	Preparatory transition

1. RENEWAL AND EXTENSION REQUESTS

Renewal requests were submitted on the country portal

Vaccine (NVS) renewal request (by 15 May)	Yes
HSS renewal request	Yes
CCEOP renewal request	Yes

Observations on vaccine request

Population	**53,165,509**				
Birth cohort	**1,026,094**				
Vaccine	**Penta**	**PCV**	**JE**	**IPV**	
Population in the target age cohort	967,612	967,612	967,612	967,612	
Target population to be vaccinated (first dose)	919,232	919,232	919,232	870,851	
Target population to be vaccinated (last dose)	870,851	870,851			
Implied coverage rate	90%	90%		90%	
Last available WUENIC coverage rate (2017) (3rd dose for Penta and PCV)	89	89	N/A	12	
Last available admin coverage rate (2017) (3rd dose for Penta and PCV)	89	89	N/A	12	
Wastage rate	25%	10%	10%	15%	
Buffer	25%	25%	25%	25%	
Stock reported (Jan 2018)	1,468,920	892,766	7,530	112,410	

The vaccine renewal request for 2019 was prepared and submitted on time.

The following considerations were noted in relation to the vaccine renewal request. There are ongoing efforts and plans to improve coverage in 2018 and 2019 with anticipated accelerated immunisation strengthening activities targeting previously unreached areas by using PEF TCA and HSS2 funds. In addition, the country is switching to PCV-4 dose presentation and is struggling to achieve the recommended wastage rate of 10% due limited cold chain facilities below Township level.

Therefore, the country flagged a potential shortfall of 250,000 doses of PCV and 40,000 doses of IPV vaccines in 2019, which is not reflected in the table above. The coverage and vaccine stocks will be monitored closely throughout 2019, especially in quarter 3 when the annual stock analysis and renewal

requests are done. In case of identified gaps or additional needs Gavi can revise the allocation upwards during the year and process the additional dose requirements through the 2020 Renewals or preponed shipments.

Indicative interest to introduce new vaccines or request Health System Strengthening support from Gavi in the future[1]

Indicative interest to introduce new vaccines or request HSS support from Gavi	Programme	Expected application year	Expected introduction year
	HPV	2018	2020
	HSS3	2019	2020

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

Universal Health Coverage, National Health Plan and Routine EPI Service in Myanmar

The Government of Myanmar remains committed to achieve Universal Health Coverage (UHC) by 2030 and to improve the health outcomes of the population in accordance with the Sustainable Development Goal 3. The Ministry of Health and Sports (MoHS) has developed and is implementing the National Health Plan (NHP) for the period 2017-2021 to operationalise the UHC mission. The NHP aims to strengthen health systems and increase access to the Basic Essential Package of Health Services (EPHS) to the entire population by 2020 while increasing financial protection.

The NHP has been translated into Annual Operational Plans, which focus on phased implementation of the EPHS and emphasises an integrated approach for the implementation of vertical programmes. The central Expanded Programme of Immunisation (cEPI) is well integrated in the NHP and EPHS and aims to ensure all children receive the 11 antigens which are currently included in the national routine immunisation schedule.

EPI coverage by Township is one of the indicators of the Health Output Scoring Index (HOSI) of the NHP and its operational plans. This composite index combines information on hospital bed occupancy rate, new TB case detection rate and EPI coverage. It is used for prioritisation of Townships to strengthen capacity for EPHS and also for monitoring and evaluation of NHP implementation.

According to the National Health Plan Monitoring Framework 2017-2021, the DPT3 coverage rate (percentage of children under 5 years of age that have received the last recommended dose for DPT vaccine as recommended in the national schedule) is used as the service delivery outcome indicator for the National Immunisation Program.

The comprehensive multi-year plan (cMYP) for immunisation 2017-2021 remains the guiding strategy for cEPI. In terms of funding, Gavi support for new vaccines, Health Systems Strengthening (HSS2 programme) and Targeted Country Assistance (TCA) are the major sources of support to cEPI. The Department of Public Health (DoPH), of MoHS is committed to realising the NHP objectives and accelerating the delivery of EPHS. The cMYP and Gavi HSS2 objectives and impact indicators of National Immunisation Programme are strongly aligned with those of the NHP.

Country contexts directly affecting the performance of the immunisation programme and Gavi grants

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

Myanmar has a complex administration of the country which is the result of the governance and political context preceding the democratic transition in 2011. Out of 330 Townships, 27 are considered Non-Government Controlled Areas out of which 12 are Self-Administered Regions and 15 are controlled by armed ethnic groups. 3.89% of the population resides in these 27 areas.

The immunisation programme is the only national programme to have increased its reach to people living in Non-Government Controlled Areas year by year. Gavi grants for new vaccine introductions and campaigns have been instrumental for these outcomes. However, during implementation, there have been significant barriers including sporadic civil wars between government and ethnic armed groups and between different ethnic armed groups. Service delivery in those areas is fragile and can at any time lead to low performance. In addition, there are certain areas in some Townships where the population is completely uncovered by health services. MoHS is constantly identifying possible ways to reach the unreached in parallel to the peace process efforts of the Government of Myanmar. Expanding Gavi-supported immunisation services to those communities in conflict is considered a part of the peace bridging process.

In addition, there are also geographically hard-to-reach areas due to limited road networks and difficult terrain resulting in isolated parts in nearly all States and Regions. The CRASH strategy is used to reach those populations with immunisation services. In section 3.1, Townships in socially and geographically hard-to-reach areas have been identified and prioritised for HSS2 activities.

Situation of national peace process and internal conflicts

The Government of Myanmar has made the peace process a top priority since 2016. This has resulted in the participation by nearly all relevant groups in the "Panglong-21st-century" union peace conference that was held at the end of August 2016, with a second conference in May 2017 and a third session in July 2018. These conferences mainly agreed on 51 principles involving social matters, political arrangements, land and environment, and economic development to guide the process. It is planned to continue holding these conferences twice a year with the objective to conclude a National Ceasefire Agreement. The persistent armed conflicts with ethnic armed groups remains a large challenge to the government and the political stability of the country.

Situation of civil war affected areas

Kachin, Shan North and Kayin States have been affected by civil wars for several decades. Most of the areas are seeing improved access as ceasefire agreements are reached. However, armed conflicts have been continuing in Kachin and Shan North over the past 12 months with variations in intensity and frequency. In Shan North, there are approximately five ethnic armed groups and two self-administered areas recognised by the national government. In these self-administered areas, the Ethnic Health Organizations, with local volunteers, are receiving immunisation training and supplies in partnership with international NGOs. Access to immunisation in those areas has improved over past two years.

There continues to be frequent armed conflict between ethnic armed groups and the Myanmar military which can trigger further internal displacements. Currently there are thousands of internally displaced person camps in both government-controlled areas and beyond. Immunisation services are provided to internally displaced persons by local health volunteers who have been trained on vaccination services in partnership with international NGOs, such as Health Poverty Action.

Ethnic Health Organizations and local authorities have also been supported by 3MDG Fund to provide basic services. This has included immunisation activities since 2013, with a focus on Penta 3 and measles vaccines. Improved coordination and collaboration between the MoHS, Ethnic Health Organisations, local authorities and 3MDG partners has led to better trained staff and higher quality and more reliable services. For further information on 3MDG work in immunisation in Myanmar please see Annex 3.

Another significant and additional finding of the Joint Appraisal was the emergence of VPD cases (especially Measles cases and outbreaks, and Diphtheria) in areas where immunisation coverage is high according to administrative data as well as previously uncovered areas. Populations displaced by civil wars or who have moved for economic/educational opportunities are residing in peri-urban areas often supported by NGOs for health services. Special immunisation strategies are needed to identify the pockets of children at high risk and children previously missed when accessing these previously unreached areas. Catch-up vaccination SOPs for all eligible antigens are being developed to cover the gaps over multiple birth cohorts. Bottom-up microplanning of each and every community is expected to define the annual workplans of the HSS2 programme to support such catch-up strategies.

Situation in Rakhine State

The situation in Rakhine State remains different from others areas. In Rakhine State, there were less coverage and equity issues in immunisation services until 2012 when social conflict escalated between the Muslim and local communities. Although the trust between the two communities remained low, routine immunisation was revitalised in 2013 following catch-up campaigns among all under-5 children in both populations. Local health staff attempted to cover all Muslim communities in the fragile context with strong commitment from the central and local governments and leadership of MoHS. GPEI has supported polio vaccination campaigns, Gavi provided support for new vaccine introductions and catch-up vaccination campaigns (MR and JE), and WHO and UNICEF supported CRASH immunisation programmes which successfully prevented local VPD cases and outbreaks.

The latest crisis in Rakhine State started on 25 August 2017, coinciding with the Polio catch-up campaign, and resulted in an influx of refugees to Bangladesh. The Governments of Myanmar and Bangladesh agreed on a framework for voluntary repatriation in November 2017, which remains to be fully implemented. MoHS has also prepared all necessary operational procedures and plans for the repatriated populations including immunisation SOPs for all antigens up to 15 years of age and for women of childbearing age.

Although Maungdaw Township in Rakhine was the most affected, there have been social repercussion in other nearby Townships. MoHS is developing tailored communication and service delivery strategies to access those communities. During the Joint Appraisal, field visits were conducted in Rakhine State, including an internally displaced persons camp. The administrative data from EPI for 2017 and 2018 clearly shows the deficits in coverage for the Muslim communities (sometimes as low as 30% for DTP3) and the need for tailored strategies and contextualised EPI micro-planning.

Urban Health Situation

In 2012, Rural Health Center analysis showed the main reasons for under-vaccinated children are

(1) Urban/peri-urban areas, mobile/migrant populations, conflict affected areas (socially hard-to-reach populations) (25%)
(2) Midwife vacancy/absent/imbalanced proportion of midwives (19%) and
(3) Physically/geographically hard-to-reach areas (16%).

Based on the analysis of recent migration in the previous three years following the Census Report 2014, the net migration rate is considered to significantly contribute to the emergence of pockets with low immunisation coverage in overall well performing Townships and to sporadic outbreaks of Measles and Diphtheria.

The data triangulation exercise for Yangon found that MCV1 and MCV2 coverage are expected to be equal to or lower than 80% although reported coverage of MCV1 and MCV2 are 98% and 92% respectively. The estimated lower coverage rates would include 24% of migrants in the denominator which are not systematically captured by EPI planning and monitoring. Larger towns like Mandalay and Nay Pyi Taw and particular Townships at the borders to Thailand and China are equally affected by the influx of migrants.

The Urban Immunisation Strategy of MoHS is focussed on Townships with high migrant and slum populations, high population density, and inadequate midwife to population ratios and defines specific approaches for peri-urban, slum, and migratory populations.

The main activities of the Urban Immunisation Strategy are the establishment of institutionally-based EPI clinics (hospital EPI clinics, weekly EPI clinics at Township and urban health clinics), hiring additional midwives, improved community engagement through demand generation and recruitment of social mobilisers.

GPEI and Polio Transition Plan

Myanmar was certified polio-free on 27 March 2014, together with all countries in the South East Asia Region of WHO. Myanmar continued to have a high quality AFP surveillance system which was able to detect a circulating vaccine-derived poliovirus (cVDPV) type 2 in Rakhine State, Myanmar, in December 2015 which was countered with five rounds of an Outbreak Response Initiative (ORI), two times in December 2015 and three times in early 2016.

The subsequent assessment of the ORI was conducted in conjunction with a comprehensive EPI and Vaccine Preventable Disease Surveillance Review from 26 September to 8 October 2016.

The main rationale for combining the EPI and ORI was a common focus on children missed during vaccination, the ability of surveillance to detect cases, particularly acute flaccid paralysis (AFP), and how to strengthen future routine immunisation and surveillance in a broader context.

Main recommendations from OBRA were: priority distribution of inactivated poliovirus vaccine (IPV) to Rakhine State, to consider targeted SIA if routine immunisation does not catch-up quickly, traditional birth attendants (TBAs) and village leaders to be mobilised and engaged, innovative strategies to be employed to address cultural factors, routine immunisation coverage and surveillance indicators to be monitored; mobilisation of and close coordination with international and local organisations based in Rakhine State, and the Government of Myanmar and relevant polio partners to ensure availability of the required resources.

According to the 17th IHR regarding the international spread of poliovirus, Myanmar is not included in the list of endemic area for polio virus circulation and also been taken out from the list of cVPDV potential risk of international spread.

Most of the OBRA recommendations were implemented in 2016-2017 and currently the region is being closely monitored by cEPI and partners. Prioritised activities to improve routine immunisation coverage and surveillance are being planned under Gavi HSS2.

In the context of the polio endgame strategy, Myanmar is dedicated to increase polio immunisation coverage and immunity to levels high enough to prevent circulation of imported wild poliovirus and emergence of vaccine derived poliovirus (VDPV). GPEI had a significant contribution to Myanmar's Polio eradication agenda and achievements. The main areas of support were the creation of the network of Regional Surveillance Officers (RSOs) and surveillance and implementation of Sub-NIDs/NIDs for Polio.

In view of the phasing out of GPEI support to the country, Myanmar needs to decide on the developed Polio Transition Plan to take over or replace the GPEI support to the country.

Surveillance and the Network of Regional Surveillance Officers

The current VPD surveillance system is essential for EPI performance and monitoring. It is composed of government personnel, on deputation to WHO for a year. While WHO is continuing to provide technical support and oversight before GPEI cessation, some functions will be gradually transferred to the government. TORs of RSOs before 2019 would be mainly on capacity building of government staff to take

over the responsibilities. The relevant infrastructure will be transferred from WHO to the Government. The system cost for AFP and VPD surveillance are covered by HSS2 funds. In addition, Government is committed to post EPI and surveillance focal persons as Assistant Directors at each Region/State Level with adequate numbers of staff for supporting teams. cEPI needs to closely follow up on this commitment to be implemented in a timely manner.

National Immunisation Days/Sub-NIDs for Polio

In order to reduce the necessity and frequency of Sub-NIDs and NIDs, strengthening routine immunisation coverage is well addressed through the HSS programme. The catch-up plan for continuously low performing Townships based on quality micro-planning and proper data analysis in HSS2 has the potential to close the immunity gaps over the next 3 years. However, the recommended risk-based analysis may not be followed by proper SIA planning when GPEI support has ended. In addition, the risk of VDPV in partially covered and uncovered areas is still challenging for the programme.

The identified gaps in both technical and financial areas are included in HSS2 supported activities under Objectives 1, 2, 3 and 4. The Polio Transition Plan has been drafted, is expected to be endorsed by MoHS by 2018 and provides a basis for national and external fund mobilisation.

Perspective for the next year

In the coming years, the National Immunisation Programme will continue to face the challenge of reaching every child. The quality and timely implementation of HSS2 will be crucial to overcome the identified challenges and improve coverage and equity year by year. The specific and tailored strategies at the sub-national level will be best possible mechanism to reach the unreached. At the same time, continuous monitoring and regular updates will be needed whenever there are any possible entry points into conflict and catastrophic disaster affected areas.

It is proposed to focus the progress monitoring and the Joint Appraisal 2019 on the changing political and economic situation, and rapid urbanisation. The potential solutions should be reviewed in the context of the objectives of the HSS2 programme.

MoHS will sustain the vaccine cost for at least the next five years while the operational costs of EPI are not adequately covered. The HSS2 support should aim at reducing the EPI implementation cost especially for outreach and CRASH activities so that the government can cover all EPI operational cost after external support so that the programme can be sustained at the same performance level. The agenda of financial sustainability of the EPI programme should be broadened beyond vaccine financing.

3. PERFORMANCE OF THE IMMUNISATION PROGRAMME

3.1. Coverage and equity of immunisation

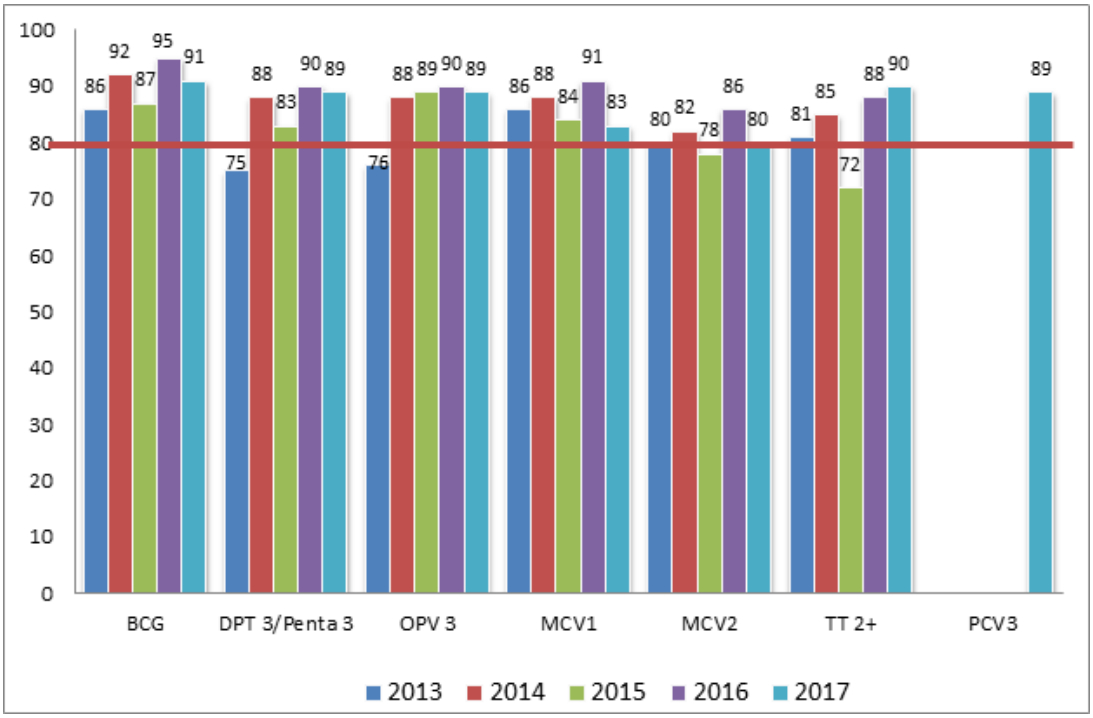
Immunisation coverage has grown steadily since 2002 and has remained over 80% for most antigens since 2007. However, the contextual factors and deficits of the health sector and system directly impact the performance of the immunisation programme. Major policy and operational challenges in ensuring universal access to immunisation services have been observed, as illustrated by the significantly lower coverage in remote and conflict affected areas (e.g. Rakhine State, border areas of Kachin, Shan and Kayin States). The following table and graph summarise the coverage data since 2012:

2012-2017 NATIONAL IMMUNIZATION COVERAGE %

WUENIC and reported data [in brackets, in case of deviation]

	2012	2013	2014	2015	2016	2017
BCG	87	86	92	94	88	91
DTP1	89	90	90 [92]	90 [94]	94	94
DTP3	84	75	75 [88]	75 [89]	90	89
PCV3					14	89
OPV3	87	76	76	76	89	89
IPV1				8	72	12
MCV1	84	86	86 [88]	86 [84]	91	83
MCV2		80	80 [82]	80 [78]	86	80
TT2plus	85	81	85	83	88	90

Figure (1) National Immunisation Coverage (2013-2017)



The WUENIC estimates for DTP3 was 89% in 2017 and 90% in 2016.

With respect to MCV1, the national coverage in 2017 was 83% and for MCV2 the coverage is 80%, and has been at this level for several years. 71% of Townships have >80% MR coverage. The slight decrease in the number of children vaccinated with MCV1 in 2017 (786,573) compared to 2016 and the decrease in coverage is primarily attributed to the pause of MR vaccinations until January 2018 while the nationwide Japanese Encephalitis campaign was on going during the period of Nov-Dec 2017. Rakhine, Shan North, Shan East, Shan South, Chin, and Kachin States have below <90% coverage with MCV1. Despite accelerated efforts to achieve the target, there were outbreaks occurring which corroborate that the country has pockets of unvaccinated children. There were in total 1,293 cases of confirmed measles in 2017.

Furthermore, there was a switch from Measles (2nd dose) to Measles Rubella for routine immunisation in 2017. MCV2 coverage was at 78% in 2015 followed by 86% in 2016 and 80% in 2017.

In 2017, SIAs were conducted to address vaccine specific coverage deficits. A Measles SIA focused on Yangon with its increased population density and Polio SIAs in Rakhine State in 2017 were conducted achieving close to or over 90% coverage. The JE campaign conducted during November and December 2017 was the second largest public health intervention in Myanmar after the measles campaign in 2015 and achieved a coverage of 92.5%.

Inactivated Polio Vaccine (IPV): Myanmar introduced IPV in 2015 and it is given to 4 month old children. Nationwide reported coverage for IPV was 72% in 2016. The global shortage of IPV significantly impacted the immunisation coverage (12% in 2017). This affected most of the Townships which did not receive supply of IPV consequently resulting in a low national coverage of IPV. IPV is distributed and used in Rakhine State where the last case of Type 2 VDPV occurred.

Pneumococcal Conjugate Vaccine (PCV): The initial introduction of PCV was in 2016, however, there were some delays in intervention due to a series of polio immunisation campaigns. Therefore, it was included in routine immunisation only on 1 July 2016. Accordingly, PCV 1 coverage rate increased from 45% in 2016 to 94% in 2017. Likewise, the coverage of PCV3 soared from 14% in 2016 to 89% in 2017.

VPD Case Surveillance

Cases of Vaccine Preventable Diseases (data as of 31 May 2018)

	2013	2014	2015	2016	2017	2018*
Diphtheria	38	29	87	136	68	40
Measles	1010	122	6	266	1293	120
Pertussis	14	5	5	2	4	12
Polio*	0	0	0	0	0	0
Rubella	23	30	34	10	6	3
Neonatal tetanus	39	32	30	21	20	5
Japanese encephalitis	3	50	113	393	442	28

The case numbers of Measles declined in 2015 after the MR catch-up campaign but is on the rise again which reflects the low MCV1/MCV2 coverage in the country. JE incidence decreased in 2018 after the campaign in November 2017 and routine introduction in January 2018.

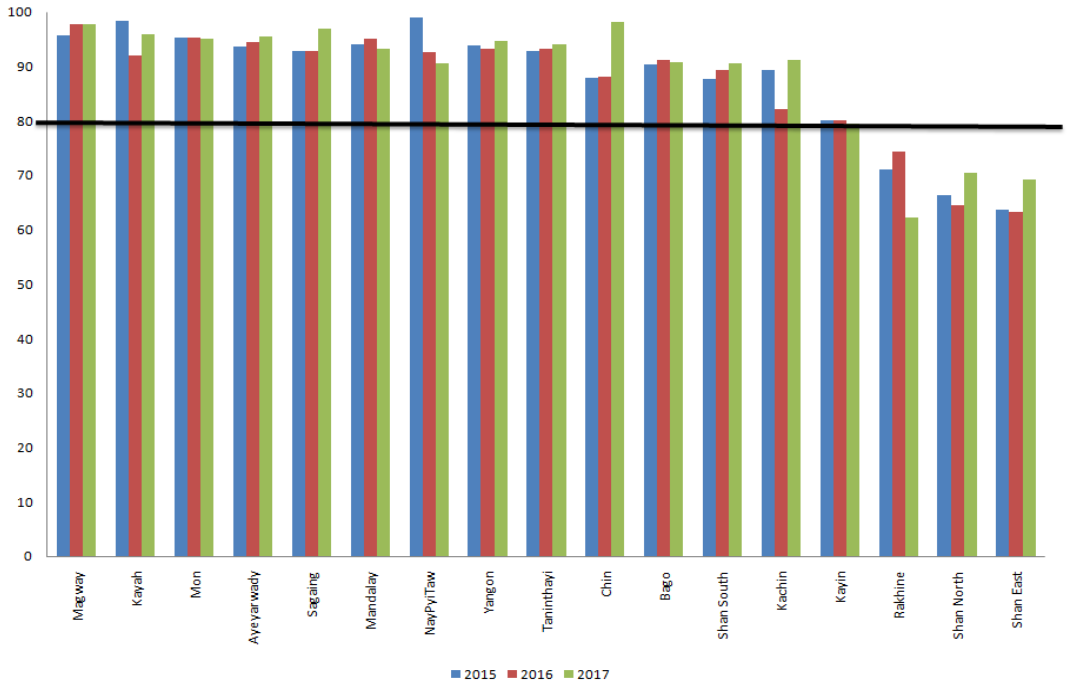
Reported cases of Diphtheria in 2016 was 136 and in 2017 was 68. As a result of the Diphtheria outbreak in the IDP camp of Cox's Bazar, Bangladesh in late 2017, there has been increased awareness among health workers and better surveillance. In April 2017, cEPI switched from TT to Td for pregnant mothers. According to the NITAG recommendation, a booster dose of Diphtheria Toxoid DT would be given at 5 years of age during school entry starting from 2019.

Referring to the JE surveillance, there were 383 confirmed cases in 2017 and only 39 cases confirmed as of June 2018 which demonstrates the positive impact of the JE campaign.

Sub-regional analysis

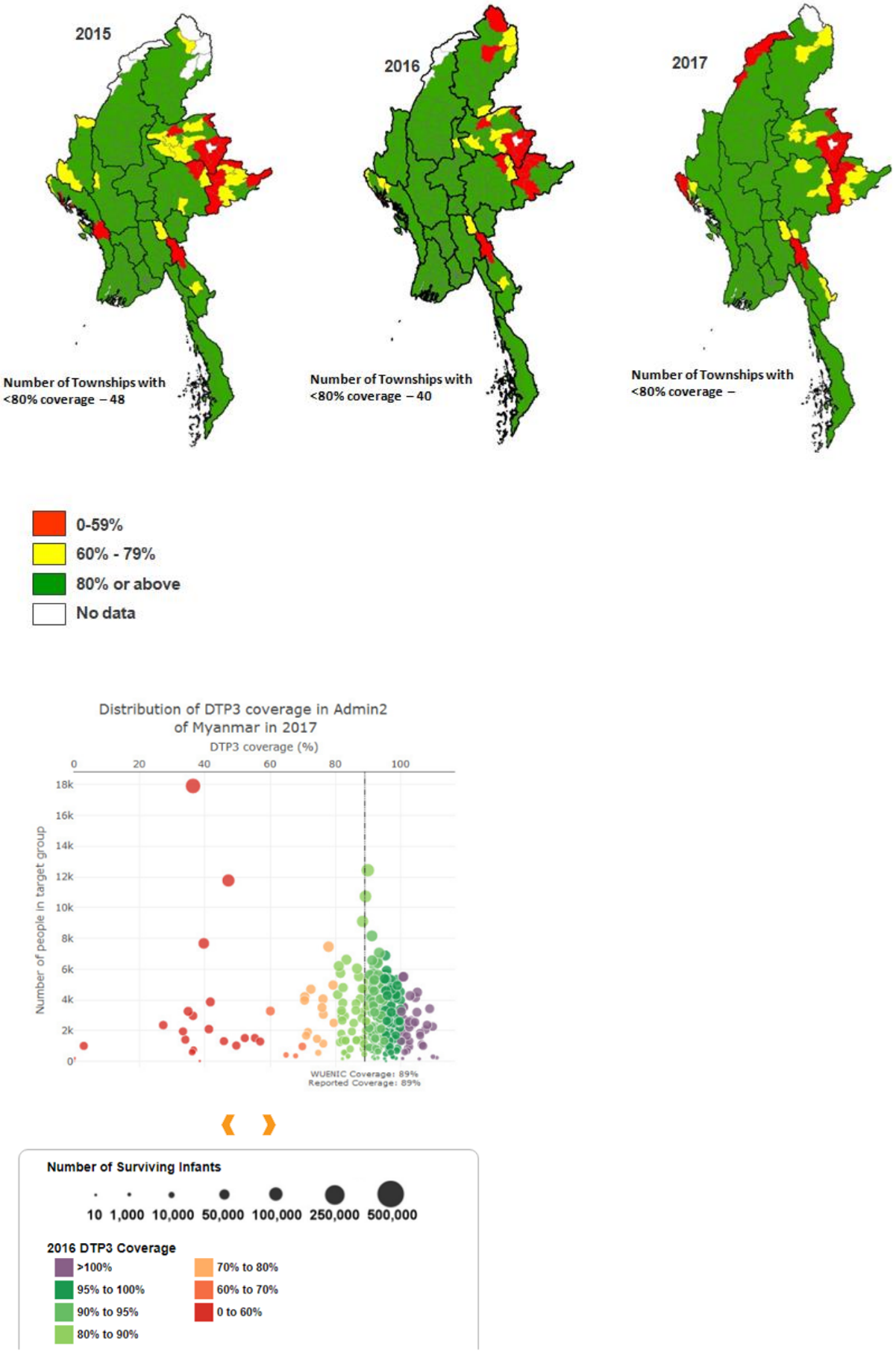
The average national coverage is masking the low performing Regions/States and Townships. Shan East, Shan North, Rakhine, Kayin and Kachin have the lowest coverage and each area has its unique reasons for weak performance. The following graph visualises sub-regional differences:

Figure (2) Regions/States wise Immunisation Coverage (2015-2017)



The number of Townships achieving DTP3 coverage below 80% is also steadily decreasing from 48 in 2015 to 39 in 2017. The figures below illustrate overall the improvements in equity which is contrasted by a significant number of persistently underperforming Townships.

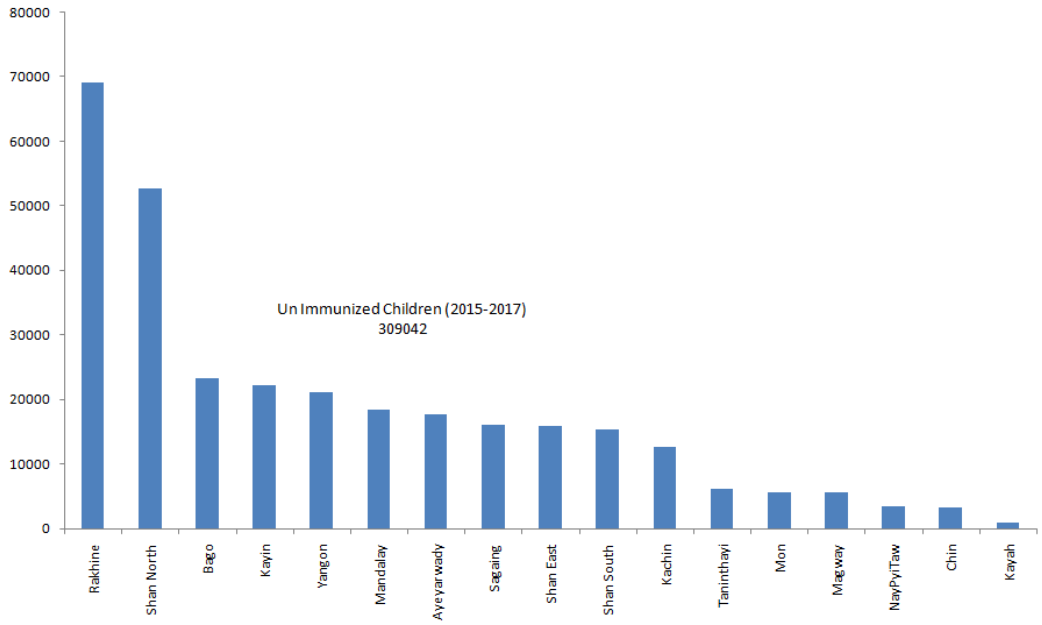
Figures (4) Township-wise DTP3 Immunisation Coverage (2015-2017)


2015
Number of Townships with <80% coverage – 48
2016
Number of Townships with <80% coverage – 40
2017
Number of Townships with <80% coverage –
0-59%
60% - 79%
80% or above
No data
Distribution of DTP3 coverage in Admin2 of Myanmar in 2017
DTP3 coverage (%)
0
20
40
60
80
100
18k
16k
14k
12k
10k
8k
6k
4k
2k
0
Number of people in target group
WUENIC Coverage: 89%
Reported Coverage: 89%
Number of Surviving Infants
10
1,000
10,000
50,000
100,000
250,000
500,000
2016 DTP3 Coverage
>100%
95% to 100%
90% to 95%
80% to 90%
70% to 80%
60% to 70%
0 to 60%

Number of unimmunised children

The analysis of 2015-2017 data shows that 309,042 children were unvaccinated with Penta 3. The highest number of unimmunised children are found predominantly in Rakhine, Shan North, but also in the States with larger populations like Bago, Yangon, Mandalay, Kayin and Ayeyarwaddy:

Figure (3) Children not receiving Penta3 by State and Region (2015-2017)



3.2. Key drivers of sustainable coverage and equity

Root causes of C&E challenges in Myanmar

The data analysis needs to be completed with the root causes of the coverage and equity challenges in Myanmar which are:

- Geographically hard-to-reach and conflict affected regions
- Socially hard-to-reach regions because of ethnicity, migration and urban poor settings
- Vaccine management and cold chain: limited number of immunisation days (first few days of each month) due to cold chain deficits, e.g. storage capacity below Township level and inadequate inventory management
- Service delivery: regular outreach sessions are often constrained by lack of funds for the travel of health center staff, especially when more remote areas are involved
- Human resource limitation: understaffed urban areas, retention in hard-to-reach regions, limited number of supply chain/cold chain staff, data focal points, etc.
- Data quality/denominator issues because of outdated census data, difficulties of head count at Township level and below
- Data management and use: insufficient analysis and use of data at sub-regional level
- Low government budget for health, specifically operational costs
- Complicated and slow financial management processes at States/Regions and Township levels. Low capacity of financial and risk management are often a bottleneck for effective fund utilisation (e.g. World Bank or 3MDG funds)

There are multiple efforts ongoing to improve the coverage and equity of immunisation in Myanmar. In 2017 hospital immunisation services were launched in **urban areas** to offer more flexible vaccination sessions to reduce reliance on outreach. **Micro-planning** is being improved in all Townships with a focus on the geographically and socially hard-to-reach areas. In **conflict areas** the cooperation with Ethnic Health Organizations and NGOs is being strengthened. With Gavi HSS2 funds, major investments in the **supply and cold chain** will be made. A **data quality improvement plan** has been developed in 2017/18 to address the fundamental denominator problems and use of data by EPI (see next section). Further details are in the text below.

Prioritisation of Townships

Against the background of the underperforming regions a focus of the Joint Appraisal 2018 was the prioritisation of Townships to achieve a better impact from forthcoming HSS2 interventions and PEF TCA. The selection was based on the RED analysis and Townships are categorized by coverage and dropout rates of DPT3 in 2017:

Category 1 **(No Problem)** **Low Drop-Out (<10%)** **High Coverage (>80%)**	**Category 2** **(Problem)** **High Drop-out (>10%)** **High, Coverage (>80%)**	**Category 3** **(Problem)** **Low Drop-out (<10%)** **Low Coverage (<80%)**	**Category 4** **(Problem)** **High Drop-out (>10%)** **Low Coverage (<80%)**

Number of Townships	National= 330	Cat1= 278		Cat2,3,4= 52		
DPT3 coverage in 2017= 89%		(<400	(>400 unimmunized)	Accessible	Conflict/NGCA	NA
		(246 Tsp)	(32 Tsp)	(10 Tsp)	(27 Tsp)	(15 Tsp)
Under 1 Target	949,777		173,147	14,866	92,098	23,903
Un Immunized (11%) of target	103,294	30,532	20,259	2,637	38,603	11,263
% of nation wide un immunized	100%	29%	20%	3%	37%	11%
			60%			
			71%			

Urban Immunization	No. of Townships		Under 1 Target	Un Immunized	Percent of Nation wide Un immunized
On going	30		84,709	3,369	3%
Proposed urban immunization	14		68,260	5,697	6%
					9%
Proposed Urban immunization - population density, surveillance, border area					

There are 39 Townships under the problem category 3 and 4 which have low DPT3 coverage less than 80%. Under problem category 2, there (13) Townships and (10) out of which are geographical hard to reach areas and conflict affected areas with very high drop-out rates. Therefore all 52 Townships under problem categories 2, 3 and 4 are selected to be prioritised in the next three years to increase the coverage and lower the dropout rates.

As a next step, Townships with number of unimmunised against DPT3 under category 1 have been reviewed. There are 32 Townships under category 1 with a number of unimmunised children of more than 400 (almost 20% of the average target per Township).

Among the 84 low performing Townships, 15 Townships are identified as the most challenging Townships to improve coverage. The health workers have limited access to many of the areas or communities in those Townships because of the ongoing armed and/or communal conflicts. The Townships with security problems include the areas which are beyond the control of Government.

The implementable 37 Townships under problem category 2, 3 and 4 as well as the 32 Townships under category 1, equal altogether 69 Townships which will be the focus for the next three years and HSS2 interventions. At the same time, the remaining 15 inaccessible Townships will be closely monitored and included in the interventions as feasible. 44 Townships will be implementing the Urban Immunisation Strategy.

71% of unimmunised children are residing in the identified 84 Townships, 60% in the accessible 69 Townships and an additional 9% will be covered by 44 urban Townships.

The challenge in urban settings is well understood and there are a series of activities initiated to respond to the need such as a well-organised Measles SIA in Yangon. The Urban Immunisation Strategy will be continued under HSS2.

There is no additional equity data available which looks at the socio-economic status since the last DHS (2014-2015). Therefore, Myanmar is interested in doing secondary analysis of DHS data to further unpack available socio-economic data and to document the findings for future planning.

Figure (5) Township prioritization by data analysis (2017 data)

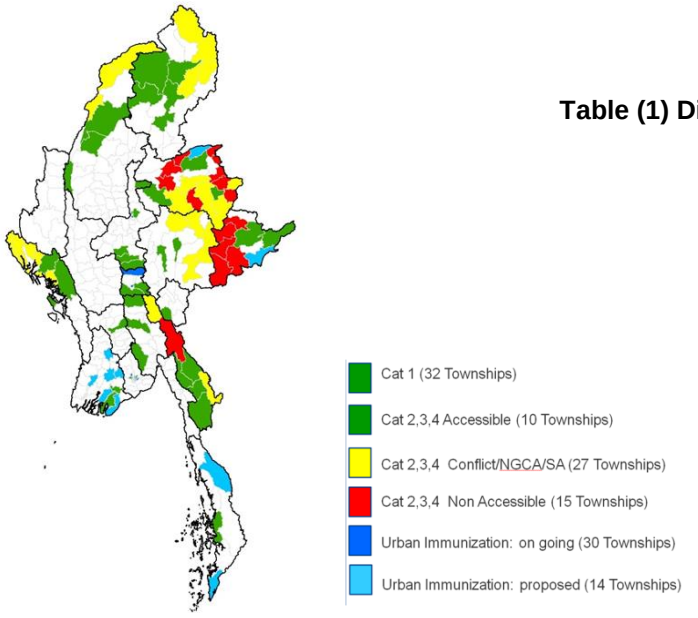


Table (1) Distribution of (69) prioritized Townships

State/Region	No. of Townships
Rakhine	11
Kachin	8
Shan North	8
Shan South	7
Sagaing	6
Kayin	6
Mandalay	6
Yangon	5
Bago	4
Shan East	2
Ayeyarwady	2
Nay Pyi Taw	2
Kayah	1
Tanintharyi	1
Grand Total	**69**

Immunisation coverage will be improved by using “Reaching Every Community” (REC). To ensure reaching all children especially among poorest quantile groups, QGIS based micro-plans will be developed/updated together with the community in all major cities to include migratory, peri-urban and slum populations. Furthermore, immunisation in urban areas will be reinforced by additional midwives who will be paid at local rates equivalent to government salaries. Special plans including utilisation of Ethnic Health Organizations will be formulated to cover geographically hard-to-reach areas.

For geographically very-hard-to-reach areas like Naga Land, community volunteers, who know the cultural context and speak the local language will be recruited, trained and assigned to tasks such as preparing/updating due-lists, defaulter tracking, and organising regular and ad hoc community meetings together with Basic Health Staff. Expansion of fixed posts equipped with appropriate vaccine storage facilities, especially in remote locations, and regular outreach services will be established to deliver integrated services at a time and place convenient to communities.

CRASH or mobile teams for catch-ups will be formed to intervene in hard-to-reach areas at least three times within 12 months. Immunisation services will be delivered by expansion of fixed posts and outreach services whenever and wherever necessary.

Hospital-based immunisation has been started at 98 hospitals and will be expanded not only for improving the availability of services but also for giving the opportunity to children to receive catch-up vaccinations. Following vaccination card check at school entry, catch-up vaccinations will also be provided to the under-immunised children.

Human Resources/ Health Workforce

The issue of imbalance between health staff and population at ground level has been discussed at higher level meetings among policy makers in addition to over burden of Basic Health Staff assigned by all public health programs. All sanctioned posts are not yet filled at different levels that are under MoHS. Frequent staff turnover result in lack of understanding of the local situation, reduced community trust and also poor relationship between health care providers and the local community. Inadequate trainings and lack of skills are reflecting in the quality of services delivered. Provision of sufficient training for frontline workers through identifying needs at all levels, proper planning and training of health staff with appropriate guidelines is critical.

Developing communication strategies

Service delivery and demand generation:
In order to assure community acceptance, effective advocacy, communication and social mobilisation activities and mass media campaigns will be implemented to achieve greater cooperation and coordination. Urban immunisation activities, hospital immunisation clinics in 98 hospitals and CRASH activities have been established. The social mobilisation corners at immunisation clinics were created to promote community awareness of immunisation and its benefits. Interpersonal skills training for Basic Health Staff was designed and developed to equip the vaccinator with the skills to address the fear of AEFI, concerns regarding the administration of multiple injections at a single visit and to increase the level of knowledge and awareness about vaccination among mother and caregivers.

Gender related barriers faced by caregivers:
Decisions to vaccinate or not are also influenced by gender, religious and cultural contexts (e.g. lack of education, women's limited access to health facilities, etc.). Community leaders and volunteers need to be involved in encouraging demand generation. Health education to the community will shape the future perceptions about vaccines.

Supply chain

Improvements in the cold chain capacity, vaccine supply and management of logistics systems are developed to include session planning, vaccine forecasting, storage and wastage monitoring. Regular vaccine supplies and correct vaccine stock management with other immunisation supplies are the key factors in the immunisation program and contribute to achieve coverage objectives and reducing potential vaccine wastages.

VPD surveillance and AEFI response overview

VPD surveillance was reinforced with an electronic data entry and data analysis tools (Information For Action) by WHO in 2017. Surveillance is currently well established, but challenges are experienced related to capacity building (e.g. evidence of lack of familiarity with updated case definition associated with Measles surveillance). The minimum case reporting target (2 per 100,000) was not being met. Case based Measles and Rubella surveillance system has been implemented as part of VPD surveillance.

Although Myanmar has WHO accredited laboratories in Yangon and Mandalay with good laboratory practices, issues like specimen transportation, shortage of lab reagents for JE and Measles are still encountered. Involvement of the private sector (e.g. GPs, clinicians and private hospitals) through MMA and Private Hospital Association as recommended by NVC and will enhance surveillance data.

Myanmar established a new AEFI Committee in 2017 for the oversight for case classification and case investigation. Field investigations were carried out in cases of serious AEFI (e.g. JE campaign related). With the support of WHO, the AEFI field investigation simulation and advanced causality assessment training workshop was conducted in June 2018. Myanmar has strong AEFI surveillance (minor and major) during campaigns but it needs to be replicated in routine as well.

Plans are in place to strengthen AEFI reporting and response mechanism (proper causality assessment for all serious AEFI cases) and AEFI guideline will be revised and developed in English and Myanmar languages and disseminated to all Basic Health Staff.

Leadership, management and coordination

Skill development is needed for regional and Township health program managers to achieve a paradigm shift of the immunisation program away from the traditional way of passive vaccination to active participation through different strategies, motivation and job satisfaction in civil service. The importance of leadership and management is reflected in the Gavi HSS2 grant workplan which ensures the improvement of current managers to be capable for overall management of program.

Supervision, monitoring and evaluation

During the Joint Appraisal the inadequate supportive supervision at all levels due to limitation in resources was discussed. Supportive supervision and monitoring of all the current EPI management tools at different levels should be prioritised in coming years.

Data quality and use

Recommendations of the DQSA visits are transformed into activities which are already reflected in Gavi HSS2 grant to be implemented. In addition, EPI information system will be linked with DHIS2 (HMIS) as part of the Data Quality Improvement Plan (DQIP). See section 3.3 on Data below.

3.3. Data

Until 2017 (2016 estimations) there were significant **differences between the WUENIC estimates and the reported data (JRF)** principally because of persistent denominator challenges and the lack of robust survey data which would be a basis to adjust WUENIC estimates which were held flat for several years. For example, the initial 2016 target (defined in 2013) was 1,466,517 children but the 2014 population census showed that this target was largely overestimated. Based on 2014 and 2015 head counts and actual achievements, the 2016 EPI target was thus corrected to 931,115 for PCV, Penta and Measles.

There is commitment within the country to improve the information and data of EPI (update census data, continue with head counts, data quality assessments, improvements in HMIS). Annual EPI evaluation meetings are held at central level to discuss the coverage and target data for next year.

DQSA and EPI coverage surveys will provide more accurate information on data quality and coverage (planned for later 2018/19, funded by Gavi PEF TCA). WHO provided technical assistance in 2017/18 for conducting an in-depth data quality assessment which led to the development of a Data Quality Improvement Plan. The main issue with the determination of the head count is the systematic missing out

of children in geographically or socially hard-to-reach populations which results in deficits for planning and monitoring of immunisations. Improvements need to start at the micro-planning phase of EPI and subsequent data collection and utilisation.

Following the data quality assessment, a series of follow up activities for the continuous data quality improvement were designed and prioritised for implementation to ensure timely availability of immunisation related data in good quality for proper effective monitoring and decision making for better performance.

1. Overall challenges of recording, reporting, denominator, data analysis and use during data quality self-assessment and improvement planning (August 2017):

a. Challenges related to recording immunisation of migrant / temporary populations – resulting in under-reporting
b. Sometimes inconsistent / discrepant data reporting through HMIS and EPI, as well as differences in data flows and timelines between the two systems
c. Overall, assessment highlighted challenges related to denominators and target setting in all S/R for migrant or guest populations
d. Microplanning based on registered residents only
e. Required further training on data management, analysis and use across levels
f. Weak review / feedback mechanisms across levels
g. Some States challenged by lack of sufficient HR (e.g. Shan State)
h. Not all States demonstrating use of data to inform prioritisation/ sufficient feedback into planning

2. Data improvement plan workshop, April 2018. The main objectives of this workshop were to

- analyse findings of the Data Quality Self-Assessment (November 2017) and gain consensus on recommendations to be taken forward
- develop a national Data Improvement Plan (activities, responsibilities, deliverables, budgets, timelines)
- agree on mechanism to monitor the plan's progress and fine-tune as needed

The following activities are planned to be implemented in the country with the support of HSS2 and other available resources:

- Coordination Meeting with HMIS (Central Level) and coordination within MoHS for appointment of all sanctioned posts (Team leader and OIC) at SR level in order to further align EPI and HMIS data.
- Policy development to include all EPI communities and develop, produce and distribute clear guidelines for headcount process to target for immunisation based on EPI community (including migrants, informal settlements, seasonal workers, urban poor, Non-Government Controlled Areas).
- Advocacy and coordination meeting with partners (NGOs, Ethnic Health Organizations, CSOs and community leaders) at central, State/ Region, Township and RHC levels for involvement of all partners in detail, implementing work plan meeting with Township Medical Officers and in midterm & annual evaluation meetings at all levels to further enhance coordination and cooperation among health related partners for EPI services including evaluation processes.
- Review the paper EPI data system (report format, data entry format, etc.) to develop the eLMIS/eIIS, Pilot testing of the finalized EPI data system, development of customized CommCare software & integrated eLMIS/eIIS software based on DHIS2.
- Related departments are well coordinated for training, pilot testing and finalization of SOP and software at central, S/R and Township level for Immunisation supply chain management and integration of advanced eMHIS and eLMIS
- Adequate production and distribution of EPI data management tools at all levels to improve availability of reporting forms and vaccination cards. Evaluation at all levels by using the updated supervisory checklist.

- Update and consolidate SOPs for use of all tools - Develop Handbook on use of data tools Contents - Data recording, reporting, review, analysis and uses, how to link with HMIS and data dictionaries
- Training modules/training animation
- Develop data review tool
- Integrate data quality in supervision practices

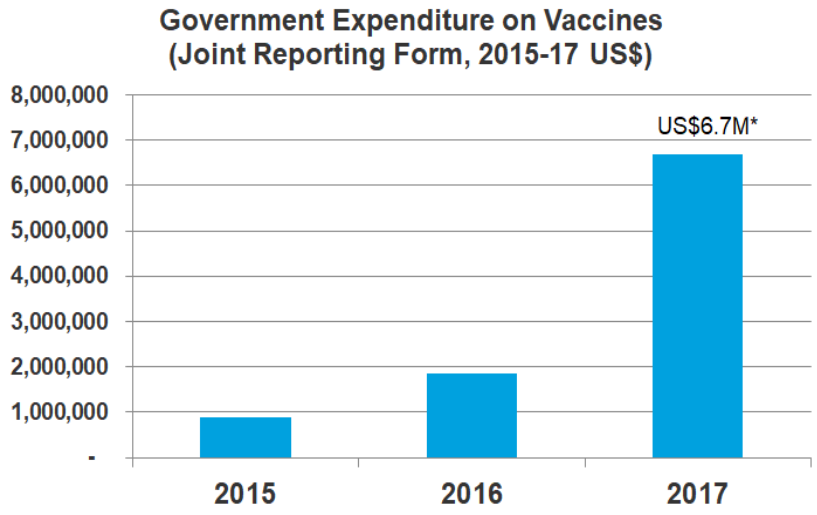
These activities are planned to be implemented in the three years of the Gavi HSS2 grant.

3.4. Immunisation financing

Financial Sustainability

The MoHS is focused on ensuring the sustainability of the achievements of EPI while making improvements to overcome the persistent challenges of coverage and equity of immunisation services. It will be important that immunisation is treated as a priority public health intervention that should never be interrupted, nor its delivery of services be delayed. Critical to this objective will be increased intersectoral cooperation between MoHS, Ministry of Planning and Finance (MoPF) and other key ministries.

The Government of Myanmar has been co-financing Pentavalent and PCV vaccines since 2013 and 2016 respectively. Routine immunisation vaccines were fully financed since 2017 and the Government has already committed to provide this funding for the next five years (2017-2021). Myanmar is expected to transition from Gavi support in 2025 and co-financing will increase from 2021. Therefore, by the financial year 2024/2025, the Government will finance 100% of all vaccines.



* Traditional vaccines and Gavi co-financing

Further work on the availability of earmarked funds from Government budget to finance vaccines in coordination with the Budget Department, MoPF is ongoing.

In addition, the MoHS signed an MOU with UNICEF on the vaccine independent initiative (VII) which will allow the National Immunisation Programme to access the revolving fund to address contingency or emergency situations and avoid stock-outs.

In alignment with the Government of Myanmar's vision of fiscal prudence, access to UNICEF's VII Capital Fund will provide the national Government with increased financial flexibility to address immediate cash flow timing issues while budgetary allocations are converted into cash, improve its planning and budgeting

for immunisation and to pave the way for the nation to take increased ownership and responsibility in procurement and payment of all vaccines. This will increase financial self-sufficiency and hence lead to an "exit" from VII.

Health budget and EPI financing

Government investment in the health sector has increased substantially and international aid flows have also expanded since political reforms were implemented. According to one source, health spending per capita has increased from US$1 in 2008/2009 to US$11 in 2013/2014 or 2.4% of GDP (World Bank Appraisal Document 2014). As such, the current Gavi investment, although significant in absolute terms, represents, relatively speaking, a lower proportion of the overall national and international investment than in previous years.

The current government increased allocations to health substantially, which currently stand at just over 5% of Total Government Expenditure for 2017-2018.

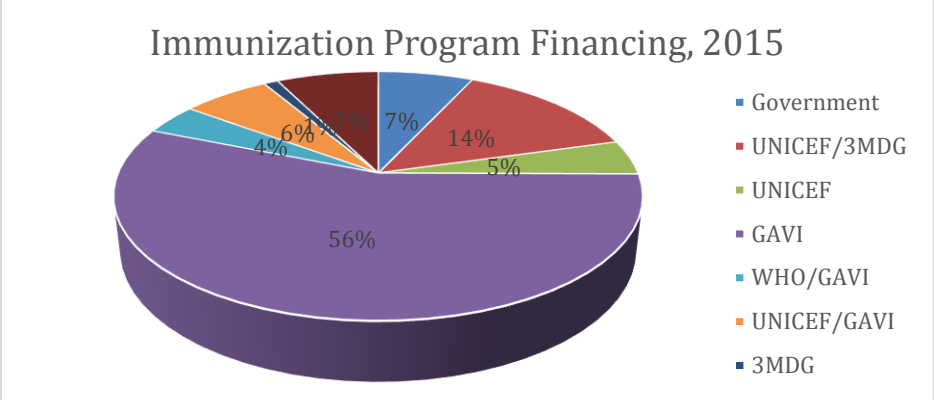
Despite these sector-wide developments and investments, the Gavi proportion of funding of the EPI programme is still very high and is likely to expand with additional vaccine introductions (IPV 2015, PCV 2016, JE 2017, Rota 2020, HPV 2020).

For example, in 2015 the total cost of the immunisation programme was US$67M (see table below). Of this amount, the government is covering 7% for health worker salaries, operational costs, transportation and building costs. Over half the costs (56%) are covered by Gavi (see chart below).

Table: Baseline Cost Profile of Immunization Program in 2015 (cMYP 2017-2021)

Cost Category	Expenditure in 2015 (USD)	% of Total
Vaccine and Injection Supplies (Routine Immunization Only)	12,708,157	19%
Service Delivery	3,455,111	5%
Advocacy and Communication	3,041,338	5%
Monitoring and Disease Surveillance	1,752,758	3%
Program Management	1,012,618	2%
Capital Costs	$8,412,403	12%
Supplemental Immunization Activities (SIAs) (includes vaccine and operation costs)	27,568,686	41%
Shared Health Systems Costs	9,387,619	14%
Total	**67,338,690**	**100%**

Figure: Baseline Financing for the Immunization Program Financing, 2015 (cMYP 2017-2021)



4. PERFORMANCE OF GAVI SUPPORT

4.1. Performance of vaccine support

New and underutilized vaccines

PCV was introduced in July 2016 and is given at 2, 4 and 6 months of age with OPV and Pentavalent. In line with the global recommendation, TT vaccines was switched to Td vaccine in 2018. The Measles second dose was switched into Measles Rubella in 2018.

The previous sections of this report include the analysis of the coverage and equity performance of the supported vaccine programmes.

JE Campaign

Myanmar received US$6,546,000 for vaccines and US$913,500 for injection safety devices from Gavi, procured through UNICEF Supply Division. In addition, a total of US$9,125,500 was approved to support JE campaign operational costs, managed by UNICEF (US$4,801,827) and WHO (US$4,323,673).

The campaign was implemented successfully, reaching 12,543,661 children out of the target of 13,566,864 (92.5% after mop-up activities). The following were identified as strengths and lessons learnt:

- Cold chain systems strengthened through provision of additional cold chain equipment
- Collaboration with Ethnic Health Organizations in Shan North and Kayin States.
    - Kayin Ethnic Health Organization received for the first time direct support for supplies, as well as financial and technical assistance
- Media communication and risk communication activities important for AEFI case handling
- Capacity building in financial management initiated
    - An SOP for the JE campaign budget management was developed
    - Trainings were conducted for all 330 Township budget focal persons

The Rapid Convenience Assessment for the JE catch-up campaign was conducted in December 2017 by independent international monitors as well as WHO and UNICEF teams from both country and field offices. The RCA results showed the campaign coverage to be 88%. Among the missed children, more than 50% were not vaccinated because they were identified as sick by health workers during screening at the time of the campaign. Though the missed children were identified through administrative reports and RCA results, mop-up activities to vaccinate the missed children were not conducted immediately after the campaign. This was due to the fact that mop-up activities were not adequately planned and costed during the planning of the campaign.

Overall, Myanmar successfully implemented the JE campaign and achieved 92% coverage following the mop-up activities. The campaign was well prepared and technical supportive supervision at all levels and corrective actions ensured that all supplies, guidelines and resources reached the service delivery points and avoided disruption.

Situation analysis of MR

Although Myanmar had achieved a 98% reduction in Measles mortality between 1990 and 2010, small measles outbreaks continued to occur (except in 2015). In 2017, the number of cases reached up to 1,293 and 21 deaths were linked with the measles outbreak in 2016. Although the surveillance performance is found to be insufficient to detect any single suspected case, 100% of outbreaks have been detected, investigated and controlled in a timely manner.

By the end of 2018, according to MCV1 and MCV2 coverage and vaccine efficacy (85% for MCV1 and 95% for MCV2), there will be almost 900,000 of children (91% of live births in 2018) at risk of Measles infection. Another 23% of live births are estimated to be added to that unprotected population by the end 2019 if the coverage status remains the same. This means that by the end of 2019, 114% of total live birth will be unprotected against Measles infection. The accumulation of susceptible children especially under five years of age demonstrate the urgent need for appropriate and timely measures, resources and planning.

Therefore, Myanmar plans to conduct a nationwide MR follow-up campaign in October and November 2019. All children between 9 months to 59 months of age during the time of campaign will be vaccinated regardless of previous immunisation status by routine immunisation services or by previous MR SIA in 2015. The estimated number of children to be vaccinated during the MR campaign is 4,731,730. The MR follow-up campaign application has been recommended for approval by the IRC in July 2018 and the clarification process is currently ongoing.

Myanmar applied for Rotavirus vaccine introduction and this application is also recommended for approval (IRC, July 2018). The introduction date is likely to be 2020 depending on the global supply situation.

In September 2018 the country also applied for support for the HPV introduction.

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

Gavi HSS1 implementation and performance (2012 – June 2017)

Gavi HSS1 was implemented to improve service coverage for essential Primary Health Care (PHC) components of immunisation services and mother and child health interventions, with a strategic focus on strengthening programme coordination, improving planning and service delivery in health systems and strengthening human resource management. The Gavi HSS1 grant was channelled through WHO and UNICEF for the implementation of activities as well as for the procurement of drugs and equipment. Construction of 30 sub-centres in 12 Townships across 2 States and 7 Regions was implemented by the Myanmar Red Cross Society (MRCS). This construction component was started in 2014, construction was finished in 2017 and the sub-centers were handed over to MoHS in 2018.

Implementation of HSS1 activities was completed by the end of 2016 (following a no-cost extension for one year). However, since the procurement of some items were still in the pipeline during the last quarter of 2016 and the end-of-grant reviews were yet to be completed, Gavi had agreed to an exceptional second no-cost extension until 30 June 2017.

The agreed activities for the second no-cost extension period (Jan to June 2017) included:
1. Procurement of motorbikes
2. Procurement of micronutrients

3. Procurement of bag packs and jackets
4. Gavi HSS1 closure studies
5. Hiring of Health System Strengthening Officers (HSSOs)

In order to access hard to reach areas by Basic Health Staff or Primary Health Care services, including EPI services, 300 motorbikes (TVS NeoXR) were procured by WHO in September 2017. Asset registration was finished in December and now these motorbikes are being distributed to Township level with the support of the procurement and distribution section of the Department of Public Health.

To lessen the micronutrient deficiencies and its consequences among women and children in Myanmar, 30,000 packs of 1,000 tablets micronutrients from Medopharm India were procured and distributed to the health facilities at rural health center and sub-centre levels of all HSS1 Townships. These micronutrient tablets were a mixture of multivitamins and minerals.

8,000 bag packs and 8,000 jackets were procured for Basic Health Staff who have been working in 120 HSS1 Townships. All bag packs and jackets were distributed to the Townships up to sub-centre levels.

End review studies for Gavi HSS1

In order to review the implementation and lesson learnt from the HSS1 programme, a closure study was conducted by a group of independent Myanmar researchers assigned by Ministry level. The study captures all activities implemented by HSS1 over 5 years (2012 to 2016), conducted as a case study using secondary data analysis in a systematic way. The report highlighted that the HSS1 programme provided a good foundation to the existing health systems going toward UHC with experiences of good practices for implementers.

Another study was conducted as an evaluation approach to examine the impact of the Gavi HSS1 programme's health financing schemes, Hospital Equity Fund (HEF) and Maternal and Child Health Voucher Scheme (MCHVS), which provided financial protection to the poor and addressed inequalities in access to health care services. The study was conducted with technical support from Health Intervention and Technology Assessment Program (HITAP), Ministry of Public Health, Thailand, using a multi-prong approach, secondary data analysis and household surveys. That study highlights the importance of M&E in guiding health financing policies as it shows the impact in terms of targeting and utilisation. Immunisation services of MCHVS shows significant improvement in the utilisation of health services and it is suggested that having a holistic approach to maternal and child health care (where a bundle of services is offered to beneficiaries, with incentives for beneficiaries and providers) yields higher returns on immunisation. In terms of financial protection, the findings show that users of MCHVS were less likely to experience Catastrophic Health Expenditure (CHE) compared to non-users, while the services covered by HEF can lead to households experiencing CHE. The impact of the HEF in providing financial protection to self-reported users is not clear.

Although Township activities were completed by the end of 2016, HSSOs were continuously deployed to State and Regional level until the end of April 2017 and to Central level until the end of June 2017 to prepare their Townships' financial reports, technical reports, data collection, data processing and data analysis for the Gavi HSS1 studies.

Construction of 30 Sub-centres (Myanmar Red Cross Society)

All 30 sub-centres have already been constructed by MRCS. MRCS has provided the documents for the completion of handover after checking of completeness of these sub-centres. Please see Annex 1 for remaining reporting requirements.

HSS2 Programme 2018-2021

The HSS2 programme has not yet started as it has undergone several revisions since it was originally reviewed in 2016 as a result of the Programme Capacity Assessment, Programme Audit, CCEOP co-

investment integration, additional ceiling allocation and finally a further prioritisation of Townships (see section 4). A significant portion of the Joint Appraisal discussions were allocated to updating and operationalising the HSS2 programme.

Based on the findings and recommendation made by the Joint Appraisal mission team, the HSS2 budget has been revised to focus activities on the prioritised 69 Townships and aligning items between the CCEOP and HSS2 budgets. The below four major new activities have been included in the revised HSS2 budget:

- Development and roll-out of Social Media Strategy on demand creation for immunisation
- Development, piloting and scaling-up of school-based communication interventions on immunisation
- Development and implementation of Risk Communication Strategy
- Facilitation meeting of school teachers in identification of under vaccinated children at school entry

The revised HSS2 budget (US$61.8M) together with the updated HSS2 procurement plan have been shared with Gavi in September 2018.

The table below provides further information on the six HSS2 objectives, key activities and associated technical assistance.

HSS3 planning
To allocate the remaining approximately US$38m (+PBF, +PSC) an additional HSS proposal will be developed in 2019 through a Gavi Full Portfolio Planning process covering the period 2020-2022.

Objective 1	
Objective of the HSS grant (as per the HSS proposals or PSR)	To strengthen demand for immunisation services
Priority geographies / population groups or constraints to C&E addressed by the objective	Identified prioritised Townships (69/ 84 Townships, 44 Townships for urban immunisation strategy) Hard-to-reach including migrant populations, ethnic minorities, peri-urban Townships, internally displaced populations
% activities conducted / budget utilisation	Not applicable
Major activities implemented & Review of implementation progress including key successes & outcomes / activities not implemented or delayed / financial/ absorption	Major activities initiated/implemented prior to HSS2 start • Draft comprehensive communication strategy available to strengthen demand for immunisation • Students as immunisation champions • Tailored communication for hard-to-reach • Risk/AEFI communication and outrage management during JE campaign • Training social mobilisers in communities with limited access to healthcare services
Major activities planned for upcoming period (mention significant changes / budget reallocations and associated **needs for technical assistance**[11]	• Advocacy meeting at all levels to increase support for immunisation service delivery • Review, update and implement communication plan of action

	• Capacity building of Basic Health Staff through interpersonal communication skills training • Reprioritise Townships and refocusing of activities based on communication strategy (tailored interventions) • Scale up of activities initiated with HSS2 and other funding supports • Costing of communication strategy and rolling out of activities • Streamlining Home Based Record/ nutrition cards/ antenatal care booklets • Knowledge, Attitude and Practice survey on immunisation services
Additional TA needs	• Social Media Strategy • Development of Risk Communication Strategy and building local capacity on risk communication • Human-centered approach for social and behaviour change communication including developing tailored communication messages • Streamlining Home Based Records/ nutrition cards/ antenatal care booklets
Objective 2:	
Objective of the HSS grant (as per the HSS proposals or PSR)	To implement cold chain expansion and improvement plan
Priority geographies / population groups or constraints to C&E addressed by the objective	Nationwide
% activities conducted / budget utilisation	Not applicable
Major activities implemented & Review of implementation progress including key successes & outcomes / activities not implemented or delayed / financial absorption	Major activities initiated/implemented prior to HSS2 start • CCEOP proposal approved and operational deployment plan developed • Cold chain gap analysis and cold chain inventory updated • Immunisation supply chain manual developed, training of trainers completed and piloted • Cold chain points expansion in rural health centers through UNICEF and 3MDG funds • Continuous temperature monitoring in 4 major cold chain storage points including central store • Service outsourced for repair and maintenance

	• Cold chain key person training module developed in local language and training conducted in all Townships
Major activities planned for upcoming period (mention significant changes / budget reallocations and associated **needs for technical assistance**[11]	• Implementation of the CCEOP plan – rehabilitation and expansion plan • Acceleration of EVM Improvement Plan • Follow-up EVM assessment • Roll out of immunisation supply chain manual & development of e-LMIS in phased manner • Cold chain capacity assessment and expansion plan • Cold chain key person training/refreshers
Additional TA needs	• Pool of trainers for cold chain management at national level • Adequate cold chain technicians to support repair and maintenance of cold chain equipment • Continuation of existing cold chain/supply chain management
Objective 3:	
Objective of the HSS grant (as per the HSS proposals or PSR)	To strengthen leadership management capacity and coordination
Priority geographies / population groups or constraints to C&E addressed by the objective	Nationwide and more emphasis on prioritised Townships
% activities conducted / budget utilisation	Not applicable
Major activities implemented & Review of implementation progress including key successes & outcomes / activities not implemented or delayed / financial absorption	Major activities initiated/implemented prior to HSS2 start • Development of annual EPI work plan at all levels is ongoing • Reformed ICC with revised TOR • Development of research agenda for EPI (2018-2020)
Major activities planned for upcoming period (mention significant changes / budget reallocations and associated **needs for technical assistance**[2]	• Capacity building on supportive supervision, program management, internal EPI reviews, Mid Level Manager training, Immunisation in Practice training and data management up to Townships • Deploy finance assistance at central and State/Regional levels and capacity building on financial management to finance team of Dept of Public Health

[2] 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.

	• Procurement of vehicles at State and Region levels for supportive supervision • Sub-national EPI annual workplan at State and Township levels
Additional TA needs	• Pool of trainers at national level • TA to support workplan development at State and Township level • Strengthening NITAG and ICC • Program Performance Monitoring Unit – also oversee data quality improvement plan • Consultancy support for the nationwide EPI coverage survey
Objective 4:	
Objective of the HSS grant (as per the HSS proposals or PSR)	To improve equitable access to service delivery
Priority geographies / population groups or constraints to C&E addressed by the objective	Prioritised Townships
% activities conducted / budget utilisation	Not applicable
Major activities implemented & Review of implementation progress including key successes & outcomes / activities not implemented or delayed / financial absorption	Major activities initiated/implemented prior to HSS2 start • Prioritisation of Township based on findings from data analysis • Piloted QGIS based micro-planning in one Township • CRASH immunisation • Immunisation with volunteers from Ethnic Health Organizations
Major activities planned for upcoming period (mention significant changes / budget reallocations and associated needs for technical assistance	• Updated costed micro-planning at State / Regions and Townships • QGIS based micro-planning • Private sector involvement • Capacity building on AEFI surveillance at all levels and support for case investigation and causality assessment • Hiring of additional midwives in urban and peri-urban areas • Expansion of fixed posts including hospital-based immunisation • Community mobilisation and support to social mobilisation corner at Rural Health Centers • Development and expansion of Management Information System (eLMIS) to all levels • Implementation of Data Quality Improvement Plan
Additional TA needs	• Pool of trainers at national level including for immunisation monitoring and technical support

	• Assisted micro-plans and implementation support
Objective 5:	
Objective of the HSS grant (as per the HSS proposals or PSR)	To strengthen EPI data management, monitoring and evaluation system
Priority geographies / population groups or constraints to C&E addressed by the objective	Nationwide
% activities conducted / budget utilisation	Not applicable
Major activities implemented & Review of implementation progress including key successes & outcomes / activities not implemented or delayed / financial absorption	Major activities initiated / implemented prior to HSS2 start • Revised VPD surveillance manual available • WHO launch of Information for Action tool • New AEFI committee launched
Major activities planned for upcoming period(mention significant changes / budget reallocations and associated needs for technical assistance	• Capacity building on VPD surveillance and response • EPI coverage survey • Improve measles surveillance • Operational research • Development and expansion of Management Information System (eLMIS) to improve the stock management of supply chain system for EPI • Implementation of Data Improvement Plan (data availability, quality and use recommendations)
Additional TA needs	• Periodic independent monitoring of immunisation and surveillance activities • External review of EPI at State level along with all stakeholders to enhance accountability using independent experts • Implementation of Data Improvement Plan
Objective 6:	
Objective of the HSS grant (as per the HSS proposals or PSR)	Program management
Priority geographies / population groups or constraints to C&E addressed by the objective	MOHS (cEPI), UNICEF, WHO, Gavi
% activities conducted / budget utilisation	Not applicable
Major activities implemented & Review of implementation progress including key successes & outcomes / activities not implemented or delayed / financial absorption	Major activities initiated/implemented prior to HSS2 start • Progress on fulfilling Grant Management Requirements, including Grant Agreements, Financial Management Assurance Plans,

	Program Capacity Improvement Plan, budget finalisation.
Major activities planned for upcoming period (mention significant changes / budget reallocations and associated needs for technical assistance	• Finalisation of Grant Agreements for HSS2 (tripartite with MOHS/UNICEF/Gavi and bilateral with WHO/Gavi) • Ongoing Grant Management Requirements, including: - Programme Management Capacity Building (including Financial Management Improvement Plan and trainings) - Coordinating Unit (CU) - Programme Performance Monitoring Unit (PPMU)
Additional TA needs	• Explore Gavi Leadership, Management and Coordination (LMC) funding • Continue Financial Management TA (Gavi consultant)

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

Improving the availability of cold chain infrastructure and supply chain management systems is an aim of the cMYP. Specifically, the objective is to strengthen immunisation supply chain, vaccine management and build resilient cold chain systems at all levels.

a) Scaling up cold chain in hard to reach areas and also in urban areas including hospitals will contribute to increasing the number of immunisation sessions and hence contribute in decreasing dropout rates.
b) Safety of vaccines guaranteed, as vaccine will be kept in refrigerators compared to current practices where vaccines are kept in passive equipment (vaccine carriers and cold boxes) for more than 3-5 days.

Improved access to cold chain infrastructure will effectively expand fixed sites able to provide immunisation services and contribute to higher coverage rates. The selected Rural Health Centers or Sub-centers in the prioritised Townships will be equipped with cold chain equipment, especially solar in areas where Basic Health Staff need to travel a long distances (more than two days) to collect vaccines. This will ensure that vaccines are available whenever needed especially during the rainy season where access is always a challenge.

Shifting gradually from vaccinating children and pregnant women in outreach services to offering routine immunisation in fixed sites in an integrated programmatic package with MCH and other essential health interventions. This will sustain and increased access to immunisation and will also result in frequent immunisation opportunities. Increased coverage is expected by addressing specific populations in different settings such as urban/peri-urban, mobile/migrant workers and physically and geographically hard-to-reach areas. The provision of EPI services through fixed posts at hospitals, MCH clinics and urban health centres and through outreach services will reach the unreached children.

Progress to date on the CCEOP
A workshop on the cold chain expansion plan was conducted in March 2017 and the cold chain focal points from States and Regions were in attendance. The criteria for cold chain expansion was agreed and the cold chain expansion points were proposed by the focal persons.

Based on the outputs of the workshop, the CCEOP proposal was prepared and submitted to Gavi. The CCEOP proposal was approved by Gavi and the decision letter was issued on 16 November 2017.

The training on health facility assessment and deviation protocol was conducted in January 2018.

In order to oversee and guide CCEOP implementation, the Project Management team (PMT) was formed in February 2018.

The CCEOP deployment plan submitted on 28 February 2018.

The TOR for service purchase has been finalised and the tender issued. The current stage is technical evaluation. Equipment is expected to be delivered in country by the last quarter of 2018.

Alignment of items and unit costs between the CCEOP and HSS2 budgets has been addressed and the revised HSS procurement plan has been shared with Gavi in September 2018.

Actions needed

- To submit the renewal with the amount of US$2,592,154 as per decision letter for 2019
- To ensure alignment with HSS2 geographically, in current discussions, in field visit findings and expansion to urban and high risk areas
- To ensure alignment of HSS2 budget and CCEOP by creating categories to reflect the funding sources and segregation between HSS2 and CCEOP
- CCEOP indicators in the Grant Performance Framework to be updated
- Equipping health facilities outside CCEOP through other sources such as HSS2 (as the CCEOP is focused on replacement of non-functional equipment and expansion to new sites in hard-to-reach areas)
- There is a need for additional cold chain equipment quantities in line with decisions on cold chain expansion (all Rural Health Centers in hard-to-reach areas) as well as to the urban centers as well as Rural Health Centers with a number of sub-centers and communities which require more immunisation sessions.

Townships	**# Health Facilities**	**# Health Facilities with cold chain (current + CCEOP)**	**# Health Facilities planned for cold chain expansion under HSS**	**Gap**
84 prioritised Townships	544	255	289	0
246 remaining Townships	1,727	624	253	850

It is concluded that 850 health facilities will be in need of cold chain equipment to implement the EPI strategy on the expansion of immunisation services and vaccine availability.

Therefore CCEOP should be flexible next year to accommodate the request for additional cold chain equipment for expansion in the proposed areas which are part of the 542 equipment under HSS2 and 850 cold chain equipment unfunded. (Total 1,392).

4.4. Financial management performance

Overview of Gavi committed/approved financing to Myanmar

Grant	*Period*	*Committed US$*	*Approved US$*	*Disbursed US$*	*Funding Recipient*
IPV	2015 – 2018	5,445,620	5,445,620	3,615,960	MOHS
JE C	2017	6,546,000	6,546,000	7,155,505	MOHS
JE R	2018	545,000	545,000	561,350	MOHS
MR FC	Application	-	-	-	
PCV	2016 – 2020	61,430,591	31,419,591	27,612,151	MOHS
Penta	2012 – 2020	40,511,907	33,507,407	29,979,409	MOHS
Rota	Application	-	-	-	
Devices		2,083,978	2,083,978	2,083,978	MOHS
Total Vaccine Support		**116,563,096**	**79,547,596**	**71,008,353**	
HSS1	2011-2017	32,770,639	32,770,639	7,916,500	UNICEF
				20,832,711	WHO
				1,023,813	MRCS
IPV VIG	2016 - 2018	723,500	723,500	325,727	UNICEF
				397,773	WHO
MR OPS	2015 - 2017	11,357,500	11,357,500	4,844,946	UNICEF
				6,512,554	WHO
MR VIG	2014-2016	1,222,000	1,222,000	1,222,000	WHO
M VIG	2012	1,209,000	1,209,000	1,209,000	WHO
PCV VIG	2016	1,211,000	1,211,000	607,638	UNICEF
				603,362	WHO
JE OPs	2017	9,125,500	9,125,500	4,801,827	UNICEF
				4,323,673	WHO
JE VIG	2017	852,000	852,000	430,680	UNICEF
				421,320	WHO
CCEOP	2018-2019	3,290,034	1,993,957	-	UNICEF
HSS2	2018-2020	52,000,000	20,000,000	-	UNICEF
				-	WHO
				-	CSO
Total Cash Support		**113,761,173**	**80,465,096**		

Financial absorption and utilisation rates (open grants)

Grant	Budget US$	Expend. US$	Absorp. Rate (%)	Comments
HSS1 (UNICEF)	7,916,500	7,919,233.75	100%	To be closed; no reimbursement
HSS1 (WHO)	20,832,711	20,832,711	100%	To be closed; no reimbursement
HSS1 (MRCS)	1,3137,570	tbc	tbc	Balance US$1,270 at 31 Dec 2017 to be used for closure activities. US$113,757 undisbursed at Gavi. Follow-up on Programme Audit Recommendations.
MR VIG (WHO)	1,222,000	849,995	70%	Bal. US$372,005 to go to HSS2
PCV VIG (WHO)	603,362	443,866	74%	Bal. US$159,496 to go to HSS2
PCV VIG (UNICEF)	607,638	605,407.69	99.6%	To be closed; no reimbursement
JE VIG (UNICEF)	430,680	430,680	100%	Commitments of $36,638
JE VIG (WHO)	421,320	421,320	100%	To be closed; no reimbursement
JE OPs (UNICEF)	4,801,827	4,801,827	100%	Commitments of $34,679
JE OPs (WHO)	4,323,673	4,274,566 (unofficial)	99%	Bal. US$49,107 to HSS2

All other historical grants to Myanmar have been closed.

Use of balances

WHO balances of **US$585,208** will be rolled into HSS2 as follows:

- MR VIG (WHO): US$372,005 balance
- PCV VIG (WHO): US$159,496 balance
- JE OPs (WHO): US$53,707

Compliance with financial reporting and audit requirements

Please refer to Annex 1. The remaining reporting requirements at present include:

HSS1	MRCS	Certificate of completion of project from the certification committee for the construction under MOHS
JE VIG/OPs	WHO	2017 Annual Certified Financial Report Final Certified Financial Report
JE	MOHS	SIA Technical Report (due 3 months after end of campaign)
		Post Campaign Coverage Survey

Issues arising from review engagements and the implementation status of any recommendations

Gavi commissioned a **Programme Capacity Assessment** (PCA) of the MoHS' financial management systems in November 2016. One of the key PCA recommendations was to identify alternative funding modalities to directly manage Gavi funds while the MoHS financial management systems are strengthened.

In addition, Gavi's **Programme Audit** Unit conducted an audit of Gavi-provided funding to the Government of Myanmar in September 2017 covering the various Gavi-supported programmes and activities implemented during 1 January 2014 to 31 December 2016 under the Expanded Programme on Immunisation (EPI) Health System Strengthening (HSS) 1 Programme and the construction of Health Centres by the Myanmar Red Cross Society. The audit covered the activities implemented by the MoHS with the cash funding all being channelled through WHO and UNICEF.

The Gavi Programme Audit assessed the areas of 1) budgeting and financial management, 2) expenditure and disbursements, 3) procurement and asset management, 4) vaccine supply management and 5) civil works procurement and contract management. Of the five programme areas, the Programme Audit gave an unsatisfactory rating for budgeting and financial management and civil works procurement and contract management. However, the overall Programme Audit rating was partially satisfactory.

To address these issues, 16 audit recommendations were made by the Programme Audit Unit, of which 70% were ranked critical priorities. The recommendations have individual deadlines to be implement throughout 2018 and 2019. The findings and recommendations from the Gavi PCA and Programme Audit are considered useful for the management of Gavi-funded activities, and have resulted in an agreed set of Grant Management Requirements.

The **Grant Management Requirements** (GMRs), issued by Gavi on 16 January 2018, accepted by MoHS on 13 February 2018, and revised with new timelines in April 2018, specify that UNICEF Myanmar Country Office will be responsible for the overall management of the HSS2 grant as a fund manager, including for the portion of the grant that will be utilised by the Government of Myanmar and Civil Society Organisation(s), except for the funds disbursed to WHO and UNICEF Supply Division. As part of a tripartite agreement, UNICEF prepared an **Implementation Strategy Note** (ISN) to provide overall guidance and reference for UNICEF, Gavi and MoHS in the effective management of the HSS2 grant including fund disbursement, implementation, monitoring and reporting as well as UNICEF's role in supporting MoHS to build its capacity and address issues highlighted in the PCA, GMRs and Gavi Programme Audit. As part of the HSS2 grant agreement with Gavi, WHO will include a **Direct Financial Cooperation Assurance Plan** that describes how it will approve and monitor the use of funds by MOHS as a sub-recipient through the Direct Financial Cooperation modality.

In order to ensure the timely disbursement of funds through the system, MoHS and UNICEF have agreed to develop Standard Operating Procedures (SOPs) that will clearly set out the funds flow process from UNICEF through MoHS and to the sub-national level. The SOP will include benchmarks on expected time for actions to be taken by both MoHS and UNICEF and will also form the basis for the subsequent Harmonised Approach to Cash Transfers (HACT) assurance plan. The SOP will be developed simultaneously with the Programme Capacity Improvement Plan (PCIP).

To address an important GMR, Gavi has also contracted an international **Public Financial Management** (PFM) specialist to work with MoHS, UNICEF and WHO in the development of Programme Capacity Improvement Plan (PCIP) which will include a Financial Management Improvement Plan (FMIP) to set out a path for the MoHS to directly manage Gavi funds in the future. The contracted PFM specialist, Mr Joseph Martin, visited Myanmar twice over the summer 2018 and met with key officials from MoHS, MoPFand the Office of the Auditor General as well as UNICEF, WHO, DFID, World Bank, UNOPS, and other development partners to ensure a harmonised approach. As per the revised timelines of the GMRs, the PCIP and FMIP were expected to be developed by August 2018 but are still under development.

Financial Management Systems

As per current practise in MoHS, the National Programme submits the funding proposal/request to the funding agencies (UNICEF, WHO) upon receiving of approval from MoHS. Then, based on the funding request received by the programme, UNICEF and WHO make cash transfers through the bank account of Department of Public Health at Nay Pyi Taw, Hence, using the existing government system, Central

Expanded Programme on Immunisation, DoPH make cash transfers through local government bank (i.e Myanmar Economic Bank) to Sub-National implementation level. Upon completion of the activity, the respective implementation level submits the financial report along with liquidation document to Central Expanded programme on Immunisation at Nay Pyi Taw, then the programme review the reports, prepare consolidated financial report and forward to the respective funding agency for liquidation of cash advances.

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

-

Not applicable. Myanmar is in the Preparatory Transition Phase.

4.6. Technical Assistance (TA)

Partner Name	Milestone Name	Status
WHO	Special strategy developed and hard to reach areas identified for intervention	**Urban immunisation** WHO Country Office EPI had provided technical support for the development of concept note on urban immunisation strategy which is intended to strengthen routine immunisation, by reaching Every Community (REC) and creating the service availability of immunisation to achieve targeted immunisation coverage and prevent VPD outbreak in urban Townships. **Integrated Hospital Immunisation services were initiated at 98 major hospitals;** WHO provided financial support for the launch of hospital based integrated immunisation services that were attended by high level officials of MoHS and also supported travel cost for supervisors from Central/State/Regional levels as well as training for Basic Health Staff.
WHO	Develop data quality improvement plan	**Data Improvement Plan Workshop:** WHO Country Office provided technical support to conduct a workshop on data improvement plan for EPI activities as part of the recommendations of DQA as well as triangular cooperation and coordination for development of eLMIS in the country. A draft plan has been developed and endorsed by NITAG on 23 May 2018.
WHO	Guidelines and strategies for JE campaign finalized, diseases burden data on HPV obtained.	WHO Country Office provided technical support for the implementation of the JE campaign by engaging two national consultants in addition to the WHO EPI team. The team had developed guidelines and materials and facilitated Training of Trainers on the developed training materials for Basic Health Staff and volunteers.
WHO	Develop annual EPI work plan reflecting activities supported by HSS2 proposal	Data Quality Assessment (DQA) with technical assistance from WHO took place from 1-10 August 2017 with participation by central and regional staff at the Expanded Programme on Immunisation (EPI) and the Health Management Information System (HMIS) groups, WHO, UNICEF and Gavi Alliance. EPI Coverage Survey: WHO consultant developed concept note, including the main elements of the survey design, an estimated survey budget and timeline. The survey will be tentatively conducted during Q1 2019.

Partner Name	Milestone Name	Status
WHO	Activities implemented as per improvement plan	In order to strengthen the availability, quality and use of geospatial data to improve immunisation coverage and equity, a technical working group for EPI (DoPH, UNICEF, WHO) was organized during March 2018. The capacity building exercises were designed around the application of GIS for planning and monitoring for equitable provision of immunisation services.
WHO	JE campaign implemented, HPV application prepared	**The nationwide JE campaign** was implemented successfully reaching 12,543,661 children out of the targeted 13,566,864, representing 92.5% of the total targeted children. The importance of **cervical cancer prevention** in Myanmar was discussed during the regional meeting on Prevention of Cervical Cancer through HPV, held in New Delhi from 4-7 June 2018. Following this meeting, a decision was made to submit a Gavi application for HPV support for Myanmar in the September 2018 application window. Currently, cEPI is in the process of developing a proposal for Gavi with technical support from WHO and UNICEF. Simultaneously, a stakeholder coordination meeting on Human Papillomavirus is proposed to be held during the 3rd week of August, 2018 in Myanmar to discuss on the findings and to finalize the Gavi HPV application.
WHO	Activities planned, implemented and monitored to strengthen overall health system for better immunisation outcomes	**- Financial Management Training:** WHO financial staff facilitated the Financial Management Training in respective Regional/State Health Departments of Yangon, Bago, Pathein and Nay Pyi Taw. Main areas of discussion were logistics management, procedure of financial management, orientation on financial recording and reporting including 1) cash book management 2) statement of expenditure, uses of payments forms and proper documentation. **- Mid-term evaluation of cEPI** was conducted. **- Fellowship program of supply chain management** took place from 18-29 September 2017. Myanmar delegates gained the knowledge of microplanning and vaccine estimation, vaccine indenting, vaccine arrival, vaccine storage and distribution, vaccine utilization and wastage, cold chain system and management information system. There were a lot of field visits for the delegates in this fellowship and they gathered experience on supply chain management through international exposure. - **Proposal Preparation for MR SIA 2019;** WHO and UNICEF supported the proposal development for a nationwide MR SIA in 2019. WHO mainly provided technical assistance for background rationale, epidemiological analysis with objective setting and strategic formulations whilst UNICEF mainly supported the development of operational needs. **- Proposal Preparation for Rota Vaccine Introduction;** With the recommendation from National Technical Advisory Meeting, Rotavirus vaccine is planned to be introduced into the routine immunisation schedule in Myanmar in 2020. WHO together with immunisation partners provided technical support to cEPI for the Rotavirus Vaccine Proposal to Gavi which was submitted in May 2018.

Partner Name	Milestone Name	Status
UNICEF	C4D KAP tools developed; Design research and community level solutions concept note developed	KAP survey on immunisation is enlisted in the Expanded Programme on Immunisation Research Agenda Workshop organised by MoHS in the third week of May 2018. The terms of reference will be revised and finalised based on the recommendations from the workshop. This milestone will be carried out until Nov 2018.
UNICEF	Implementation plan and dashboard developed.	The implementation plan is finalised. The tools and dashboard are reviewed and finalised as well. The pilot project is being initiated in three Townships, two sub-depots and the Central Cold Room. One national consultant is recruited and working closely with cEPI to facilitate the successful implementation as well as capacity building of central and sub-depot level immunisation supply chain focal persons.
UNICEF	a) C4D KAP assessment for immunisation implementation initiated. b) Facilitation workshop for design research and community level solutions conducted	There will be contextualised communication plans of action for each community which are chronically hard-to-reach and with low coverage of routine immunisation. Application of design research methodology in identification of barriers at community level will inform effective contextualised communication plans. As KAP will take some times, it is principally agreed to pilot in one or two communities by using design search before findings from KAP are available. This milestone will be carried out until Nov 2018.
UNICEF	Training of trainers for dashboards and data use manual done.	Training of trainers on the supply chain data use manual and dashboard are completed. The TOT training was given to supply chain focal persons from the National Immunisation Programme, State and Regional EPI focal points, and Cold Chain Key Persons. The national consultant for facilitating of the pilot project is on-board. The pilot will be conducted for four months in Q3 2018 which will be followed by necessary update of the tools in Q4 2018 and the national roll out in early 2019.
UNICEF	Specific functional requirements approved by Ministry of Health and roll-out plan for eLMIS initiated.	The implementation plan has been reviewed and discussed at national level to adjust the work plan activities and timeline aligning with the fund availability from HSS2. As preparations progress for future integration into overall eLMIS system, as well as to keep the common health facilities name and unit id to harmonise across National Health Programmes, an agreement was reached with health facility registry team of the Department of Public Health to apply health facility master list in the eLMIS system. The health facility master list will be geo-enabled through the ongoing project called "use of GIS in EPI micro planning and monitoring".

Partner Name	Milestone Name	Status
UNICEF	At least 60% of the activities in 2015 EVM Improvement plan are initiated	There is a good progress in the implementation of key activities stipulated in the EVM improvement plan. As most of the activities in the improvement plan are to be supported through the HSS2 programme, most of these activities will be implemented in Q3 2018. The progress made is mainly through the use of other financial resources including TCA funds. The progress reported in November 2017 were maintained through 1) cold chain expansion and replacement; 2) cold chain repair, installation and maintenance through the use of private companies; 3) support efforts to improve on immunisation supply chain data use for action and strategies to migrate from manual to electronic systems for EPI stock management (especially vaccines and injection materials stock management), 4) use of electronic stock management tool (Viva), 5) Capacity development of EPI staff on cold chain and vaccine management through international and national trainings and coaching. Full implementation is dependent on HSS2 funding.
UNICEF	a) Cold chain capacity gap analysis and expansion, replacement and rehabilitation plan finalised b) Policy guidelines on repair and disposal of old cold chain equipment developed including guidelines for establishing cold chain points in health facilities	The inventory was updated in Q1 2018 by incorporating the cold chain equipment procured and installed in the country for the JE campaign as well as other projects for expansion of cold chain points for better equity. The cold chain gap capacity assessment and gap analysis was updated using the inventory developed in 2017 which informed the proposals for MR campaign (2019) and Rota introduction (2020). The private companies' involvement will be expanded beyond repair and maintenance of small cold chain equipment (fridges) to take care of Walk-in-Coolers and Walk-in-Freezers for the Central Cold Rooms and major sub-depots including installation, repair and maintenance services. To inform the development of policy guidelines on repair and disposal of old cold chain equipment, the lower level information will be collected through outsourced companies by combining with the coding system for cold chain equipment and use of inventory app to take photos and detailed information from the cold chain facilities. This milestone will be carried over to Nov 2018.
UNICEF	VII subscription documentation is signed (MoU and LoG) and operational	The Vaccine Independent Initiative (VII) Plan was submitted to UNICEF Supply Division by MoHS. UNICEF Supply Division has shared the MoU document with MoHS. The administrative processes for signing the MoU is ongoing and it is expected that the MOU will be signed by Q3 2018. The milestone will be carried over to November 2018 as it is awaiting signature from Minister of Health and Sports.

5. UPDATE OF FINDINGS FROM PREVIOUS JOINT APPRAISAL

Prioritised actions from previous Joint Appraisal	Current status
1. Follow-up on the DQ Assessment and improvement plan to provide reliable data on the coverage and equity improvements and	DQ Assessment and improvement plan workshop were conducted in August 2017 and April 2018. DQ-IP is fully developed and to be implemented.

challenges of the EPI programme. Plan and implement CES in early 2018.	
2. Comment and finalise Programme Capacity Assessment report, agree on Grant Management Requirements, negotiate and agree grant agreements with partners. Revise HSS2 budget which requires an update since the March 2016 IRC review.	PCA report/GMRs agreed upon in February 2018; GMRs timelines updated in April 2018. HSS2 budget has been revised according to coverage equity focus of objectives and activities, including increased Gavi HSS ceiling and additional Financial Management overheads ($61M)
3. With the conclusion of the necessary agreements for HSS2 the implementation of the EVM-IP should be accelerated as much as possible. Preparations are already ongoing and should proceed to ensure a swift start of this HSS2 component which is mainly supported by UNICEF.	The start of HSS2 implementation is contingent on the conclusion of HSS2 grant agreements. However, some EVM-IP and CCEOP activities have been progressing and implemented in parallel.
4. Continue to develop a Polio Transition Plan based on WHO assessment, operationalise and mobilise funding for the plan (surveillance network).	Polio Transition Plan has been finalised; waiting for endorsement of MoHS. Options to finance a strengthened surveillance network need to be explored.
5. Endorse VII and increase transparency for budgeting for cEPI. Follow up on relevant EPI review recommendations.	Government of Myanmar/MoHS made a budget provision to finance traditional vaccines and co-finance Gavi vaccines with VII support.
6. Submit outstanding financial and external audit reports as soon as possible. Support and conclude Gavi Programme Audit.	All financial and audit reports have been submitted. Gavi Programme Audit finalized.
Additional significant IRC / HLRP recommendations (if applicable)	**Current status**
N/A	

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

Overview of key activities planned for the next year:

The HSS2 grant agreement is expected to be completed in the last quarter of 2018. The preparatory work and initial implementation of HSS2 has already started with resources from partners and MoHS.

Once funds are disbursed to the country HSS2 activities will be executed as soon as possible by building upon the preparations initiated in 2017 and 2018. One of the important cornerstones for HSS2 implementation will be the introduction of financial management activities as part of the implementation of the Programme Capacity Improvement Plan.

An MR campaign targeting 4,731,730 children between 9 months and 59 months will be implemented in the last quarter of 2019.

The first year of CCEOP implementation will continue throughout 2018. Planning for the second year will start from the last quarter of 2018. The second year planning processes will be guided by ongoing work of cold chain inventory update, analysis exercise and monitoring of CCEOP implementation.

Myanmar will switch from PCV10 to PCV13 in the last quarter of 2018. The PCV13 supplies are already in-country, and the existing stock will be utilised first before the full switch.

Key finding / Action 1	**With recent coverage and equity improvements, cEPI should focus activities on identified prioritised Townships, with special attention to the number of unimmunised children**
Current response	1. Prioritisation exercises were repeated by reflecting the latest immunisation performance and VPD information. 84 Townships were selected and 69 Townships were prioritised. 2. Assisted micro-planning exercises are planned in Q3 and 4 of 2018.
Agreed country actions	1. Assisted micro-planning, filling HR gaps, annual work plans at State/Region and Township levels. 2. Updated costing and financing of cEPI based on REC strategy and QGIS micro-planning for the prioritised Townships.
Expected outputs / results	1. Bottom up workplan developed and the Township work plans aligned with HSS2 activities. 2. The costed plans are available including prioritised activities for reaching the unreached areas.
Associated timeline	Q4 2018
Required resources / support	
Key finding / Action 2	**Implementation of the Data Quality Improvement Plan and filling remaining budget gaps**
Current response	Ongoing implementation of the Data Quality Improvement Plan: 1. improved availability of reporting forms and vaccination cards 2. involvement of more partners in EPI evaluation or mid-term review 3. direction to include all communities in EPI target setting
Agreed country actions	To accelerate the Data Quality Improvement Plan implementation (reference also made to report)
Expected outputs / results	1. EPI and HMIS aligned (ongoing process with further scope to align timelines and data flows and to clarify roles and responsibilities for data entry, review, and access to information) 2. EPI workplans available in all Townships 3. All EPI communities included in target setting 4. Immunisation cards and EPI report forms are available throughout the year 5. Immunisation supply chain training rolled out nationally 6. EPI review meeting conducted in all Townships and States/Regions
Associated timeline	Q4 2018 and 2019
Required resources / support	Technical and financial assistance from partners
Key finding / Action 3	**Update HSS2 budget to finance EVM Improvement Plan, reconcile with CCEOP and include national cold chain criteria**
Current response	In July-August the HSS2 budget revision process was ongoing
Agreed country actions	cEPI and partners (WHO and UNICEF) agreed to work together to finalize the HSS2 budget as soon as possible
Expected outputs / results	HSS2 budget updated to ensure it is aligned and reconciles with CCEOP and EVM Improvement Plan
Associated timeline	Completed in September 2018
Required resources / support	
Key finding / Action 4	**Prioritise supportive supervision at State/Region and Township levels and consider TA needs**
Current response	As part of the Township microplanning and workplan exercises, the supervision plan will be planned and costed

Agreed country actions	The supervisory plan will be developed and the integrated supervisory checklist will be used by supervisors
Expected outputs / results	Costed Township workplan, including supervision plan, in place and supervision reports and analysis available for use in improving planning
Associated timeline	Q4 2018
Required resources / support	Technical and financial assistance from partners
Key finding / Action 5	**Update HSS2 budget to operationalise strategies and approaches of the Communication Plan of Action**
Current response	The Communication Plan of Action has been revised and costed
Agreed country actions	The costed Communication Plan of Action should be well aligned with HSS2
Expected outputs / results	The costed Communication Plan of Action with budget available for operationalisation such as risk communication training and workshop, etc.
Associated timeline	Q4 2018
Required resources / support	Technical and financial assistance from partners

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

An ICC meeting was held on 2 July 2018. H.E. Minister of Health and Sports chaired the meeting and observed the findings of the Joint Appraisal, including updates on the HSS2 Grant Management Requirements.

H.E. Minister of Health and Sports commented and gave direction on the data quality and programme performance. The data analysis, triangulation of admin data and WUENIC data, coverage and outbreak cases. He also emphasized to look into the VPD cases and prioritised Townships so that the programme effectiveness will be monitored and improved continuously. H.E. Minister of Health and Sports also explained that there are efforts by MoHS to improve the financial management, including recently appointing 400 financial assistants in all 330 Townships.

ICC members representing 3MDG Fund and the Work Bank had a discussion to clarify how HSS2 supports the health system, including budgeting of outreach services. Regarding the issue with data quality of denominators, the World Bank explained its ongoing work with CSO office on denominator analysis. An advisor from PATH discussed the importance of post campaign coverage surveys which was not able to be implemented in the previous campaign.

The Deputy Director General of Administration and Finance presented the initiatives of the GIS project on EPI microplanning and monitoring piloted in one of the Townships as well as the plan for extension of the roll-out in Yangon.

Dr. Sudhir from WHO SEARO commented on the MR coverage and suggested to improve the surveillance performance as well as closely monitor MCV2 coverage which would be beneficial to the national programme.

The UNICEF Country Representative discussed the status of immunisation services in border Townships of Myanmar, such as Townships bordering China and Thailand in Shan, Kachin and Kayin since there are cross border movements and it is challenging to reach all children by the national immunisation programme.

ICC members clarified the presentation on findings of the JA and endorsed the recommendations of the JA 2018. The ICC meeting minutes have been provided.

Additional information on reporting compliance is provided in **Annex 1**.

The participant list is provided in **Annex 2**.

Additional information on the work of 3MDG Fund related to immunisation is provided in **Annex 3**.

8. ANNEXES

Annex 1: Compliance with Gavi reporting requirements

		Yes	No	Not applicable
Grant Performance Framework (GPF) * reporting against all due indicators		✓		
Financial Reports *				
Periodic financial reports				N/A
Annual financial statements	HSS 1 – MOHS	✓		
	HSS 1 – UNICEF	✓		
	HSS 1 – WHO	✓		
	HSS 1 – MRCS	✓		
	IPV VIG – UNICEF	✓		
	IPV VIG – WHO	✓		
	JE VIG – UNICEF	✓		
	JE VIG – WHO	✓		
	JE OPs – UNICEF	✓		
	JE OPs – WHO		x	
	MR OPs – UNICEF	✓		
	MR OPs – WHO	✓		
	MR VIG – UNICEF	✓		
	MR VIG – WHO	✓		
	PCV VIG – UNICEF	✓		
	PCV VIG – WHO	✓		
Annual financial audit reports	VIGs and OPs cash grants through UNICEF/WHO			N/A
	HSS 1 – MOHS	✓		
	HSS 1 – UNICEF			N/A
	HSS 2 – WHO			N/A
	HSS 2 – MRCS	Received; under Gavi review		
End of year stock level report (which is normally provided by 15 May as part of the vaccine renewal request) *		✓		
Campaign reports *				
Supplementary Immunisation Activity technical report (JE)			x	
Campaign coverage survey report (JE)			x	
Immunisation financing and expenditure information		Partial		
Data quality and survey reporting				
Annual data quality desk review		✓		
Data improvement plan (DIP)		✓		

Joint Appraisal (full JA)

	Yes	No	Not applicable
Progress report on data improvement plan implementation	✓		
In-depth data assessment (conducted in the last five years)	✓		
Nationally representative coverage survey (conducted in the last five years)	✓		
Annual progress update on the Effective Vaccine Management (EVM) improvement plan	✓		
CCEOP: updated CCE inventory			
Post Introduction Evaluation (PIE)			N/A
Measles & rubella situation analysis and 5 year plan	✓		
Operational plan for the immunisation programme			
HSS end of grant evaluation report	✓		
HPV specific reports			N/A
Reporting by partners on TCA and PEF functions	✓		

Annex 2: Joint Appraisal 2018 Participants

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For ICC participants, please see ICC minutes/endorsement.

Annex 3: 3MDG work in immunisation in Myanmar

Strengthening the cold chain

The coverage and effectiveness of immunization depends entirely on a well-functioning and reliable cold chain network at all levels. In Myanmar, storage needs have increased due to introduction of new vaccines and scheduled campaigns. Some older systems are in need of intensive repair or replacement, especially in high-risk and hard-to-reach areas.

UNICEF, support by 3MDG, has been working with the Ministry of Health and Sports to strengthen cold chain. This has been done through the implementation of effective vaccine management improvement plan and cold chain expansion plan. This includes regular nationwide cold chain inventory updates and capacity gap analysis. Key equipment was procured, distributed and installed. Health workers received training and support to improve their skills in cold chain, effective vaccine management and storage of lifesaving maternal and child health commodities.

Key achievements:

- 88% (290 out of 330) Townships have functional cold chain equipment and adequate storage space
- 84% of sub-depots have adequate storage capacity
- 720 staff have been trained as Cold Chain Key Personnel (CCKP) at Township and Health Centre level in Effective Vaccine management including cold chain preventive maintenance and repair.
- Cold chain inventory for all equipment has been updated in preparation for operational deployment plan for additional cold chain equipment supported through the Gavi Cold Chain Equipment Optimization Platform (CCEOP) proposal
- Continued deployment of cold chain companies to support equipment repair, maintenance and installations as well on-job training, coaching and mentoring of Cold Chain Key Persons (CCKPs).

Immunization in hard-to-reach and conflict-affected areas

In areas where communities are out-of-reach of government services, health outcomes can suffer. Ethnic health organizations and local authorities have been supported by 3MDG to provide basic services. This has included immunization activities since 2013, with a focus on Penta 3 and measles vaccines. Improved co-ordination and collaboration between the Ministry of Health and Sports, ethnic health organizations, local authorities and 3MDG partners has led to better trained staff and higher quality and more reliable services.

Immunization activities are included as part of 3MDG's maternal, newborn and child health component. Immunization activities are predominately delivered by midwives, often through outreach trips. In hard-to-reach and conflict areas, often midwives have to travel long distances to reach the communities where they will deliver services. In addition, the 3MDG IPs constantly assist Township Health Department (THD) in planning, analysis and review of outreach trips which are critical to the accessibility and utilization of EPI services by the community.

Since the start of the Fund to the end of 2017, 3MDG has supported the immunization of nearly 320,000 children with Penta 3, which protects against common childhood diseases like whooping cough and tetanus. Over 312,000 children have been immunized against measles in 3MDG-supported Townships. There has been remarkable progress in Kayah and Chin States for coverage of the Essential Programme of Immunization (EPI), especially Penta 3. Coverage has increased from 94% in Kayah State in 2015 to 98% in 2017. In Chin State, the coverage rose from 87% in 2015 to 95% in 2017.

These results are only possible with the collaborative work of many partners, led by the Ministry of Health and Sports. The Ministry, GAVI and UNICEF take on the tasks of task of vaccine procurement and transport to the sub-depot. The 3MDG IPs assists Township Health Department in the process of planning, operation and monitoring of Township's micro-plan. On top of that, the access to immunization in Wa and Special Region 4 were limited before 3MDG support was provided. However, it is observed that total 8,405 children were vaccinated with penta 3 along the project period (2015-2017). This is mainly due to persistent awareness raising by EHO volunteers and local health authority. Technical support on national immunization protocols

and development of micro plan were provided by MOHS. Moreover, strong and continuous collaboration between State and Township Health Departments and Local Health Authorities enhanced the service delivery, vaccine supply and logistics, advocacy and communication of Wa and Special Region 4.

The 3MDG has also provided strong support in training of health staff on vaccine preventable diseases and surveillance, collaborative support to Ministry of Health and Sports in mass immunization campaign (e.g. MR campaign) through our implementing partners, and reaching the inaccessible areas (especially non-government control areas) through partnership with ethnic health organizations. Find more on that below.

Japanese Encephalitis Campaign in 2017

In 2017, 3MDG supported a nationwide Japanese encephalitis campaign in hard-to-reach and conflict affected Townships. It was for children under 15 years of age, in response to outbreaks of the deadly disease in Rakhine and Ayeyarwady.

Roles and responsibilities for the campaign were determined at a planning meeting in September 2017, hosted by the Ministry of Health and Sports and supported by 3MDG. 3MDG implementing partners supported advocacy efforts, community mobilization through the engagement of influential persons, information sessions for health staff, transportation charges for vaccines and promotional materials. Implementing partners also supported supervision visits conducted by state/regional health departments and township health departments.

The results of the campaign were strong in many areas, but in others they were limited due to conflict and fear of side effects. For example, in Labutta Township in Ayeyarwady Region, 97 percent of the target population was reached. In Rakhine State, in eight townships, more than 90 percent of the target population was reached, except for Buthidaung Township where only 30 percent was reached due to the unrest in August 2017.

In Kayah State, where 3MDG supported seven townships, results were high in government areas (95 percent) but lower in the ethnic health areas of Hpasaung (30 percent) and Shardaw (70 percent). The low result in Hpasaung was due to community fears stoked by rumoured adverse effects from vaccinations in Mawchi Township. Results in Wa Special Region and Special Region 4 were good —92.5 percent and 81.9 percent respectively. This was a result of outreach, involvement of local women's associations, advocacy and broadcasting through local media.

Through 3MDG townships, including hard-to-reach and conflict-affected areas, there was more than 95 percent coverage. This is a significant achievement. 3MDG-supported Townships are now better prepared to participate in nationwide campaigns in the future, as a result of this experience and the involvement of many different health actors.

3MDG MNCH Townships (December 2017)

1	Bogale
2	Dedaye
3	Labutta
4	Mawlamyinegyun
5	Ngapudaw
6	Pyapon
7	Falam
8	Matupi
9	Mindat
10	Tedim
11	Hakha
12	Thantlang
13	Tonzang
14	Kanpetlet
15	Paletwa
16	Myaing
17	Pauk
18	Seikphyu
19	Gantgaw
20	Ngape
21	Bawlakhe
22	Demoso
23	Hpasawng
24	Hpruso
25	Loikaw
26	Mese
27	Shadaw
28	Kutkai
29	Manton
30	Namhsan
31	Namtu
32	Hsihseng
33	Mawkmai
34	Laihka
35	Ann
36	Kyaukpyu
37	Myebon
38	Pauktaw
39	Buthidaung
40	Mrauk-U
41	Minbya
42	Sittwe
43	Toungup
44	WA Region
45	Special Region 4