Gavi 2020 multi-stakeholder dialogue: Immunisation planning in the context of COVID-19

Cambodia MSD participants (4 February 2020, continued 22 February): NMCHC, NIP, AID, DPHI, WHO, UNICEF, CHAI, CARDNO, GAVI, and DFAT

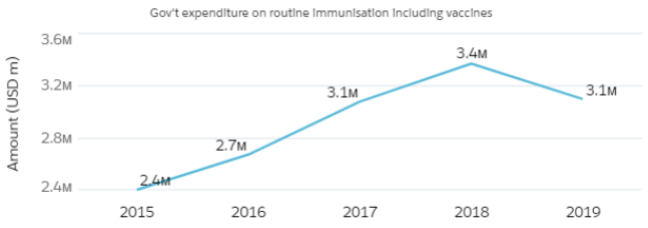
1. Country situation pre-COVID-19, based on information received by Gavi Secretariat

Contextual Information

PEF Tier: 3 | Fragility Status: Non-fragile | 2. Preparatory transition

Indicator Name	Year	Source	Value
GNI per capita	2019	World Bank	1,480
Health Centres per 100k population	2013	WHO - GHO	6.6
Nurses/Midwives per 1000 population	2018	WHO - GHO	6.9
Population	2020	UNPD	16,718,971
Surviving Infants	2020	UNPD	352,521
Under-5 mortality (per 1000)	2018	UNICEF	28

Health financing (and trends)



1.1. Overview of performance of vaccine support

Vaccine	Introduction Date	2018 Coverage (%)	2019 Coverage (%)	2019 Target	2020 Target
PENTA	04-2010	92	92	95	95
MEASLES	06-2012	84	84	95	95
PNEUMO	01-2015	84	89	95	95
IPV	12-2015	84	92	95	95

Prior to the COVID outbreak, Penta 3 coverage was 92%, according to WHO/UNICEF estimates, with MR2 at 82% (2019 data).

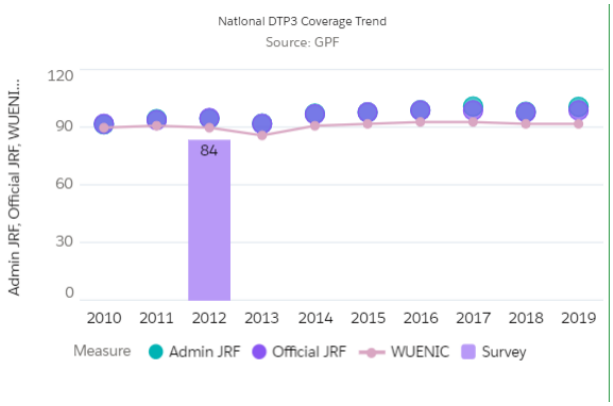
Forecasted routine and campaign introductions

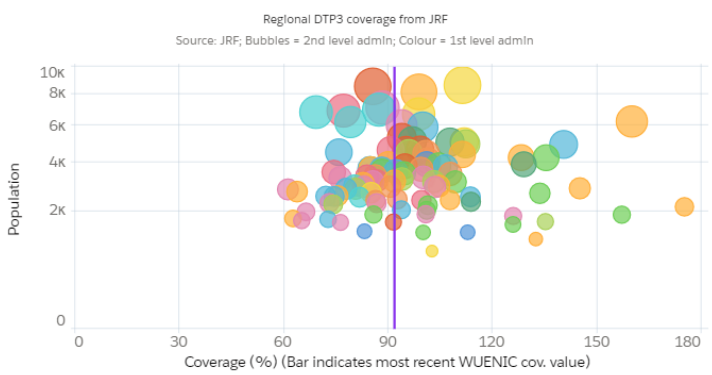
Vaccine Name	Type	Sub-Type	Status	CP Date	Phase
HPV	Routine	-	Approved	2023-09-30	NA
HPV	Campaign	MAC	Approved	2023-09-30	NA

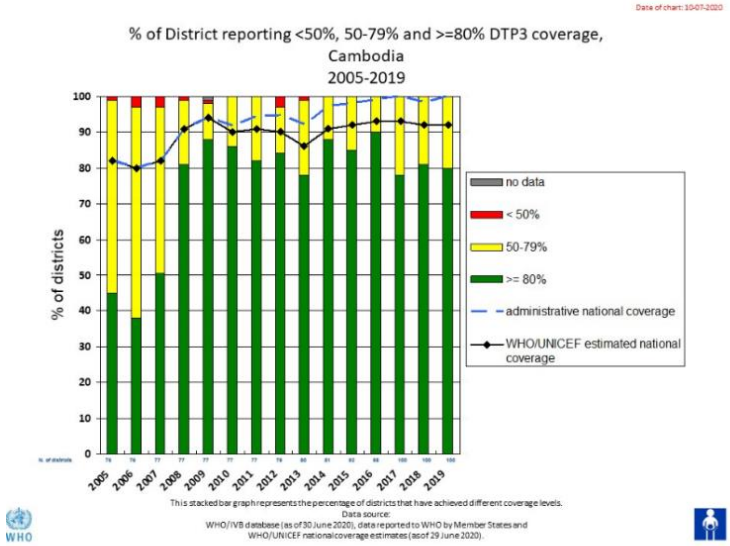
Performance against Alliance KPIs

Indicator	Source Name	Year	Value	Trend
Measles containing vaccine (second dose) coverage at the national level (MCV2)	WUENIC	2019	82	▲
Pentavalent 3 coverage at the national level (Penta 3)	WUENIC	2019	92	→
Drop-out rate between Penta1 and Penta3	WUENIC	2019	2.1	→
Difference in Penta3 coverage between the highest and lowest wealth quintiles	Survey	2012	24.6	▼
Penta3 coverage difference between the children of educated and uneducated mothers/care-takers	Survey	2012	24.7	▲
EVM	EVM	2012	66.4	▲
# of Underimmunised Children	Calculated	2019	28378.48	▲

Trends and district equity







Prior to the COVID-19 outbreak, ~80% of Cambodian districts achieved DPT3 coverage superior to 80% based on WHO/UNICEF data. Data discrepancy between WHO/UNICEF estimates and administrative data were small.

Progress against indicators and targets achievement

Vaccine Programme	Source (2019)	Intermediate results Indicator	Reported actuals	Rel. % change
PNEUMO	Admin (JRF)	Number of surviving infants who received the first recommended dose of PCV vaccine (PCV1)	356,864	2%
	Admin (JRF)	Number of surviving infants who received the third recommended dose of PCV vaccine (PCV3)	350,654	4%
PENTA	Admin (JRF)	Number of surviving infants who received the first recommended dose of pentavalent vaccine (Penta1)	370,338	2%
	Admin (JRF)	Number of surviving infants who received the third recommended dose of pentavalent vaccine (Penta3)	362,431	2%
MCV	Admin (JRF)	Number of children in the target population who received the second recommended dose of measles containing vaccine (routine) (MCV 2)	332,735	14%
	Admin (JRF)	Number of surviving infants who received the first recommended dose of measles containing vaccine (MCV1)	373,134	0%
IPV	Admin (JRF)	Number of surviving infants who received the first recommended dose of IPV	NA	NA
All others	EVMA Reports	Effective Vaccine Management Score (composite score)	NA	NA
	JRF	Occurrence of stock-out at national or district level for any Gavi-supported vaccine	Yes	NA
	Admin (JRF) & Survey	Percentage point difference between Penta 3 national administrative coverage and survey point estimate	NA	NA

Relative % change refers to the percentage increase/decrease of the reported value from the year prior.
The cell is green when the relative change increased, yellow when it remained the same and red when the relative change decreased.

1.2. Overview of HSS grant implementation

HSS2 implementation summary (as of December 2020)

Recipient	Grant Amount	Funds Disbursed	Expenditure	Country cash balance
MoH	27,238,508	26,854,949	18,835,258	8,984,244

Funding Progress Report (2016 through Dec 2020)

Description	2016	2017	2018	2019	2020	Accumulative As of 2020
A : Fund received from Gavi during the calendar year	4,299,436	3,435,994	3,439,978	12,764,185	2,915,356	**26,854,949**
B : Converted fund from HSS1, VIG_DPT-HebB-Hib, VIG_Measle 2nd Dose, VIG_Measle Rubella, VIG_PCV, VIG_JE, VIG_IPV, VIG_ISS to HSS2	822,766	-	-	-	-	**822,766**
C: Converted fund from HVP & MR-SIA					65,598	**65,598**
D : Remaining balance brought forward from previous period	-	2,062,297	1,497,205	2,286,854	11,189,335	-
E: Cash transferred from 3PHDs (TKO, SRP & BMC)					5,166	**5,166**
F: Cash balance transferred from UNICEF					24,396	**24,396**
G : Incomes	2,572	9,196	6,067	6,318	22,475	**46,628**
H: Fund available during calendar year	5,124,774	5,507,487	4,943,250	15,057,357	14,222,326	**27,819,502**
I : Total expense during the calendar year	(3,062,477)	(4,010,282)	(2,656,396)	(3,868,021)	(5,238,082)	**(18,835,258)**
J = (H-I) : Balance carried forward to next period	**2,062,297**	**1,497,205**	**2,286,854**	**11,189,335**	**8,984,244**	**8,984,244**

1.3. Overview of other Gavi support, such as VIGs, OPS, PBF, switch grants, transition grants etc. (as applicable), in US$

	Start Date	End Date	Recipient	Grant Value	Disbursed	Expenditure	Cash balance	Status Update
HSS2 PBF	2018	2019	MoH	1,290,000	0	N/A	N/A	N/A
HSS core support	2016	2021	MoH	26,858,508	26,858,508	18,835,258	8,984,244	Ongoing
HPV demo operational support	2016	2017	MoH	191,500	191,500	0	0	Closed
MR follow-up campaign operational support	2017	2017	MoH	1,049,052	1,049,052	0	0	Closed

Due to the HPV vaccination being unavailable from its supplier, the budget for implementing it was closed. More funding will be requested in the coming HSS grant, as deployment is expected for 2022/2023.

1.4. Compliance, absorption, and other fiduciary risk matters

As of 31 December 2020, the balance of funds available for the remainder of the HSS2 grant is $8,984,244, as shown below.

	As of December 2020
A: Fund received from Gavi during the calendar year 2020	2,915,356
B: Converted Fund from HPV & MR-SIA	65,598
C: Remaining balance brought forward from 2019	11,189,335
D: Cash transferred from 3PHDs (TKO, SRP, BMC)	5,166
E: Cash balance transferred from UNICEF	24,396
F: Incomes	22,475
G = Fund available during calendar year	**14,222,326**
H: Total expenditures during the calendar year	(5,238,082)
I = (G-H) - Balance carried forward to next NCE 2021	**8,984,244**

As seen in the table below, 41% of the 2020 budget plus the activities carried forward from 2019 was spent, with 63% of the budget for objective 1 spent, 2% of objective 2, 10% of objective 3, 60% of objective 4, and 47% of objective 5.

Much underspending was related to the pandemic and limitations placed on activities. Trainings and workshops were cancelled or indefinitely postponed due to restrictions on gatherings, such as on objective 3, scaling up IPC-I training was cancelled due to government restrictions on conducting trainings and workshops. Other underspending was due to the timing of agreements signed. Despite being available, funds are not disbursed by the Ministry of Economics and Finance until an AOP is signed, which requires confirmation from the donor that everything is in order. In 2020, this did not happen until late August, at which point there were only 5 months remaining in the year to spend the funds. Additionally, the agreement between UNICEF and the National Maternal and Child Health Centre for cold-chain supply equipment procurement and maintenance was not finalised until June 2020, with fund transfers coming in November 2020. Furthermore, although procurement for these commodities (e.g., freezers, refrigerators, and small equipment) has been completed, delivery is ongoing, and thus it is not possible to release all account

statements. Likewise, as maintenance and some other activities, such as SOP training, are also ongoing, some of the budget must be retained for 2021 co-financing.

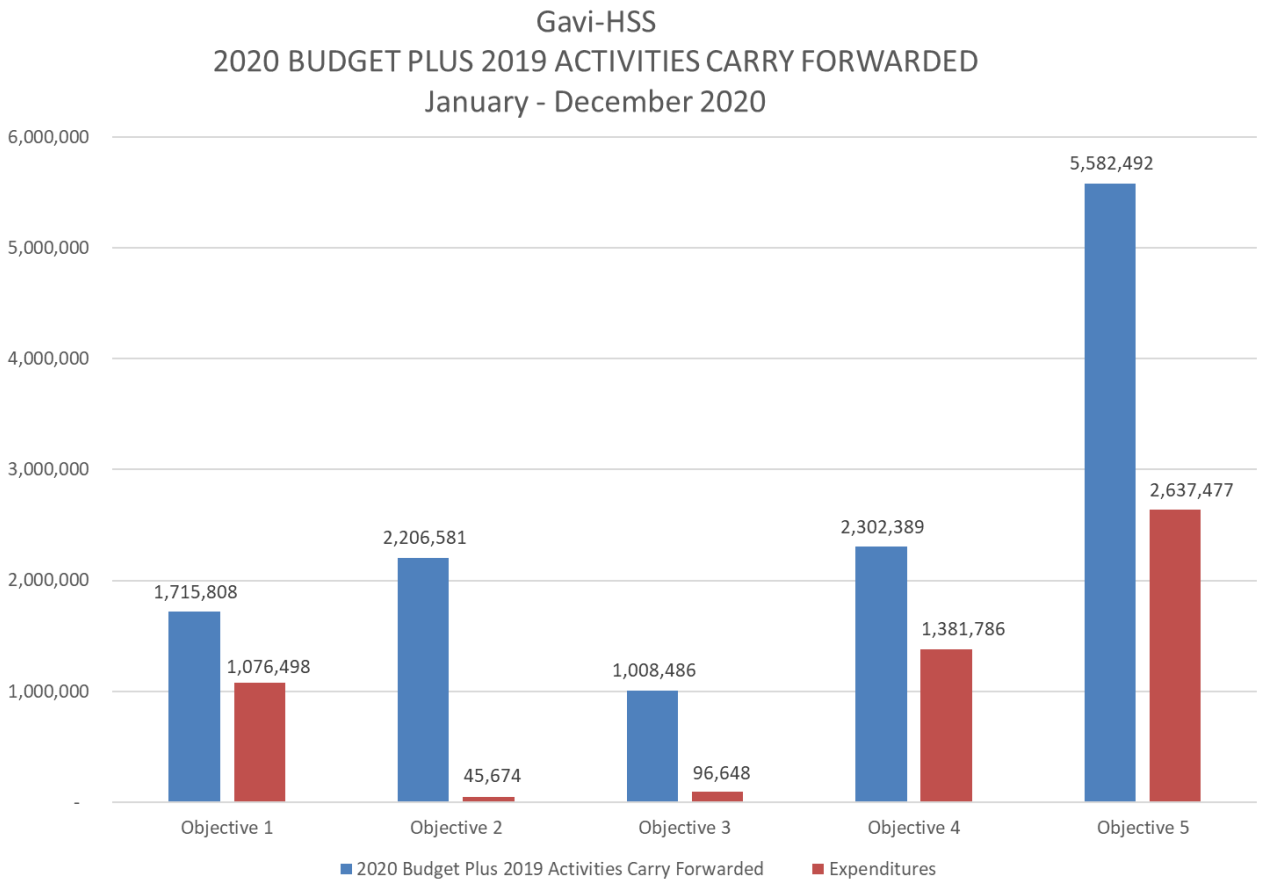
Many GPF outcomes for 2020 have not yet been recorded. However, targets for 2019 were mostly exceeded. Aside from annual audits, no ongoing monitoring agent was engaged until 2021. Now that a consultant has been engaged, they are expected to provide ongoing financial monitoring.

Objective	*2020 Budget Plus 2019 Activities Carry Forwarded*	*Actual Expenditures Jan-Dec'20*	*Budget Balance*	*%*
Objective 1: Increase immunization coverage in high risk communities	1,715,808	1,076,498	69,310	63%
Objective 2: Strengthen cold chain system through improved equipment and management	2,206,581	45,674	2,160,907	2%
Objective 3: Increase community awareness of, and demand for, immunization	1,008,486	96,648	911,838	10%
Objective 4: Strengthen the surveillance of vaccine-preventable diseases (VPDs)	2,302,389	1,381,786	920,603	60%
Objective 5: Strengthen management capacity to support EPI	5,582,492	2,637,477	2,945,015	47%
Total	**12,815,756**	**5,238,432**	**7,577,674**	**41%**

Underspending in 2020 was also related to the amount carried forward that was unspent in 2019 and previous years. As seen in the table below, for example, more than half of the 2020 budget for objective 5 was carried over from previous years.

Objective	*2020 Budget*	*2019 Activities Carry Forward*	*Total 2020 Budget Plus 2019 Activities Carry Forwarded*
Objective 1: Increase immunization coverage in high risk communities	1,660,808	55,000	1,715,808
Objective 2: Strengthen cold chain system through improved equipment and management	1,311,531	895,050	2,206,581
Objective 3: Increase community awareness of, and demand for, immunization	560,726	447,760	1,008,486
Objective 4: Strengthen the surveillance of vaccine-preventable diseases (VPDs)	1,709,823	592,566	2,302,389
Objective 5: Strengthen management capacity to support EPI	2,699,242	2,883,250	5,582,492
Total	**7,942,130**	**4,873,626**	**12,815,756**

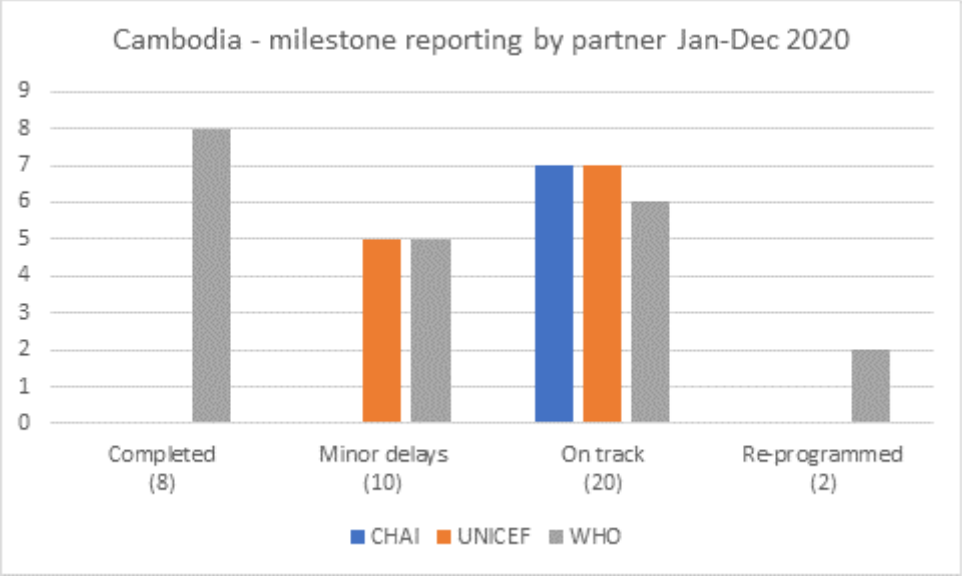
As some underspending was related to funds carried forward from previous years, some expenditures were closer to meeting the projected 2020 budget than appears. For example, the following graph shows that just $2,637,477 of the $5,582,492 for objective 5 was spent, but when the $2,883,250 is subtracted, the rate of expenditure jumps from 47% to 97%. However, this is not a strong factor in all objectives, such as 2 and 3, for which expenditures would still be under 20% of the 2020 budget. In the 9 months left to spend the remainder of the HSS2 grant, focus will be put on eliciting more details for why individual objectives were underspent and how to address those gaps. Moreover, funding targets will be met by integrating activities related to the COVID-19 vaccine, milestones achieved in 2020, and implementing the zero-dose strategy for reaching unimmunised children. Six-monthly and annual meetings and workshops that were missed in 2020 due to the pandemic will be made up in 2021. Outreach activities will be more intensive to include catch-up efforts for missed-dose and zero-dose children, reaching hard-to-reach populations, efforts to identify priority populations for the COVID-19 vaccines, and creating demand for the COVID-19 vaccine. Workshops will be expanded to include COVID-19 vaccine demand creation and vaccination, as well as training on utilising the newly developed program management data dashboard.



1.5. Overview of PEF TCA progress

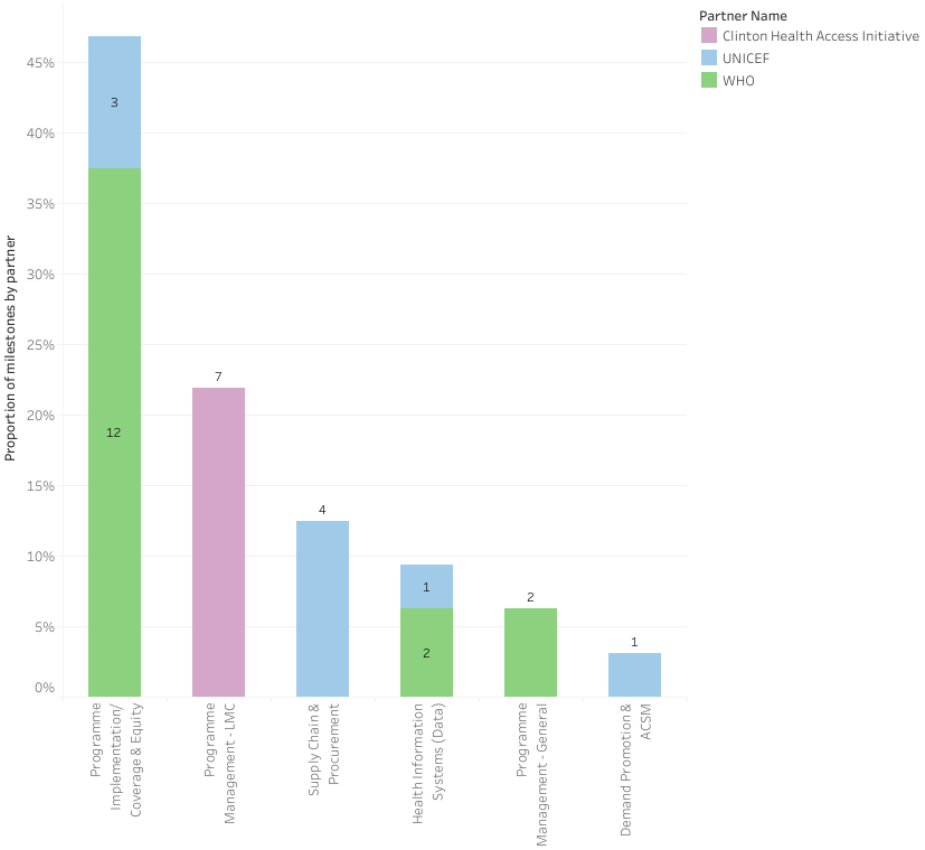
PEF TCA milestone reporting Jan-Dec 2020 nationwide and by partner (below)

Overall milestones for PEF TCA, as of November 2020



Most milestones were achieved in 2020 or are on track for timely achievement. Although milestones in all programmatic areas of the TCA have not been achieved, whether they are delayed, on track, or re-programmed, most were in program implementation/coverage and equality, as demonstrated in the graphs below. Thus, many of these activities are still on track to be completed within their timeframe in 2021.

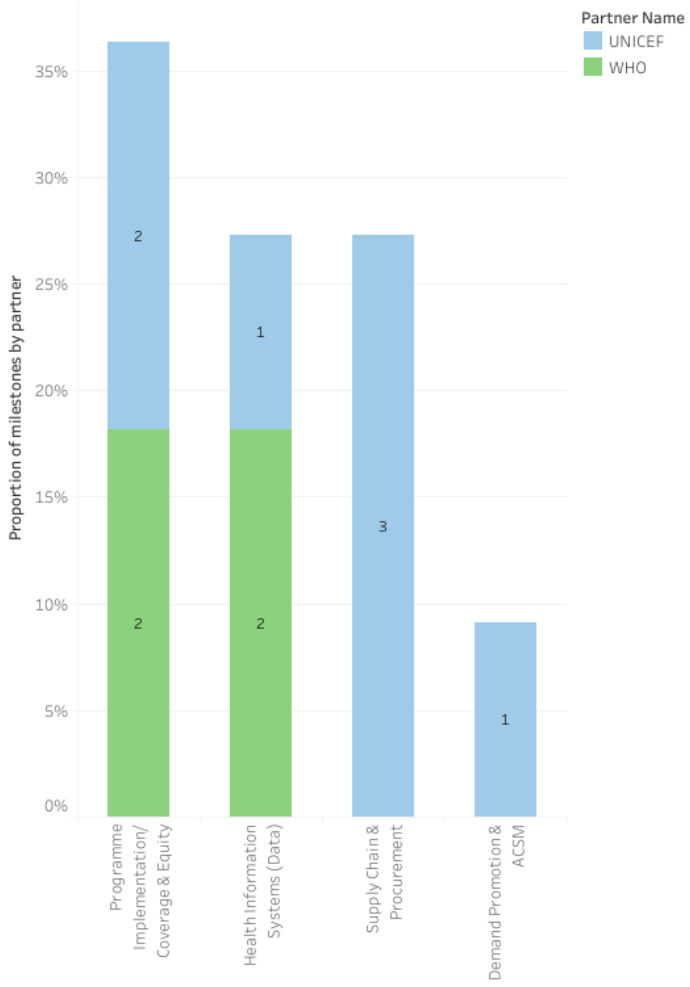
Delayed, on-track, and re-programmed milestones for PEF TCA, as of November 2020



Some delays were related to demand generation, as well as the competing priority of COVID-19 and planning for that vaccination deployment. Procurement was an additional challenge that led to program delays. Stockouts were experienced due to the fact that the budget ceiling for vaccine procurement was not sufficient to cover all doses required, particularly related to MR vaccine catch-up needs and the annual increase in the target population. At the community level, children continue to be missed due to limited

microplanning, local-level data analysis for better targeting and identification, and community engagement to promote uptake of services and reduce dropouts. Experience has shown that zero-dose children are most commonly located in remote and migrant communities, and reaching these communities continues to pose a challenge, including demand generation and communication in these communities.

Delayed milestones for PEF TCA as of November 2020



Please provide any additional comments -as relevant- on the implementation of the TCA plan)

In 2020, UNICEF, WHO, and CHAI provided technical support to NIP in the areas of data management, communication and demand creation, program implementation and coverage, supply chain management, and sustainability. Some key successes from the TCA plan included the following:

- Key milestones achieved included the Effective Vaccine Management (EVM) Assessment and development of an updated communication strategy for demand generation and IPC-I package
- Sustained/increased immunisation coverage of all vaccines in the national schedule
- Drastic reduction of lab-confirmed measles cases nationally
- Improved data management, quality, and analysis
- The development and implementation of SOPs for supply-chain management
- The development of a program management data dashboard

In 2020, WHO support aimed to increase immunisation coverage nationwide, especially by reducing the number of high-risk communities and ensuring that geographic and wealth disparities in coverage are minimised; to develop and implement an immunisation communication campaign; and to strengthen the NIP surveillance and management systems. Towards these goals, some of the main WHO activities for 2020 included:

- Technical support to NIP/MOH in planning, preparing, implementing, and monitoring of Gavi HSS grants, as per NIP's AOP
- Technical support to plan, prepare, implement, and monitor high-risk communities and catch-up vaccination outreach services and to conduct supervision/monitoring of RI activities in low performing provinces/ODs/HCs
- Support to plan and implement service-delivery activities
- Supervision/monitoring of VPD surveillance activities in low-performing provinces, ODs, HCs, and hospitals
- Support for RI and VPD surveillance data management and analysis nationally and in provinces, ODs, HCs, and hospitals
- Detailed investigation of reported VPD cases with special focus on measles and AEFI cases
- Support for a national immunisation communication campaign though radio, TV, LED, and IEC materials throughout the year and VHSG semester meeting at HCs of four urban provinces

UNICEF support to NIP In 2020 centred across five areas, with notable progress, such as:

- **Technical support to apply for CCEOP, submitted in May 2020:** The CCEOP application has been approved.
- **Technical support to conduct EVM assessment in Aug/Sep 2020:** Cambodia decided to conduct EVM assessment using the tablet-based EVM 2.0 tool. Remote technical support was provided by a UNICEF international consultant and WHO HQ. The draft EVM assessment report and improvement plan has been developed and is on track to be finalised by the end of 2020.
- **Technical support on development and finalisation of SOPs for primary vaccine store:** SOP finalised for CMS, which includes vaccine clearance, storage, and transportation to provinces.
- **Technical support to implement the Communication Strategic Plan for Immunisation:** The Cambodia IPC-I package was successfully adapted and approved by MOH in October 2020; two ToT sessions were conducted for provincial and district level managers (40 participants) for this IPC-I package; one TV spot and one radio spot developed and aired using UNICEF and Gavi HSS funding, reaching an estimated 5 million viewers.
- **Technical support to immunisation supply-chain management:** Review quarterly request of vaccines from PHD and distribution plan. Monitor vaccine shipment and stock management at CMS.

CHAI technical assistance support to NIP started in the second half of 2020. CHAI and NIP collaborated to create a thorough immunisation program management data dashboard to support evidence-based decision-making at the national and subnational level (further details in section 3).

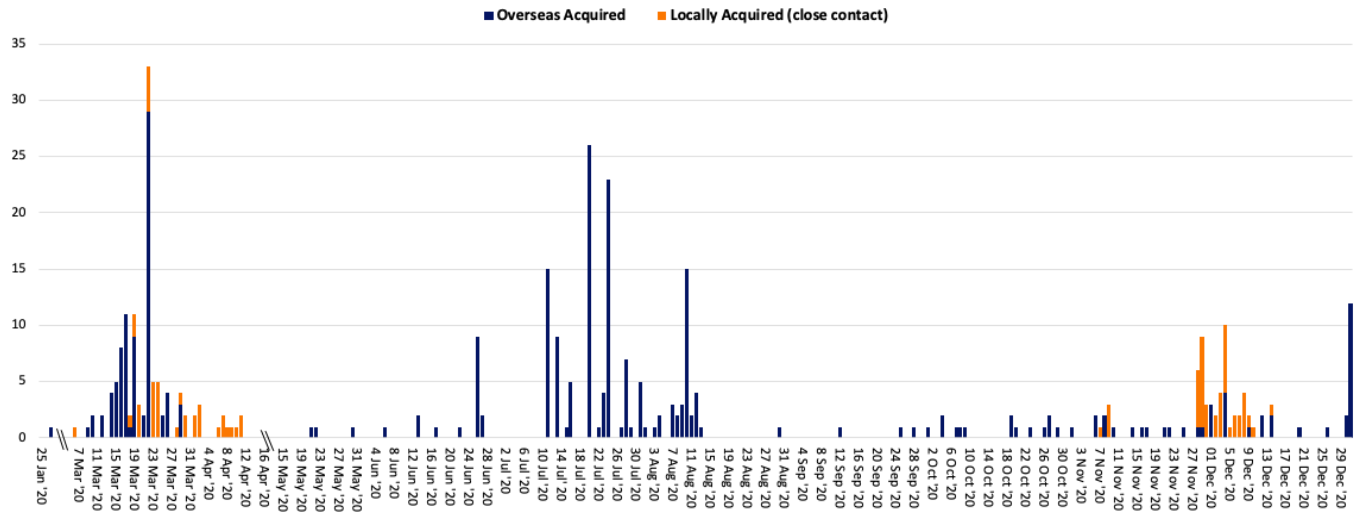
The overall high levels of coverage for immunisation during the COVID-19 pandemic (further details below) show the success of the collaboration between NIP and partners. However, the competing priority of the pandemic was a key challenge faced by all partners in implementing the TCA plan from the second half of 2020. The pandemic diverted human resources away from routine activities in some ODs and placed restrictions on some critical activities, such as meetings, due to early implementation of prevention measures. Some of these meetings and workshops are planned for 2021, but continuing restrictions on gatherings may further delay them or allow fewer people than planned to attend. Preparation for deployment of the COVID-19 vaccine is also stretching the existing capacities of partners, with competing priorities and high workload. As the pandemic and subsequent accelerated deployment of the vaccine are novel global events, partners are limited in the TA they can provide, and all parties must learn as they go and from lessons from other countries.

Data quality and analysis, particularly at the local level, has also been a challenge in identifying and reaching unimmunised and under-immunised children. Experience has shown that these children are most likely to live in migrant communities, international border areas, and other remote communities, but data and microplanning guidelines for addressing these gaps are not available.

2. COVID-19 impact on immunisation (in 2020): current situation

[This section is partially prefilled by the Gavi Secretariat.]

2.1 COVID-19 cases and deaths (as of 31 December 2020)



The first COVID-19 case in Cambodia was detected in Sihanoukville province on 27 January 2020. At the end of 2020, a total of 366 confirmed COVID-19 cases were reported in Cambodia.

Though two community outbreaks of COVID-19 happened in November 2020, the Ministry of Health was able to successfully respond through strong measures (IPC, contact tracing, school and entertainment closures, etc.), and Cambodia did not progress from Stage 2 to Stage 3 of the epidemic in 2020.

A third community outbreak began on 20 February 2021, which was traced to 4 people who bribed a guard to escape mandatory quarantine. Between then and 17 March, 946 cases were discovered, bringing the total cases to 1430 with 1 death. As of 15 March, 328,526 vaccine doses have been administered.

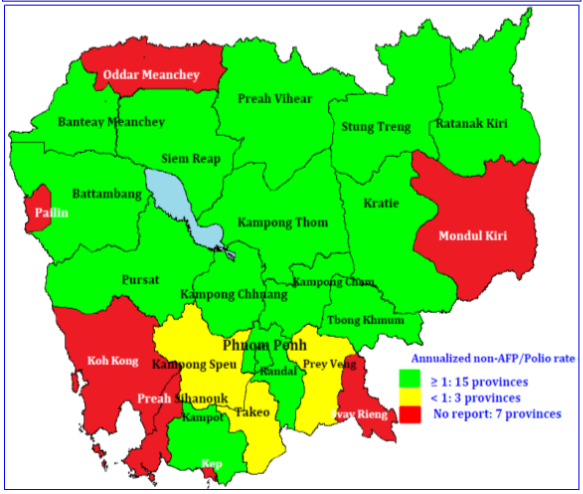
2.2 Disease Surveillance and Incidence

The NIP is committed to improving vaccine-preventable disease (VPD) surveillance to enhance program planning and management. In line with this commitment, many activities were conducted in different areas of VPD surveillance and will continue conduct activities to improve, including:

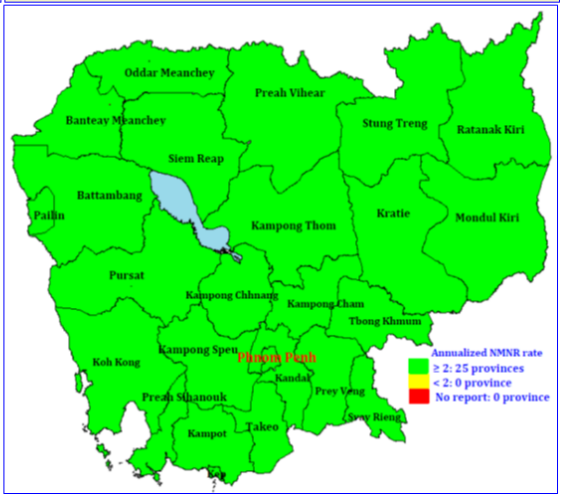
- PASRS (AFP) and MRSRS (measles-rubella) web-based data
- Support for data management through cleaning of data and standardisation of data entry practice
- Support for monthly routine and VPD surveillance data analysis
- Publishing and dissemination of a monthly bulletin for VPD surveillance with action points

Despite the COVID-19 outbreak, disease surveillance remained strong, as exemplified by the maps below.

Annual reporting rate of non-polio AFP cases in children <15 years of age by province from January to December 2020



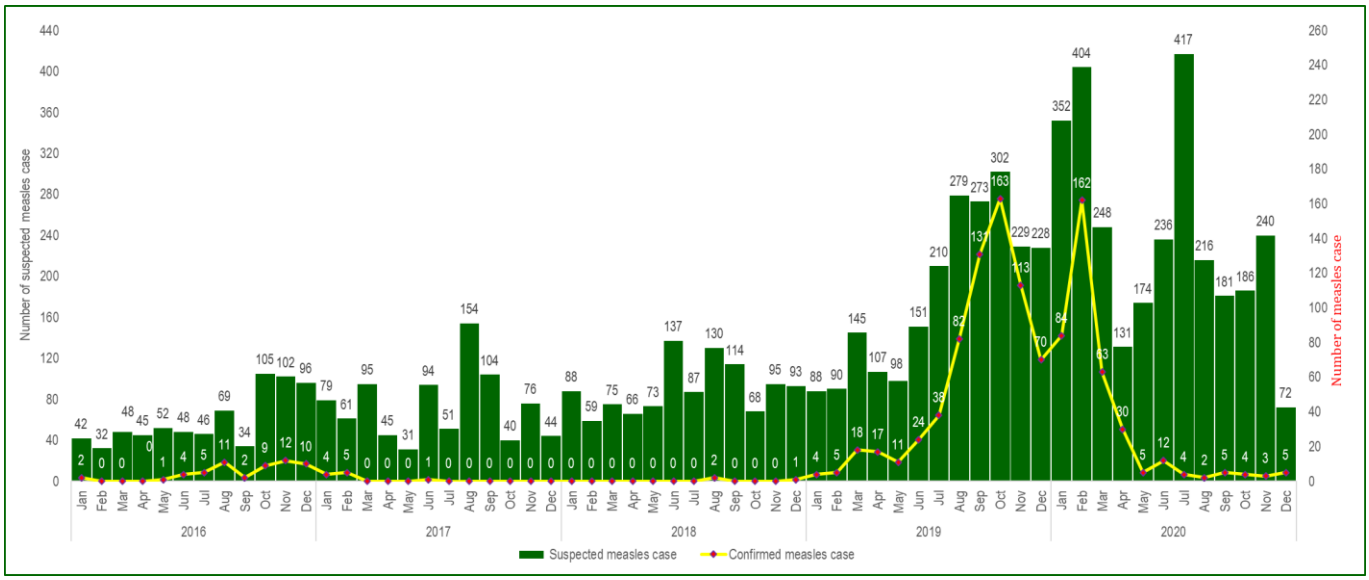
Annual reporting rate of non-measles non-rubella cases by province from January to December 2020



Impact of COVID-19 on disease surveillance

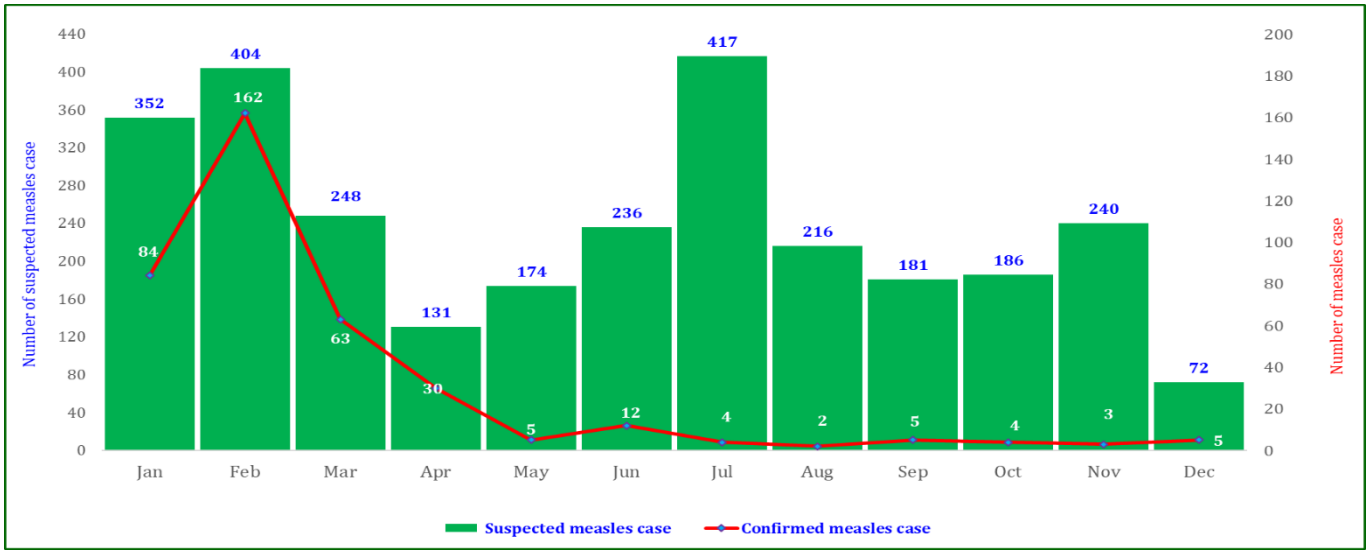
Measles outbreaks were experienced from 2019, with a peak of reported cases in September, continuing into 2020, with another peak in March. As mentioned above, nationwide surveillance during the pandemic was not negatively affected, and suspected measles case reports increased from 2,200 in 2019 to 2,857 in 2020. In 2020, it is notable as well that all 103 operational districts of all 25 provinces reported suspected measles cases. Annual reporting rate of non-measles non-rubella cases at the national level was 14.9% (≥2 cases per 100 000 population) in 2020, which is much higher than 2019. Below is an epi-curve of reported suspected and confirmed measles cases by month from 2016 to 2020.

Epi-curve of suspected vs confirmed measles cases from 2016-2020



In the figure below from 2020 data, the NIP's efforts to flatten the measles curve are evident.

Epi-curve of reported suspected and lab-confirmed measles



Beyond measles surveillance, Acute Flaccid Paralysis (AFP) surveillance performance indicators also improved a lot in 2020 compared to 2019

Impact of COVID-19 on disease cases

In the first half of 2020, the Ministry of Health was able to control measles virus transmission after the outbreak of 2019 with total confirmed measles cases decreasing from 676 cases in 2019 to 379 cases in 2020. The Cambodian Government implemented strict COVID-19 prevention measures, including mask wearing, distancing, and border restrictions while maintaining RI services throughout 2020 in all health facilities' catchment areas. This proper planning and timely implementation of other immunisation service, such as targeting high-risk communities and catch-up vaccination outreach services, helped to prevent measles and other VPD transmission.

2.3 Impact of COVID-19 on immunisation

Cambodia has been successful at containing the impact of COVID-19 on immunisation services. The Cambodian Government responded rapidly to the COVID-19 outbreak, instituting effective movement restrictions, quarantine/isolation, non-pharmaceutical measures, and other measures. NIP, WHO, and UNICEF developed an "interim guidance on immunisation programme during and after pandemic", which was implemented properly throughout the year. There was regular focused monitoring by NIP, WHO, and UNICEF in low-performing provinces, with WHO supporting four urban provinces and UNICEF supporting five north-eastern provinces. As a result, RI services were not disrupted. Due to fear of transmission, population movement was sometimes limited, which meant that uptake of immunisation was lower, especially at the beginning of the pandemic, but increased over the year with catch-up vaccination, and average immunisation coverage rates across several provinces show an overall increase in 2020. This major success was featured by Gavi as a case study for other countries to learn from, as many countries experienced major disruptions in immunisation programs due to the pandemic. However, low coverage in some hard-to-reach areas remained consistently low in Cambodia and requires local-level service delivery assessments of each HC catchment area and community mobilisation to increase coverage and reduce dropouts. For instance, the Government has implemented a targeted communication campaign to minimise the impact of COVID-19 restrictions on immunisation demand, which included the following activities:

- Developed, printed, and distributed measles 2nd dose posters village volunteers
- Developed, printed, and distributed route of administration poster to all health facilities
- Manufactured hand fans with the immunisation schedule printed on them and distributed to clients and village volunteers
- LED in 10 location with immunisation schedule
- National radio airing with immunisation message

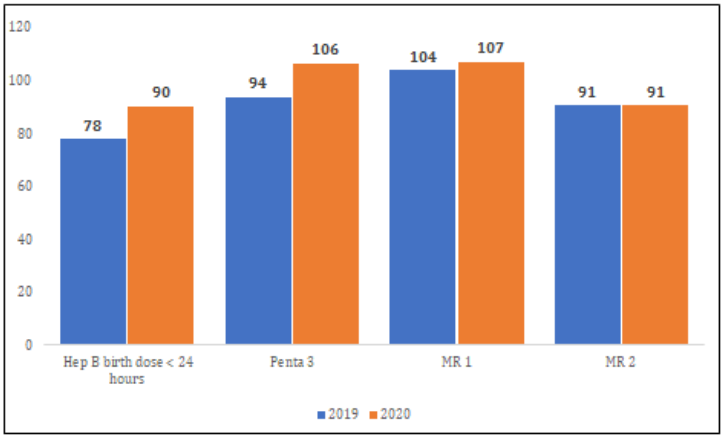
- National TV broadcasting of immunisation clip

In general, however, immunisation rates remained stable or improved across the nation, as demonstrated in the graphs below. Further analysis of these immunisation rates is necessary, however, as some provinces reported rates in excess of 100%. Data quality and analysis, particularly at the local level, is expected to be related with these rates. In some parts, it is likely that the denominator for measuring immunisation coverage is the population of an HC's catchment area, whereas some numerators for the same vaccine include children who accessed the HC from outside of that area.

Comparison of vaccination coverage (%) of four vaccines in Cambodia, 2019 and 2020

Vaccine	2019		2020	
	# children vaccinated	%	# children vaccinated	%
Hep B birth dose < 24 hours	279,166	78	321,920	90
Hep B birth dose < 7 days	302,278	84	349,320	98
Penta 3	336,982	94	379,433	106
MR 1	373,144	104	382,078	107
MR 2	325,628	91	323,346	91

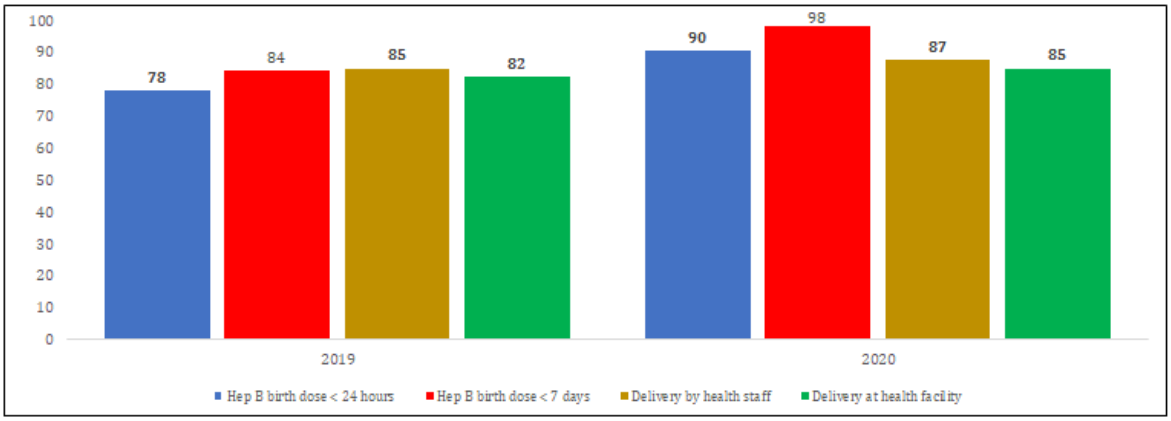
	2019	2020
Expected Pregnant Women	367692	363739
No. of delivery by health staff	311392	317993
% of delivery by health staff	85	87
No. of delivery at health facility	301344	308344
% of delivery at health facility	82	85



Source from HMIS : Data as of 20 February 2021

Four rounds of catch-up and two rounds high-risk communities vaccination services were conducted in 2020 which supported to increase coverages

Comparison (%) of Hepatitis B birth dose coverage with delivery at health facilities in Cambodia, 2019 and 2020



Target clients reduced in 2020 than 2019
Under 1 year target children is 359521 in 2019 and 357095 in 2020
Expected pregnant women target is 367692 in 2019 and 363739 in 2020
Source from HMIS : Data as of 20 February 2021

Moreover, regular analysis of RI data and sharing to sub-national levels with recommended actions helped to plan adequately toward increasing coverage.

However, there have been some constraints experienced by the NIP due to the pandemic. The NIP has been unable to hold appropriate trainings/workshops for new health workers due to COVID-19 restrictions on gatherings, which has resulted in new health workers being undertrained for the provision of RI services. These restrictions also caused both mid-year and annual workshops on EPI data quality to be postponed until later in 2021.

In addition, health workers in some ODs have been overwhelmed with the responsibility of COVID-19 treatment added to routine duties, which has exacerbated existing resource constraints. Further, public schools were closed for several months in 2020, which may have added caregiving responsibilities to families, especially mothers.

2.4 Already agreed budget reallocations of HSS grant for COVID-19 response

No reallocation of Gavi HSS funds for COVID took place in 2020 for Cambodia.

2.5 Already agreed modifications in Technical Assistance (if applicable)

The primary modification of Technical Assistance for 2020 was that CHAI was added to the TCA. An additional TCA plan for COVID-19 vaccine introduction was also submitted by NIP to Gavi in Q4 2020, from which WHO and UNICEF received 249,000 USD to recruit additional TA to support COVID-19 vaccine introduction.

2.6 Unspent funds and savings from Gavi support, available for re-allocation

A reprogramming of the Gavi HSS grant took place in 2020, leading to a one-year No-Cost Extension until December 2021. As of 31 December, $8,984,244 of the HSS2 budget remained, to be spent by the end of December 2021. Please refer to section 1.4 for details.

The annual budget for 2021 is about to be approved. The 2021 budget will include important readjustments on activities that could not take place in 2020, such as the CCEOP cost investment readjustment and several activities with a closer lens on the zero-dose agenda.

3. Discussions on priorities, action plan and technical assistance needs; Roadmap for further re-allocation/planning

Short/medium-term activities to maintain/restore RI

As mentioned above, immunisation activities continued through the pandemic, and immunisation rates did not decrease (in fact, they increased in some areas), so a restoration plan has not been needed. Instead, Cambodia is prioritising the following four areas in 2021:

1) Reaching unreached, zero-dose, and under-immunised children

Though overall RI coverage is high in Cambodia, under-immunisation and missed children are challenges in specific areas, particularly in some hardest-to-reach communities. Moreover, due to fast development and both domestic and international migration of workers, drop-out rates remain a challenge in international border areas and amongst migrant populations. During a pandemic, any other disease outbreak can be difficult for a country, and the country's health system may not be able to manage hospitalisations, disabilities, and mortality during or after the pandemic. Therefore, population immunity must be increased by reaching each eligible children no matter where they live, which is a priority for Cambodia's NIP.

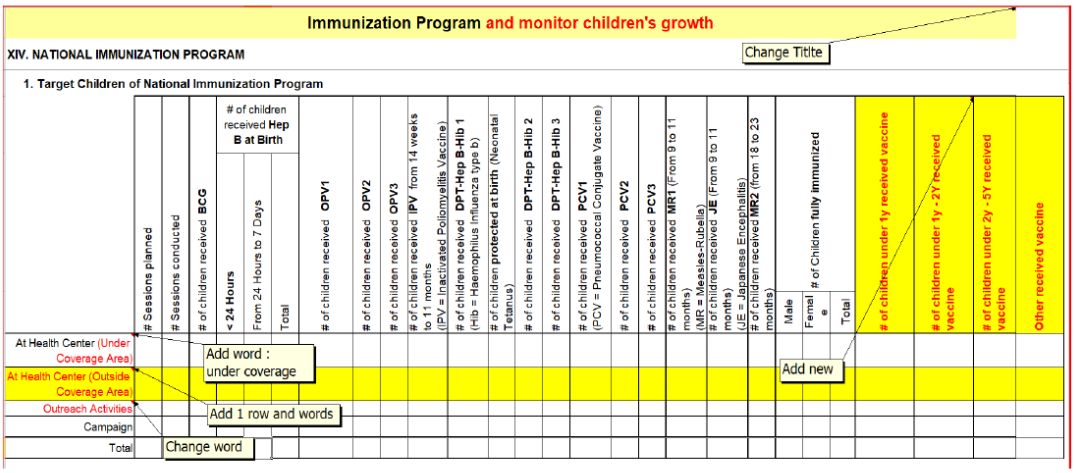
In response to this, NIP is implementing a reaching the unreached and zero-dose strategy aimed at overcoming barriers. NIP health workers aim to visit health centres at least 4 times per year to assess challenges and provide support for reaching vulnerable populations. Additional interventions planned as part of this strategy include the following:

- High-quality local-level planning, preparation, and monitoring of RI and catch-up vaccination services in high-risk communities
- Strengthened community engagement for promotion of services and demand generation, including working with local health departments to identify and support follow-up of drop-out cases where possible
- Quality improvement of VPD surveillance
- Investigation and local responses to VPD outbreaks
- Monitoring RI and VPD surveillance in identified low-performing ODs and HCs, which aims to improve coverage, detection, and reporting of VPD cases
- A default tracking mechanism and multi-approaches of interventions, including an immunisation service delivery assessment, particularly for people in border regions and migrant communities
- Implementation of SOPs for immunisation supply-chain management and vaccine storage
- Improving M&E of EPI programmatic data, including the addition of new indicators on reporting forms expected to facilitate the collection of more accurate data on immunisation coverage rates
- A mid-year and annual review workshop with sub-national staff

Some issues with data reporting have been hindering NIP's ability to gather information on missed children, including a lack of disaggregated data at the community level to identify low-coverage areas and missed children, as well as limited updates on high-risk communities. Hence the Department for Public Health Information (DPHI) has just revised its data reporting templates to correct some of these gaps. The NIP monthly HIS report form (HC1 for health centres and HO2 for hospitals) was revised in 2020 to add four indicators, separating immunisation coverage into four categories: under 1 year received vaccines, 1-2 years, 2-5 years, and other. Because some health centres reported over 100% coverage due to children visiting the health facility from outside of the catchment area, an extra row for specifying services inside vs outside coverage areas was also added. This row was also added to specifically monitor the impact of outreach activities. Moreover, in preparation for the HPV roll out, an HPV1 and 2 reporting form was added, as well as TT administration for pregnant/non-pregnant women.

Snapshot of the revised HIS monthly data reporting template

V – Revised EPI in HIS monthly report form (HC1 & HO2 form)



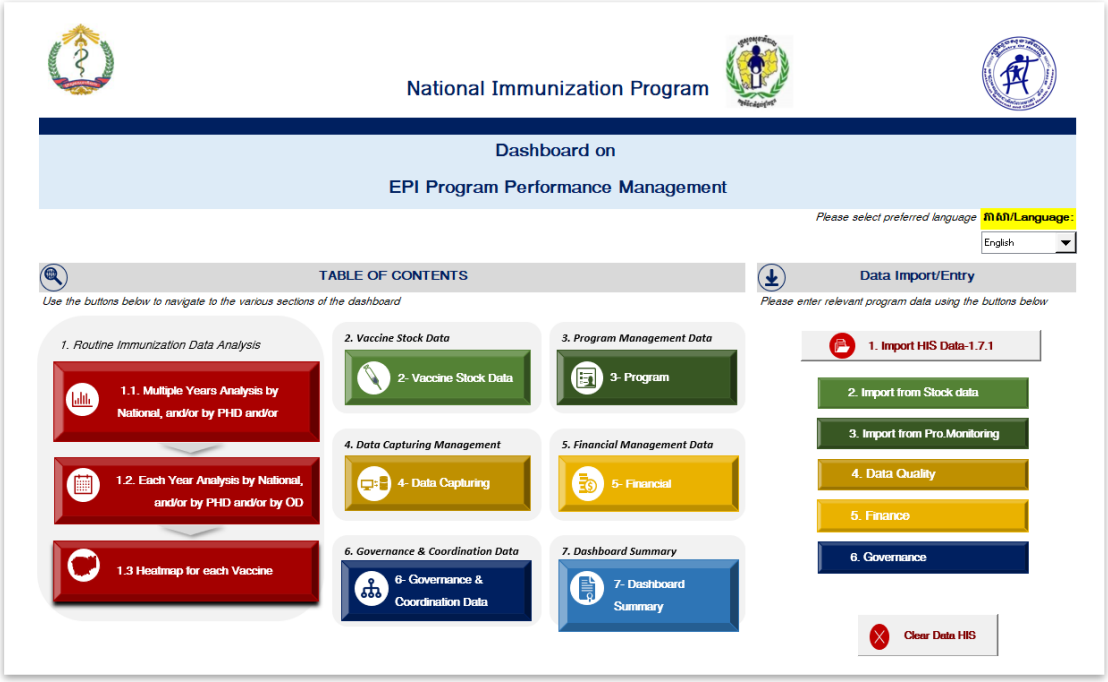
Partners meet regularly with the NIP to plan, prepare, and implement Gavi HSS-supported activities, including a regular review to identify issues requiring immediate corrective actions.

2) Strengthening data visibility and data use

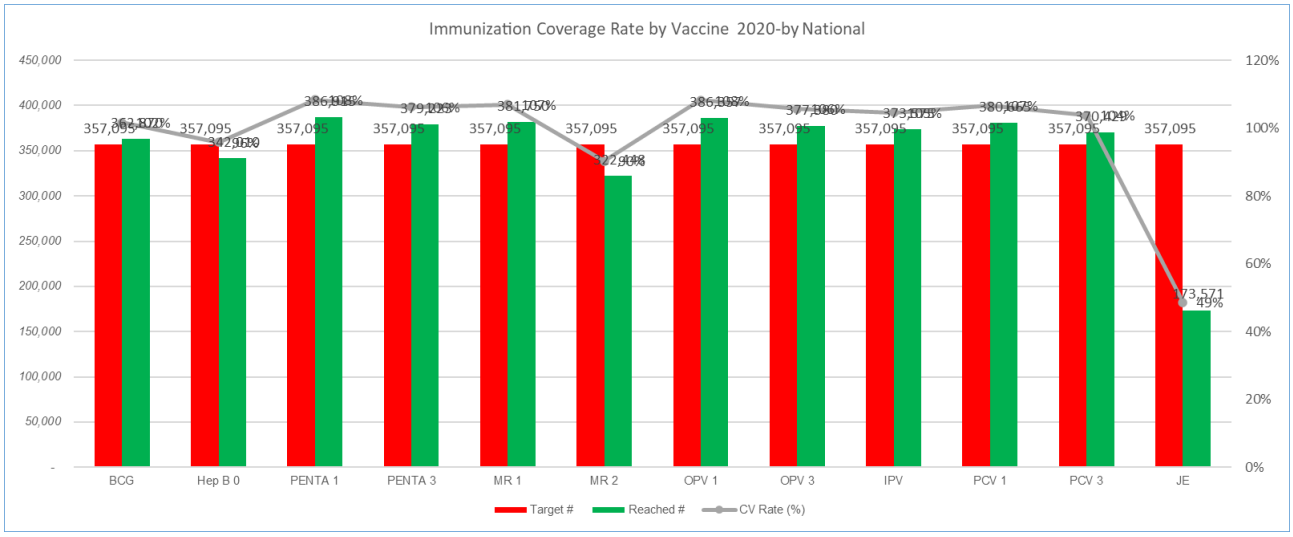
A program management dashboard is being developed to identify and visualise immunisation gaps more easily in order to identify and rapidly address program bottlenecks. The dashboard combines 6 main components:

- RI data analysis (multiple years, each year's data analysis from national to OD level for 5 years, and heatmap data for all provinces and antigen types)
- Vaccine stock data analysis
- Program management data
- Data capturing management
- Financial management data
- Governance & coordination data

Snapshot of the navigation landing page of the dashboard currently under development



This dashboard is expected not only to improve data quality and monitoring but also to promote and streamline data-based decision-making to strengthen program management and performance. For example, the following graph extracted from the dashboard's 'RI Data Analysis' component shows the difference between targeted and reached children for each vaccine antigen type at the national level in 2020 (with coverage rate), which allows the user to see which areas are under-performing against historical data and national targets, and thus require improvement at a quick glance.



3) Introducing COVID-19 vaccine with high coverage rates across target population groups

The COVID-19 vaccination is one of the most powerful tools to interrupt the pandemic worldwide, and thus accelerated deployment of vaccines has been prioritised by the Government of Cambodia.

A National Deployment and Vaccination Plan and Operations Guidelines for COVID-19 Vaccination campaign were developed in January 2021 and approved in February, while a COVID-19 Vaccination Campaign Protocol was developed and approved in February 2021. A training module, with PPT slides, has already been developed, and national TOTs were conducted the second and third weeks of February. Subsequent vaccination team trainings have also already been conducted at the hospital level. A fast-track mechanism and grant of Emergency Use Authorisation (EUA) are in place and EUA issued for four different products. The Department of Drugs and Food is working with WHO to strengthen vaccine tracing and recall mechanism in case of needs related to serious adverse effects. Partners meet regularly with

the NIP to plan, prepare, and implement Gavi HSS supported activities, including regular review to identify issues requiring immediate corrective actions.

COVID-19 vaccinations began on 10 February 2021, prioritising healthcare workers, frontline military and police personnel, and frontline government workers in the first phase of deployment. Priority target groups planned for the second phase of rollout are the elderly, people with chronic diseases such as heart disease and diabetes, and workers.

To pre-empt and respond to vaccine hesitancy, senior government officials, including the Prime Minister, have been publicly vocal about the importance of immunisation to respond to the pandemic, highlighting the need for all adult populations to get vaccinated from COVID-19 and encouraging government officials to get vaccinated first as a means of building confidence among the wider population. While these efforts are mostly targeted towards COVID-19, they address broader vaccine hesitancy which contributes to building demand for vaccines overall, a key instrument of public health.

To ensure budget gaps do not affect the deployment of the COVID-19 vaccine, needs are being mapped against partner and government support. A budget request has already been submitted by MoH to the Ministry of Economy and Finance. In the meantime, the deployment of the vaccine has begun. UNICEF, WHO, and CHAI have provided some funds for activities and procurement COVID-19 vaccine deployment, e.g., to finance early trainings or supportive supervision.

4) Measles outbreak and elimination status, including vaccine supplies

Measles outbreaks are continuing in Cambodia with the report of 0-5 cases in each epidemiological week. NIP and other departments of MOH are taking measures to prevent transmission of the virus. Four doses of MR vaccines are being provided to increase population immunity (zero dose at 6 months of age, 1st dose at 9 months, 2nd dose at 18 months, and an extra dose between 23 months and 10 years). However, Cambodia may have a higher susceptible population over the last couple of years and therefore needs to conduct an MR vaccine follow-up campaign in 2022/2023. In this regard, Cambodia will prepare an MR follow-up proposal for submission to the Gavi secretariat. However, the unit price of MR vaccines is increasing starting 2021, and the MOH annual budget for routine vaccines and continuing catch-up MR doses remains unchanged. Thus, there is a gap in MR doses required for 2021 that will require additional resources from the government or partners. To avoid a continuing MR vaccine shortage situation in the coming year, NIP and partners also need to discuss feasible and sustainable solutions, including a gradual return to a 2-dose MR strategy and/or increasing the national annual budget for routine vaccines.

The Cambodian National Verification Committee for measles and rubella elimination has started writing the report on measles elimination status and will submit it to the Regional Verification Commission in April 2021.

Given the continued global supply shortage experienced for Cervarix, GSK's HPV2 vaccine and Cambodia's preferred HPV vaccine product, Cambodia's HPV2 introduction will only be able to take place in 2022 or 2023.

What support is required from Gavi for the planned short/medium-term response efforts?

The 2021 TCA proposal and HSS no-cost extension cover the main program areas of the NIP, i.e., data management, communication and demand creation, program implementation and coverage, supply chain management, and sustainability.

WHO will focus on using data-driven approaches to support NIP around program implementation/coverage and equity and around NIP's reaching the unreached and zero-dose strategy. In particular, WHO will support the planning, preparation, implementation, and monitoring of high-risk community and catch-up vaccination outreach services; improving the quality of VPD surveillance, including case detection and reporting; VPD, especially measles, outbreak preparedness and response; capacity building/skilled transfer activities; and data management and analysis, including action points. WHO will conduct demand-generation activities and also aim to improve engagement and ownership of local communities and

authorities to decentralise immunisation delivery and to prioritise sustainability and a reduction in dependence on donors.

UNICEF's key activities include support to NIP on supply chain management, demand creation, and data management. This will include continued implementation and monitoring of the SOPs and communication strategy developed in 2019/2020, as well as supporting MOH in implementation of GAVI HSS activities and funding in collaboration with WHO and CHAI. UNICEF will continue to improve data management to implement NIP's zero-dose strategy, including development of tools for improving data collection at the community level in five north-eastern provinces with low Penta3 coverage. UNICEF will also continue to place two field officers in the Northeast region (based in Kratie), covering five provinces with high rates of under-immunised communities, to reach under-immunised children. These UNICEF zone officers will provide daily technical support and follow up to reduce drop-out rate, increase immunisation coverage and detection and reporting of VPDs cases in low performing ODs and HCs, implement the immunisation supply chain SOPs and conduct post-training, implementation of activities for international border and urban provinces, and develop a defaulter tracking mechanism in areas with high drop-out rates and in areas with low immunisation coverage.

CHAI will focus on building NIP's capacity around 'Leadership, Management and Coordination', including program management, sustainability, and improving the Health Management Information System. More specifically, CHAI will support the NIP to increase the utilisation of data in decision making through the completion, dissemination, and training on the data dashboard developed in 2020. To improve financial sustainability, CHAI will assess the current planning and budgeting processes to find and address gaps in the processes, with a special emphasis on targeting zero-dose and under-immunised children. Program management and financial sustainability will also be improved by CHAI's support the development of a full portfolio plan for 2022-2026 and a strong HSS3 proposal.

To reach these milestones, NIP will benefit from coordination support from Gavi. Additionally, as some activities are new for 2021, such as full-portfolio planning and activities related to COVID-19 vaccinations, Gavi can provide support by clarifying expectations on these new activities and ensuring progress is appropriately on track. When presenting these changes to NIP, Gavi can provide advocacy around the necessity and benefits of these activities.

Data-based decision making is at the core of NIP's strategy for reaching zero-dose and under-immunised children, as well as for continuing deployment of the COVID-19 vaccine. The first draft of the 2021 TCA plan was submitted on 12 February 2021, with a no-cost extension proposal for HSS2 currently underway. These two plans will act as roadmaps ensuring support and collaboration between NIP and partners for improving and sustaining Cambodia's EPI services.