Gavi 2020 multi-stakeholder dialogue: immunisation planning in light of COVID-19

Papua New Guinea

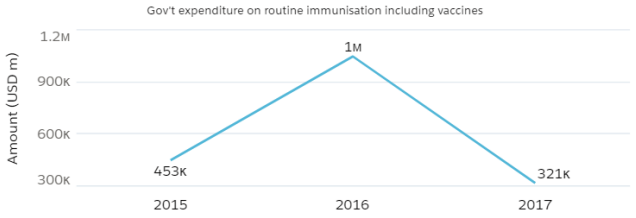
1. Country situation pre-COVID-19

Contextual Information

PEF Tier: Tier 2 | Fragility Status: Fragile | 3. Accelerated transition

Indicator Name	Year	Source	Value
GNI per capita	2019	World Bank	2,780
Health Centres per 100k population	2013	WHO - GHO	9.3
Nurses/Midwives per 1000 population	2018	WHO - GHO	4.6
Population	2020	UNPD	8,947,027
Surviving Infants	2020	UNPD	228,176
Under-5 mortality (per 1000)	2018	UNICEF	48

Health financing (and trends)



1.1. Overview of performance of vaccine support (end of 2019/early 2020; pre-COVID-19)

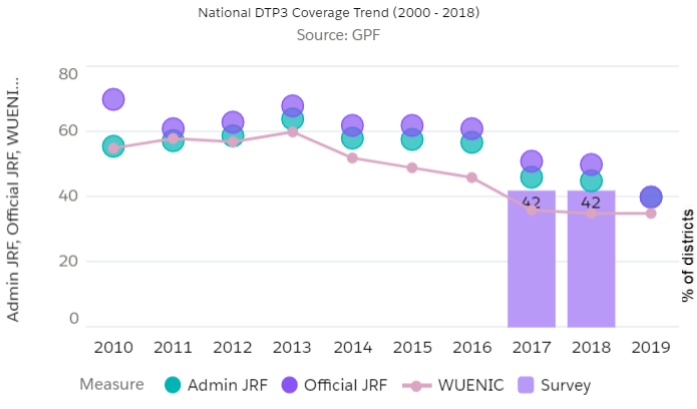
Vaccine	Introduction Date	2017 Coverage (%)	2018 Coverage (%)	2019 Target
PENTA	04-2008	36	35	80
PNEUMO	11-2013	36	35	80
IPV	08-2015	32	35	80
MR	08-2016	-	-	-

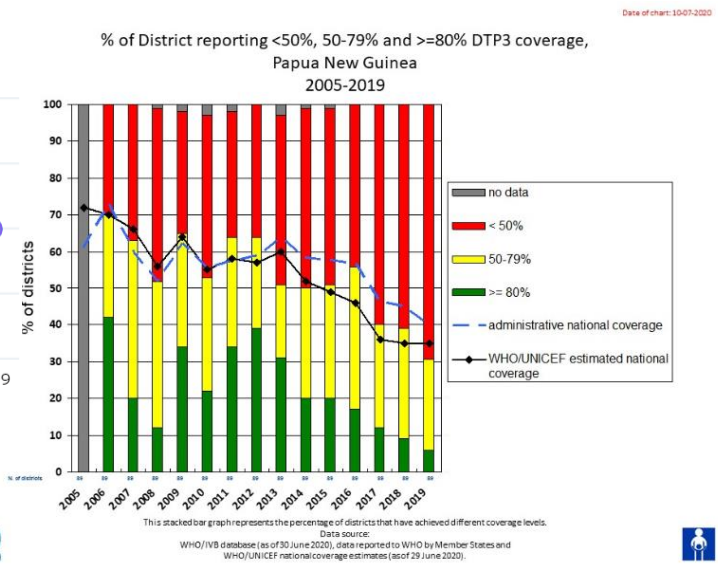
Vaccine Name	Type	Sub-Type	Status	CP Date ↑	Phase
MR	Campaign	Follow-up	Forecasted	2022-12-31	NA
MR	Campaign	Follow-up	Forecasted	2025-12-31	NA

Performance against Alliance KPIs

Indicator	Source Name	Year	Value	Previous Value	Trend
Measles containing vaccine (second dose) coverage at the national level (MCV2)	WUENIC	2019	20	0	▲
Pentavalent 3 coverage at the national level (Penta 3)	WUENIC	2019	35	35	→
Drop-out rate between Penta1 and Penta3	WUENIC	2019	20.5	20.5	→
Difference in Penta3 coverage between the highest and lowest wealth quintiles	Survey	2019	0	38	▲
Penta3 coverage difference between the children of educated and uneducated mothers/care-takers	Survey	2019	0	16	▲
EVM	EVM	2016	50.6	42.2	▲
# of Underimmunised Children	Calculated	2019	142703.6	141289.85	▼

Trends and district equity





Progress against indicators and targets achievement

Vaccine Programme	Source (2019)	Intermediate results Indicator	Reported actuals	Rel. % change
PENTA	Admin (JRF)	Number of surviving infants who received the first recommended dose of pentavalent vaccine (Penta1)	159,846	-4%
	Admin (JRF)	Number of surviving infants who received the third recommended dose of pentavalent vaccine (Penta3)	116,412	-5%
MCV	Admin (JRF)	Number of children in the target population who received the second recommended dose of measles containing vaccine (routine) (MCV 2)	55,378	450%
	Admin (JRF)	Number of surviving infants who received the first recommended dose of measles containing vaccine (MCV1)	95,025	-6%
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	No	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.

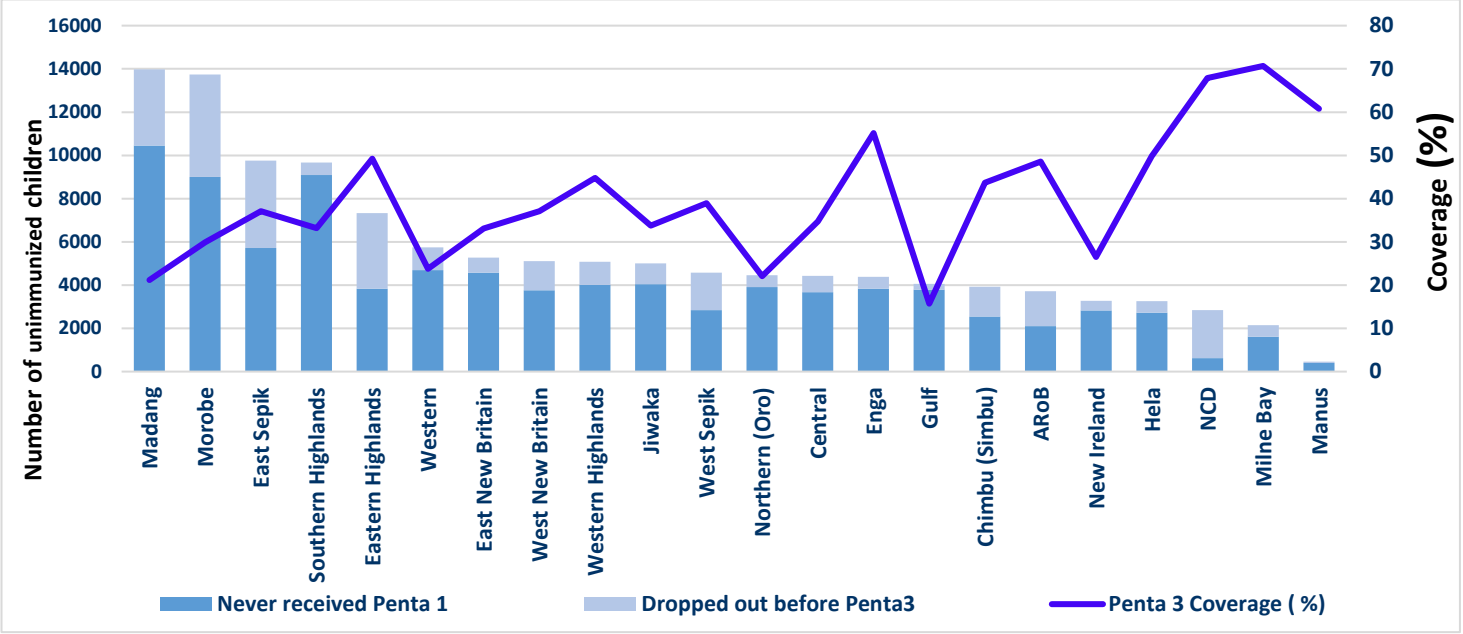
The year 2020 was dominated by the COVID-19 pandemic response which impacted all government sectors. In addition, the latter half of 2020 saw change in key leadership positions of the health department. Sir Puka Temu returned to the post of Minister of Health replacing Mr Jelta Wong. Sir Temu reiterated his commitment to prioritizing routine immunization and health system strengthening. Dr Osbourne Liko was appointed the new Secretary Health in late October, replacing the acting Secretary Dr Dakulala. We are hopeful that routine immunization will be prioritized and fully supported under their leadership in the coming years.

Coverage

Overall administrative coverage of Penta1, Penta3, and MCV1 has remained static over the past several years at a low level of 55%, 40%, 33% respectively for the three antigens. The WUENIC estimates have been revised downward in 2019 to reflect the results of the DHS that was published in 2019 for the period 2016-2018. The majority of children unvaccinated for Penta3 reside in the provinces of Madang, Morobe, Southern Highland and East Sepik. All of these provinces have in common a large population and difficult geography. There are additional pockets of extremely low coverage in other provinces which is usually related to extreme geography and lack of transportation infrastructure. In the large cities of Port Moresby and Lae, there are also settlements of recent migrants which due to marginalization may contain pockets of under vaccinated children. Recent work being done for RI catch up program has resulted in immunization of missed children, but much work remains to be done. After one round of RI catchup there were 5,900 doses of Penta1, 3,900 doses Penta3, 6,400 doses IPV, and 5,300 doses of MR1 administered to children missed in previous months. This compares with an average of 4500 doses of Penta 3 in a similar number of provinces per month in 2019. All antigens were administered in this activity, data shared demonstrates the overall outcome of the activity carried out in the 12 AIHSS provinces.

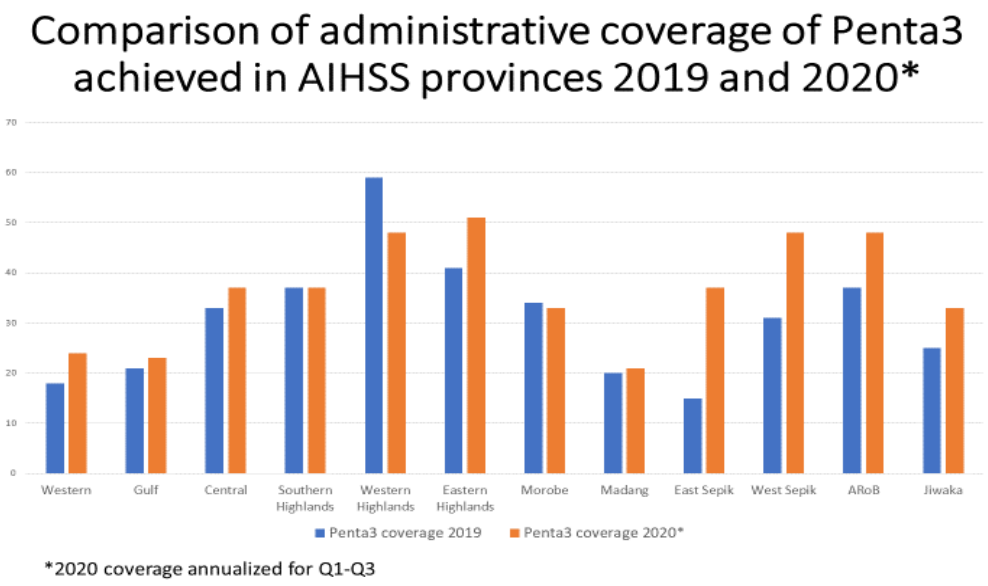
Improvement in RI coverage has been demonstrated in the past few months following a drop in late March-April due to a lockdown for COVID19 response. The current RI data indicates national Penta 3 coverage at 39%, MR1 coverage 38% and IPV coverage is 41%. The MR1 coverage is 5% higher at midyear 2020 as compared to 2019 and IPV coverage also improved with midyear 2020 coverage at 43% compared to end of year 2019 at 34%. Data quality has also improved with current reporting completeness above 80% as compared to 55% at same point in time in 2019. This has been achieved through the catchup program for routine EPI conducted in high risk provinces targeting highly populated areas.

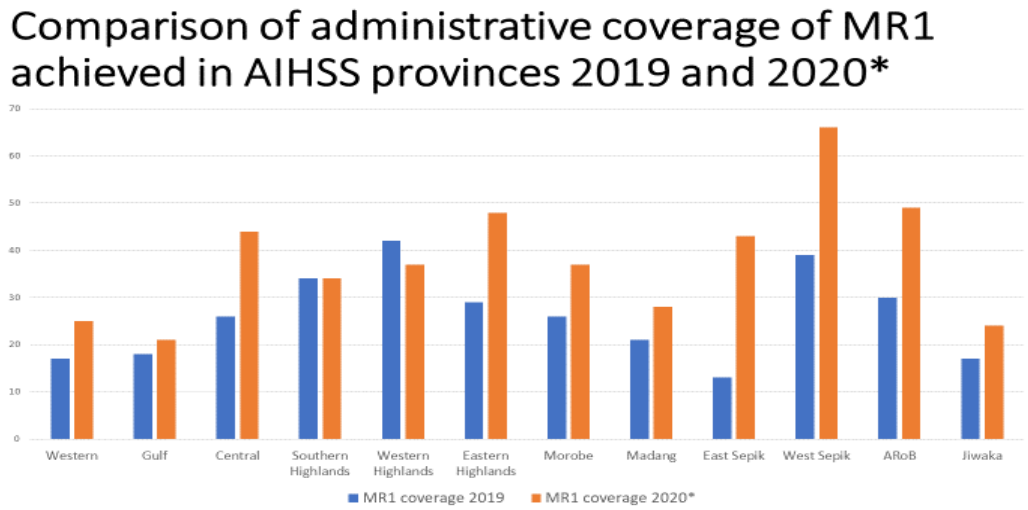
Number of unimmunized children by province of PNG in 2020 as of August 2020



Dropout rates between Penta1 and Penta3 doses remain high due to multiple factors. Implementation of mobile and outreach immunization sessions are irregular. The most common reasons for the irregularity are lack of transport, lack of funds for allowances & gas for cold chain equipment (gas) and shortage of trained HCW. The PHAs are spending a portion of the Health Function Grant for immunization service delivery, that is not sufficient to fully fund all RI areas of expenditure (Gas, CCE maintenance, cost for mobile & outreach). There may also be insufficient social mobilization and IPC during immunization sessions. In general, the tracking of defaulters is not rigorously carried out. In addition, RI data is underutilized for planning corrective action.

Microplanning workshops were conducted, and quality of plans were improved in 2020. The potential for rapid improvement in coverage was blunted by the COVID19 pandemic. The RI catchup program which was implemented through the AIHSS provinces has resulted in closing the coverage gap that resulted early in the COVID19 pandemic and even raising coverage compared to 2019, as seen in below graphs. However the pandemic has been an obstacle to more dramatic increase in coverage.





*2020 coverage annualized for Q1-Q3

Data issues

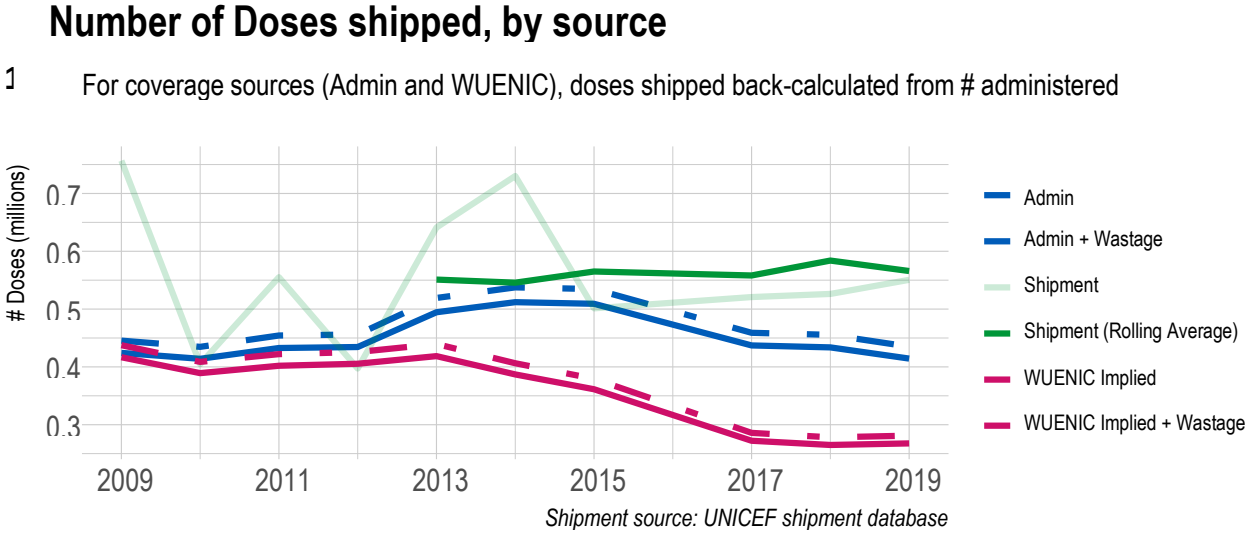
The target population used in all RI data analysis is taken from the NHIS and is published and used by all NDOH departments and Provincial Health Authorities. An international consultant was brought in country to assist the NDOH to revise/correct population data in 2019. This NHIS population data is used to calculate vaccine dose needs. A PNG census was planned for 2020 however this had to be deferred to 2021 due to the COVID19 pandemic.

Data quality has improved over the past year and reporting completeness compared at similar point in time has increased from 55% completeness to >80% completeness. For 2019, only 10/788 health facilities did not report at least one month of RI coverage data into the monthly reporting of the NHIS. The final completeness of 2019 reporting was 95%.

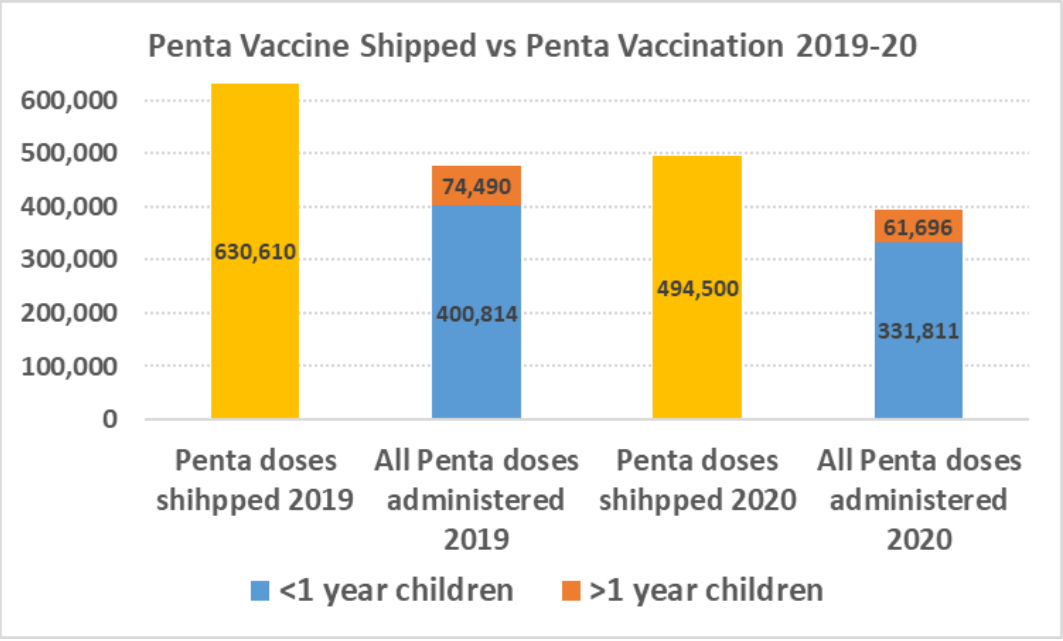
Nonetheless there are still gaps in data quality. There were 2 districts having Penta1 coverage above 100%, both of which were in the National Capital. The health facilities in these districts cater to a large population of clients from the adjacent rural province. There was one district having Penta3 coverage above 100% and this is from a province that has a large mining industry with significant mobile/transient population.

Six out of a total 89 districts have negative dropout rates. Two of these districts have severe insecurity issues, two districts have very hard to reach populations making regular outreach challenging, and two districts are in a province with mining industry and transient population. It may be that HCW are misclassifying the age of children vaccinated and children over age of 12 months are recorded in the Penta3 <12month category. This is not to dismiss the issue of data quality which still requires training and supportive supervision to bring about improvement.

The discrepancy between number of doses shipped and number of doses administered (see below graph) can be partially explained by the fact that there is significant number of children >1 year vaccinated; at end of Q3 2020 the number of children vaccinated with Penta vaccine over the age of 1 year was 61,696. For the year 2019 the total number of doses of Penta administered to children > 1 year was 74,490. In addition, there is significant wastage as vaccine is taken out from secure cold chain to perform outreach and mobile sessions and more than 50% of the target population requires outreach method. Due to aging cold chain at health facility level there is also significant malfunction resulting in loss of vaccine. This will improve in coming years as cold chain is replaced (CCEOP & HSS2) and capacity building for HCW on vaccine management is carried out.



The graph below shows the trend of Penta vaccine shipped in country versus children vaccinated in 2019 and 2020. It may be taken into consideration that the total children vaccinated with all Penta doses in 2019 was 475,304 (both <1 year and >1 year children), while the shipped quantity was 630,610. As stated above, there were some wastage during immunization service delivery, but some amount of vaccine in 2019 was carried forward to 2020, the precise number of which is a bit challenging to calculate due to difficulties in stock tracking at sub-national levels. The same consideration should apply to 2020.



HSS2 implementation summary (as of October 2020)

Recipient	Grant Amount	Funds Disbursed	Expenditure	Country cash balance
WHO	$3,255,913	$1,627,956.50	0	$1,627,956.50
UNICEF	$4,664,734	$2,332,367	0	$2,332,367
UNICEF SD (for CCEOP)	$1,076,882.47	$1,076,882.47	$1,076,882.47	
Abt Associates Total	$5,814,889.46	$1,150,407.88	$541,871.33	$1,134,82.33
Gulf (OSF)	$1,229,051	$146,198.83	$123,610.52	$373,465.5
West Sepik (Burnet)	$1,228,045	$584,795.32	$340,896.78	$243,898.54
Central (CHAI)	$935,672.51	$219,298.24	$35,456.14	$183,842.10
Eastern Highlands PHA	$1,227,853.21	-	-	$175,438.59
Southern Highlands (OSF)	$1,194,267.54	$200,115.49	$41,907.89	$158,207.60
Total	$14,812,419	$6,187,614	$1,618,754	$3,960,324

HSS2 key milestones achieved in 2019

Several HSS activities could not be completed as desired and as planned. The NITAG development project of sending a PNG team to Australia for a work/study tour could not take place due to closure of international borders. The VHV program plans did not progress due to refocused health priorities on COVID-19 pandemic response and travel restrictions. The training on vaccine preventable disease surveillance could not be done because all surveillance staff were repurposed to COVID-19 case surveillance in addition to the travel restriction and physical distancing requirements.

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
CCEOP	2018	2018	UNICEF SD	1,025,466	999,872	999,872	-	All disbursed fund committed in Procurement orders. All CCE arrived in country and being installed.
MR follow-up campaign operational support	2019	2019	WHO	8,091,897	6,454,081	6,454,081	-	
			UNICEF		1,637,816	1,637,816	-	

1.4. Compliance, absorption and other fiduciary risk matters

- Comments on financial absorption as of Oct 30, 2020:
    - Small balance from MR follow-up campaign operational support remaining with WHO and UNICEF will be completely expended by December 2020 through MR, RI and vaccine supply chain acceleration activities. The Accelerated Immunisation and Health Systems Strengthening (AIHSS) Funds under the PNG Australia Transition to Health Program (PATH) will not be expended by 2021. The PATH team is currently working with grantees to ascertain a realistic budget spend for 2021 to inform discussions on a no-cost extension period.
    - Compliance with financial reporting requirements (periodic/annual financial reports, audits): PATH team has submitted quarterly financial reports every quarter since quarter 4 of last year.

- Compliance with programmatic reporting requirements (GPF):
    - The MR campaign report 2019 and Joint appraisal 2019 submitted in time.
    - The PATH team submitted the six-month progress report in August 2020 and will submit the next one in February 2021.
    - The grant performance framework for PNG has already incorporated relevant Outcome, Intermediate and Process indicators agreed by the NDOH and core partners (WHO and UNICEF). Overall, the GPF reporting completeness is satisfactory for PNG in 2019 and targets were updated for 2020.

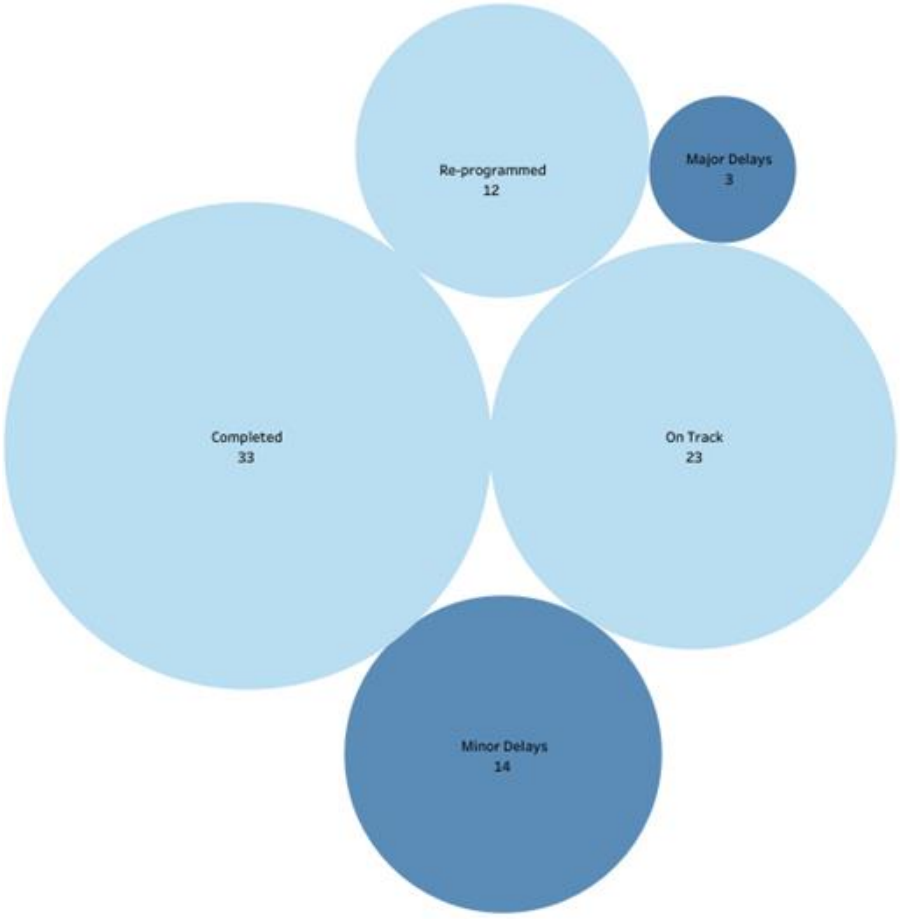
- Other financial management and fiduciary risk comments:
    - The Government of Papua New Guinea reimbursed $767,470.56 USD by November 2019 and met its obligations identified in the 2016 audit.
    - In addition, the Government of PNG has met its co-financing obligations for 2020 as of October 2020. This demonstrated that the National level has prioritized RI vaccine financing despite the urgent demands of the COVID-19 pandemic response.
    - The vaccine independence initiative (for pre-financing agreement) application process has been delayed due to refocus on COVID19 response.
    - AIHSS aims to implement through national and provincial health systems where possible. To enable this to occur the program supports PHAs to strengthen their financial management systems. This is intended to ensure the systems meet necessary standards to allow program funding (and other funding) to be channeled through these systems.
    - The support to strengthen financial management system is provided through the Implementation Service Providers in relevant provinces as well as through Deloitte in selected provinces. This support is guided by the initial assessments undertaken by EY in the initial stages of the program.
    - Abt has engaged Deloitte to review and validate the draft Corrective Action Workplans (CAP) against the Ernst & Young (EY) assessment results and progress to date for Southern Highlands, Madang and Morobe Provincial Health Authorities (PHAs). This work is being completed to support the proposed transition plan where some funds would flow through the HSIP Trust Account after Year 1 of the grant if approved by donor parties. Under the transition plan, the Immunisation Support Providers (ISPs) are working with the PHA and now Deloitte to support the PFM changes required for the transition plan to be approved. This work with Deloitte commenced on 19 October. Deloitte is working with the ISPs and the PHAs to identify current processes, policies and procedures on file and gaps. Templates that Deloitte has on file from working with the Eastern Highlands and Western

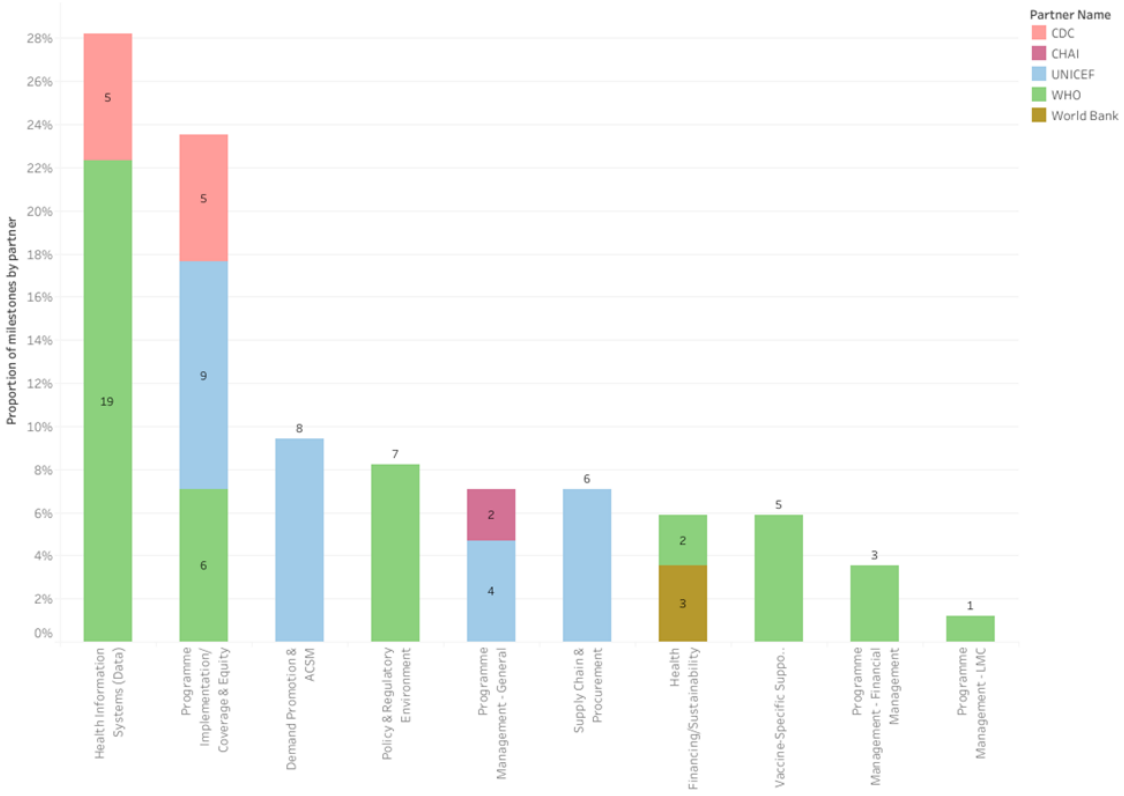
Highlands PHAs will be shared with the ISPs and PHAs for use. A final CAP with progress to date, action items moving forward, corrective action owners and the role of the ISP in supporting each action item will be submitted on November 27.

- Abt has also engaged Deloitte to support the Western Highlands PHA to develop a CAP based on the EY assessment findings and implement all critical actions. Once all critical actions have been addressed by Deloitte by 20 November, Abt will provide documentation for Gavi consideration on if contracting can proceed. This support is being provided through a secondment model where a Senior Analyst was based at the PHA for 5 weeks.
- For all PFM work with Deloitte, the Abt Risk and Assurance team is providing quality and assurance checks as approved by the Senior Management Group.
- The PATH team will then conduct six monthly spot checks on standalone PHAs (Eastern Highlands and Western Highlands PHAs) delivering the AIHSS program to verify the continued implementation and use of the corrective action items (e.g.; development of internal audit plan, formulation of audit committee etc.) as prescribed through the public finance management (PFM) support provided by Deloitte and Abt.
- The ISPs will continue to support the transition provinces.
- Provinces have practically demonstrated their dedication to maintaining RI during the COVID-19 response by securing funds to support outreach visits for catch up vaccination. These funds were outside those of AIHSS, for example the province of ARoB which had not yet signed contract with PATH.

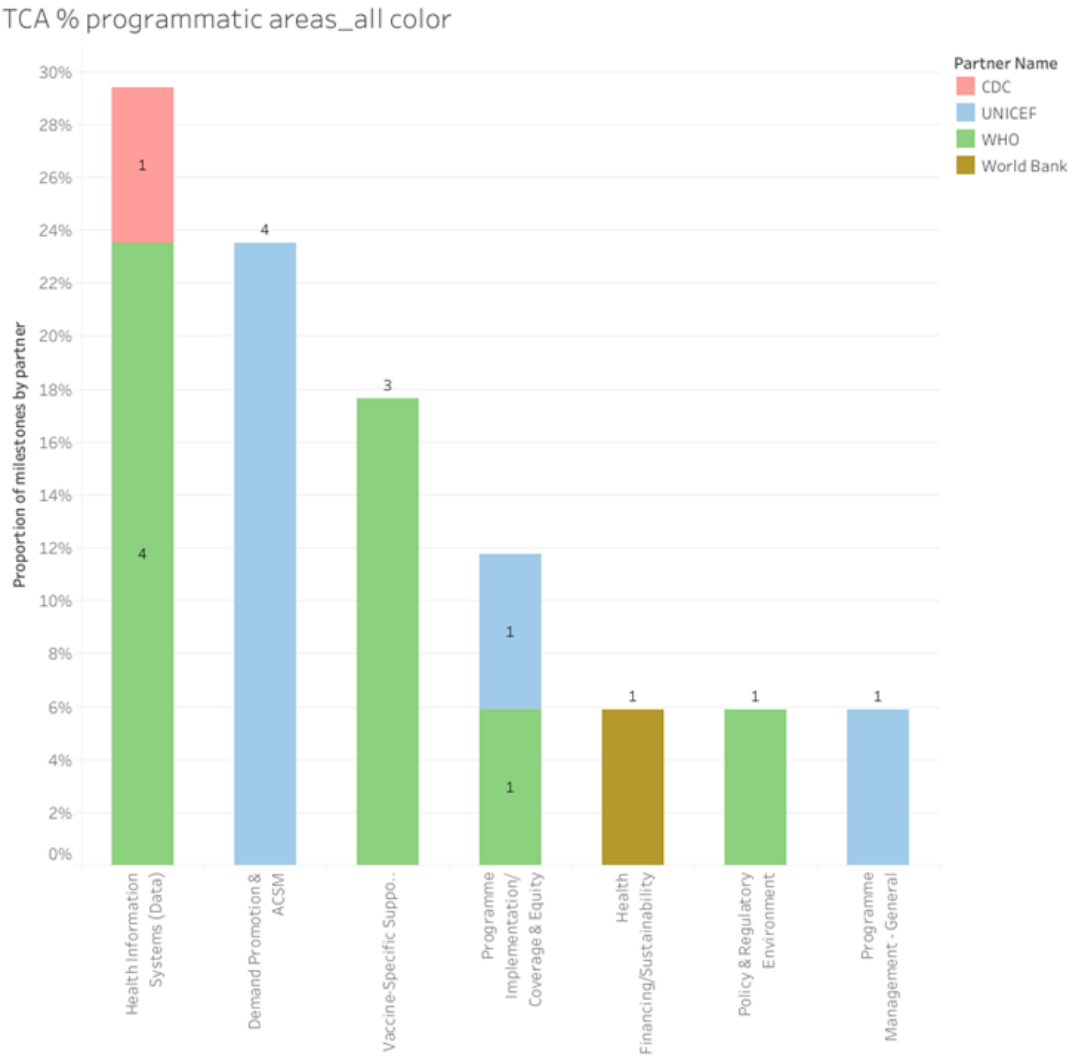
1.5. Overview of PEF TCA progress (end of 2019/ early 2020)

Overall milestones for PEF TCA, June 2019 – June 2020





Delayed milestones for PEF TCA, June 2019 – June 2020



The improvement in RI coverage and data quality that has been demonstrated in the past year has been possible with the TA provided to subnational level by STOP team and WHO short term consultants. Provincial health departments still have a need for the day to day technical support provided by such officers. The consultants posted in the provincial headquarters support the provincial health officers to plan and implement RI mobile and outreach sessions, conduct disease surveillance activities, analyze data and use it for local corrective action. They have also acted in a surge capacity to support public health emergency response as needed for example in the COVID-19 pandemic, thus helping to preserve essential health services. Now that Provincial Health Authorities have been established in all provinces, there is a great need for continued subnational support, especially in the newly established PHA. We have observed that the subnational TA facilitates more efficient use of AIHSS resources and potentiates the gains that may be made with additional funding. We would like to see this subnational TA support continue in the coming year.

Strategic and coordination support were ramped up in 2020 for the immunization programme through the TCA, that resulted revision of the ICC TOR which is now waiting for endorsement from the Senior Executive Management of the NDOH. National Logistic Working Group (NLWG) for immunization has been fully engaged and supported by TCA, to roll out CCEOP, iSCM strengthening (maintenance, distribution, HR, etc), though the NDOH is still struggling to recruit staff for oversight management at national level as well as sourcing investment for distribution management. The immunization data management and visualization has improved notably at national level in 2020 through the TCA, but it is still missing critical reflection of sub-national vaccine stock data, temperature data, timeliness and completeness of immunization coverage data, possibly due to further delay in the roll out of mSupply and the eNHIS. The vaccine financing has also been managed well in 2020 and stock out of EPI vaccine not experienced due to funding at national level, though the current cash flow shortage will pose a risk in timely vaccine procurement in the coming months.

TCA Milestones (WHO)

1. Coordinate between NDOH, PPF, PHA and provincial Implementing Partners to initiate the field implementation of Accelerated Immunization and Health Systems Strengthening Program in at least 4 provinces by Q3
   Activities to accelerate the strengthening of RI activities have begun in all the 12 provinces participating in the PPF. The RI Catchup program has started with at least one round of catch up activities initiated by the respective PHA. Microplans for RI have been developed in all provinces. Comprehensive Immunization in Practice has been completed in 9/12 provinces. Technical support was given to Abt to help develop the performance framework. Technical guidance on safe implementation of RI during the COVID19 pandemic was shared with partners.

2. Develop PNG cMYP 2021-2025 draft document by Q4 and ensure alignment with National Health Plan
   Development of the National Immunization Strategy was started in early 2020. Initial progress was on track and the Core and Steering Committees were formed with suitable TORs and initial meetings conducted with members including international consultants. The Situational Analysis was produced, and comments incorporated in the document. However, progress has stalled because the external consultants were unable to travel to PNG as per schedule due to the COVID19 travel restrictions. Key stakeholders in country could not be met. The decision was made to pause the development process for 2020 and resume in January 2021 to continue development and finalize the NIS document. In addition, the National Health Plan development process has been halted until next year due to the demands of the COVID19 response.

3. Provide leadership and guidance to STOP team members to ensure their optimal output towards building capacity of subnational teams

   The members of the STOP team have been mentored throughout the year by telephone, email, and virtual meetings and provided an enabling environment for them to develop their workplan according to local situation in their provinces of responsibility. Output data of their work is reviewed weekly and overall progress followed through monthly written reports.

4. Strengthen Vaccine Preventable Disease Surveillance
   The first level draft of Vaccine Preventable Disease guideline has been developed that will be aligned with the Regional Strategic Framework on Vaccine Preventable Disease and Immunization. The draft will be shared with the national department of health for approval and endorsement process next year.

TCA milestones (UNICEF)

A national Immunization Advocacy Communication and Social Mobilization strategy has been developed in early 2020 and endorsed by the NDOH which is waiting for a formal rollout (being delayed due to COVID-19 pandemic). The strategy is the basis of advocacy and social mobilization activities for PNG immunization and contains clear guidance for province to adopt/customize for developing their own strategies. To complement this strategy roll out, messages and IEC materials for immunization advocacy and community mobilization have been developed in 2020 and provided to the provinces and immunization partners which are currently being used. However, the high-level advocacy for immunization with political leaders and key decision makers at national and provincial level has been delayed due to COVID-19 pandemic.

As part of the TCA, technical support being provided for the PNG cold chain inventory updating and development of short-medium and long term rehabilitation and maintenance plan in 2017-2019. The Gavi CCEOP is addressing a significant proportion of the rehabilitation through 364 SDD, ILRs and freezers that arrived in country in February 2019. Since then, technical support is being provided to the Project Management Team (PMT) and for the distribution, installation and commissioning of the CCEOP equipment. It can be noted that these 364 equipment are being installed by a local service bundle vendor called Mobo Pharmaceuticals as per approved CCEOP application from Gavi. As of 30th October 2020, 15% (51 units) of the CCEOP has been installed and commissioned and they are now running in their locations. To safeguard the CCEOP and existing cold chain equipment and its maintenance, SOPs have been developed for the equipment handler which are now being finalized by the NDOH NLWG. However, the implementation of the CCEOP was delayed at least 4-5 months due to lockdown of country for COVID-19 pandemic. Moreover, the local service bundle provider (Mobo Pharmaceuticals) responsible for installation demonstrated significant capacity gap in terms of number of technicians, experiences, warehousing capacity, and financial capacity, which caused delay in implementation of the CCEOP. The vendor also lacks strategical planning experiences for such project implementation, hence, struggled to deliver the task with their proposed budget. Technical and coordination support were provided by UNICEF TCA to the vendor to assess the implementation situation and revise their contracts in concurrence with Gavi.

Due to COVID-19 pandemic, UNICEF TCA 2019 implementation was slow and extended up to December 2020, which also pushed the implementation of TCA 2020. Moreover, the delayed disbursement of HSS2 grant resulted delay in milestones of implementation of immunization demand generation activities, capacity building of health promotion branches, engagement of provincial biomedical technicians in CCE maintenance etc. Engagement of the TCA staff in COVID-19 response also somewhat slowed down the implementation of 2020 milestones. Therefore, it would be useful to extend the TCA 2020 up to December 2021 to synchronize the TCA support in achieving 2021 TCA milestones.

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

2.1 COVID-19 cases and deaths (as of [insert date])

	Total *As of 28nd October 2020*
Confirmed Covid-19 cases	589
Deaths	7
Total Provinces	22
Total Provinces Affected	14
Transmission classification	Community

The first confirmed case of COVID19 was detected in Morobe province on March 19, 2020. In the following 6-week period confirmed cases were detected in Western province, NCD, East New Britain, and Eastern Highlands, thus involving all four regions of PNG. Currently there has been over 584 confirmed cases of COVID19 detected, and 7 deaths attributed to COVID19 infection. This is thought to under represent the true number of cases as there is a relatively low number of tests conducted. NCD and Western provinces are the most affected provinces, having 95% of all confirmed COVID19 cases in the country.

Impact of COVID-19 on disease surveillance

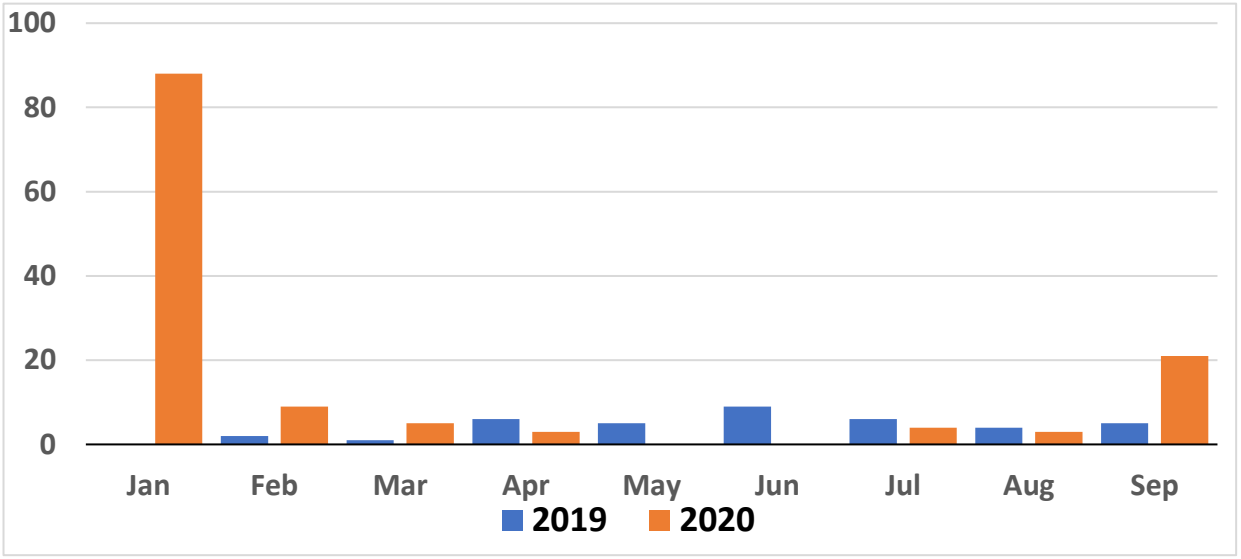
Technical experts and consultant for data management were repurposed to COVID19 response duties. All national disease control officers have been focused on COVID19 response, leaving less time for AFP and AFR surveillance activities.

The provincial surveillance officers are focused on COVID19 related surveillance and have less time to engage in AFP and AFR surveillance activities, especially active surveillance visits. Lab specimen transport is sometimes challenging due to fewer inter provincial public transport options.

The Central Public Health Laboratory which performs ELISA testing for Measles Rubella, has been tasked with COVID19 sample collection and testing of samples. This is a heavy work burden which has resulted in occasional delay in testing of AFR specimens.

Nonetheless AFP and AFR cases continue to be reported but the rate of reporting of AFP cases has decreased. AFR case reporting overall has been maintained. There has not been significant change in the proportion of suspect cases that undergo lab testing. The variation in monthly reporting rate of suspect cases may be related to the detection of other infections causing fever and rash such as varicella zoster. Lower reporting was seen in the 2nd quarter possibly due to the overburdened surveillance staff focused on COVID19 but also possibly due to less disease transmission secondary to physical distancing and movement restriction.

Comparison of the number of AFR cases reported by month in 2019 and 2010



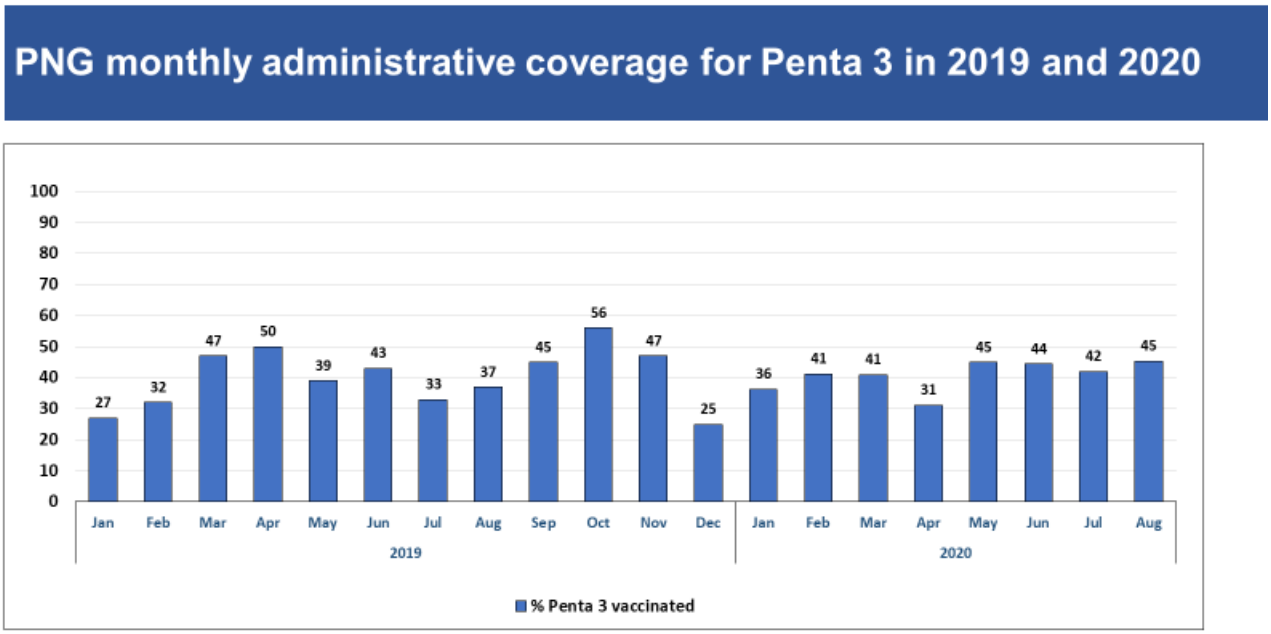
Impact of COVID-19 on disease cases

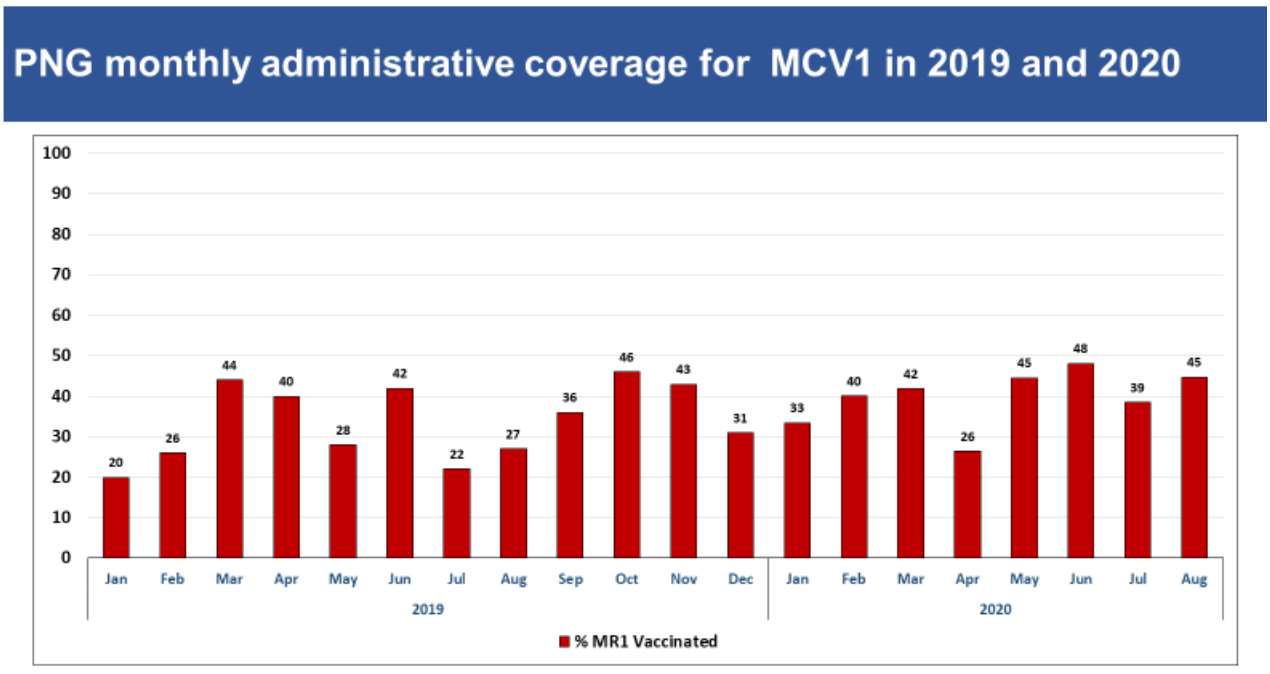
There have been no confirmed cases of polio detected in 2019 nor in 2020.

The total number of confirmed measles cases detected in 2019 was one. The number of confirmed measles cases detected in 2020 January to September was three. The sensitivity of measles surveillance has been maintained in 2020 as demonstrated by the higher reporting rate of AFR cases in 2020 as compared to 2019.

Year	Annualized non measles non rubella reporting rate
2019	1
2020 (Jan-Sept)	2

2.3 Impact of COVID-19 on immunisation





- Overall the COVID19 pandemic has negatively impacted the implementation of the Routine Immunization program. In late March nationwide movement restrictions were put in place following notification of the first confirmed COVID19 case. Initially fixed site immunization sessions were reduced, and mobile and outreach sessions deferred. Partners have supported the government to mitigate this negative impact with some success in the 3rd quarter of the year. The negative effect of COVID19 pandemic can be seen in the graphs above which show a decrease in the Penta3 and MR1 coverage in the month of April. Subsequent months show improvement in coverage. Guidance was issued on how to safely conduct fixed site immunization sessions observing infection prevention and control and most fixed site sessions resumed. However, there was some reduction in client attendance due to general movement restrictions and the number of mobile and outreach sessions conducted was much reduced.

- School vaccination at entry and exit for tetanus booster doses was deferred during the period in which schools were closed and have recently resumed.

- The preventive integrated supplementary immunization campaign using bOPV and Td antigens planned for July 2020 was cancelled and instead an operationally simplified bOPV SIA will be implemented in November 2020. The planned introduction of IPV second dose remains on track.

- Due to significant movement restrictions, closure of the ports, there has been a delay in CCEOP implementation by approximately 6 months, increase in cost of the service bundle providers, and a delay in iSCM strengthening activities (new regional vaccine store rollout, temperature monitoring study, inventory updating, development and rollout of EVM SOPs, capacity building of provincial CCE maintenance networks)

- The disruption of international flights caused prolonged lead time of vaccine procurement and resulted bOPV stock out for 2 weeks in June 2020. Delay in domestic vaccine shipping from central to provincial store due to commercial flights disruption was well managed through using the emergency logistics management to ship vaccines. National Logistic Working Group (NLWG) for immunization has been meeting less frequently as the key technical experts of NDOH were repurposed to COVID-19 responses, that resulted lack in oversight management of vaccine and cold chain management HR and capacity at national level

- Movement restrictions, prohibition of convening large groups of people, and focus of high level leaders on urgent COVID19 response issues have caused significant delay in carrying out the planned high-level advocacy on routine immunization at national and provincial level. For similar reasons there has been delay in RI demand generation and community engagement activities.

- The global economic downturn and the urgent funding demands for COVID19 response have resulted in a shortfall and delay in routine EPI vaccine financing and challenges to meet Gavi co-financing obligation for NVS. However, by early October these obligations had been met for the year 2020.

- Funding delay caused delay in vaccine ordering combined with delayed shipment due to international flight disruption resulted in the inability to maintain safety stock level.

- During the 2nd quarter there was also less oversight on vaccine store due to repurposing staff to COVID response

- During the initial months of the COVID19 pandemic there was some anxiety in the community about attending health clinics due to fear of COVID19 but this has been addressed through COVID19 communication and awareness programs and attendance in immunization sessions has returned to baseline levels.

What has been the impact on the implementation of Gavi support (vaccines, HSIS, TCA, other), including financial absorption, stock management etc.?

Financial absorption capacity has been reduced due to multiple reasons.

Training, advocacy, community engagement, have all been delayed from the original timeline due to new requirements for physical distancing and travel restrictions under the COVID19 response.

Supportive supervisory visits have been reduced due to travel restrictions put in place to limit potential spread of COVID19.

International travel restrictions have interfered with the planned timeline for development of the National Immunization Strategy as the international consultants have been unable to travel to PNG and key government officers have been focused on urgent issues to respond to the COVID19 pandemic.

High-level advocacy for immunization with political leaders, parliamentarians and key decision makers at national and provincial level as well as capacity building of the national/provincial health promotion branch officers has been delayed due to COVID-19 pandemic. The rollout of the national Immunization Advocacy Communication and Social Mobilization strategy has been delayed due to COVID-19 pandemic.

The implementation of the CCEOP was delayed at least 6 months due to significant movement restrictions in country for COVID-19 pandemic. Similarly, the EVM SOP development and rollout was also delayed. Application for the Vaccine Independence Initiative has also been delayed due to the COVID-19 pandemic.

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

Not applicable – NDOH/partners have not requested any budget reallocations of the HSS2 grant.

2.5 Already agreed modifications in Technical Assistance (if applicable)

Agreement to extend implementation of the 2019 UNICEF TCA until December 2020.

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

There will likely be an underspend across all AIHSS grantees due to the delay in the commencement of the three-year program. Abt has requested realistic budget spend for 2021 which grantees will submit by 6 November. Abt will then use this information to forecast the underspend.

The HSS grant has unspent fund due to late release of funds, and the COVID19 pandemic response which interfered with program implementation. Planned activities supported by these funds will be deferred to 2021.

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

Short/medium-term activities to maintain/restore routine immunisation

The COVID19 pandemic response plan is updated regularly according to changes in the pandemic situation however a formal recovery plan has not been fully developed. Specific activities have been undertaken by the National Immunization Program to mitigate the effect of the COVID19 pandemic and move towards recovery. Examples of such activities include the catchup RI program in 13 provinces, the implementation of integrated immunization service delivery activities in 2 critically underserved districts, regular review and analysis of RI situation and introduction of virtual review of RI activities with PHAs, implementation of the national Polio SIA, continuing capacity building through immunization training, and risk communication with specific messages for RI.

Several strategies have been used to reinvigorate immunization service delivery. These include training of all front-line health workers on Infection Prevention & Control (IPC) and Risk Communication and Community Engagement (RCCE), provision of guidelines for safe conduct of immunization session during COVID19 pandemic, provision of PPE for the health workers, refresher microplanning training in tandem with RI catch up program implementation, and continued IIP training.

UNICEF equity improvement program is in place to address the most underserved communities and this equity improvement program framework will be continued to ensure the underserved are reached with immunization services. Periodic analysis of immunization and health system data will be done to identify underserved communities (health facilities & districts) and these will be targeted for implementation of the integrated immunization service delivery for children < 5 years age. The equity program targets areas of low coverage, hence areas with large number of unvaccinated children and aim to reach 80% of those missed children. These localities are repeatedly missed in RI and SIAs due to the difficulty and cost of reaching the locality.

In the upcoming National Polio Immunization campaign in November many provinces will integrate RI alongside the polio vaccine administration in selected lower performing areas. By taking advantage of the additional funds for transportation to hard to reach areas additional vaccinators may be sent to conduct routine immunization alongside the campaign OPV. This can create awareness about routine immunization and hence demand for services that are not often provided in the hard to reach locality.

CCEOP and HSS2 supported cold chain rehabilitation activities are in progress since February 2020. CCEOP funded equipment (364) have already been arrived in country and being installed, though the COVID-19 pandemic has significantly delayed the process. However, these CCEOP equipment are now expected to be installed and commissioned by December 2020. The HSS2 supported equipment are now under procurement and should be added to the PNG cold chain system by Q-2 2021. Altogether, 682 new equipment will be added to the system, thereby, requiring a robust workforce to keep them running through adequate maintenance.There is no institutionalized cold chain maintenance network in PNG to safeguard these investments. Despite the addition of these new equipment to the cold chain system, COVID-19 vaccine rollout in 2021-22 may bring additional demand of cold chain equipment in few provinces, as well as the repair of the existing equipment with spare parts; replacement of damaged solar arrays can improve the vaccine storage capacity in respective provincial and HF stores. Also, the national vaccine store is highly depending on the 5 cold rooms (40 m^3) that were recently installed, while 3 existing cold rooms are 15 years old and breaking down frequently. Envisaging the COVID-19 vaccine rollout, future HPV & Rota vaccine introduction, the 3 old cold rooms need to be replaced. Moreover, the already thin technical capacity of the NDOH and PHA for vaccine management were repurposed for COVID-19 response, hence, the RI vaccine management at national and two newly established regional stores are facing a renewed challenge to keep running the smooth supply of vaccines to other stores.

Since 2018, country financing for routine immunization vaccines was barely adequate. The consumption of RI vaccine has been low due to less regular outreach and mobile immunization service delivery during the polio outbreak response in 2018-19. The Health function grant allocation from NDOH to provinces were also affected since 2018, which resulted low rate of implementation of outreach & mobile immunization service delivery in provinces. Therefore, country required to procure less quantity of RI vaccines doses than planned, as a result, relatively low financing was able to meet the need including the co-financing during last couple of years. In 2020, the trend was showing improvement regarding the vaccine financing, as well as fulfilling the co-financing obligation, though delay in disbursement from treasury was still a challenge. This delay resulted in late procurement of PCV and Penta vaccines in 2020. Overall, the country financing for RI vaccines is slowly improving despite COVID-19 pandemic in 2020. NDOH pointed out that, a strategic approach in the vaccine budgeting process will be followed in 2021 and is seeking assistance from the senior leadership in the Ministry of Health.

Status of PNG RI Vaccine Financing

Year	2019	2020	2021
Total cost of vaccines and injection devices to reach >80% coverage of all antigen excluding IPV ($)	**6,180,839**	**5,780,880**	**6,757,647**
Gavi financing ($)	694,833	1,448,500	826,571
Co-financing by country ($)	249,975	3,832,071	2,715,259
Co-financing fulfilled ($)	249,975	3,041,622	
Total funding by CO including Co-financing ($)	2,900,000	3,800,000	

We will continue to support and encourage all provinces to conduct routine immunization fixed, mobile, and outreach sessions according to their annual RI microplan. In addition to this we envision quarterly catchup programs of approximately 2 weeks duration when the province will select those sites that were missed in the previous quarter (for reasons of weather or HR/fund shortage) and visit them using mobile or outreach strategy. Ideally we would aim to just use the annual RI microplan with scheduled regular immunization session visits that would cover all catchment population in every Health Facility without need for catchup, PIRI, or campaigns.

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

- What are the key technical assistance needs to be funded through PEF TCA[1]?

  Strategic & Managerial support to WHO and UNICEF for national level, Cold Chain Managerial support at national and sub-national level, Managerial support for ACSM at national level and technical support for ACSM at sub-national level through TCA.

  TA support to the subnational level.

- Does the country anticipate requiring additional HSS flexibilities or support?

  - Procurement of Solar panel of SDD that were damaged (12 sets).
  - Procurement of 10 SDD combined vaccine refrigerators for 10 new CHP (Enga-3, WNB-1, Manus-1, WHP-1, Morobe-1, WSP-1, ENB-1, ESP-1) to be built in 8 provinces in 2021 as per the 10th November decision from the HSSDP steering committee, to extend the immunization services in these newly built health facilities.
  - Replacement of 3 cold rooms at National store.
  - Addition of 14 ILRs for Province store those will face shortage during COVID-19 vaccine rollout and Mt Hagen and Rabaul regional vaccine store
  - 3 Local TA (PNG national) for COVID-19 vaccine roll out-supply chain management

[1] The TA needs mentioned in this report are a key input into the process to classify Gavi TA support (PEF TCA). The TA plan will however be subject to follow-up discussions and a separate approval process, which may require supplementary information to be provided.

The following activities have been planned for the short to medium term in PNG and require technical assistance to be funded through PEF TCA:

- IPV 2nd dose introduction in July 2021 – This introduction is important because it will strengthen community immunity against polio. Thus, it will decrease the risk of polio outbreak and the consequent reliance on immunization campaign to rapidly boost immunity or respond to outbreaks. TA support is needed to develop guidelines, support training, and monitor introduction.
- National Immunization Strategy development Q1-Q2 – The NIS is currently under development and will be finalized by the end of Q2. TA has already been engaged but in country presence of consultants is needed to conduct consultative process and fully develop the strategy document that will guide immunization strategy in the next 5 years.
- Establish NITAG with travel/study to Canberra, Australia – NITAG should be established to provide technical advice and support to the National Immunization Program Manager. This could not be done in 2020 due to international travel restrictions. It may be planned for Q3 or Q4 depending on pandemic situation.
- TA support to develop HSS3 Gavi application
- Integrated MCH outreach service delivery for 1 year (2021) in 10 provinces that are not covered by the AIHSS project through COVID-19 WB financing – TA will be needed to support capacity building in microplanning, vaccine management, and safe injection technique.
- Training on VPD surveillance integrated with AEFI surveillance – A draft VPD guideline has been developed which will provide the backbone of training materials for VPD surveillance. This may be integrated with AEFI surveillance training with focus on COVID-19 vaccine.
- EVMA in Q3 2021
- Continuation of Vaccine Independence Initiative consultative process
- Engage CSO for CCE maintenance
- Roll out of new ASCM strategy
- Engage CSO for immunization demand generation project in 2 provinces
- Pilot project for community engagement and demand generation through CSO in 4 priority provinces
- Train HCW in 10 provinces (excluding the AIHSS provinces) on Risk communication and community engagement for COVID-19 and MCH services including immunization
- Targeted awareness sessions on immunisation for communities in AIHSS provinces having negative perception on immunisation
- Pilot program for tracking under 1yr and defaulters involving Village Clerks and/or VHV
- Introduction of COVID19 vaccine Q1-Q3 – TA will be needed for developing the vaccine introduction plan and monitoring deployment of vaccine
- RI Catchup Program modelled on current activity but regularly scheduled to conduct one round every quarter. Areas to target would be selected after analysing previous quarter output and including HF with lowest coverage or communities not visited in last quarter microplan. TA will be needed for monitoring and for analytics support.

The current staffing profile is proposed to continue in the year 2021

Staff	*P4*	*UNICEF*	*Immunization specialist*
Staff	*NOA*	*UNICEF*	*Immunization officer*
Staff	*P4*	*UNICEF*	*C4D manager*
Staff	*NOA*	*UNICEF*	*C4D officer*
Staff	*P2*	*UNICEF*	*Cold chain officer*
Staff	*P2*	*UNICEF*	*Cold chain officer*
Staff	P5	WHO	Technical Coordinator
Staff	P3	WHO	Technical Officer

Roadmap for further medium/long-term planning

---The NIS is to be developed next year alongside NHP. Both strategic plans have a broad consultative process built into their development plans. These documents will inform the development of the HSS3 proposal in Q3-4 2021.

---MR follow up campaign in 2022 – RI coverage with MR1 is below 60% in most provinces so there will be a rapid accumulation of susceptible children which in turn elevates the risk of measles outbreak. A nationwide follow up immunization campaign is needed approximately every 3 years targeting children between 6 months and 5 years of age.

---MR follow up campaign in 2025 – as stated above the MR follow up campaign is needed to prevent large scale outbreak of measles. The target age group would be 6 months to 5 years of age.

---Preparation for HPV introduction 2023/2024 – Senior Executive Management has indicated interest in introducing HPV in PNG. Preparation for HPV introduction may begin in late 2023 for planned introduction in mid to late 2024.

---VHV curriculum development and VHV training in 2021-2022 – The VHV program will provide health education specifically on the benefits of immunization and will aid in reducing the high dropout rate in PNG.

----Work has begun on potential introduction of a COVID19 vaccine in 2021.
The COVAX Committee/working group has been formed, and MESAC sub Committee of NCC is recommended to be the advisory body to the Government/NDOH.

---Data Quality Improvement in 2022 – Conduct training workshop on improvement of immunization data quality for provincial and district officers, develop data improvement plan and monitor progress.