Papua New Guinea

Programme Support Rationale

2018-2020

The Programme Support Rationale (PSR) presents the rationale and high-level objectives for the programming of Gavi's support for the upcoming period (and together with the Vaccine Support Rationale mentioned below), replaces the application forms previously used to request new support).

- The PSR is developed approximately once every five years based on and in alignment with the national health and immunisation strategic plan(s) and budgets.
- It incorporates the **joint appraisal** in the year of its review.
- **Stock levels and requests for renewals or product switches need to be reported on the Gavi Country Portal between late March and May 15th, 2017**
- The PSR builds upon robust analysis of country data and evidence of progress made (or persistent challenges) on the coverage and equity situation.
- In parallel to the PSR, the operational workplan & budget and Gavi grant performance framework (GPF) are developed to complement the objectives presented in the PSR. The operational budget and workplan will be updated annually to align with country's operational planning processes, and informed by the joint appraisal.
- The PSR will be reviewed by independent technical experts who will make a recommendation to Gavi on the full portfolio of support for the duration of the PSR, including any current support that needs to be renewed.
- **A complementary Vaccine Support Request will be developed to support requests and Gavi approval for New Vaccines Support nearer the time of their implementation (~12-18 months ahead of launch).**

For more information about the processes supporting the development, review and approval of the support requests consolidated in the PSR, please see **Guidance on Gavi's country engagement framework** (available from the Gavi SCM)**.** A list of mandatory country documents is provided there (Annex 4).

Signatures – Endorsement of the PSR

Please note that final approval of Gavi's support will require signatures of both the Minister of Health and Minister of Finance or their delegated authority (and Minister of Education for HPV support).

Gavi also requires endorsement of the PSR and the grant performance framework by the relevant government-led Coordination Forum (Inter-Agency Coordinating Committee (ICC), Health Sector Coordinating Committee (HSCC) or equivalent body), through submission of Coordination Forum member signatures together with the minutes of the endorsing meeting.

Signatures and endorsement of the PSR are required before a recommendation for support can be issued by Gavi's independent reviewers.

We, the undersigned, affirm that the objectives and activities in the Gavi PSR are fully aligned with the national health and immunisation strategic plans (or equivalent), and that funds for implementing all activities, including domestic funds and any needed vaccine co-financing will be included in the annual budget of the Ministry of Health.	
Minister of Health (or delegated authority)	**Minister of Finance** (or delegated authority)
Name:	**Name:**
Signature:	**Signature:**
Date	**Date:**

Part A: Overview of portfolio of support

1. Vaccines: Country co-financing and Gavi support requested for current and new Gavi funded vaccines

1.1. Current vaccines supported by Gavi		Estimated projections[1]				
		2017	2018	2019	2020	2021
Vaccine 1 Pentavalent routine	Country co-financing (US$)	$662,557	$425,295	$570,509	$614,621	$747,705
	Gavi support (US$)	$485,963	$197,703	$174,397	$124,461	$0
Vaccine 2 Pneumococcal routine	Country co-financing (US$)	$721,104	$962,879	$1,503,890	$1,786,025	$2,195,033
	Gavi support (US$)	$774,888	$778,313	$681,742	$383,692	0$
Vaccine 3 IPV routine*	Country co-financing (US$)	$0	$0	$0	$0	$0
	Gavi support (US$)	$302,000	$302,000	$302,000	$302,000	$302,000
Vaccine 4 Measles Rubella Second Dose routine	Country co-financing (US$)	$57,849	$0	$95,673	$98,686	$186,000
	Gavi support (US$)	$51,000	$0	$78,790	$81,270	0
a. Total Country co-financing for current vaccines (US$)		**$**	**$**	**$**	**$**	**$**
b. Total Gavi support for current vaccines (US$)		**$**	**$**	**$**	**$**	**$**
c. Total cost of current vaccines (a+b) (US$)		**$**	**$**	**$**	**$**	**$**
New vaccine support requested – N/A						
Total cost and co-financing summary						
d. Total Country co-financing for current and new vaccines requested (a+d) (US$)		**$1,441,510**	**$1,388,174**	**$2,170,072**	**$2,499,332**	**$3,128,738**
e. Total Gavi support for current and new vaccines requested (b+e) (US$)		**$1,613,851**	**$1,278,016**	**$1,236,929**	**$891,423**	**$302,000**
f. Total cost of current and new vaccines requested (g+h) (US$)		**$3,055,361**	**$2,666,190**	**$3,407,001**	**$3,390,755**	**$3,430,738**

IPV costs for 2018-2021 are based on 2017 data. Updated cost estimates from UNICEF SD are not yet available.

[1] These estimates provide visibility to the total funding needs that a country should plan to complement the Gavi financing. These estimates are projections and may differ from actual commitments, which are calculated year-by-year and reflected in Gavi decision letters. These estimates stem from the latest input received from countries, with adjustments performed by the Gavi Secretariat (e.g. price updates, supply constraints, etc.).

2. Financial support

Currently active Gavi financial support (only amounts already approved but not yet completed) **Entire table prefilled by Gavi Sec (PO)**

Type of support	Amount approved	Amount disbursed	Amount remaining	Year(s) of support
HSS 1	*$3,261,440*	*$3,261,440*	*$0*	2013-2017

New financial support requested Country to complete table below

Please note the country's total HSS ceiling for the coming 5 years: (US$ ceiling amount)	Indicative estimates					
	2018	2019	2020	N/A	N/A	Total
Health Systems Strengthening support (HSS)						
Objective 1 – Improve Service Delivery	$ 2,939,320	$ 2,352,378	$1,933,074			$7,224,772
Objective 2 – Transition Preparation	$ 350,000	-	-			$350,000
Objective 3 –Supply Chain Management	$1,404,250	$926,655	$143,218			$2,474,123
Objective 4 – Programme Management	$378,180	$378,180	$378,180			$1,134,540
Total HSS (US$)	$4,624,829	$3,275,087	$2,454,471			$10,354,388
Cold Chain Equipment Optimisation Platform (CCEOP)						
CCEOP Gavi joint investment	$764,111	$401,313				1,165,424
CCEOP country joint investment						
• National funds						
• Gavi HSS (included in Obj 3 budget)	$704,250	$369,873				1,074,123
• Other partners						
Total CCEOP (US$)						
New vaccine support (vaccine introduction grants, operational support for campaigns, switch grants) – N/A						
Total HSIS support requested (US$)						

Data verification options for calculating HSS/Performance Based Funding (PBF) payments Country to complete entire table

Use of country admin data (Yes/No):	Yes	Use of WHO/UNICEF estimates (Yes/No):	No	Use of surveys (Yes/No):	No

Part B: Country immunisation system analysis

3. Country contextual information

Years of National Health Plan	2011 – 2020
Years of immunisation strategy (e.g. cMYP)	2016 – 2020
Start and end dates of fiscal period	January – December
Timing of annual national operational work-planning	January to December
Transition and co-financing status (list the status: initial self-financing, preparatory transition phase, accelerated)	Accelerated Transition
Total annual immunisation budget for Government and partners (past yr)	$16,388,672 (cMYP estimate for 2017)
Total health expenditure/per capita (past yr)	Approximately $90.5 (incl. 2017 supplemental health allocation)
Total spending on routine immunisation per child (from JRF and UNWPP data)	Approximately $14 (WHO 2016)
Vaccines (not financed by Gavi) **in the current immunization schedule** (e.g. oPV)	BCG, HepB, oPV, TT, Vitamin A
Other status relevant within Gavi (e.g. PEF tier, Fragility, Ebola, Coverage & Equity)	Fragility

4. Status of country's performance against key immunisation indicators as per the Gavi Strategy (2016-2020), based on the country's updated performance framework (including source and year)

Penta 3 coverage at national level (Penta 3)	61%
Measles containing vaccine (first dose) **coverage** at national level (MCV1)	51%
Drop-out rate between Penta 1 and Penta 3	26%
Equity of vaccine coverage by geography: percentage of districts or equivalent administrative area with Penta 3 coverage greater than 80%	17%
Equity of vaccination coverage by poverty status: percentage point difference in penta3 coverage in highest vs. lowest wealth quintile)	N/A
Vaccination coverage by education status of mother/caretaker: percentage point difference in penta3 coverage among children whose mother/caretaker received no education vs. completed secondary education or higher	N/A
Data quality: percentage point difference between Penta 3 national administrative coverage and survey point estimate	11%
Country composite score on last Effective Vaccine Management (EVM) (year and aggregate score)	2016 and 55

Improving sustainable coverage and addressing inequities requires the ability to identify the populations that are not getting vaccinated, understand the bottlenecks or challenges that keep them from being vaccinated, and tailor interventions to address those specific bottlenecks. This section sets the context for targeting specific populations, communities or geographic areas for intensive support in an effort to improve equitable coverage among such groups.

5. Immunization Coverage and Equity

- Describe national and sub-national evidence on the coverage and equity of immunisation in the country and constraints to improvement. In particular, identify the areas and groups of low coverage or high inequity relative to geographic, socioeconomic, cultural or female literacy considerations, as well as systematically marginalised communities. Specify both the areas and/or populations with low coverage (%) and those with the largest absolute numbers of un-/under-vaccinated children. Among data sources, consider administrative data, coverage surveys, DHS/MCS, equity analyses, Knowledge-Attitude-Practice surveys, and patterns of diseases like measles
- Describe the challenges underlying the performance of the immunisation system, including in vaccine supply chain, demand generation/ community mobilisation, data quality/ availability/ use and leadership, management and coordination
- Describe any issues related to the financing of the immunisation programme that impact the ability to increase coverage, including bottlenecks related to planning, budgeting, disbursement and execution of resources
- Describe lessons learned and best practices on effectiveness of implemented activities to improve coverage and equity; recommendations on changes or new interventions that might be required to accelerate progress (include data to support any findings, recommendations)

5.1. Coverage and equity

With PNG set to transition from Gavi support at the end of 2020, and national Penta3 coverage at only 61% and falling, PNG proposed an EPI transition strategy to Gavi, which the Gavi Board agreed to support through the approval of a PNG strategy. This strategy increased PNG's HSS ceiling to $12M USD and waived certain restrictions on the use of Gavi funds by a country in accelerated transition, ensuring that Gavi's support would be aligned with the EPI needs identified by the Government of PNG. The strategy also includes eligibility for PNG to apply for an adequately-designed and resourced MR campaign, support for the complete expansion and refurbishment of the country's cold chain, and the opportunity to return to the Board in 2019 to provide an update on progress, and indicate whether a change in the Gavi strategy and support may be required. This PSR document represents PNG's formal request for exceptional and expanded HSS support for the years 2018-2020.

Immunisation coverage rates for all antigens in PNG are low – reflecting the dire immunisation situation in the country. Data system weaknesses also contribute to particularly low coverage figures for IPV, PCV and MR in particular.

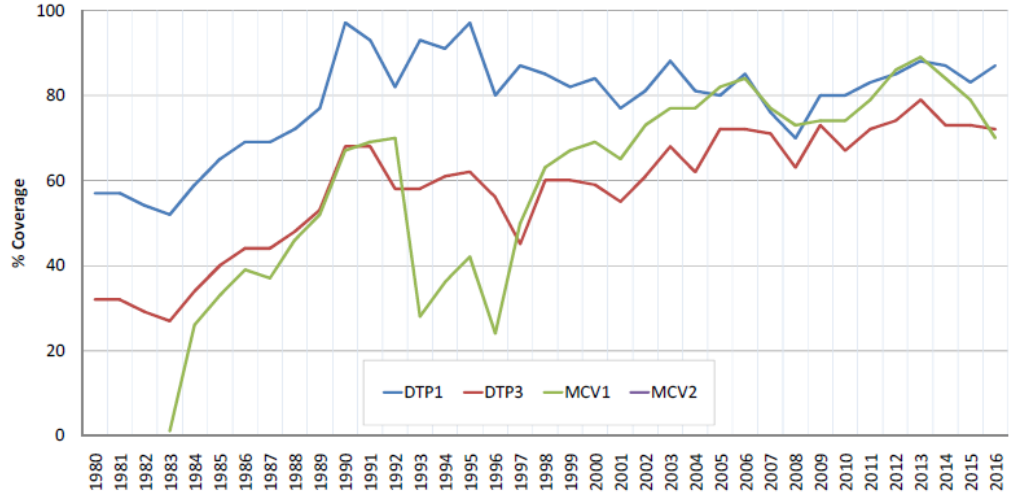
NB – the 2016 WUENIC data for PNG incorporated findings from the 2006 DHS for the first time, and this led to a considerable retroactive adjustment and rise in WUENIC-reported coverage rates for PNG over the past 10 years. However, PNG's immunisation stakeholders have reviewed the 2016 WUENIC figures, and confirm that the Government data is more accurate, as the 2006 situation captured in the DHS no longer applies due to the considerable degradation of health infrastructure and significant decline in the country's economic situation and health financing capacity over the past 10 years.

Government immunisation figures for 2017, indicate that national Penta3 coverage has fallen 7 points since 2013 and is now at 61%. MCV has fallen 19 points over the same period, and is now at 51%, with a measles outbreak having occurred in Q4 of 2017. Reporting forms for the National Health Information System (NHIS) were not updated as PCV, MR and IPV were introduced over the past three years, and the NHIS has therefore been unable to capture the true rate of coverage of these antigens. Based on the information available, national coverage rates for those antigens in 2016 were therefore as follows: IPV – 14%, PCV3 – 20%, and MR (see MCV1) – 51%. However, they may be higher in reality as vaccinations that took place could not be recorded and reported.

While WUENIC data is based on artificially inflated figures, the graph below accurately depicts the

declining coverage trends over the past 4 years.

FIGURE 1. WHO/UNICEF COVERAGE ESTIMATES 1980-2016



Coverage varies widely by province and district in PNG, including by districts within provinces, with geographically harder-to-reach and more insecure locations consistently achieving lower coverage. In 2016, nearly half of PNG's 89 districts reported < 50% DTP3 coverage, and only 14 of 89 districts (16%) reported DTP3 > 80% in 2016, including five that reported 100% or higher coverage, due primarily to difficulties in securing accurate catchment population estimates – this is particularly the case in the National Capital District (NCD)

DTP3 Coverage by District

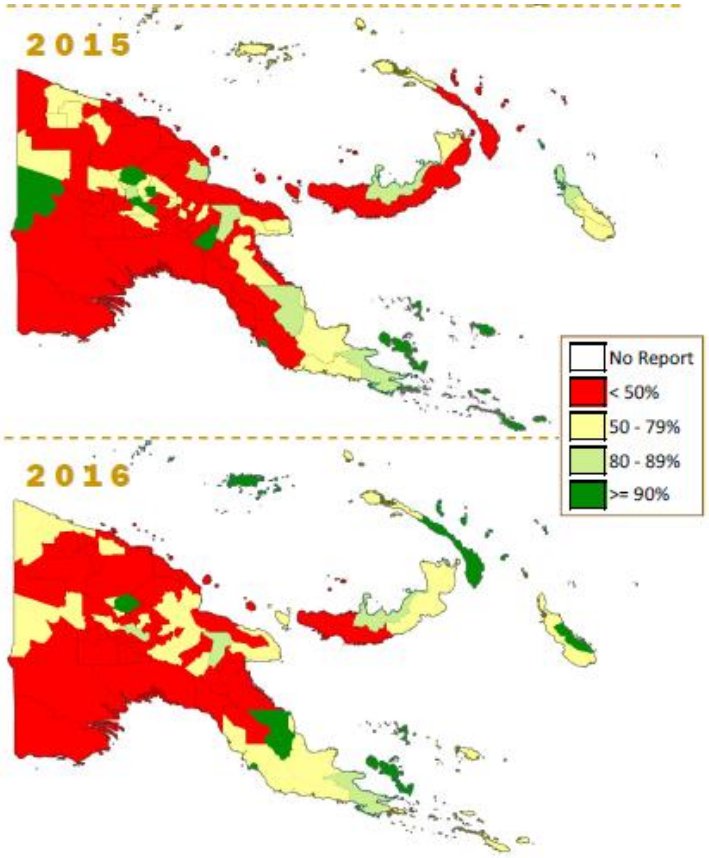
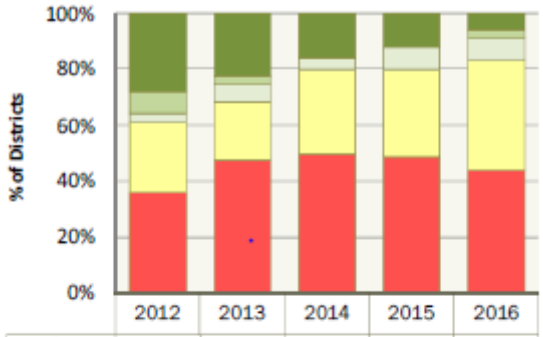


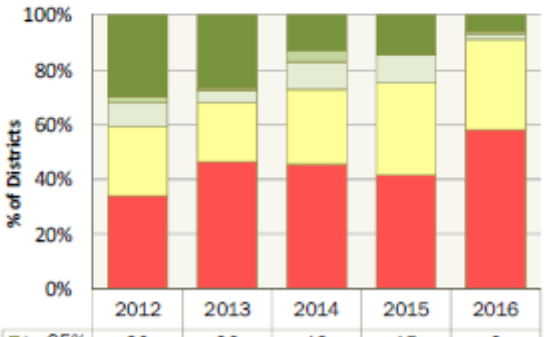
FIGURE 3. DTP3 COVERAGE BY % OF DISTRICTS



	2012	2013	2014	2015	2016
>=95%	28	22	16	12	6
90-94%	8	3	0	0	3
80-89%	3	6	4	8	8
50-79%	25	20	30	31	39
<50%	36	46	49	48	44
# Districts	89	89	89	89	89

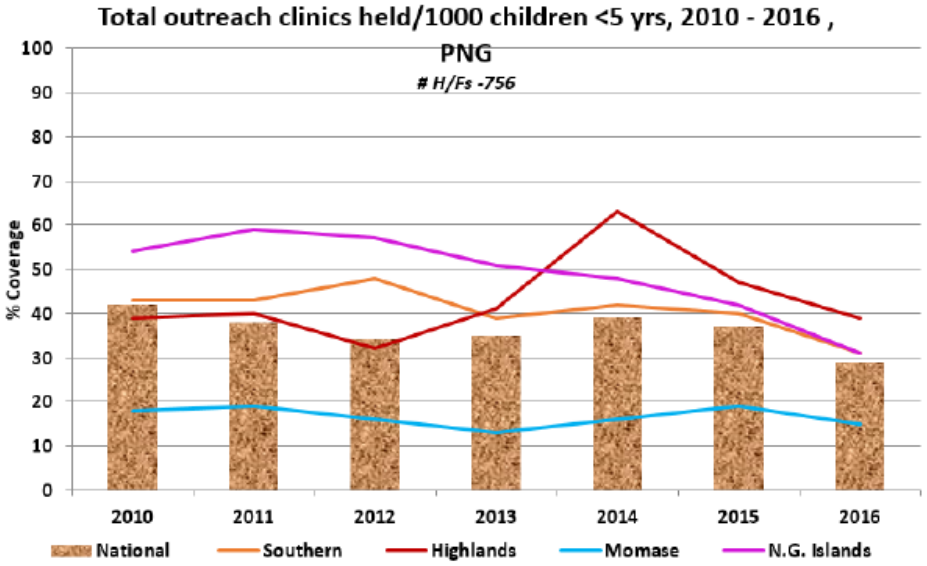
Districts reporting DTP1-DTP3 drop-out rates > 10% in 2016: 14/89 (16%)

FIGURE 4. MCV1 COVERAGE BY % OF DISTRICTS



	2012	2013	2014	2015	2016
>=95%	30	26	13	15	6
90-94%	2	1	4	0	1
80-89%	9	4	10	10	2
50-79%	25	21	27	34	33
<50%	34	45	45	42	58

While DTP3 coverage is low and falling in PNG, DTP1 coverage in 2017 reached 87%, indicating that it is possible to reach most children in the country at least once per year. However, more than 60% of the population can only be reached through mobile and outreach health services, which are costly and complex. As a result, although outreach activities may take place once per year in most communities – permitting reasonable DTP1 vaccination coverage, they are not conducted frequently enough to ensure that children complete the full schedule of vaccinations.



The provincial coverage rates, showing the provinces with the highest numbers of unimmunized children are as follows. Among the provinces with the highest numbers of unvaccinated children, each province contains districts with significant geographic and security access issues. Provinces with low coverage but fewer unvaccinated children present many of those same issues, but have smaller populations.

Province	Coverage (Admin Data)				# Unvaccinated Children	
	Penta3	IPV	PCV3	Measles 9-11M	Penta3	MR
PNG	**57**	**10**	**16**	**47**	**110940**	**135500**
Morobe	56	14	24	33	9819	15120
Southern Highlands	25	4	9	27	13580	13196
Jiwaka	22	3	14	19	10707	11097
Madang	40	0	0	37	10288	10814
Eastern Highlands	48	8	16	46	10428	10736
East Sepik	31	6	14	35	10651	10014
Enga	59	7	43	48	6405	8073
Chimbu	54	1	1	40	6167	8014
Western Highlands	65	21	37	51	4513	6283
East New Britain	67	30	0	54	3898	5471
Hela	43	11	16	40	4905	5178
North Solomons	69	28	31	45	2717	4839
Western	40	4	8	37	4144	4329
Gulf	29	0	0	27	4082	4168
West New Britain	73	16	18	57	2578	4022
Central	58	3	7	59	4039	4005

West Sepik	54	14	28	55	3949	3873
Milne Bay	84	3	21	72	1530	2667
New Ireland	81	36	20	64	1412	2648
Nat. Capital Dist.	122	11	14	84	-2805	2007
Northern	66	6	5	73	2201	1764
Manus	93	9	12	78	140	463

Although the information above points correctly to a need to strengthen routine immunisation services in the provinces showing the highest numbers of unvaccinated children, it should also be noted that denominator issues make it likely that there are high numbers of missed children in some areas where coverage is reportedly high. NCD in particular is considered a likely location for considerable numbers of missed children, as the denominator does not take into account the significant population movements in and out of the capital.

Although a DHS was launched in 2016, the survey has not yet been completed and thus updated data is not available. Therefore, regarding non-geographic issues of equity, the most recent available data comes from the 2006 DHS. The 2006 data showed higher coverage for: (i) boys (55%) than girls (50%); (ii) for children born to mothers with grade 7 education or higher (64%) than children born to mothers with no education (38%); (iii) for urban (79%) vs rural areas (65%); and (iv) a gradual increase of the coverage consistent with the educational level of the mother. Coverage by wealth quintile was not reviewed in the 2006 DHS, but is likely to be high. This data is useful, but analysis indicates that it is aligned with issues of geographic and security disparities. Secure, accessible, urban areas are more likely to be home to educated parents than are insecure, inaccessible, rural locations.

The 2009-2010 Household Income and Expenditure Survey also reported differences between rural and urban areas and between regions in relations to purpose of visits to health facilities. In urban areas 4.6% of visits to health facilities were for immunisation, whereas in rural areas it was on 2.3%. The Momase and Islands regions were the lowest in terms of accessing health facilities for immunisation at 2.2%. The survey however, highlighted that use of health facilities was higher in rural areas than urban areas (% visiting health care facility in the last month). 16% visited a health facility in the last month in rural areas compared to 11.7% in urban areas. Whilst this data is also moving towards being outdated, it does highlight that despite higher use of services in rural areas, that the purpose of visit for immunisations was lower than urban areas, and may indicate also the need for greater awareness and social mobilisation for immunisation in rural areas, as well as improving access to immunisation services.

In light of the above information, the immunisation profile of Papua New Guinea points is one dominated geographic inequities producing numerous and large pockets of low coverage in hard-to-access and insecure locations. To strengthen both coverage and equity across PNG, there is therefore an urgent need to bolster mobile and outreach services in order to ensure the more than 60% of children reliant on mobile and fixed outreach services may be reached consistently.

5.2. Immunisation program performance challenges

The health system challenges in PNG are formidable, given the low level of economic and infrastructure development, and the challenge associated with reaching the rural and remote majority in geographic terrains with limited accessibility. The tight fiscal context and the prospect of declining development partner assistance presents unique financial challenges, and will demand higher levels of efficiency in support of universal health coverage with equity goals.

5.2.1 Decentralisation

The decentralised health system in PNG is currently not able to effectively deliver the quality integrated people-centred health services that people need. Fragmentation has occurred as decentralisation reforms have been undertaken, increasing the complexity and incoherence of health related legislations, making it difficult to effectively progress health sector reform. The implementation of Provincial Health Authority Act (2007), a voluntary act designed to address the health service delivery fragmentation at the provincial level, has been very slow and further hindered by a cumbersome process to appoint Provincial Health Authority Board members and senior PHA management officials. Decentralisation has been furthered through the 2014 District Development Authority (DDA) Act. There are currently no clear determinations mandated between the DDAs and PHAs for health service delivery. Public administrative systems, processes, procedures and communication infrastructure designed to effectively support implementation are weak in the majority of the provinces and often non-existent in districts. Where Provincial Health Authorities have been established for a longer time, the benefits are starting to be realised, with improved service delivery performance, ability to 'roll over' operational funding at the end of the fiscal cycle to cater for the delayed funding releases in quarter one, better provincial planning, and the ability to enter in service delivery partnerships to extend the reach of services to those that need them. None of the six provinces with the most un-immunized have a PHA yet. The Government was planning to have PHAs rolled out in all 22 Provinces by July 2018, however, this is now unlikely, and expected to take at least another 12 months.

5.2.2 Shortage of human resources for health.

The shortage of qualified health human resources in rural and remote areas is the most significant policy and planning priority, and is the major health system constraint limiting access of the population to life saving interventions.

There are 1.06 health professionals per 1000 population in 2016, while WHO's recommendation is 4.45 to meet the ambitious targets set out under the Sustainable Developments Goals. The shortage is further aggravated with high disparity in deployment of health workers. Approximately less than 48% of the health workers are serving more than 80% of the population living in the rural areas and more than 52% of the health workers for less than 20% population in the urban areas. As a result priority programmes, such as immunisation and reproductive maternal neonatal and child health (RMNCH) do not have the health workforce needed to implement programmes to the desired quality and scale to meet universal coverage. Additional use of village volunteers or community treatment supporters are often deployed under Global Health Initiative funding to address workforce gaps in rural and remote areas, but also are not catered for in health workforce plans. Other health workforce cadres, such as medical laboratory assistants, pharmacists, disease surveillance officers which are essential to the management of quality clinical and public health programmes are also in short supply, and often employed under short term contracts through donor funding while waiting for public service positions to be established or vacated.

At the Central level, the National EPI Programme has several vacant positions, most notably, the absence of a National EPI Manager for more than 2-years. Although this position was filled in March of 2018, the challenges which led to the delayed recruitment remain in place:

- Protracted processes by the Department of Personnel Management Department of Personnel Management and a freeze on public service positions which have meant that the necessary restructuring of the EPI Team, including upgrading of the EPI Manager post and provision for a Deputy EPI Manager have not been furthered.
- Inability to find a suitably skilled professional with the necessary EPI and management experience in country.
- Protracted public service processes to put staff on the Department of Health payroll, when a qualified candidate was found, which resulted in the staff returning to their substantive and higher paid clinical position.

At the service delivery level, the current production of health workers is not enough to cover the attrition rate, despite Government's efforts to re-open several closed training schools and building new schools. There is no coordination to ensure employment of all graduates in the health sector. The recruitment, management and deployment of health workers are the responsibility of the Provincial Administration and Hospital Boards. The Department of Personnel Management authorises the staff ceiling, but the actual recruitment is determined by the availability of funding from Department of Finance and Department of Treasury. Health workforce development is the function of National Department of Health, but the training institutes are under the administrative functions of Department of Higher Education Research Science and Technology. The bargaining power for the increase in staff ceiling and funding support becomes challenging due to lack of evidence-based tool to demonstrate the actual need in line with the service functions.

5.2.3 Challenges in maintaining EPI specific knowledge and skills

While focusing on the increase in production of health workers, the quality of education is compromised due to several reasons including non-availability of qualified educators and obsolete curricula, which were developed in early 2000s. The quality of the training program and the graduates are not accredited and regulated under the current health professional legislation.

On the ground this translates to poor knowledge and skills at the primary care level, including specific EPI knowledge and skill to effectively implement a quality immunisation programme. In-service training is weak or non-existent, and better planning of the EPI training is required at all levels. The 2016 JA found instances where staff had not receiving training for 5 years at the provincial level and 10 years at the health facility level. Poor quality pre-service training and lack of in-service training has led to the following key EPI skills gaps at the service delivery level:

- Poor forecasting, target-setting and microplanning skills, and microplanning which tends to have been done in a rushed way, and not used in an ongoing way.
- Poor data quality management and analysis which results in inaccurate reporting of number of vaccinations against the target, and inaccurate assessments of target populations.
- Poor understanding of how to conduct assessment of coverage through rapid coverage assessments and daily feedback for corrective action.
- Non-utilization of child health register and ANC register to update the actual target population and other job-aides.

Surveillance skills also remain weak, although there has been progress through the Field Epidemiology Training (FET) supported by WHO, in which 45 staff from the district, provincial and national level (including the laboratory) have been trained since 2013. As a result of this training an evaluation of national measles surveillance system led to the improvement in lab turnaround from 5 days to 1 day, to improve the timely identification of first cases of measles, and another graduate of the course was able to identify cost saving measures for vaccine procurement resulting in millions of kina saved.

5.2.4 Lack of supervision

Supportive supervision is essential to improving the quality of the immunisation programme and service delivery. However, in PNG, supportive supervision is limited. The 2016 Sector Performance Annual Review reported that 62% of all health facilities received at least one supervisory visit during the year. There was wide geographic variance in supervision however, with the Momase Region (Morobe, Oro, Madang, East and West Sepik Provinces) only reporting 44% whilst the Highlands Region (Southern Highlands, Hela, Jiwaka, Eastern Highlands, Chimbu, and Enga Provinces) reported 79%. The ability to conduct supportive supervision is impacted primarily by lack of operational funding as a result of delayed funding to Provinces. Where the funding flows or the Province is a Provincial Health Authority there are marked differences in the supervisory visits. For example, Milne Bay, which was one of the first Provinces to adopt the Provincial Health Authority reform, has the ability to roll over its health function grants, which sees funding available in Q1 and Q2 acting as a buffer delayed disbursements from central level at the start of year, as well as supervision being a

high priority of the provincial and district health management teams. As a result, Milne Bay (a mainly island province reliant on boats for transport) achieved 93% supervisory visit rate in 2016 (SPAR, 2017).

Provinces which achieve higher rates of supervision are also the Provinces which are achieving higher levels of DTP3 coverage. Although the DTP3 coverage remains below target in these higher performing provinces (ranging from 81% - 54%) are still 10 -70% higher than provinces with much lower levels of supervisory visits.

Lack of supportive supervision also impacts upon the quality of service delivery, contributing to factors such as poor microplanning, lack of use of child health registers and ANC registers, poor handling of vaccines, lack knowledge of how to calculate their vaccine quantity requirements for the agreed safety and supply interval resulting in overstock and stock-out of vaccines and safe-injection supplies in vaccine storage facilities.

5.2.5 Funding Flows and Fiscal Constraints

Health financing is a major challenge, PNG's THE as a percentage of GDP is just over 4%, the lowest of all Pacific islands (both high and low-middle income) with the exception of the Cook Islands and Nauru. Between 2007 and 2015, the economy enjoyed strong economic growth, averaging about 7.7% per annum (IMF, 2016). Since 2015 though, the economy has started to slow—as a result of falling commodity prices, the impact of the El Nino drought, and temporary mine closures (at Ok Tedi and Porgera). Slower growth rates are expected over the next few years (2017-2021) around an average of about 3 percent per annum (IMF, 2016), presenting considerable fiscal challenges for the Government. The health sector has been the hardest hit by the economic slowdown and the associated tightening fiscal measures enacted by the Government, receiving a 37% cut to its 2016 budget (Kina 410 million), a further 21% (Kina 315 million) in 2017. The 2018 health sector budget has on paper, been restored to the 2016 level, and with the majority of the increase allocated to the medical supplies budget line. Whether this translates to warrant releases and improved cash flow to the health sector is yet to be determined.

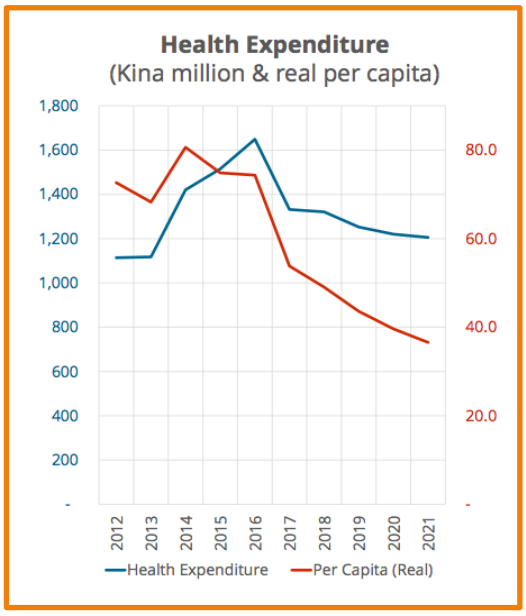


Figure 1 Health Expenditure in PNG 2012-2021

Additional to the reduced fiscal space, funding flows to service delivery are fragment. Streamlining funding flows to Provinces would great benefit Provincial Health Advisers/Provincial Health CEOs to 'see the full funding envelope' enabling more efficient planning and budgeting. Currently Churches allocations are outside of Provincial funding envelopes. PHAs also have the ability to 'rollover' funding at the end of the year as they come a grants, and gives the flexibility to buffer first and second quarter delays of health function grants.

The decline in availability of health funding, combined with other challenges including health function grant allocations based on cost of services – not reflective of actual cost services for minimum priority area; misalignment between political commitments and budget allocations; provincial CEOs/Manager not able to see the full funding envelopes for their province (Churches allocation outside of PHA/Province allocation), delayed funding releases, outdated procurement plans which place pressure on budgets because of wastage and inadequate forecasting; weak linkages between MTEF/budget/AIPs means getting funds to the front line for service delivery is exceptionally challenging. There is also no fully integrated Financial Management System with standard chart of accounts or automated financial reporting process to support the initiative of facility-based budgeting and financing.

At the service delivery level and for effective implementation of a quality immunisation programme, this means there are lack of funds for conducting operational activities critical to the success of the immunisation programme, including for fuel to conduct outreach or supervision via boat or vehicle. It also means lack of funding for other operational costs for health facilities, which in many instances means health facilities charge user fees to cover costs, despite the Free Primary Health Care policy.

5.2.6 Health Information and data related challenges

The well-established monthly paper-based reports from health facilities are the backbone of the National Health Information System (NHIS) that is used to generate the Sector Performance Annual Review. It aims to capture key statistics on the treatment of every patient in the country and the performance of every facility. After collation, high level outputs are available to managers throughout the department as reports and indicators. In practice, there are a number of gaps in the data collection and dissemination process that limit its usefulness and potential for greater utility. The overall completion rate for the return of the NHIS Monthly Summary forms is very high with national rates consistently around 90% (91% in 2016). Though a significant number of forms do not reach the national office until well into the following year, and most forms take several months to reach their destination. The current system is no longer fit-for-purpose and additional limitations include: timeliness (focused on annual reporting), one-way flow of data and limited feedback to relevant decision makers at different levels, and lack of inclusion of Aid Post data (although collected) and private sector data.

Vaccine information and coverage data is mostly still captured through the monthly paper-based reports from health facilities that are aggregated at district and province level and submitted to national health information system (NHIS). There is no systemic way to track defaulters. The NHIS can generate coverage reports, but the available routine data on immunization is generally not used for action. Province, district, and health facility staff are often not aware of their own coverage performance.

The last National Immunisation Coverage Survey was conducted in 2004. The last survey of vaccination coverage was from a Demographic and Health Survey (DHS) conducted in 2006. The planned 2016 DHS was significantly delayed as a result of shortage of funds, and data collection is on-going. The results are not likely to be received until 2020 or 2021 at the earliest. Funding for an immunisation coverage survey will be requested in this PSR.

The Rural Primary Health Services Delivery Project has been piloting an electronic NHIS which the NDOH has endorsed to rollout in all Provinces, which ADB has agreed to finance the expansion under the new health services sector development grant. The initial roll-out was a digitisation of the current paper-based forms to five provinces. In June 2018, national discussions were undertaken to update the data capture forms to meet the different programme needs including EPI. The new form with the updated EPI data collection will be available by Q4 2018 and rolled out. The system demonstrates a lot of potential and will certainly improve the timeliness of data, with real-time data available to health system managers. The longer term sustainability of the system is still to be determined, and will be based on the perceived utility of system at each level over the coming years.

5.2.7 Cold Chain Challenges – Distribution and Vaccine Management

The EVM 2016 looked at all four levels of the system (Primary, Sub-national, district and health facility) and revealed the strengths and weaknesses of the vaccine supply chain at all these levels and showed significant issues around almost all nine EVM criteria with all of them scoring less than 80%, except the storage capacity.

The weaknesses predominantly were found in the management related criteria, such as arrival procedures for vaccines and commodities, temperature monitoring, stock management, distribution management, vaccine management, vaccine wastage policy and procedures, as well as information management system and supportive functions. There is no reliable data on vaccine wastage and distribution is based on quantity requested and stock availability. The absence of a Cold Chain and Logistics Management Manual (CCLMM) is still a limiting issue and the EVM suggests that its development is essential.

Health Facilities Branch is supposed to be responsible for overseeing maintenance of the CCE across the country, but this does not yet seem to be working and consequently provincial maintenance and repair are inadequate. The CCE infrastructure needs to be replaced and extended. There are immediate efficiency gains to be realized from the planned replacement of gas with solar CCE. The savings in operational costs for gas could support maintenance. The CCE inventory in 2017 found 16% of CCE is non-functional, with disparities between provinces and districts.

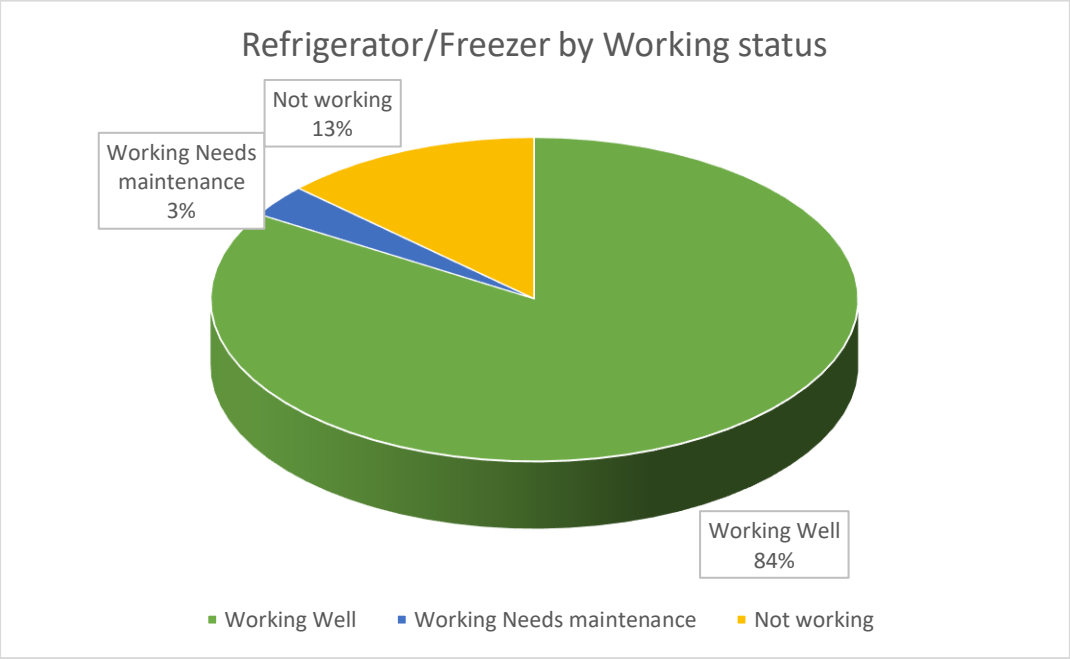


Figure 2: Working status of Refrigerators and Freezers, CCE Inventory 2017

On the other hand 40% of the fridges in the health facilities run on gas which is non-reliable.

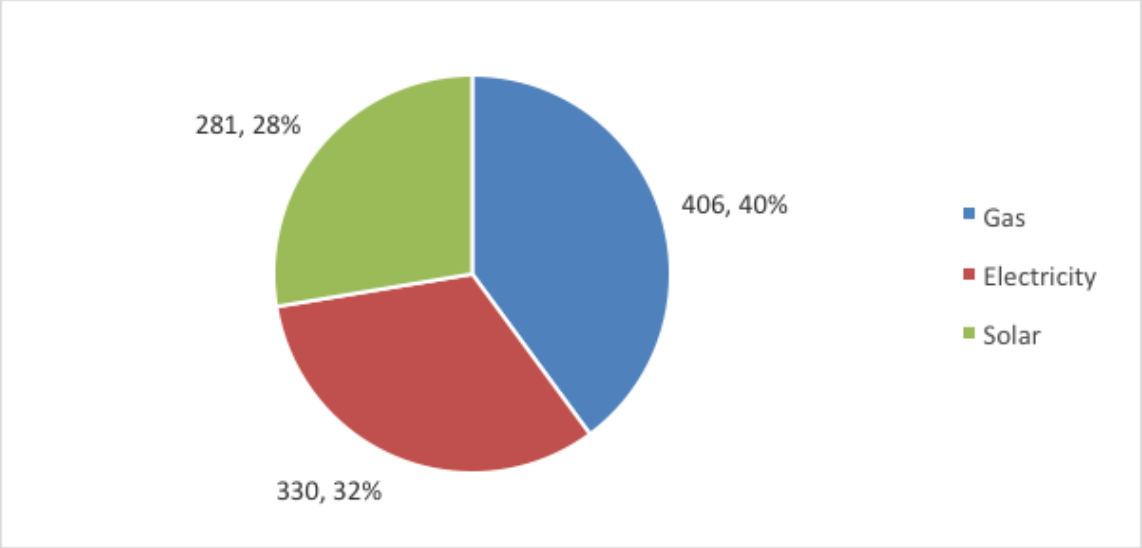


Figure 3: Type of Health Facility CCE (%), CCE Inventory 2017

The EVM notes that of the 89 districts there are only 8 district vaccine stores and that consequently, most of the health facilities receive their vaccines direct from their provincial vaccine store. This set-up often results in vaccines delivered from a distant location and in-effective supervision.

These challenges were also identified in the Gavi audit of February 2016 and seen again in the SCM monitoring missions of June and August 2016. The February 2016 Gavi audit identified that 175,500 doses of PCV in the central cold store were due to expire by August 2016. This was a result of the significant delays in PCV introduction.

5.2.8 Community Demand and Engagement

Community engagement is an important activity to maintain vaccine acceptance and health-seeking behaviour. In the 2016 study "Women and health in Papua New Guinea: Determinants influencing demand and delivery of health care services[2]", the top barrier to accessing services across rural and urban settings was financial constraints (no money for medicine) and particularly indirect costs such as transport, time away from work or family (opportunity cost), accommodation for the carer and food for the patient, are significant costs associated with the demand side that act as additional barriers to health care access and utilization. Other key barriers found included: uncaring, unfriendly attitude, poor interpersonal skills of health workers, poor condition of health facilities, and shortage of drugs and perceived ineffectiveness of medicines. Also, limited education, language barrier, cultural beliefs and taboo was a particular barrier to rural female care-givers. Both supply and demand side constraints impact upon demand for immunisation services in PNG, however, greater efforts to improve supply-side factors, particularly, increasing the availability of immunisation services through outreach, mobile and fixed sites, increasing funding flows to front-line services, improving quality of services through addressing health worker competencies (both clinical and social) are likely to generate greater coverage gains in the short term.

Community mobilisation remains a critical element and is one of the key objectives of the EPI's Special Integrated Routine EPI Strengthening Program (SIREP), however, lack of funding and capacity makes it difficult to implement interventions addressing the demand side.

5.3. Describe any issues related to the financing of the immunisation programme that impact the ability to increase coverage, including bottlenecks related to planning, budgeting, disbursement and execution of resources.

PNG's fiscal year runs from January – December. Budget preparation begins in January with, when Treasury seeks information from agencies, including an estimate of their cash flow needs for the upcoming budget year. In February, Treasury does its first round of economic forecasts to determine the overall level of funds available for the following year's budget. Treasury then develop the proposed budget strategy, which, taking account of prevailing economic conditions, considers whether the budget should run at a loss or deficit or a profit or surplus. Once that is done, a total budget ceiling can be set, which is then allocated between agencies. In May or early June, agencies receive their budget ceilings for the next year, with budget submissions due in September. Agencies are invited by the Ministerial Budget Committee to make presentations to support budget submission. Final budget is handed down in the November. In December, Treasury requests all agencies to submit their work plans and cash flows for the following year to enable Treasury to assess cash requirements month by month.

There are several challenges related to the budget process, including within a given budget year, cash flow tends to be inconsistent as the government receives revenue lumped around corporate tax collections in May, August, and September. This reduces cash flow in the first quarter of the calendar year, as there currently is no effective mechanism to smooth expenditure through the usage of short-term debt instruments, such as treasury bills. Since public expenditure represents the

[2] Kulumbu, E, 2016 Presentation at 2016 PNG Update - University of Papua New Guinea's School of Business and Public Policy and the Australian National University's Development Policy Centre,

main source of health sector funding, fluctuations in this component have a strong, direct effect on THE. Budget ceilings are set by considering the level of funding appropriated in the last budget, plus another other commitments (e.g. public service wage increases or one-off events, such as APEC), which makes it difficult to move budgets between line items to match health priorities and needs.

Due to problems with the Government accounting system, warrants serve as the main indicator of the actual availability of funding to the sector. In 2016 and 2015, approved budgets were not met with the same amount through warrant releases, reducing the availability of funding to the health sector. Additionally, the untimely release of warrants results in detrimental delays and inefficient use of resources.

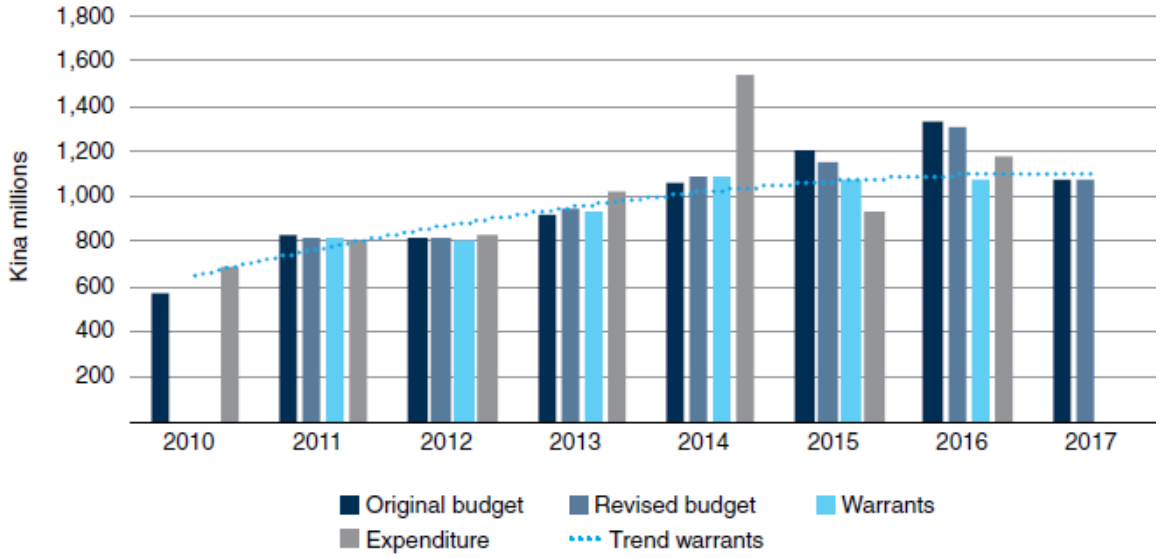
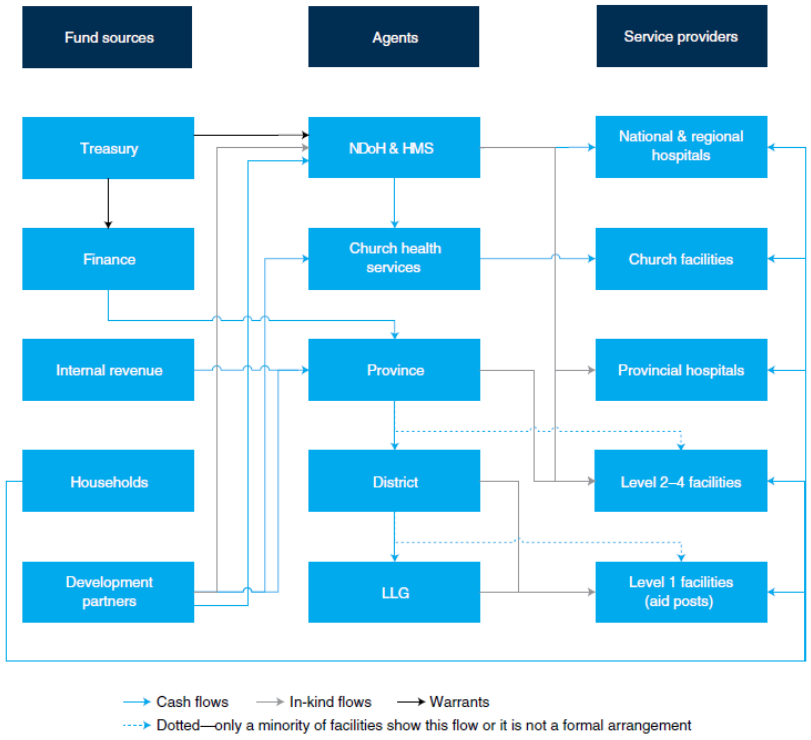


Figure 4: Budget versus Warrants versus Expenditure, World Bank, 2018.

Although the majority of the population resides in rural areas, the budget for frontline service expenditure is quite small. NDoH, followed by hospitals, account for the largest expenditure shares.

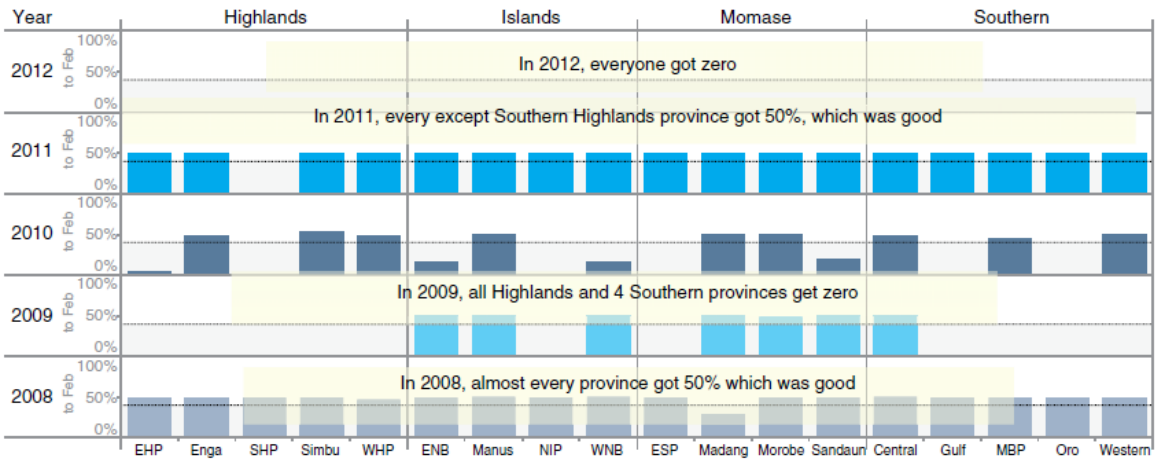
The health sector budget finances the NDoH hospitals, Churches Health Services, Rural Health Services (Health Function Grants), and PHAs. Provinces receive two sources of funding for frontline facilities, the HFG, for facility operations and discretionary funds managed by the governor (in a province) and open member (in a district), a part of which is available for investments in health infrastructure. The flow of funds from the central level to provincial governments and health facilities is mapped below.



Source: Based on discussions between a World Bank consultant and NDoH staff.

Figure 5: Health Sector Funds Flow, 2018

The release of funds to rural health services is often untimely and unpredictable. This results in disruptions to health service delivery, hinders health managers' capacity to implement planned activities, contributes substantially to inefficiencies, and prevents the elimination of user fees at primary facilities. HFGs are not intended to fully fund operational budgets. The HFG is calculated based on provinces using their own internal revenue towards health. It finances operational budget transfers for frontline health facilities. The year-to-year unpredictability of funding to the HFG can be seen below.



Source: Cairns and Xiaohui 2015.
Note: The shaded area represents the 40% target funding that provinces need to commence their service delivery responsibilities.

Figure 6: Cash release for Health Function Grants by February (Province and Region) 2008-2012, World Bank, 2018.

This problem worsened in 2015 and 2016 despite several commitments from central agencies to improve fund flows. In 2016, only 11 percent of the HFG was released by the end of the second quarter. At the same time, health sector agencies—which receive their full remaining balances for their operational and capital investment budgets toward the end of the year—face difficulties in spending their funds in time. It takes provincial administrations about two to three months to spend

or transfer the money received to districts, LLGs or facilities. Once again, these delays result in the inefficient use of resources. Continued progress in the timely disbursement of funds is critical to improved health outcomes in PNG.

The national immunisation programme receives the majority of its funding from Government (approximately 73%).

As noted in the Immunisation Financial Sustainability Report (World Bank, 2017) it is difficult to disentangle immunization costs, and associated budgets because they occur at different levels of the health system; the chart of accounts is either not disaggregated enough or incorrectly reported against; and several major components are financed differently. At the health facility level, service delivery is integrated, and health staff provide a range of services, therefore inputs related to immunization are shared. Although these inputs and costs are difficult to disaggregate by health service, ensuring that financing is adequate to cover all shared costs at the facility level is essential for service delivery.

GoPNG EPI Funding

Program component	Level of responsibility	DP support
Vaccines and injection supplies		
Purchase of routine vaccines and injection supplies (traditional)	NDoH	None
Purchase of routine vaccines and injection supplies (new vaccines)	NDoH	GAVI
Purchase of vaccines and injection supplies for SIAs	NDoH	GAVI
Distribution of vaccines and injection supplies		
Distribution of vaccines/injection supplies to Area Medical Stores (AMS)	NDoH	None
Distribution of vaccines/injection supplies from AMS to facilities	Provinces	None
Human resources		
Salaries and non-wage recurrent expenditure for EPI staff to develop policies and carry out supervision/monitoring	NDoH/Provinces	GAVI
Salaries for health workers	Provinces	DFAT
Allowances for health workers	Provinces	GAVI
Training of health care workers	Provinces	GAVI/DFAT
Salaries and non-wage recurrent expenditure for staff to create demand	NDoH/Provinces	GAVI
Supply chain and logistics		
Non-wage recurrent expenditure for HCs, Sub HCs, CHPs and Aid Posts e.g. maintenance of cold-chain, outreach patrols	Provinces	None
Purchase of cold-chain equipment	NDoH	GAVI
Construction and renovation of level 1-4 health facilities	NDoH/Provinces	ADB

Figure 7: GoPNG EPI Funding, source: WB, 2018.

Figure 7 presents an analysis of the cost components of immunisation activities.

Broadly speaking however, funds under NDoH are used to purchase vaccines and injection supplies, develop supporting policies and procedures, and support the maintenance (and procurement) of cold-chain equipment. Funds are also allocated to run Area Medical Stores. Activities appropriated under PHAs are used to support immunization service delivery – the operation of health facilities, outreach patrols, distribution of vaccines and injection supplies and salaries (and allowances) of health workers. Appropriations for church health services (CHS) are used to support both the salaries and operational costs of church-run health facilities.

The full immunisation budget architecture can be found in Annex 4 of the Immunsiation Financial Sustainability Report, World Bank, 2018.

5.4. Lessons learned and best practices; recommendations to accelerate progress on equitable coverage

In Papua New Guinea despite the current poor performance of the immunisation programme, there are several interventions which can be conducted to improve and accelerate progress to achieve better coverage and improved equity. This section describes some of the interventions:

5.4.1. Where outreach happens, coverage improves.

Outreach is one of the most fundamental and critical activities as part of the primary health care system in PNG. 60% of the population can only be reached through mobile and outreach health services, which are costly and complex. However, outreach has significantly decreased over the last decade due mostly to operational cost constrains and lack of funds flowing to the front line. However, there is strong evidence, that where outreach happens regularly, coverage improves. In Milne Bay, achieved the highest ratio of rural outreach clinics to population under 5 years in 2014 of 124, and achieved that same year 96.01% coverage for measles for children under 1 year of age. However, in 2016 when outreach dropped to only 97, measles coverage also dropped to 63.9%.

The SIREP model is a key strategy to improving immunisation coverage through outreach. This PSR includes additional funding to drive up rapidly immunisation coverage in 6 provinces through increasing the resources available to ensure outreach and mobile clinics can happen. The recent polio response has indicated that when funds are available and there is strong leadership that achieving high coverage is possible in PNG.

5.4.2 Continue to build on CCE expansion and integrate vaccine management and distribution support.

In 2015 - 2017, the Department of Health made various efforts to improve the vaccine supply chain by investing in newer technologies and expanding CCE at facilities that previously had none. The NDOH through the development partners (DFAT, GAVI HSS, UNICEF, WHO, Oil Search Foundation) procured 350 items of cold chain equipment for the national, provincial and health facility levels.

Despite the improvements made in 2016 - 2017, there remains a need to rehabilitate the existing cold chain and expand CCE capacity to new facilities over the next 3 years. The investment in new CCE, rehabilitation of the gas fridges (406) and other obsolete fridges is expected from CCEOP support. This will greatly improve the availability of PQS qualified and efficient CCE across the entire immunization supply chain. However, this upscaling of CCE will still be limited in the current vaccine stores in the country which is 808 in number. On the other hand, there are 1,300 aid post as well as newly built health facilities under the Rural Primary Health Care Service Delivery Project (RPHCSP) which are not yet equipped and seriously limiting conduction of static and outreach session. The newly build health facilities and some of the far-flung Aid posts with huge catchment population require cold chain equipment to improve the vaccine availability. A total of 180 such health facilities were identified which are eligible for equipping with fridges.

mSupply

mSupply is the electronic logistics management information system endorsed and supported by the National Department of Health. The eLMIS is supporting stock integration into warehouses and stores, and making available real time stock information to all programs, and has reduced the fragmentation of the old paper based LMIS. It has so far demonstrated positive results, but it has not been without challenges.

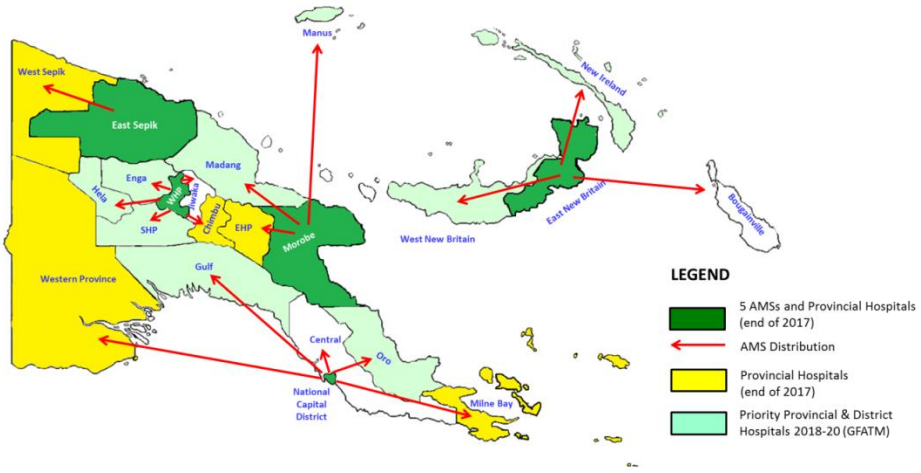
The mSupply program scale-up has been completed at 25 locations to-date (June 2018) and the NDOH plans includes scale up to 32 sites by 2020. An 'EPI Store' has been created in mSupply which allows the EPI program to see any time where their commodities are and be able to more easily move stock from one location, to another based on needs and demands. Quantification and forecasting will become easier, and will ensure that the efficacy and quality of programme commodities can be assured to service delivery points.

The current expansion of the mSupply system is funded by Global Fund, and technical assistance is funded by Australia (DFAT). Further expansion to facility level is planned at a later stage, and a version of mSupply – *mSupply light* - will be piloted with support under the new ADB HSSDP program in supported provinces (TBC).

Table 1. LMIS coverage and expansion plan, GFATM 2018-20

Coverage	Remarks				
	2017 (baseline)	2018	2019	2020	• GoPNG will cover provincial transit stores and district hospitals that are not included. • Other donors will support further roll-out to peripheral sites.
Provinces	10	12	19	19	
Locations*	17	22	30	32	

* Area Medical Stores, Provincial Medical Stores, Provincial Hospitals, District Hospitals



5.4.3 Using PHA reforms to strengthen fund flow for service delivery and improve programme planning

The 2007 Provincial Health Authorities (PHA) Act enabled the establishment of PHAs, integrating the public health and curative services as "*one system tasol*" qualifying the provinces to streamline the governance, management and finances structures under a single health institution with the management and control of health resources in an effort to improve access to services.

Of the twenty two provinces, twelve have established their respective PHAs with the aim of integrating services at provincial level that will allow for effective coordination of resources and support, and better health services planning and implementation. Recently, the Government approved for full primary health service funding, including health function grants to flow directly to Provincial Health Authorities, rather than through Provincial Administrations. Thus giving greater control over their resources to support service delivery. This also means that health function grants can be rolled over at the end of the fiscal year, rather than returning to treasury. This can act as a protective buffer to delayed release of funds in Q1 and Q2 of every year.

PHAs will also be supported by the Department of Finance to implement the new Integrated Finance Management System, IFMS, which will improve the Provinces ability to monitor and track expenditures.

The country is in the early stages of developing the essential packages of care across the different levels of service that cover preventative, promotive, curative and rehabilitative care. Currently, the services provided are disjointed as they are program-based and different levels of service delivery are able to provide only the minimum standards of care. Finalising these packages with the support of WHO will help with not only better quality of care, but improve resource prioritisation

5.4.4 Building the National EPI Programme capacities to lead, manage, coordination and monitor the immunisation programme.

Lessons learned that without strong national and Provincial level leadership, the performance challenges of the EPI programme will remain. Health management and leadership capacity has been a source of concern across the board for many years. There have been several initiatives over the last decade to address improved leadership in the health sector, but it has not yet translated to improved leadership capacity on the ground. However, there are places where there is strong leadership capacity.

However, after a considerable vacancy period, the NDOH has recently appointed a new National EPI Programme Manager. The Programme Manager brings a strong epidemiology and field experience background to the role, and within weeks of joining has had to deal with the outbreak of circulating vaccine derived polio virus. Both WHO and UNICEF are working closely with the EPI programme and the new Manager to deal effectively and efficiently with the outbreak. Continued management support will be required over the short-term, but the appointment is welcomed by all partners.

The 2016 Joint Appraisal Mission to Milne Bay Province noted that there was strong leadership at the Provincial level, with a can-do attitude that is directly contributing to Milne Bay's relative success. The Provincial Public Health team has given impressive leadership to National Immunization Programme (NIP) activities. Efficient management of both human and finance resources are central to the 'good' immunization performances. Leadership initiatives included developing a 'Zero Strategy', a plan that identifies priority activities, such as outreach and maintenance, using alternative funds or doing what they can with what they have while waiting for fund disbursement from the national level. The Milne Bay Provincial Health Authority leadership team also placed importance on building the 'CV of the organization', demonstrating a team attitude and a commitment to improvement. But also, there was swift, and well consulted, disciplinary action taken when required. One innovate example of overcoming challenges was that of the 'taskforce' established in Es'ala District, which addresses issues, such as a missed outreach session, as soon as they are identified.

The Milne Bay example is just one a several Provinces whom are taking positive action to address leadership. Other Provinces such as Hela, Southern Highlands, Eastern Highlands, West New Britain, the Autonomous Region of Bougainville are some other examples in which strong leadership is being demonstrated. Based on the Annual Sector Reviews in line with the National Health plan 2011-2020, there is evidence to suggest provinces that have established a PHA are seeing better health outcomes.

The rollout of the Provincial Health Authorities to all 22 Provinces is an opportunity to strengthen Provincial leadership as well as to strengthen provincial public health teams, inclusive of EPI. The Asian Development Bank Health Sector Support Development Programme will support all PHAs, and selected project health districts through an integrated suite of development programs (ISDP), based on adult learning, and action-learning principles, all of which will incorporate gender and social inclusion, and gender mainstreaming. The ISDP will be cross cutting and target PHA board members; executive, district, and middle managers; multidisciplinary clinical staff; analysts in corporate services areas; and aim to increase the pool of women ready for governance and senior management roles. It will raise the skills, standards, systems, and processes of (i) corporate and clinical governance; (ii) leadership and management, including Public Financial Management, and gender inclusive and responsive budgeting; (iii) the effective use of integrated data for decision making for better service delivery, including financial, workforce, and civil registration and vital statistics; (iv) clinical practice in project civil works facilities; and (iv) community health knowledge, community health seeking behaviours, and community-led health promotion.

Additionally, WHO is providing support for District Health Managers training and the implementation of the District Health Managers Guidebook and integrated supervision checklist.

Activities planned in this PSR will be coordinated with other development partners activities to

ensure coordination, alignment and a system strengthening approach to complementary investments to support leadership and management development efforts.

5.4.5 Equity focused service delivery

With support from UNICEF, the National Department of Health and the Provincial Health Offices introduced and scaled-up the "equity-focused immunisation programming" through systematic bottleneck analysis (BNA) using UNICEF's 10-determinants framework in four areas: i) enabling environment, ii) supply, iii) demand and iv) quality/continuity. It is a locally contextualised initiative aligned with joint WHO/UNICEF Reach Every Community (REC) approach to develop detailed sub-district, LLG and health facility level micro-plan focused to implement immunization outreach. The BNA tools have been developed customising the modified Tanahashi model in PNG context that identifies, analyse and prioritise key bottlenecks and barriers of improving immunisation and primary health care services, and suggests strategies and actions to remove those bottlenecks across health systems.

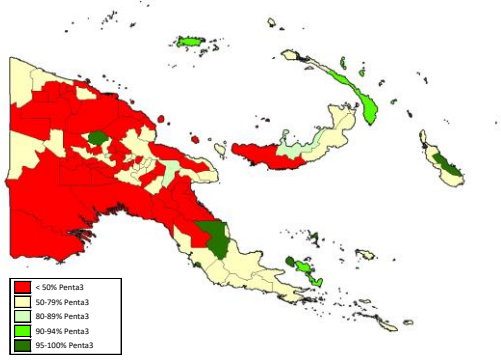
The purpose of this system approach of vertical equity focused initiative is to reach the un-reached, never vaccinated and partially vaccinated children specifically in the difficult to reach districts, LLGs and villages that has a history of extremely low coverage. The programme has been designed based on its learning and experience of implementing a pilot initiative in two districts of East Sepik provinces in 2015 that showed accelerated increase of pentavalent-3 coverage (from 7 to 34 per cent in Angoram district and from 22 to 67 per cent in Wosera Gawi district) within a six-month period.

The key driving forces were the identification and prioritisation of critical systemic bottlenecks and appropriate measures to remove those bottlenecks through building local level capacity, leveraging of resources and partnership locally, improving cold chain and logistical support, enhancing monitoring and mentoring, and facilitating technical, management and governance functions of the provincial health department by deploying an immunisation professional at the provincial level.

The programme has been expanded to Jiwaka, Western Province and NCD urban settlements. In 2016, the equity-focused approach in Jiwaka could achieve 94 per cent MR and 86 per cent TT coverage. The Western province developed and implemented the initiative in 2017 in South Fly district that could reach never and partially vaccinated children.

UNICEF has also supported the NDOH to develop "an immunisation coverage and equity analysis paper" using 2015, 2016 and 2017 data to monitor, track and guide the further development and implementation of equity-focused programme aligned with the National Health Plan's (2011–2020) equity agenda of reaching the urban disadvantaged and the rural poor. The analysis shows that the inequity gap in immunisation coverage is widening over the years. In 2016, while 39 of 89 districts' penta-3 coverage was below 50 percent, it was further deteriorated in 2017 with 56 districts below 50 per cent of penta-3.

Penta3 Coverage 2016



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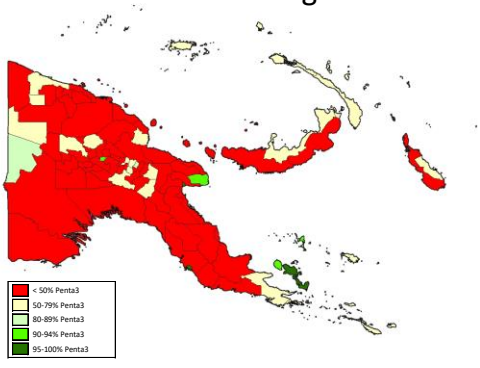
Penta3 Coverage 2017



effort to address the inequity gap in urban immunisation programme, UNICEF is supporting the National Capital District (NCD) Health Department to implement integrated and accelerated vaccination sessions in three urban settlements of Port Moresby through outreach approach to

reach the un-reached or never/partially vaccinated children. The initiative could reach a total of 1,000 children below five years with all antigens as per NDOH vaccination schedule who were never vaccinated before due to the challenges of insecurity, inadequate cold chain, and lack of logistical support.

Based on the experience and evidence of reaching the un-reached, UNICEF will continue to focus on supporting the NDOH and PHA/PHO to the following strategies and actions to improve the immunisation coverage and equity in service delivery.

- ✓ ***Equity-focused coverage analysis and planning:*** The "coverage and equity analysis paper" will be updated annually to provide inputs to programmatic analysis and to guide the micro-planning by each of the six provinces that will receive Gavi's intensified support to implement outreach.

- ✓ ***Provincial Equity Profile:*** Based on the analysis of coverage and equity using most recent data, the provincial equity profile for all 22 provinces with key priorities, strategies, and actions will be developed and disseminated for advocacy and resource mobilisation.

- ✓ ***Scale-up Demonstration of Implementation:*** Using the evidence of demonstration (pilot) implementation on reaching the unreached in urban settlements and rural hard to reach communities, UNICEF proposes to scale-up the initiative in all urban settlements in Port Moresby and Lae, and in all heard to reach wards/LLGs on six provinces of intensified Gavi support.

More broadly, WHO is working with the NDOH and the Provinces to support service delivery transformation and developing service delivery networks (potentially being supported under a IDA-18 World Bank Loan) to improve equity-focused integrated care. This includes actions to improve the continuum of care, centredness of care and competencies of health workers which promote equity-focused services. WHO will integrate through its support actions to:

Improve continuum of care through:

- ✓ Well-defined and targeted service delivery packages that incorporate needs and preference of disadvantaged groups through actions at national level to support the development of essential packages of care, and at the provincial and district level for planning integrated outreach.
- ✓ Supporting provinces to develop modalities of service delivery that facilitate continuity of care e.g. action to address loss to follow up such as through outreach.
- ✓ Support Provinces and District through service mapping and microplanning to improve referral pathways in all directions (up, down, across) that take into account barriers faced by disadvantaged groups.

Improve Health workers competencies through:

- ✓ Support for training and developing technical/ clinical competence in diseases affecting population groups, local communities and disadvantaged populations.
- ✓ Support for developing social competence (communication, team work with other health workers/programmes and other sectors to ensure care coordination and continuity, non-discrimination, sensitivity to gender, age, ethnicity). This will link in to work
- ✓ Training and support to develop skills to build partnerships with communities

Improve centredness of care through:

- ✓ Support to prioritise equitable access to needed and integrated services (overcoming financial, physical, information and sociocultural barriers in access)
- ✓ Support to District Health Managers to use information, skills and knowledge to enable

informed decision-making.

- ✓ Support development of quality standards across programmes and services to ensure acceptable care of appropriate quality (serving the whole person, ensuring privacy/confidentiality, safety and efficacy of care).

5.4.6 Village Health Volunteers can be mobilised

The shortage of qualified health human resources in rural and remote areas is the most significant policy and planning priority, and is the major health system constraint limiting access of the population to life saving interventions, including immunisations. To alleviate the shortage of CHWs and Nurses at the front-line of service delivery, the Village Health Volunteer Program can be strengthened. Village Health Volunteers are women and men who give their time to engage in health promoting activities in their communities. This could be a rural village or an urban settlement. VHVs are selected by village or ward leaders. VHVs do not receive remuneration from the National or Provincial Health system but may be provided with reimbursement cost recovery and incentives by local level government, district development authorities, churches or community based organisations. VHWs can provide community links, help organise sessions, and a range of other tasks to ease CHW burden. The NDOH has recently reviewed the VHV policy with the view to developing a cadre of village health volunteers skilled to a national standard and delivering health promotion activities in partnership with their communities and local health care providers to achieve Health Vision 2050.

One successful example that the EPI programme can draw on is the Bougainville Healthy Community Programme. A recent evaluation of this programme concluded that it was an excellent example of well-planned and well-executed public health and community project which included a holistic logic and rationale and has been effectively implemented within the enormous constraints and challenges of a post-conflict setting. The success to this project has largely been from a positive partnership experience between formal and information institutions as well as utilising change agents, local transformational leaders and good donor coordination. The program covers 90% of all villages in Bougainville with 40 full-time staff.

The intensified approach in the priority provinces will work with VHVs where they exist and bring them into the programme at the community level, particularly for community engagement, awareness, behaviour change communication etc. They will also support the referral pathway to ensure that children return for immunisation or support the catchment facility with organising outreach and mobile clinics.

Included in this request is a request to support the further development of the VHV programme in PNG, including training and rollout of the new curriculum and partnering with non-government organisations to support this work.

5.4.7 Demand generation

Reversing the current poor and stagnant routine immunisation coverage in Papua New Guinea requires a robust demand generation and community engagement strategy.

However, communication and access to information in most areas of PNG present unique challenges. This is due to several obstacles key among which are the mountainous and forested terrain of the country, numerous islands and languages (over 800 language spoken) and poverty which limits most people from having access to important communication and messages, including health messaging such as immunisation. Modern media consumption is limited - newspapers and TV, radio included, are largely accessible by populations in major towns. Thus, 80% of the population that live in rural areas is often unreached with key lifesaving messaging needed for them to make important decisions for their children.

Furthermore, there is a dearth of data on how care-givers and communities receive and give information as well as on beliefs and social norms pertinent to demand for immunisation. Relevant social data, especially given the above unique challenges facing immunisation messaging, is critical in developing effective data-driven community engagement and social mobilisation strategies that will

generate demand for increased immunisation coverage.

These challenges notwithstanding, lessons learnt from recent immunisations campaigns in PNG, including the integrated campaigns response for the earthquake-affected provinces of Southern Highlands and Hela provinces as well as from the ongoing Polio outbreak response campaigns underline the critical role of key community influencers that include religious and community leaders as well as birth attendants and community village mobilizers (where they exist) in effectively mobilising care-givers to immunise their children.

Capacity building in interpersonal communication and community mobilisation skills for health workers as well as other key community mobilisers is another key strategy that paid dividends. Targeted as advocacy to relevant political and technical leaders at national, provincial, and district levels as well as a coordinated approach with faith based organisation and CBOs is another effective key lesson learned. Other successful initiatives have entailed local language IEC materials and bringing the media on board through publicity, jingles and call back shows as well as the use of songs to raise awareness about immunisation.

However, there is an urgent need for a systematic approach to demand creation if PNG is to break the cycle of persistent stagnant low immunisation. A knowledge, attitudes practices and behaviour (KAPB) study to generate accurate data on how people receive and give information and to unmask the prevalent critical social norms and attitudes pertinent to immunisation demand is urgently needed. Secondly, it is imperative to develop a data-driven and budgeted routine communication strategy and a plan to guide implementation of all routine immunization communication activities from national to district and lower level. At the same time institutional support is needed for the rather weak health promotion and education unit – in fact many provinces and districts in the country do not even have a health promotion and education function to support systematic and sustained demand generation for health, including immunisation.

Thus, as can be summarised from the challenges and the lessons learnt noted above, an effective community engagement framework for PNG need to build on four key players that are critical to the establishment of a quality service delivery, demand creation and getting all eligible children immunised. These include care takers, health workers, local influencers (i.e. religious leaders, community leaders and traditional birth attendants) and policy makers (i.e. relevant district and provincial technical and political leaders) with clear strategies for each of them based on a data-driven routine immunisation strategy and plan.

What worked well:

- Utilizing church communication services (particularly radio programs; e.g. Radio Maria from the Catholic Church) helped immensely, as the program had a foot print in hard-to-reach areas;
- High-quality, user-friendly materials developed in both Tok-Pisin and English languages, for all targeted populations;

Challenges:

- Misinterpretation of awareness or IEC materials where language barriers exist
- Most messages disseminated through various means including radios, are limited to the reach of the medium being used.
- All agencies and NGOs tend to develop their own IEC materials, instead of working together to develop agency-consolidated messages
- Most messages were not pre-tested before sharing
- Community involvement in developing messages or IEC materials was lacking
- Many a times, messages were directed towards end-users with very limited focused on demand generation targeting decision makers.

Proposed Plans and Actions to improve and sustain the demand for immunisation:

- Engagement of NGOs, civil society organizations and groups, particularly, PNG Red Cross, churches, community leaders, women group, adolescent and young people forum, in the demand generation activities among the community for immunization, since, ~40% of the health facilities are run by churches in highland and selected provinces. With the experience of engaging church agencies/organizations in the earthquake response, consultation is ongoing at national authority of churches to engage them in demand generation and the HSS support will be utilized in the selected provinces to do so.
- Strengthen community involvement in message developing; targeting the problem faced by the people, and using local knowledge and user-friendly language (local not only Tok-Pisin) to educate communities on changing certain negative behaviours, in relation to the EPI program through the churches, faith based organization and the schools.
- Organization of focus group discussion among the church leaders or assigned preachers and the community leader/influencers, women group leaders, village health volunteers in Highland and other selected provinces
- Engagement of other potential organisations or civil society (for example Rotarians Against Malaria volunteers) to identify missed communities and update outreach locations to ensure unreached or underserved communities are being prioritised.
- Using the ICC as the key immunisation coordination mechanism in the country, advocate for all agencies to work together to amplify voices of all stakeholder for a change agent to develop consolidated and shared messages on the key topics. Institutional support for the relevant government department (Health Promotion Unit) at sub-national level to impart the IPC training and capacity building of CHWs and Village Health Volunteers (VHVs).
- Pre-testing of messages to ensure that maximum impact and efficiency in communicating health messages to improve immunisation uptake. This will also include specific messages for health workers to improve quality of care.
- Develop improved communication methods and joint information products to specifically target key decisions makers. This could include organizing advocacy sessions with parliamentarians to prioritise local-level funding to improve service delivery through District Service Improve Program funds.
- Deploy 4 sub-national (for 4 regions) level advocacy, communication and social mobilization experts to provide technical assistance to the provinces in designing, implementing and monitoring the demand generation activities.
- Contracting local marketing companies to develop materials and conduct pre-testing will also be considered.
- Conduct a KAPB study to generate knowledge and evidence on how people receive and give information and to unmask the prevalent critical social norms and attitudes pertinent to demand for immunisation and primary health care.
- Design and develop a comprehensive advocacy, communication and social mobilisation strategy (and multi-year action plan) to guide the provinces and districts to implement the advocacy and demand generation activities.
- Develop provincial advocacy tools and organise Provincial Advocacy meetings with Governor, MPs, Senor Government Officials, Churches, CSO, and community leaders to leverage political commitment and resources to reach the hard to reach districts those require additional support (choppers, boats) to reach the children with routine EPI.

5.4.7 Collaborate and work with the eNHIS rollout to strengthen data reporting, timeliness and use of data for decision making.

The pilot of the eNHIS (digitisation of NHIS data collection forms) under the Rural Primary Health Service Delivery Project has shown that near real time capability can be developed for reliable health data collection, data analysis and data presentation in five of the 22 Provinces across 184 health

facilities. The decision has been made by the NDOH to rollout the eNHIS to all Provinces and transition from the paper-based NHIS over the next three years. The data collection forms and the monthly summary sheet changes for EPI were endorsed recently (June 2018) as part of a national consultation for changes and additions to the NHIS forms. These changes will the last changes that can be made until implementation of the new NHP 2021 – 2030 where they will be reviewed again and updated in line with the National M&E Framework. Whilst the five (5) current provinces implementing the eNHIS are not the Provinces identified in this PSR for intensified support, the EPI programme staff will work closely with the Performance Monitoring and Research Branch and Provincial Health Information Officers to support timely reporting for both the paper-based and eNHIS system during the transition period. WHO will continue to provide short term technical assistance for the central level support to the Performance, Monitoring and Research Brnach, and the new ADB Health Services Sector Development Program will also include a health systems information specialist to support the DOH and PHAs to develop sustainable health information systems, and to report on, and use, integrated data effectively to support decision making including managerial, planning, policy, and strategy, ensuring cohesion between data sets, and with DOH and GOPNG government systems, and support CRVS.

In addition to this the development of District Health Service Profiles will help with advocacy efforts to improve resource allocation and service delivery performance.

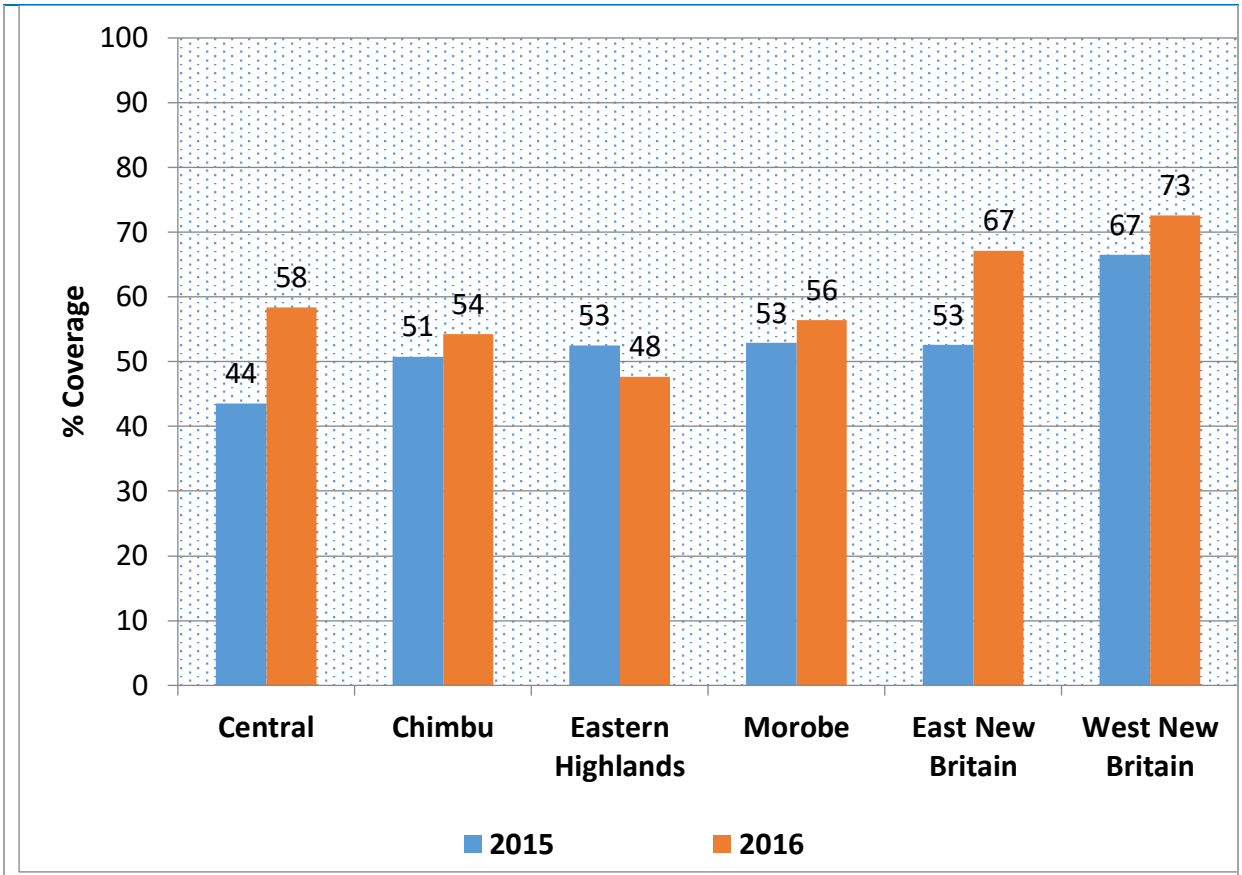
5.4.8 SIREP

The lack of funding to conduct mobile and outreach clinics on regular basis is the most important cause of this declining coverage over the last couple of years. Geographical inaccessibility; lack of ownership and commitment; managerial incapability; shortage of manpower have contributed for the sub national variation of coverage. In 2017, the situation was even worse when the Violence related to the national election has restricted the health workers to conduct any mobile and out reach clinincs for 6 months. The provincial government even stop movement of health workers for 6 months considering the security risk in most of the provinces.

Based on provincial input at the Consultative EPI workshop held in December 2014, to identify low coverage in the routine EPI program, the NDOH developed a special program to strengthen the routine EPI program. The "*Special Integrated Routine EPI Strengthen Program*" (SIREP) introduced in August 2015 and will continue until the set goals are met.

SIREP: What makes SIREP different from the current routine EPI program is that, mobile and outreach clinics will be conducted on a quarterly basis rather than on a monthly basis depending on the injection load and population coverage. And it will be integrated with additional maternal and child health (MCH) services to pull resources considering the continuous challenges of fund and human resources. In addition, it is strengthened with intensified operational components necessary to ensure that the program is reaching every child at least 4 times a year (quarterly mobile and outreach clinics) and achieve high immunization coverage.

But the mobile and outreach patrol services of all health facilities are stumbling due to lack of funding. Most of the provinces have received on an average PGK 150,000 against the estimated budget of PGK 700,000-900,000 to conduct the routine mobile and outreach clinics in the past couple of years. Because of that, most of mobile clinics and almost all outreach patrol sessions are being skipped due to shortage of fund in all provinces resulting in low immunization coverage. The provinces those have mobilized resources and implement SIREP strategy have shown improved coverage as detailed in the graph below-



Based on the experiences of those provinces, this proposal was build on the SIREP model, but with a better microplanning process that uses community co-design. Implementation will require province/district to plan, fund, and provision functional health facilities so that they can conduct regular fixed, outreach and mobile clinics.

This will also require support to the Provincial Health Authorities to improve financial management capacities and to ensure that when Health Function Grants (in Provinces that receive them) are using those funds for the Minimum Priority Areas (MPAs), which includes **MPA 2 Integrated Health Patrols**.

6. Programme, vaccine and financial management

Summarise the priority needs to be addressed in subsequent objectives **(Part D)** to strengthen programmatic, vaccine and financial management components to be strengthened, taking into account findings from the **Programme Capacity Assessment** (PCA), **recent audits,** and **EVM assessment** (if applicable).

- Programme management**:** leadership and management capacity and challenges of the national EPI team; effectiveness and challenges of the relevant Coordination Forum (ICC, HSCC or equivalent body); constraints to coverage and equity due to sub-national management capacity in priority areas
- Vaccine stock management: Priority areas for improvement to manage risks to vaccine stocks, e.g. based upon recent audits or assessments
- Financial management: Priority areas to address financial management gaps

6.1. Programme management

At the Central level, the National EPI Programme is composed of 4 individuals – an EPI Officer, Cold Chain Officer, and two individuals supporting surveillance and monitoring efforts. The team has several vacant positions, and it should be highlighted that the EPI Manager (now Officer) position was left vacant for two years. Although this position was filled in March of 2018, the challenges which led to the delayed recruitment remain in place and make it unlikely that the team will expand in the near future:

- Protracted processes by the Department of Personnel Management Department of Personnel Management and a freeze on public service positions which have meant that the necessary restructuring of the EPI Team, including upgrading of the EPI Manager post and provision for a Deputy EPI Manager have not been furthered.
- Inability to find a suitably skilled professional with the necessary EPI and management experience in country.
- Protracted public service processes to put staff on the Department of Health payroll, when a qualified candidate was found, which resulted in the staff returning to their substantive and higher paid clinical position.

Due to the small size of the EPI team and their limited budget, the team does not have the capacity to provide the guidance and support to provinces that is required, nor do they have the time or manpower to engage or coordinate adequately with other relevant stakeholders in order to advocate for immunisation resources.

At the service delivery level, the current production of health workers is not enough to cover the attrition rate, despite Government's efforts to re-open several closed training schools and building new schools. There is no coordination to ensure employment of all graduates in the health sector. The recruitment, management and deployment of health workers are the responsibility of the Provincial Administration and Hospital Boards. The Department of Personnel Management authorises the staff ceiling, but the actual recruitment is determined by the availability of funding from Department of Finance and Department of Treasury. Health workforce development is the function of National Department of Health, but the training institutes are under the administrative functions of Department of Higher Education Research Science and Technology. The bargaining power for the increase in staff ceiling and funding support becomes challenging due to lack of evidence-based tool to demonstrate the actual need in line with the service functions.

While PNG does have an Immunisation Coordination Committee (ICC) in place, the committee meets on a largely ad hoc basis, and has not typically played a strong guidance role for the country's EPI programme. However, plans are underway to strengthen the ICC and to upgrade its ToRs and membership with support from the DFAT.

PNG does not have NITAG, but as part of Gavi and WHO support over the coming years, there may be opportunities to establish and develop the capacity of a NITAG tailored to fit the country context.

6.2. Vaccine stock management

The EVM 2016 looked at all four levels of the system (Primary, Sub-national, district and health facility) and revealed the strengths and weaknesses of the vaccine supply chain at all these levels and showed significant issues around almost all nine EVM criteria with all of them scoring less than 80%, except the storage capacity.

The weaknesses predominantly were found in the management related criteria, such as arrival procedures for vaccines and commodities, temperature monitoring, stock management, distribution management, vaccine management, vaccine wastage policy and procedures, as well as information management system and supportive functions. There is no reliable data on vaccine wastage and distribution is based on quantity requested and stock availability. The absence of a Cold Chain and Logistics Management Information System (CCLMIS) is still a limiting issue and the EVM suggests that its development is essential. Current reporting system does not capture vaccine stock status of provinces and national level as well as wastage rate of vaccine.

The provincial cold chain and logistic officer (PCCLO) is responsible for vaccine stock management at the provincial vaccine store as well as in all the catchment health facilities. The PCCLOs are non-technical staffs coming from the clinical health work force, hence lacking skills on vaccine stock management. Trainings were provided to these group of people but little impact observed.

Moreover, tools required for stock management (printed stock card, bin card, stock ledger) and communication materials (computers, internet) are not available for the PCCLO at provincial level. The current NHIS reporting template does not include vaccine stock recording and reporting, hence the province is not reporting any vaccine stock status in their monthly reporting.

Health Facilities Standard Branch (HFSB) of NDOH is supposed to be responsible for overseeing maintenance of the CCE across the country, but this does not yet seem to be working and consequently provincial maintenance and repair are inadequate. The CCE infrastructure needs to be replaced and extended. There are immediate efficiency gains to be realized from the planned replacement of gas with solar CCE. The savings in operational costs for gas could support maintenance. The CCE inventory in 2017 found 16% of CCE is non-functional, with disparities between provinces and districts. The EVM notes that of the 89 districts there are only 8 district vaccine stores, and that consequently, most of the health facilities receive their vaccines direct from their provincial vaccine store. This set-up often results in vaccines delivered from a distant location and in-effective supervision.

These challenges were also identified in the Gavi audit of February 2016 and seen again in the SCM monitoring missions of June and August 2016. The February 2016 Gavi audit identified that 175,500 doses of PCV in the central cold store were due to expire by August 2016. This was a result of the significant delays in PCV introduction.

6.3. Financial management

In 2016, Gavi conducted an audit and investigation into the NDOH's use of Gavi funding. This process revealed a number of core weaknesses in the NDOH's financial management capacity, and as such, the Government of PNG is no longer authorised to manage Gavi funds. The key findings are captured below. As of April 2018, these issues had not been addressed.

Vaccine Supply Management	Stock records at the central vaccine warehouse were not timely updated, with the last entry being done in Oct 2015, four months prior to the audit. These records were adjusted without supporting documentation and unexplained differences were not investigated. Stock issuance at all stores visited did not follow "Early-Expiry-First-Out" principle, and vaccine records did not track expiry dates and batch numbers. Vaccine management errors and misunderstandings led to the expiry of closed-vial antigens (Refer to issues 4.1 through 4.5).
Budgeting and Financial Management	Insufficient detail in the annual workplans directly resulted in significant overspending on some budget lines. Management and financial reporting within the NDoH and to Gavi, respectively, was incomplete, inaccurate and untimely. Delays in the implementation of some programmes were not clearly reflected in revised workplans, and the balance of funds reported as being available for reprogramming was not correct. (Refer to issues 5.1 through 5.3).
Expenditure and disbursements	The National EPI unit's primary accounting records were not consistently maintained in accordance with National financial guidelines and procedures. Provincial acquittals sent to the EPI unit were not transparent, with reports being on a pooled-fund basis. Examples of Gavi monies being utilised to fund activities unrelated to the programme were identified. (Refer to issues 6.1 through 6.4).
Procurement	Procurement did not comply with the applicable National regulations. Systemic internal control weaknesses in the procurement process were identified. Procurement was conducted outside of the NDoH's Commercial Support Services Branch, which was responsible for procurement. Spending on printing and stationary materials by the EPI unit for the period 2013-2015 exceeded the approved budget. As a result, it was not possible to determine that good value was obtained on the use of Gavi's funds for procurement. (Refer to issues 7.1 through 7.3).

Part C: Review of implementation progress (to replace the Joint Appraisal) (3-4 pages)

Part C describes the progress achieved in the past year in the immunisation system. By complementing the data as reported via the country portal (e.g. the updated grant performance framework, financial reports, data quality assessment etc.), this section explains over and under achievement of goals and targets, associated implementation challenges and key lessons from the past reporting period (thus replacing the **Joint Appraisal** report for this year). Persistent challenges described here are to be considered in **Part D** for future programming.

7. Past grant performance, implementation challenges and lessons

Briefly comment on the performance of the vaccine support and health systems and immunisation strengthening support (HSS, Ops, VIGs, CCEOP) received from Gavi:

- **Performance of the immunisation system, in terms of**
  - Implementation of annual operational plan for immunisation
  - Engagement of different stakeholders (including WHO, UNICEF, CSOs, donors) in the immunisation system
- **Performance of Gavi grants, in terms of**
  - Achievements against agreed targets
  - Overall implementation progress, lessons learned and best practices
  - Progress and achievements specifically obtained with Gavi's HSS and CCEOP support
  - Usage and results achieved with performance based funding (PBF)
- **Financial management performance, in terms of**
  - Financial absorption and utilisation rates
  - Compliance with financial reporting and progress in addressing audit requirements
  - Major issues arising from cash programme audits or monitoring reviews
  - Financial management systems, including any modifications from previous arrangements
- **Sustainability and (if applicable) transition planning**
  - Fulfilment of co-financing commitment
  - For countries with a transition plan, implementation progress of planned activities

7.1. Performance of immunisation system

- **Implementation of an annual operational plan for immunisation:** At the central level, the EPI team did not undertake annual planning activities, and performance therefore cannot be accurately measured against a plan. However, the EPI did undertake trainings and supportive supervision visits to various provinces. At the provincial level, performance varies widely based on whether or not funds were committed to immunisation activities. Initial indications are that, in provinces which have launched Provincial Health Authorities, processes and accountability mechanisms are leading to a higher level of immunisation performance.
- **Engagement of different stakeholders (including WHO, UNICEF, CSOs, donors) in the immunisation system:** Due to the small size of the overstretched EPI team, the central level has struggled to engage effectively with the wider range of immunisation stakeholders in PNG. While the team engages closely with, and relies heavily upon WHO and UNICEF, there is a need for much stronger coordination with development partners such as DFAT, ADB and WB; and for better engagement with CSOs supporting health service delivery in the provinces.

Performance of Gavi grants

- **Achievements against agreed targets:** PNG has largely failed to meet the targets associated with Gavi grants. Past campaigns have resulted in low coverage results, introductions were done without putting the systems in place to accurately record coverage rates, Gavi vaccines have been mismanaged, and more than $700,000 USD in HSS and other grant funds were verified to have been misused by the Gavi audit and investigation in 2016. As a result, PNG's HSS funds were transferred to WHO and UNICEF in 2017, and partners are now implementing the HSS activities feasible in the remaining time period (end of 2018). Partners are on track to meet the HSS targets committed in their contracts.
- **Overall implementation progress, lessons learned and best practices:** Implementation of

Gavi support stalled after Gavi funds were frozen due to the audit and investigation findings in 2016. Resumption of some key activities by partners in 2017 was a step forward. In 2017, PNG was given the opportunity to develop an EPI transition framework to identify the support required to ensure a successful transition from Gavi support by 2020, and the Gavi Board then agreed to provide expanded and exceptional support to PNG under a strategy aligned with the transition framework. However, implementation of the Gavi PNG strategy was stalled again in 2018 when PNG did not meet the strategy criteria – specifically the recruitment of an EPI Manager and the reimbursement of misused Gavi funds. As an EPI Officer has now been appointed and the Government has demonstrated its commitment to reimburse Gavi, the strategy is once again moving forward, with PNG completing and submitting its applications for HSS support (via this document) and an MR campaign.

Lessons learned regarding the implementation of Gavi grants are as follows:

- Better preparation and planning required for new vaccine introductions
- Improved financial management processes required before Gavi might consider supporting NDOH directly
- New strategies are required to do things differently if the country is to secure different, and improved results, with Gavi support.
- Better engagement is required at sub-national level to improve ownership over the immunisation programmes at the service delivery level.
- Immunisation service delivery is directly impacted by poor performance in key health system areas. This requires greater collaboration and discussion of service delivery challenges and bottlenecks in cross-department forums.
- Enhanced collaboration and joint work plans between NDOH and partners will help to prioritise, focus and leverage different resources to improve immunisation coverage.

Progress and achievements specifically obtained with Gavi's HSS support:

There has been significant progress in strengthening the cold chain facilities and systems supported by DFAT, WHO, UNICEF and through Gavi-HSS-1 reprogrammed funds as follows:

- EVM assessment and cold chain inventory was done in 2017 that identified gaps and requirements. A total of 504 health facilities were equipped with CCEs out of 808 health facilities required to be equipped, which was only 62% coverage.
- Based on the findings of EVMA and the CCE 2017 inventory, a nation-wide Cold Chain Rehabilitation and Expansion Plan (CCREP) was developed highlighting the countries needs up to 2020 as well as in preparation for the new vaccine introduction.
- As per CCREP, a total of 808 health facilities (sites) are required to be equipped by 2020 that include 504 sites for rehabilitation and 304 sites for expansion. Of these 808 sites (facilities), with combined support from Gavi/CCEOP, Gavi HSS-1, DFAT, WHO and Oil Search Foundation (OSF), a total of 762 facilities will be equipped by 2020 (94%). A total of 867 units of cold chain equipment will be available from various sources: 443 from Gavi CCEOP; 85 from Gavi HSS-1; 282 from DFAT (already installed); 46 from WHO (already installed) and 11 from OSF (already installed).
- Under the HSS-1 grant, a total of 96 refrigerators (65 SDD and 31 electric), 22 generators, 1616 vaccine carriers, 266 cold boxes, 315 voltage regulators, and 750 continuous temperature monitoring devices were procured.
- Completed installation of 60 SDDs in Hela, East Sepik, West Sepik, Madang, Morobe and Western Highlands provinces (in selected districts where hands on skills were transferred on to the provincial logistics officers and biomedical technicians).
- Capacity building of 22 Provincial Cod Chain and Logistics Officer (PCCLO) and 61 cold chain focal points from district on CCE installation, maintenance and vaccine management.

Usage and results achieved with performance based funding (PBF): PNG has never qualified for PBF

7.2. Performance of financial management system

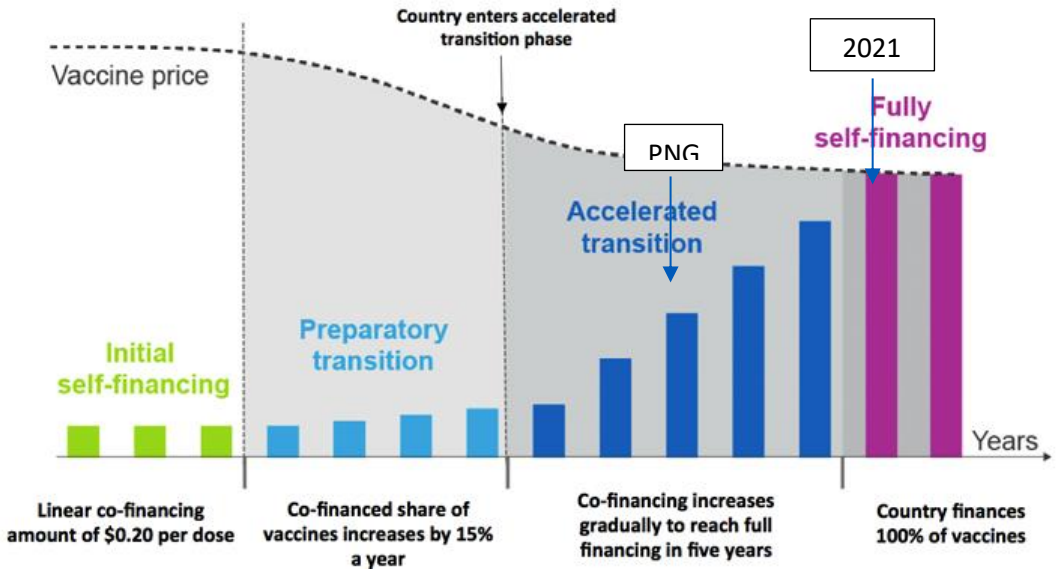
As above:

In 2016, Gavi conducted an audit and investigation into the NDOH's use of Gavi funding. This process revealed a number of core weaknesses in the NDOH's financial management capacity, and as such, the Government of PNG is no longer authorised to manage Gavi funds. The key findings are captured below. As of April 2018, these issues had not been addressed.

Vaccine Supply Management	Stock records at the central vaccine warehouse were not timely updated, with the last entry being done in Oct 2015, four months prior to the audit. These records were adjusted without supporting documentation and unexplained differences were not investigated. Stock issuance at all stores visited did not follow "Early-Expiry-First-Out" principle, and vaccine records did not track expiry dates and batch numbers. Vaccine management errors and misunderstandings led to the expiry of closed-vial antigens (Refer to issues 4.1 through 4.5).
Budgeting and Financial Management	Insufficient detail in the annual workplans directly resulted in significant overspending on some budget lines. Management and financial reporting within the NDoH and to Gavi, respectively, was incomplete, inaccurate and untimely. Delays in the implementation of some programmes were not clearly reflected in revised workplans, and the balance of funds reported as being available for reprogramming was not correct. (Refer to issues 5.1 through 5.3).
Expenditure and disbursements	The National EPI unit's primary accounting records were not consistently maintained in accordance with National financial guidelines and procedures. Provincial acquittals sent to the EPI unit were not transparent, with reports being on a pooled-fund basis. Examples of Gavi monies being utilised to fund activities unrelated to the programme were identified. (Refer to issues 6.1 through 6.4).
Procurement	Procurement did not comply with the applicable National regulations. Systemic internal control weaknesses in the procurement process were identified. Procurement was conducted outside of the NDoH's Commercial Support Services Branch, which was responsible for procurement. Spending on printing and stationary materials by the EPI unit for the period 2013-2015 exceeded the approved budget. As a result, it was not possible to determine that good value was obtained on the use of Gavi's funds for procurement. (Refer to issues 7.1 through 7.3).

7.3. Sustainability and (if applicable) transition planning

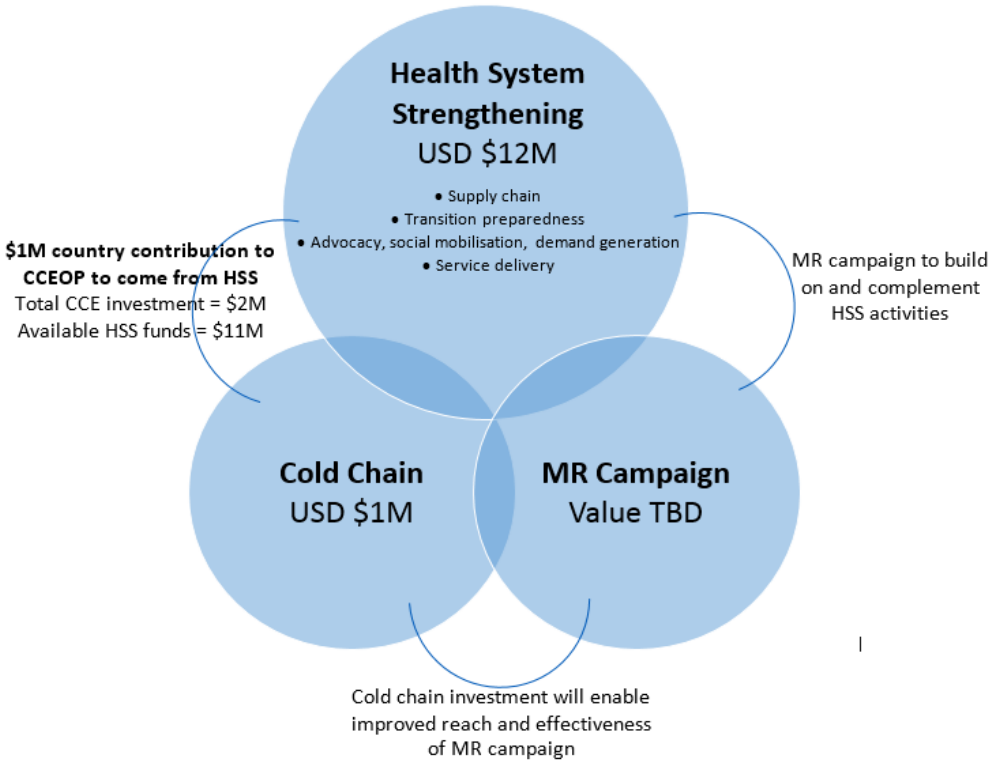
PNG will transition from Gavi support at the end of 2020:



- PNG's GNI per capita now exceeds the Gavi threshold of US $1500
- PNG has entered Gavi's Accelerated Transition phase – the final phase of Gavi support during which the country must progressively absorb all costs associated with EPI
- The final year for implementation of Gavi grants will be 2020
- The Gavi Board, recognising the challenges to successful transition in PNG, offered the country the opportunity to define the necessary timeline and support from Gavi needed to ensure successful transition
- In 2017, NDOH led the development of an EPI transition framework outlining the following areas of required support:
- Expansion of Cold Chain to ensure 808 health facilities equipped with modern, low-maintenance cold chain equipment by 2020
- Intensification of SIREP immunisation service delivery through support for outreach and demand generation activities in targeted locations to ensure coverage gains of at least 5%/year over three years
- Support for an MR campaign to ensure MR coverage reaches 95% by 2020
- Expansion of technical assistance through partners to ensure PNG has access to technical expertise required to strengthen EPI and secure desired results

Gavi Support Available for the Period 2018-2020:

- In alignment with the NDOH's EPI Transition Framework, the Gavi Board approved an exceptional package of expanded support to PNG for the period from 2018-2020
- PNG is now eligible to apply for:
- $12M USD in HSS funding (increased from previously allocated $6M)
- MR Campaign, including exceptions to allow campaign to be tailored to PNG context
- $1M USD in modern cold chain equipment to ensure expansion and refurbishment of PNG's entire cold chain system (there should be no remaining gaps post 2020)
- Expanded TA through WHO, UNICEF, WB, CDC, and embedded mentoring support to EPI team
- PNG may also seek eligibility to apply for support to introduce additional new vaccines if the country's immunisation system shows signs of improvement



- EPI stakeholders have proposed four core areas for **HSS grant**:
- **Supply Chain**, including the $1M country contribution to cold chain expansion, improvements in effective vaccine management, maintenance and training
- **Transition preparedness**, including the establishment of a NITAG, strengthening of relevant regulatory bodies and procurement processes if desired, and planning for EPI financial sustainability
- **Advocacy** and **social mobilisation** for the resourcing of immunisation, **demand generation** for immunisation services
- **Service Delivery**, including EPI training and support in all provinces, resources for implementation of routine immunisation (SIREP) in 6 targeted provinces
- New grants to be implemented under DFAT's PNG Partnership Fund mechanism and by WHO/UNICEF

Sustainability:

While Gavi support under this strategy can lead to immediate improvements in immunisation coverage, it will not likely ensure the full sustainability of PNG's EPI Programme. The National Department of Health will need to work closely with all development partners to prioritise and leverage resources to address critical areas of health system strengthening so that the systemic health system challenges which directly impact on immunisation service delivery may be addressed in a coordinated and comprehensive way over time.

A number of strategies have been devised for the transition to occur sustainably and to that end, the EPI, Gavi and partners are still developing a transition plan which include technical assistance by partners during this period.

Co-financing of vaccines will continue, and the NDOH will ensure that increased vaccine co-financing requirements are included in the annual budgets. Vaccine financing sustainability is considered low-risk. Operational costs for service delivery remains the greatest challenge to the immunisation programme in terms of sustainability.

Whilst the fiscal constraints are likely to remain until at least 2022, efforts to improve resources for primary health care and integrated outreach and immunisation will be required. The NDOH and partners will support Provinces with Annual Implementation Plan development and requests, provision of advocacy materials and budget briefs to support budget justifications. The World Bank will continue to support provide technical assistance to improve budget architecture and areas for

further investment as a result of donor transition. As part of this the World Bank will be developing with the NDOH, an Immunisation Financing Sustainability Plan.

Advocacy materials and sessions to influence Parliamentarians to allocate at least 20% of their District Service Investment Programme (DSIP) funds to health will also be undertaken. DSIP funds made available at the local level would greatly enhance the ability of health facilities to conduct integrated outreach and mobile patrols. Financial sustainability remains a challenge in the current fiscal climate, however, the urgent need to dramatically increase the coverage of all routine immunisation is the main factor behind the high amount of operational funding being requested during this period. All efforts will be made to transition recurrent costs through inclusion in Annual Activity Plans, support from the World Bank to develop investment cases and evidenced based budgets for Treasury. Additionally, the US$ 300m budget support being provided through an ADB loan will offer some relief to the current cash flow crisis being experienced by the PNG Government. Additional strategies are being considered by the Gavi Alliance partners, which may see additional resources beyond the 2020 period if insufficient progress is made over the coming 2.5 years.

The strategic partnership engagement is aimed at ensuring that beyond the Gavi support, established community engagement and outreach mechanisms are in place for the government to advocate further resources for continued coverage of remote and hard to reach areas.

Programmatic sustainability

Programmatic sustainability in PNG is enhanced through policy and health system strategies to promote efficiencies and ensure EPI is well integrated within the health system.

Organizational Integration: Implementing EPI requires working together of different agencies in the NDOH along with development partners including UNICEF, WHO and CSO agencies. Although the EPI unit is currently small (and understaffed staff), the unit is placed within the Family Health Division and can take advantage of its networks and programmatic support. In provinces, EPI officers work with Child Health and Family Health teams. At the Central Area Medical Store and in Provincial Vaccine stores, there are dedicated staff for vaccine supply and cold chain equipment.

Information and planning integration: An extensive monitoring system for EPI has been developed generated from health facilities to the national level. EPI information is part of monthly reporting required for reporting to the National Health Information System. The proposed integration of HSS supported activities into the Gavi grant design will also promote programmatic sustainability, by linking of EPI to broader planning and health sector initiatives to strengthen the service delivery sector.

Service Integration: The National Health Service Standards aims to ensure more efficient management and delivery of services by clarifying roles and functions of the various agents in the health system. The NDOH has committed to developing the essential packages of care to further define the package of services to be provided at each level in order to improve quality, efficiency and effectiveness of care. Through this policy initiative, it is expected that the country can meet the challenge of delivering services in the most efficient manner, particularly given the on-going challenge of shortage of human resources. Closer linkages with churches and NGOs in higher risk areas in the 6 provinces receiving intensified support will increase the prospects that services can be sustained in hard to reach areas.

Financial sustainability

PNG is currently facing a period of low economic growth and fiscal contraction, placing financial sustainability for primary health care and immunisation in a difficult predicament. Health however is a priority and within it, immunisation is top priority as the government recognises the importance of a healthy population. The NDOH will work closely with Provinces, Central Agencies and development partners to work towards improving the availability of additional resources for service delivery, in an effort to ensure the long term sustainability of the immunisation programme.

Planning for Recurrent Budget Costs: As part of health systems strengthening the NDOH EPI programme will support Annual Implementation Planning, and ensure that the recurrent costs being supported through the HSS grant will be clearly identified in Annual Implementation Plans and

included in the Medium Term Expenditure Framework. This will ensure visibility of the Gavi contribution to the EPI and HSS activities, and support the NDOH to plan for absorption of the recurrent costs.

Increasing Costs of New Vaccines: Overall expenditure on traditional vaccines, from government, was US$ 5,175,754 in 2014. The projected costs for vaccines across the 2018-2020 period totals, US$ 38, 094, 713, of which 31.5% (11.9m) is projected to be the cost of new vaccines. This will include during this period the introduction of the new MR vaccine through the MR campaign application.

The response to these financial sustainability challenges will be as follows:

Policy Initiatives: The National Health Plan 2011-2020 and the National EPI policy (2016) reflects the importance given to immunization. It sets basic targets and programme operations mechanisms. Provided in this policy is to ensure funding support for EPI. In addition to the EPI Policy, the National Health Service Standards integrate the roles and functions of EPI staff within the health system at each level, and the overall policy framework for services integration.

Resource mobilization and partnerships: As a priority programme, government and development partners are obliged to ensure that EPI is implemented well. In addition to international partnerships, this HSS proposal will also propose closer partnerships with Civil Society Agencies in the Provinces for intensified support in order to promote more sustainable access for hard to reach populations, and support Provinces and Districts to include these organisations in their AIPs to support service delivery and implementation and funding where possible.

Efficiency: As outlined in the above-mentioned section on programmatic sustainability, closer integration of the EPI planning, management, information and delivery system will ensure much closer operational linkages with the wider health system, and will assist to leverage the shared costs of the health care system for sustainably improving immunization activities and results. Integrated outreach will be a priority activity. Also this will complement the rollout of the integrated supervision checklist that has been developed by NDOH and WHO.

Part D: Objectives of requested Gavi support[3]

Building on the country immunisation system analysis and context (**Part B**) and performance to date (**Part C**), this **Part D** presents a request for future Gavi support.

8. Planning for future support: coordination, transparency and coherence

What steps were taken to achieve **complementarity and coherence** of Gavi's support across government and stakeholders? How were various forums (ICCs, HSCCs, NITAGs) involved in the development of the PSR?
At the National level, the NDOH is working to improve health sector coordination through the establishment of the health sector coordination committee, of which one of the first priorities is immunisation. WHO, DFAT and the WB are providing support to develop the HSCC and revitalise the committee as the key sector coordination mechanism for the health sector. Over the next year substantial support will be given to its development, and this mechanism will be key in ensuring coordination and coherence of major development partner investments to the health sector. The ICC is a key committee which will feed into the overarching HSCC. The ICC is the key mechanism for ensuring harmonisation and coordination of support for immunisation. In signing off on this PSR and the MR application, the Gavi Secretariat can be assured that it has been reviewed in the context of other sector and partner support and is aligned to government priorities. The ICC includes representatives whom have been closely involved in the development of the PSR. In terms of implementation, the planned support with build on and leverage existing partner and NGO work at the provincial and district level. In Provinces with Provincial Health Authorities, Provincial Partnership Committees will ensure work plans are complementary and contribute to local immunisation performance indicators and health outcomes. This support as described earlier also takes into account the larger investments of DFAT and ADB through the Health Sector Support Development Programme. WB future support through a potential IDA-18 loan will support service delivery and complement, enhance and leverage investments under this funding. WB as an alliance partners is also supporting critical work on immunisation financing to improve transparency of the national immunisation budget and support planning for transition and a sustainable immunisation program. This planned investment also is complementary to other work being supported by WHO and UNICEF. For example, WHO will be supporting the development of the essential packages of services which will include immunisation, and is an opportunity to strengthen the efficiency of service delivery. WHO is also supporting sector coordination, medicines quality strengthening, health workforce and streamlining health sector governance and regulations which all contribute indirectly and directly to improving the performance of the immunisation programme. The additional support by CDC through STOPers is critical to on-the-ground capacity development and performance improvement. The additional support from the GEPI for the polio response is an excellent example of how all partners are working together to address and stop the transmission of the current outbreak of the polio virus.
To be eligible for new Gavi vaccine or financial support, countries need to demonstrate a basic functionality of **their coordination forum (ICC, HSCC or equivalent body**). Requirements are described at http://www.gavi.org/support/coordination/ To what extent does the **coordination forums meet the** Gavi requirements? What steps have been taken to address any gaps?
PNG's ICC meets the Gavi's requirements for a coordination forum. The membership is defined, meetings are held with adequate regularity, and the ICC has consistently provided the necessary sign-offs and direction to enable applications for Gavi support. In addition, efforts to strengthen

[3] The duration of Gavi funding should be discussed in consultation with the Gavi Secretariat to align to the extent possible to a country's strategic period. Regarding measles/rubella, the duration of the planned/expected introductions or campaigns should be for 5 years regardless of the duration of the national strategy.

coordination around DPs' investment in immunisation are underway, and the ICC will likely be further strengthened in the coming year.

How does **Gavi** support fit within the context of national health and immunisation strategies?

Summarize how Gavi's support fits within and complements the overall context of the national health and immunization strategies, and efforts to achieve Universal Health Coverage priorities. Explicitly address how Gavi support will complement, both financially and programmatically, the achievement of these objectives. Discuss the extent to which the health financing strategy and policy incorporates vaccine and immunisation recurrent delivery costs and needs.

Gavi support is aligned to the National Health Plan 2011-2020 and the CMYP 2016-2020. It provides additional and complementary funding to support key immunisation activities and delivery of integrated primary health care activities, such as outreach and mobile clinics. Primary Health Care is the cornerstone to PNG's universal health coverage priorities. Without addressing improvements in PHC, UHC will not be achieved in PNG. The funding provides additional resources to scale up and urgently increase immunisation coverage. Without action to rapidly increase coverage, sustainability ambitions of the programme are not feasible in the short term.

In terms of implementation, the planned support with build on and leverage existing partner and NGO work at the provincial and district level. In Provinces with Provincial Health Authorities, Provincial Partnership Committees will ensure work plans are complementary and contribute to local immunisation performance indicators and health outcomes.

This support as described earlier also takes into account the larger investments of DFAT and ADB through the Health Sector Support Development Programme. WB future support through a potential IDA-18 loan will support service delivery and complement, enhance and leverage investments under this funding. WB as an alliance partners is also supporting critical work on immunisation financing to improve transparency of the national immunisation budget and support planning for transition and a sustainable immunisation program.

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9. Planned vaccine introductions over the duration of the national immunisation strategy (e.g. cMYP)

This section presents information on future vaccine routine introductions and/or campaigns under consideration for Gavi support (including support for which the country may not be eligible yet). This does not represent a commitment from the country to introduce the vaccines listed below. High level information critical to planning and preparation should be outlined here.

Approximately 18 months ahead of the actual introduction in the routine programme or the campaign, additional vaccine-specific information will be required to obtain Gavi approval. This **Vaccine Support Request** will include: evidence to confirm eligibility, operational plan, budget, and essential information to support grant implementation (e.g. procurement and co-financing terms, target population data).

Strategic considerations supporting the requests for new vaccines (routine or campaigns)

Describe the rationale for requesting these new programme(s), including the burden of disease. If already included in detail in the Introduction Plan or Plan of Action, please cite the section only.
The cMYP refers to the planned introduction of HPV and Rotavirus vaccines. Under the Gavi Board-approved PNG Strategy, PNG may be eligible to apply for Gavi support to introduce these vaccines if the country can demonstrate improvements in coverage and vaccine management systems, how the introductions could be completed successfully, and how any new introductions would be sustained beyond transition from Gavi support.
Please discuss the financing-related implications of the new vaccine programs requested, particularly how the government intends to fund the additional co-financing obligations. Please mention if any defaults occurred in the last three years and, if so, describe any mitigation measures that have been implemented to avoid future defaults.
N/A at this time
Please give details of the **lessons learned** from previous campaigns and routine introductions, specifically for: storage capacity, protection from additional freezing, staff training, cold chain, logistics, coverage, wastage rate, coverage and drop-out rates, and suggest action points to address them in future introductions or campaigns
N/A at this time
Explain how the proposed NVS support will be used to **improve coverage and equity** of routine immunisation, by detailing how the proposed activities and budget will also contribute to overcoming the key barriers cited in your coverage and equity analysis.
N/A at this time
Summarise **programmatic challenges** that need to be addressed to successfully implement the requested vaccines support, and describe plans for addressing those. Examples of key barriers to consider include: • **Health work force**: availability and distribution; • **Supply chain** readiness; • **Demand generation** / demand for immunisation services, immunisation schedules, etc.; • **Leadership, management and coordination**: Leveraging the outcomes of the Programme Capacity Assessment and/or other assessments, please describe the key bottlenecks associated with management of the immunisation programme. This includes the performance of the national/ regional EPI teams (e.g. challenges related to structure, staffing and capabilities), management and supervision of immunisation services, or broader sectoral governance issues. • **Other critical aspects** based on country plans or reports (e.g., the cMYP, EPI review, PIE, EVM) or key findings from available independent evaluations reports.
N/A at this time
Describe **potential synergies** across planned introductions or campaigns (e.g. if two introductions are planned in the same year, there should be synergies at least in training and social mobilisation events). If relevant, comment on capacity and appropriate systems to introduce multiple vaccines in a year. Also describe how the country will mitigate any programmatic and financial risks associated with multiple introductions.
N/A at this time

10. Description of requested support for each new vaccine programme

More specific planning needs particular to each vaccine programme listed in Table 1.2 are described here. Greater details on activities needed to prepare for the vaccine introduction and/or campaign (addressing the programmatic challenges and bottlenecks outlined above)

should be reflected in the country's annual work plan. In describing the Technical Assistance (TA) needs, no need to mention provider or budget needs as this will be discussed and agreed upon at a subsequent stage.

Additionally, a vaccine-specific request will be required 12-18 months before the actual introduction in the programme or the start of the campaign.

Exclude here vaccines that have already been approved by Gavi, even if they have not yet been introduced.

HPV routine *(introduction date, e.g. **Dec 2018**)*	Describe the **broad strategy for introduction** (including target population, potential multi-age cohort vaccination in year 1, potential regional roll-out etc.).
	…
	Describe the steps to finalise the introduction strategy and to engage key stakeholders
	…
	What **Technical Assistance will be needed to support** this introduction and when?
	…
Men A *(introduction date, e.g. **Nov 2019**)* *(routine, mini catch-up and preventive campaigns)*	Describe the **broad strategy for introduction** (including **target population** for each type of support below)
	e.g. Routine [4]: *e.g. Mini-catch up campaign for unimmunised cohorts[5]:* *e.g. mass preventive campaigns*
	What **Technical Assistance** will be needed to support this introduction or campaign, and when?
	…
Measles / Measles Rubella *(routine and campaign/s with introduction date, e.g. **Dec 2020**)*	To encourage a comprehensive and long-term approach to Measles/Rubella control/elimination, the multi-year national plan attached to this PSR should include an analysis and description of the activities outlined below[6]: • **Immunisation coverage trends and dropout rates for MCV1 and MCV2** in routine (national and sub-national); coverage results from M or MR campaigns, including post campaign coverage surveys; **lessons learned** from implementation of routine and campaigns, and efforts to cover hard to reach areas and other populations (e.g. women of child bearing age, health workers) • **Surveillance** (case-based and sentinel) performance for at least 5 years, at national and subnational levels, and any plans for improving it through the use of HSIS funds (if not covered in above sections already) • **Epidemiological trends** and patterns (distribution by age, geography, etc.) for measles, rubella and congenital rubella syndrome (CRS) including outbreaks; population susceptibility and measles outbreak risk profile • **Priority activities** for 1) routine (MCV1 and MCV2) immunisation strengthening, including efforts to improve coverage in hard-to-reach and/or MR in routine immunisation and any campaigns in the next 5 years (catch up or follow-up); 3)

[4] For routine immunisation please indicate if there is an opportunity to introduce alongside other vaccines given at the same platform i.e. MCV1, MCV2 and yellow fever

[5] For certain countries, a routine introduction for MenA signals that a mini catch-up campaign is needed (see guidelines and WHO position papers).

[6] If the multi-year national immunisation plan (cMYP) does not include this information, it may be submitted as an addendum to the plan.

	strengthening of measles, rubella and CRS surveillance and lab confirmation (including through the use of HSIS funds): 4) outbreak preparedness plans
	Provide a **technical justification** for each type of support requested for Measles / Measles Rubella in the next 5 years
	A follow-up MR campaign will be needed as routine coverage is leaving nearly half of the new birth cohorts susceptible. The last campaign was in 2015; strengthening routine, including more focus on the school-entry dose/check is also needed.
	Describe the **target population** for each type of support in the next 5 years
	A full assessment of target population will be addressed in preparation for the MR campaign proposal.
	With reference to any bottlenecks/challenges noted above, what **TA will be needed** to support this introduction or campaign, and when?
	A full assessment of bottlenecks and challenges will be addressed in preparation for the MR campaign proposal.
Yellow fever *(routine and campaign/s)*	Describe the **broad strategy for introduction** (including **target population** for each type of support below)
	e.g. Routine [7] *e.g. mass preventive campaigns* *Indicate the at-risk population and country prioritisation criteria and whether validated*
	With reference to any particular bottlenecks/challenges noted above, what **TA will be needed** to support this introduction or campaign, and when?
	…

11. Programmatic: description of priority HSIS investments from Gavi

Gavi grant-related information

Based on the above, **target date for submission of annual operational workplan and budget** for Gavi's contribution	February 28, 2018
Target date for first year funds arriving in country	July 2018
Next PSR portfolio review (final year of immunisation strategy)	2020

This section describes the 3 to 5 objectives and priority activities that have been identified for Gavi financial support. The description indicates how each objective intends to address the issues and bottlenecks identified in **Part C** and contribute to sustainable improvements in coverage and equity. It is recommended to consider specific objectives related to the under-immunised populations identified in **Part B**, and to explore investments in critical areas such as vaccine supply chain, demand promotion and community engagement, leadership management and coordination and data quality/availability/use).

Objectives and priority activities for Gavi financial support

[7] The country is requested to consider introducing alongside vaccines given at the same platform i.e. Men A, and MCV1 and leverage on strengthening coverage

Please see the **Programming Guidance** for targeting interventions in each of Gavi's strategic focus areas (i) leadership, management and coordination, (ii) supply chain, (iii) data and (iv) demand promotion: **Programming Guidance Documents**

For each objective:

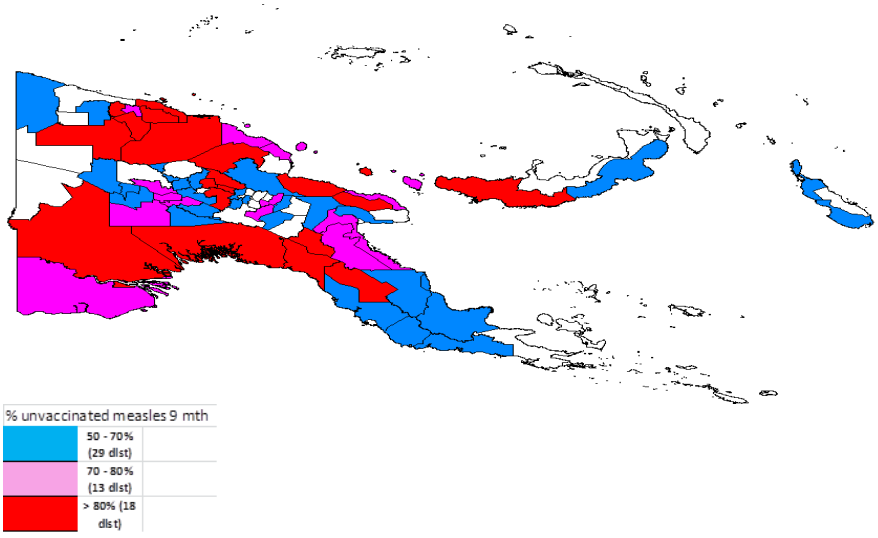
- Provide an **estimated timeframe** for completing the objective
- Describe how the objective(s) target specific **populations/ geographies** as identified in Part B. If applicable, briefly outline which populations and/or geographies have been prioritised for support, how they have been selected, what has been done so far for those populations/geographies and what is being proposed for future Gavi support.
- Describe how the proposed objectives and activities tackle the **immunisation challenges and bottlenecks** identified in Part C (including on topics such as supply chain, demand generation/ community mobilisation, leadership management and coordination, and data quality/ availability/ use) and further the achievement of the goals and objectives of the multiyear national strategic plans.
  To apply for CCEOP support, please include CCEOP as one of the activities under a supply chain objective.
- For each objective, indicate approximately **5 activities** which will contribute to achieving the objective; Explain how those activities will address specific coverage and equity challenges, and how implementation of the activities will be prioritised (e.g. over time, any geographic or population focus/targeting, etc.).
- **Sustainability considerations:**
  - **Financing**: Justify requests for Gavi to support major recurrent costs (e.g. human resources) regardless of transition stage. Countries in the preparatory and accelerated transition phase are restricted from using Gavi funds for recurrent costs. In addition, describe the steps being taken to ensure the necessary financial resources are available domestically to fully fund the recurrent and non-recurrent investments needed to sustain the results achieved once Gavi supports is phased out.
  - **Integration**: Describe the extent to which the activities envisaged will be implemented through routine systems and processes. If outside, please justify and describe steps being taken to integrate them into routine systems and processes.
  - **Institutional capacities:** This refers to whether the country has the staff, structures, capabilities and systems to sustain its immunisation programme without relying significantly on external partners and service providers. To what extent are Gavi investments contributing to strengthening these national institutional capacities? In addition to the four strategic focus areas covered in the Programming Guidance Documents, attention should be paid as well, particularly in countries in or about to enter the accelerated transition phase, to non-service delivery dimensions of institutional capacity in areas such as: procurement, technical capacity to advise the government on new vaccine introductions, and vaccine regulation and safety.

  For countries in the accelerated transition stage, please dedicate one objective to those activities specific to appropriate transition planning.
- **Provide tailored indicators** that will be included in your grant performance framework **to monitor** each objective. These tailored indicators should provide an assessment of achievement of intermediate results and activity implementation. Further information on supply chain indicators is included in programming guidance documents and/or below.
- List **up to 3 priority technical assistance needs** anticipated per objective for the upcoming year. Please indicate if this TA will be funded through the HSIS support or whether this will require investment from Gavi through the Partners Engagement Framework (PEF).
- For each objective, provide an **indicative total budget in US$** for the duration of Gavi's support.

Objective 1:	Service Delivery
Timeframe:	2018-2020
Priority population/ geography or constraint(s) to coverage and/or equity to be addressed by the objective:	The below provincial coverage rates for the 6 priority provinces are also the provinces with the highest numbers of unimmunized children. Among the provinces with the highest numbers of unvaccinated children, each province contains districts with significant geographic and security access issues. Provinces with low coverage but fewer unvaccinated children present many of those same issues, but have smaller populations.

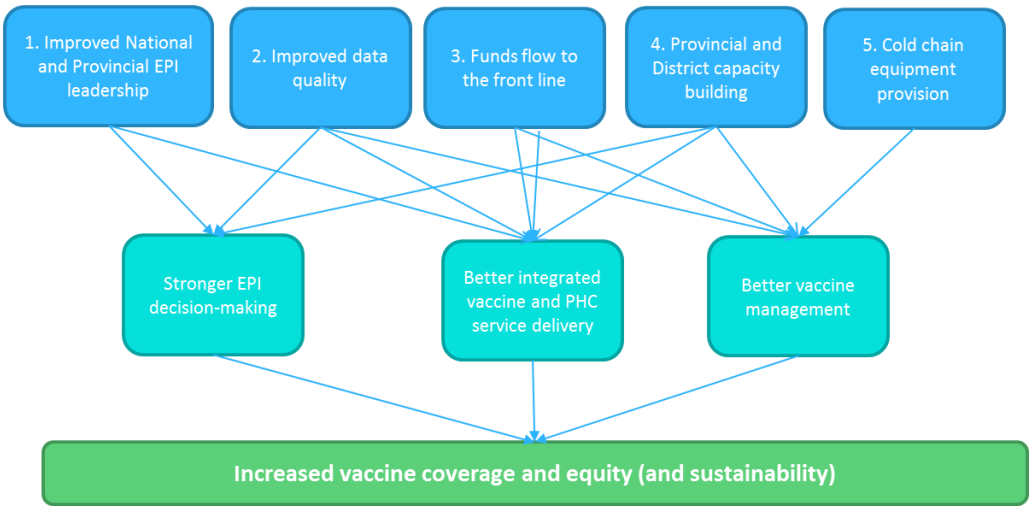
Province	Coverage (Admin Data)				# Unvaccinated Children	
	Penta3	IPV	PCV3	Measles 9-11M	Penta3	MR
PNG	**57**	**10**	**16**	**47**	**110940**	**135500**
Morobe	56	14	24	33	9819	15120
Southern Highlands	25	4	9	27	13580	13196
Jiwaka	22	3	14	19	10707	11097
Madang	40	0	0	37	10288	10814
Eastern Highlands	48	8	16	46	10428	10736
East Sepik	31	6	14	35	10651	10014

The 6 Provinces also have some of the most difficult and remote districts to which services need to be delivered. The challenging topography, lack of road infrastructure and high cost of delivering services, such as outreach in these areas all contributes to the inequities in access and the variability of immunisation coverage that is seen between districts within Provinces. The figure below shows the variability of Measles 9 months coverage across the 89 Districts in 2017:



The immunisation and health system bottlenecks/constraints can be summarised by

	the below table: **Immunisation System Analysis** • Poor coordination between National and sub-national EPI. • Low motivation for RI • Weak HIS and unreliable statistics and denominator challenges. • High dropout rates between successive vaccine doses due to lack of validation of data in field. • Lack of service providers in the rural area. • Weak competencies and up-to-date skills of HW at the front-line. • Ageing cold chain equipment. **Health System Constraints** • Lack of funds flowing to the front-line for operations and service delivery. • Inadequate skilled health care workers in the rural areas. • Lack of supervision and performance monitoring. • Mal-distribution of health workers. • Inadequate vaccine management practices. • Inadequate reporting and surveillance systems. • Low quality data collection & reporting and poor use of data for management. • Sector coordination and weak governance mechanisms. Overall, the delivery of routine integrated immunisation and primary health care services in the 6 priority provinces is complicated by a **shortage of health care workers**, **delayed and inadequate funds** for service delivery which directly impact operational expenditures such as outreach and supervisory visit. The shortage of health workers is further exacerbated by **low motivation and poor performance** to deliver quality services and ensure continuum of care. This is partially reflected in the indicators, with low completion of multi-dose vaccines, for example third dose PCV3 (Total coverage in 2017 was 31%, National EPI Report, 2017). **Lack of supervision** from provincial headquarters contributes to the low motivation and performance culture. Whilst there are some examples of innovations to reach rural and remote populations, such as the Domil model in the Western Highlands or the partnership approach in Hela between the Provincial Health Authority and the Oil Search Foundation, there is **little to no incentive for local innovation to reach communities.** The **use of health data for decision** making remains a significant challenge in PNG. The district health system assessment revealed weaknesses in district health leadership and governance, weak capacity for planning and budgeting and poor utilization of health information in decision-making. Data, particularly in terms of population denominators is unreliable, based on the 2011 Census and 2006 DHS data and contributes to inaccurate reporting. The well-established paper-based National Health Information System (NHIS) that is used to generate the Sector Performance Annual Review is no longer fit-for-purpose. Limitations include timeliness (focused on annual reporting), one-way flow of data and limited feedback to relevant decision makers at different levels, and lack of inclusion of Aid Post data (although collected) and private sector data. The Rural Primary Health Services Delivery Project has been piloting an electronic NHIS which the NDOH has endorsed to rollout in all Provinces.
Immunisation system bottleneck(s) to	This objective is focussed on addressing low quality and coverage of immunisation and integrated primary health care services. This objective will support bottlenecks 2, 3 & 4 as outlined below, contributing to better integrated vaccine and PHC service

be targeted:	delivery, better decision making and improved vaccine management.  This objective will provide additional **financial resources** to support the scaling up of integrated outreach and primary health care services in the 6 priority provinces: Morobe, Southern Highlands, Jiwaka, Madang, Eastern Highlands and East Sepik. Together these Provinces have 22 of the 31 priority districts with the highest number of unvaccinated children by routine immunisation in the country (National EPI Report, 2017). This will target the bottleneck of delayed release of health function grants (with the exception of Morobe Province which does not receive HFGs) in the first two quarters of each fiscal year, to improve availability of funding to deliver services and act as buffer for delayed financing. This will also contribute to **improving supervision**, by also addressing the fiscal constraints that have been a key bottleneck to implementation of supervision. This objective will also contribute to overcoming the lack of innovation in the service delivery approaches to reach rural and remote communities by increasing the number of village health volunteers at the periphery and support development of local solutions to improve access to quality integrated primary health care services. The use of partners such as non-government organisations will be explored to develop this further and contribute to developing partnerships for service delivery at the district levels. The use of equity focussed planning and programming will also be used to improve and redesign service delivery models to address inequities. Using equity focussed service delivery models will contribute to developing innovation in service delivery and improve the centredness and continuum of care. Health Worker performance and competencies will be developed through improving supportive supervision, on-the-job training and strengthening linkages with communities and increase both local and provincial level accountability for immunisation. Data quality will be addressed through actions to improve reporting at the health facility level (supportive supervision, training in the new eNHIS platform and improving data use at all levels). Lessons learned from the polio campaign such as community mapping and increased monitoring and supervision will be also applied to improve the quality of immunisation and primary health care data.
Prioritised activities (approximately 5):	1. Promote supportive supervision in the form of trainings (nation-wide) and on-the-job coaching in the 6 priority provinces (Morobe, Southern Highlands, Jiwaka, Madang, Eastern Highlands and East Sepik) to support HW in building links with community, co-designing micro plans, and delivery quality services.

	2. Provide resources (including vehicles, allowances, and additional health products for integrated service offering) needed for full roll out of SIREP (combination of static, mobile, and outreach) approach in target provinces. 3. Mobilise, train and scale-up of village health volunteers to extend capacity of HWs particularly with regards to demand generation and social mobilization – help in organising sessions, community links, etc. Includes: o Finalisation of the National VHV policy o Finalisation of the VHV Curriculum and Managers Guide o Contract NGO partner/s to develop and implement VHV training for 600 VHVs and support on-going supervision and development. 4. Improve NHIS and eNHIS data collection and use practices by HWs and support testing and scale-up of eNHIS as is feasible such as providing digital tools (in partnership with ADB) to support health workers in recording and reporting. Includes supportive supervision costs for EPI and NHIS team members. 5. Design, develop and implement equity-focused immunisation programming to reach the un-reached with routine immunisation services.
Rationale:	The delayed release of funding in the first two quarters of every year is the most significant bottleneck to the provision of quality integrated immunisation and primary health care services. This funding will ensure that funds are available for Provinces to implement planned activities as planned, provide HWs with resources, support, and ongoing training to reach every child in every community. The immediate priority to dramatically increase the coverage in the priority provinces to address the critically low levels of immunisation coverage which is an urgent health security threat.
Sustainability considerations:	Collaboration with both the Asian Development Bank and the World Bank will be critical to address the policy actions required at Treasury and Finance Ministries to improve the flow of funding to the front line. The NDOH will work with the ADB and Department of Finance to continue to rollout the of the PNG integrated financial management information system (IFMIS) roll out to PHAs, aligning and coordinating with the DOF IFMIS roll out to provincial governments and district authorities. IFMIS will enable the flow of financial and performance data between local facilities, provinces and the national level to support national public expenditure system enhancement. Equally, collective efforts to support the rollout of the Provincial Health Authorities to all 22 Provinces will be required. The PHA offers some small protection to delayed release of funding where health function grants are received, as Provinces are now allowed to rollover grant funds to the next fiscal year as a result of the Minister's advocacy to get function grants to go directly to the PHA. The World Bank will continue to provide important analytical work on the cost of immunisation, support to the national budget process and provision of evidence to support requests for increased resources to the health sector. The World Bank and WHO will also support the NDOH in planning for transition from donor support and is closely linked to the policy actions mentioned above to improve availability of resources, including recurrent budget. Additionally, the improved donor partner coordination through the health sector coordination committee will aid in leveraging all resources available to drive primary health care performance improvement. UNICEF and WHO will develop strategic advocacy materials and policy roundtables targeted at politicians, heads of agencies and district development authorities to advocate for increased resources for health.
Indicators to	Coverage; drop-out; uptake and use of digital tools

monitor progress toward objective included in the Grant Performance Framework:		
TA needs for the coming year, and a description of how this is complementary to planned TA through PEF	MP; consultant(s) for system design of digital tool(s) for training, recording and reporting.	
Indicative HSS budget:	**Years 1-2**	*US$ 4,900, 034*

Objective 2:	**Transition preparation**
Timeframe:	2019-2020
Priority population/ geography or constraint(s) to coverage and/or equity to be addressed by the objective:	Sustainability of the National Immunisation Programme is currently at significant risk as a result of the complex and systemic issues plaguing the PNG health system. Whilst the HSS funds cannot be fully responsible for the substantial reforms required, the funds will contribute to coordinated efforts across the Government and development partners to address the health system challenges. This objective will focus efforts mostly at the national level to support efforts for sustainability of the NIP in preparation for transition.
Immunisation system bottleneck(s) to be targeted:	This sustainability objective is focused on ensuring immunisation costs are fully financed by the Government, including Gavi and non-Gavi vaccines and other operational costs through improving sector coordination, budget and political prioritisation for immunisation and improve annual planning and forecasting. This objective will also support actions to address bottlenecks of poor coordination between national and sub-national EPI programmes, inadequate sector coordination for immunisation, lack of funds flowing to the front line, and poor use of data for management and planning.
Prioritised activities (approximately 5):	1. Strengthen National governance mechanisms to improve decision making, prioritisation, planning, policy and implementation of the immunisation programme through: ○ Conduct a feasibility assessment to establish/sustain NITAG ○ Undertake a learning visit and training for strengthening actions to develop or progress functions related to developing a PNG technical resource and a deliberative body to empower the national authorities and policy makers to make evidence-based decisions related to immunisation. 2. Capacity building for strengthening health financing, including budgeting, planning and prioritisation through: ○ Regional Workshops for Health Financing - Analysis, Planning and Advocacy – joint NDOH, WHO, WB, ADB and NEFC. ○ Workshops for Health Financing - Capacity Building for Annual Implementation Plan Budgeting and Planning in 6 priority provinces 3. Ensuring availability of financing for vaccines and other priority essential

	public health medicines and commodities through: ○ Annual procurement planning workshop for Immunisation and priority public health programmes to contribute evidence based budget submission for medical supplies. ○ Technical assistance to include appropriate clauses in the new national procurement bill to continue using the UN and other international procurement systems to ensure the most cost-effective procurement of high quality vaccines. ○ Technical assistance to establish relevant mechanism of effective vaccine procurement practices through exploring various options of vaccine financing and/or pre-financing modality. 4. Institutionalise partner coordination and good governance mechanism ○ Health Sector Coordination Mechanism Partnership workshop for the NDOH and DPs ○ Recruit 1 x National Immunisation Coordination Committee Officer to support the operation of the ICC and Technical Working Groups and embedded as part of the HSCC Secretariat team. 5. Support to public health legislative reform to ensure immunisation is a national priority. ○ Technical Assistance to review of the Public Health Act (captured in PEF/TCA as part of WHO support). ○ Technical Assistance to support further design of the National Public Health Institute (in PEF/TCA as part of WHO support)
Rationale:	The activities under this objective are all aimed to support PNG to transition to fully self-financing and improve the capability to plan and prioritise resources for immunisation and laying the groundwork for a sustainable immunisation programme. Investments tailored at support governance and coordination will support the development of robust bodies and processes to advise health authorities and take appropriate decisions to support improving and sustaining immunisation programme performance and coverage. PNG will investigate the opportunity to establish a NITAG, although the facilitate a more comprehensive and cohesive country immunization program perspective that cannot easily be achieved by a series of disease or vaccine specific task forces or ad hoc committees composed of specific disease experts and advocates. There will also be support to developing the overall sector coordination mechanism to improve whole-of-sector resource prioritisation and assisting PNG to leverage critical development partner partnerships and opportunities to progress reforms to strengthen primary health care and service delivery. Financial capacity building is a critical element to achieving self-financing and sustainability of the national immunisation programme. The work will include support Annual Implementation Planning with the national level team working with Provinces to share approximate estimated costs for integrated immunisation and primary health care programmes, including outreach and supervision so provincial budgets can effectively capture the operational costs for service delivery. The World Bank will contribute to developing evidence to inform planning and resource prioritisation for shifting away from Gavi funds support recurrent and operational costs associated with immunisation in the 6 provinces. World Bank through the TCA funding will be supporting the development of Immunisation Financing Sustainability Plan. The Objective request further support for the development of

	the costing of transition to be used to inform the 2020 budget submission. Additionally, procurement planning, forecasting and budgeting for vaccines and essential medicines is a critical factor for PNG's ability to achieve sustainability and a successful transition. Joint planning workshops with the medical supplies branch will enhance the efforts of the program to ensure vaccines and immunisation commodities are captured correctly in the procurement and planning process.	
Sustainability considerations:	Purpose of the activity is for sustainability	
Indicators to monitor progress toward objective included in the Grant Performance Framework:	*Completion of comprehensive health financing strategy that will ensure sufficient financing for immunisation beyond transition.*	
TA needs for the coming year, and a description of how this is complementary to planned TA through PEF	*MP will work closely with EPI to push advocacy within NDOH and with DoF and DoT, additional TA for targeted analysis to support advocacy and planning may be needed.*	
Indicative HSS budget:	**Years 1-2**	*US$ 360, 524*
	Years 3-5	*NA*

Template for Supply Chain** (Applicable even if countries are not applying for CCEOP)* ***Objective 3: Strengthening supply chain and supporting CCEOP implementation	
Timeframe:	2018-2020
Priority population/ geography or constraint(s) to coverage and/or equity to be addressed by the objective:	Newly built CHPs/Health facilities in Highland provinces and Island provinces are not equipped with CCE, hence opportunities are missed for scaling up the static and outreach vaccination. Selected health posts (178) in Jiwaka, Bougainville, Madang, West Sepik, Eastern Highland, Morobe, Central provinces that have dedicated health workers and located in far-flung areas are not conducting static and outreach vaccination due to lack of CCE. Due to CCEOP budget ceiling imposed, a full rehabilitation of the countries CCE were not possible to address, hence dedicated ice pack freezing capacity in off-grid facilities were ignored which is a requirement to continue the outreach and mobile team immunization activities in the country, that reach about 50-60% of the routine EPI target in the country. Only ***two CCE maintenance technicians*** are available in the country who have limited mobility due to lack of resources. Provinces have no skilled CCE maintenance manpower. ISCM data management system is not functioning from 22 provinces. No capacity of province and district in vaccine management and temperature monitoring activities. The implementation of CCEOP in 2019-20 (proposal submitted in 2017 for Nov IRC) is a critical priority to improve the availability, potency and efficiency of the supply chain system.
Immunisation system	• Cold chain capacity extension in remote health facilities, newly built health

bottleneck(s) to be targeted:	facilities and far-flung aid posts • Develop the ice pack/coolant pack freezing capacity in off-grid health facilities • Engagement of Provincial Health Authority bio-medical technicians in CCE repair and maintenance system and hiring of CC officers/technicians in 4-6 provinces • Ensuring the implementation of 30 DTRs in all health facilities • Establish reporting of temperature monitoring data, vaccine wastage and stock data along with coverage data and achieve 90% reporting completeness rate.
Prioritised activities on each of the five supply chain fundamentals: *Describe planned or ongoing activities related to supply chain fundamentals. Responses in this section should be linked to the latest EVM Improvement Plan.*	
1. Continuous Improvement	• Ongoing training of provincial cold chain logistic officer on vaccine management and CCE maintenance • Training of health facility cold chain handlers under the ongoing health worker routine immunization training • Roll out of new tools aligned with the 30DTRs to record and report CC temperature monitoring. • Support to the full implementation of mSupply the logistics management information system and will add/ include EPI at each site which would include training of the EPI staff and additional training of the existing staff.
2. Management/ Leadership	• Cold chain maintenance tasks have been delegated to the Health Facility Standards Branch (Section for bio medical maintenance) at NDoH, funded by PNG government • New EPI manager has been hired and on board • Director primary health in the Provincial Health Authority will be engaged to monitor the supply chain performance and report data through the NHIS/eNHIS • National Immunization Logistic Working group has been established to oversee the cold chain equipment rehabilitation, maintenance system and vaccine management system. Secretarial support will be provided such as computers and communication materials. • The National Immunisation Logistics Working group feeds information also to the Rapid Assessment Team for medical supplies (NDOH, WHO, ADB, DFAT, and GF PR representative) and will report to the high level committee on Pharmaceutical Supply Management to ensure that immunisation investments are coordinated and contributing to strengthening the broader supply chain system of the country.
3. Data for Management	• Develop Plan/Options for data system to monitor the implementation of new CCE and its ongoing performance through monthly reporting of 30DTR alarms • Introduction of ViVa and vaccine stock management system to ensure the vaccine availability at all levels and avoid stock out of vaccines. • Inclusion of immunization supply chain data reporting in NHIS/eNHIS/mSupply
4. Cold Chain Equipment *(including CCEOP and Maintenance- see below for additional questions)* • How will the	• Addition of Solar technology fridges to potential aid posts and newly build health facilities (approximately 178) • Addition of freezing capacity for coolant packs in potential health facilities for continuing outreach and mobile vaccination activities • PNG plans to improve CCE maintenance by incorporating existing 22 bio-medical workshops located in provincial hospitals across the country. These workshops exist with equipment, biomedical engineers and technicians to

country ensure that aspects of maintaining the cold chain are addressed (e.g. preventive and corrective maintenance, monitoring functionality, technicians, financing for maintenance, spare part procurement etc.)? • What is the frequency of preventative and corrective maintenance that the country commits to (supported by partners)? • How will the country monitor the completion of preventive and corrective maintenance? • Indicate the sources of funding for planned maintenance activities • How will the country dispose of obsolete and irreparable equipment replaced by new equipment?	oversee repair and maintenance for other medical equipment. Preventive maintenance of cold chain equipment involves minor preventive maintenance done by the users on a weekly and monthly basis at the health facility level. NDoH has identified resources and capacity needs at these workshops to empower them to effectively cover EPI CCE maintenance needs in the respective provinces and districts of coverage. Existing technicians in the 22 workshops will be trained on CCE maintenance and will be equipped (spare parts, tool kits) to facilitate movement to all health facilities with vaccines storage equipment within their catchment area. • Recruitment of Cold chain officer/technicians to complement the CCE maintenance activities and oversee the provincial maintenance HR/Biomedical technicians engagement in the CCe maintenance system • A robust system to monitor the global system functionality will be rolled out, including temperature monitoring using 30DTR in all health facilities across the country. The daily and monthly temperature monitoring reports will be a key reference for tracking CCE functionality status and will be used by both facility users and provincial technicians to plan for required improvements. • Monthly reports aggregated into the CCEM tool will reach the provincial level where the information will be analysed and necessary actions undertaken. Provincial technicians will be visiting each health facility on a quarterly basis and will review temperature monitoring and maintenance reports. The Provincial technicians will be using a supportive supervision checklist for tracking areas acted upon during the visit, and for reporting to the Provincial Cold Chain logistics officer (PCCLO). Job cards detailing the supervision visit will be filled. All this information will be processed as well at the national level. • Through CCEM inventory tool, a list of old and obsolete equipment shall be generated for each facility and district. Disposal of obsolete equipment will be conducted as per the National Policy of Medical Equipment for PNG. This policy, in section 3.5 states that the "replacement and disposal will be executed in accordance with authorized operating procedures and the equipment item removed from both clinical area of use and the national medical equipment inventory." (Page 12 of the attached policy in the CCEOP application). • ***Refer to the CCEOP proposal for the support requested under CCEOP.***
5. System design (all countries should answer) *If the country is applying for CCEOP, also indicate how system design considerations impacted the choice of CCE for which the CCEOP*	The priority is to establish functional and appropriate cold chains. At present, no system design is planned, but the new CCE offers opportunity for extended duration of storage in hard-to-reach sites enabling less frequent shipments to reduce costs An alternative approach to vaccine delivery may need to be developed, given the problems (delay in transit, unattended delivery, delivery in wrong destination) with the current contractor and limited capacity to monitor and manage the contract Continuing support to the full implementation of mSupply the logistics management information system is also a critical part of the system design to ensure that vaccine management is continually improved and information is used to inform better quantification and forecasting based on consumption. Training

support is requested.	EPI store staff across 30 sites will improve the capacity of cold chain staff to improve the management of vaccines and other immunisation commodities.	
Rationale (e.g. per EVM and other supporting documents, Audit, PCA findings, EPI review etc.)	The EVM 2016 and the 2017 CCE inventory clearly indicated the maintenance system is not functioning; data management is not existing; inadequate and unskilled iSCM HR capacity; obsolete CCE, unequipped health facilities. All these weaknesses defined the needs for intervention, and these were the basis for the CCEOP application and HSS application.	
Indicators to monitor progress toward objective included in the Grant Performance Framework:	*See Programming Guide*	
	Rates of CCE functionality, Incidence of temperature excursions at health facilities, Monthly stock reporting from provinces, Stock out rates of vaccine at health facilities, Vaccine wastage rate reporting from province.	
TA needs for the coming year, and a description of how this is complementary to planned TA through PEF	Support through TCA/PEF by UNICEF and WHO	
Indicative budget with HSS and CCEOP support (see table 2.2):	**Years 1-2**	*US$ 3,521,858*

Objective 4:	Advocacy, Communication and Social Mobilisation
Timeframe:	2018-2020
Priority population/ geography or constraint(s) to coverage and/or equity to be addressed by the objective:	This objective will target both national and subnational, targeting politicians and policy makers at the national level, and care-givers, families and communities and health workers at the village and district levels and support actions to address inequities in coverage and access.
Immunisation system bottleneck(s) to be targeted:	This objective will target high dropout rates between successive vaccine doses, low motivation for routine immunisation and inequities in coverage.
Prioritised activities (approximately 5):	1. Conduct a KAPB study to generate knowledge and evidence on how people receive and give information and to unmask the prevalent critical social norms and attitudes pertinent to demand for immunisation and primary health care. 2. Design and develop a comprehensive advocacy, communication and social mobilisation strategy (and multi-year action plan) to guide the provinces and districts to implement the advocacy and demand generation activities. 3. Implementation of activities identified in the multi-year action plan including: ○ Development of new messages including Pre-testing of messages to ensure that maximum impact and efficiency in communicating

	health messages to improve immunisation uptake. This will also include specific messages for health workers to improve quality of care. ○ Contracting local marketing companies to develop materials and conduct pre-testing will also be considered. ○ Development of improved communication methods and joint information products to specifically target key decisions makers (e.g. organizing advocacy sessions with parliamentarians to prioritise local-level funding to improve service delivery through District Service Improve Program funds). ○ Develop provincial advocacy tools and organise Provincial Advocacy meetings with Governor, MPs, Senior Government Officials, Churches, CSO, and community leaders to leverage political commitment and resources to reach the hard to reach districts those require additional support (choppers, boats) to reach the children with routine EPI. 4. Deploy one national level (international expert) and 4 sub-national (4 national experts for 4 regions) level advocacy, communication and social mobilization experts to provide technical assistance to the provinces in designing, implementing and monitoring the demand generation activities. 5. Engagement of NGOs, civil society organizations and groups to conduct demand generation activities among the community for immunization. This will include: ○ Support to Village Health Volunteer supervision and management integrated health promotion and case management activities. ○ Strengthening community involvement in message developing; targeting the problem faced by the people, and using local knowledge and user-friendly language (local not only Tok-Pisin) to educate communities on changing certain negative behaviours, in relation to the EPI program through the churches, faith based organization and the schools. ○ Organization of focus group discussion among the church leaders or assigned preachers and the community leader/influencers, women group leaders, village health volunteers in Highland and other selected provinces ○ Engagement of other potential organisations or civil society (for example Rotarians Against Malaria volunteers) to identify missed communities and update outreach locations to ensure unreached or underserved communities are being prioritised. 6. Institutional support for the relevant government department (Health Promotion Unit) at sub-national level to impart the IPC training and capacity building of CHWs and Village Health Volunteers (VHVs).
Rationale:	The Advocacy, Social Mobilisation and Communication (ACSM) remains a critical element and one of the key objectives of the national immunisation programme's out-reach based service delivery provision that has consistently suffered from lack of funding and low capacity and makes it difficult to implement outreach interventions addressing the demand side. Therefore, this objective is intended to

	increase demand for vaccination services by the families and to raise the profile of immunisation programme in the country among the community and government leaders especially the elected representatives (member of parliaments, governors, ministers) to leverage more domestic resources to support the operational costs of implementing immunisation programme including community outreach. Enhanced engagement of families and communities to improve and maintain vaccine acceptance and health-seeking behaviour have been critical of removing number of bottlenecks and barriers related to demand, continuity and quality of vaccination services. The proposed communication and social mobilisation activities are aimed at improving the family and community demand as well as their participation in improving the planning and delivery vaccination services through outreach provisions. This would also influence in removing the barriers to vaccination related to access with minimising the transport costs, wage lost, the opportunity costs of the family as mothers and caregivers would no longer be required to walk long hours and be away from household chores. The proposed ACSM interventions are also aimed at removing other barriers such as unfriendly attitude and poor interpersonal skills of health workers, limited education, language barrier, cultural beliefs and taboo those are specific to rural female care-givers.	
Sustainability considerations:	Effective capacity building will enable advocacy efforts to sustain funding. Capacity building efforts will be linked to the ADB Health Services Sector Development Program which will also entail a suite of integrated organization and people development strategies to achieve sustainable health system change.	
Indicators to monitor progress toward objective included in the Grant Performance Framework:	System to monitor funding flow and performance data from the system	
TA needs for the coming year, and a description of how this is complementary to planned TA through PEF	MP to support EPI in conducting target assessment of management needs and appropriate tools, systems, and processes to put in place.	
Indicative HSS budget:	**Years 1-2**	*US$ 3,214, 570*