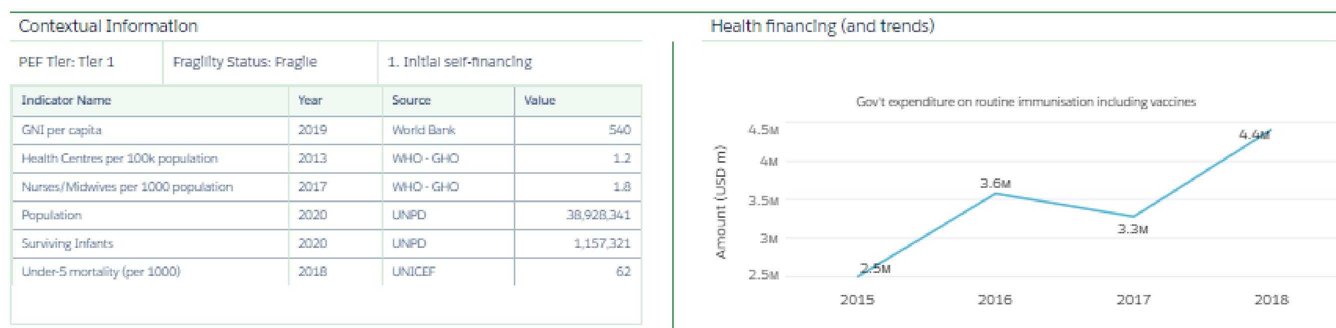
Gavi 2020 multi-stakeholder dialogue: immunisation planning in light of COVID-19

1. Country situation pre-COVID-19, based on information received by Gavi Secretariat – Information based on the 2019/early 2020 data.



Contextual Information

PEF Tier: Tier 1	Fragility Status: Fragile	1. Initial self-financing

Indicator Name	Year	Source	Value
GNI per capita	2019	World Bank	540
Health Centres per 100k population	2013	WHO - GHO	1.2
Nurses/Midwives per 1000 population	2017	WHO - GHO	1.8
Population	2020	UNPD	38,928,341
Surviving Infants	2020	UNPD	1,157,321
Under-5 mortality (per 1000)	2018	UNICEF	62

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

Vaccines introduced and forecasted to be introduced

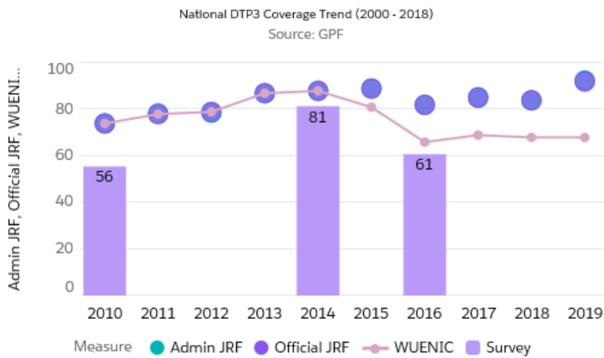
Vaccine	Introduction Date	2018 Coverage (%)	2019 Coverage (%)	2019 Target	2020 Target
PENTA	09-2009	68	68	95	95
PNEUMO	10-2013	56	56	95	95
IPV	10-2015	60	60	95	-
MR	11-2017	-	-	-	-
HPV	03-2020	-	-	-	-

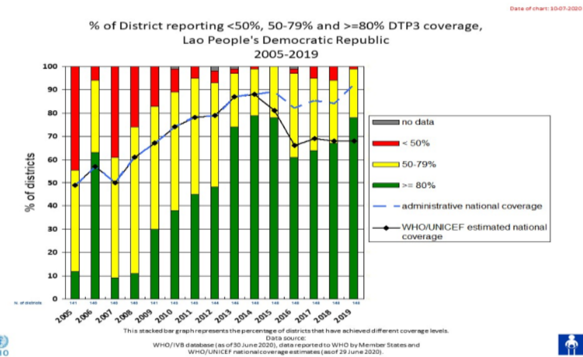
Vaccine Name	Type	Sub-Type	Status	CP Date ↑	Phase
ROTA	Routine	-	Approved	2021-10-01	NA

Performance against Alliance KPIs

Indicator	Source Name	Year	Value	Trend
Measles containing vaccine (second dose) coverage at the national level (MCV2)	WUENIC	2019	57	→
Pentavalent 3 coverage at the national level (Penta 3)	WUENIC	2019	68	→
Drop-out rate between Penta1 and Penta3	WUENIC	2019	6.8	→
Difference in Penta3 coverage between children of urban and rural residences	Survey	2016	8.6	▼
Difference in Penta3 coverage between the highest and lowest wealth quintiles	Survey	2016	33.4	▲
Penta3 coverage difference between the children of educated and uneducated mothers/care-takers	Survey	2016	27.7	▲
EVM	EVM	2014	67.6	▲
# of Underimmunised Children	Calculated	2019	51068.8	▲

Trends and district equity





COVERAGE AND EQUITY OF IMMUNISATION

Coverage

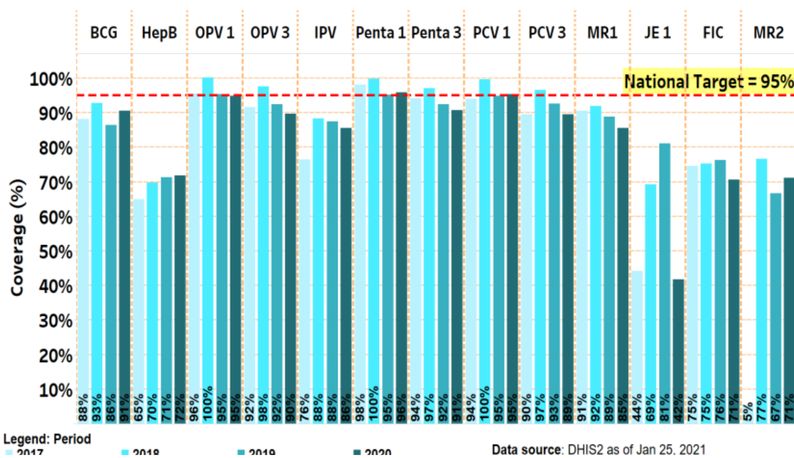


Figure 1: National Coverage by antigen, Lao PDR from 2017-2020
NB Lao moved from an excel system to DHIS2 in 2017-18, which may affect comparison of data quality and performance over time.

Administrative vaccination coverage data showed decreases between 2019 and 2020 for almost all antigens and doses, including Penta 3 (92% v 91%), MR1 (89% v 86%) and the proportion of children fully immunized at 1 year (76% v 72%). BCG coverage increased from 86% to 91% between the two years.

Declines in coverage of key antigens was due to several factors including:

- Disruptions in service delivery and low uptake of immunization services caused by the COVID-19 pandemic, particularly during the national lockdown between March and May 2020;
- Health worker and community perception of COVID-19 risk in attending health facilities.
- Financial impact of COVID-19 leading to reduced government revenue and availability of funding of the health system at all levels; and
- Stock out of JE vaccine specifically in 2019 into the first half of stock 2020 causing annual coverage of that antigen in 2020 to plummet to 42%.

Lao PDR also conducts periodic surveys to help validate administrative figures and provide additional data to inform decision making. The second Lao PDR Social Indicator Survey (LSIS II) conducted in 2017 found large discrepancies with administrative data. LSIS II estimates of national Penta 3 coverage was 61% compared to administrative estimated of 94% for the same cohort of children. The WHO/UNICEF Estimates of National Immunization Coverage (WUENIC) estimated Penta 3 coverage at 68% in 2018 and 2019.

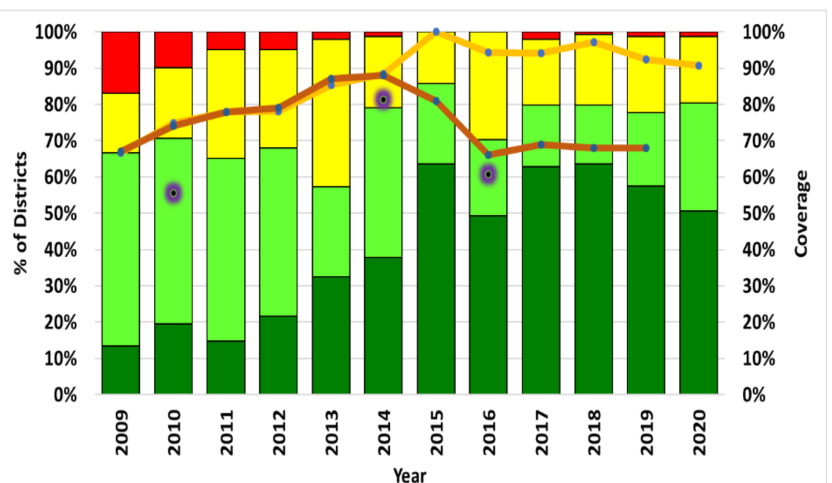


Figure 2: Pentavalent 3 coverage by data source, Lao PDR 2009-2020

MoH, including NIP, has been using revised target population estimates since 2019, based on population projections released by the Lao Statistics Bureau (LSB) in 2018. The new target population is lower than the previous (e.g. 152,667 vs 184,205 for children under 1 year in 2020). For consistency, WUENIC estimates should be revised using the new target population starting from 2016.

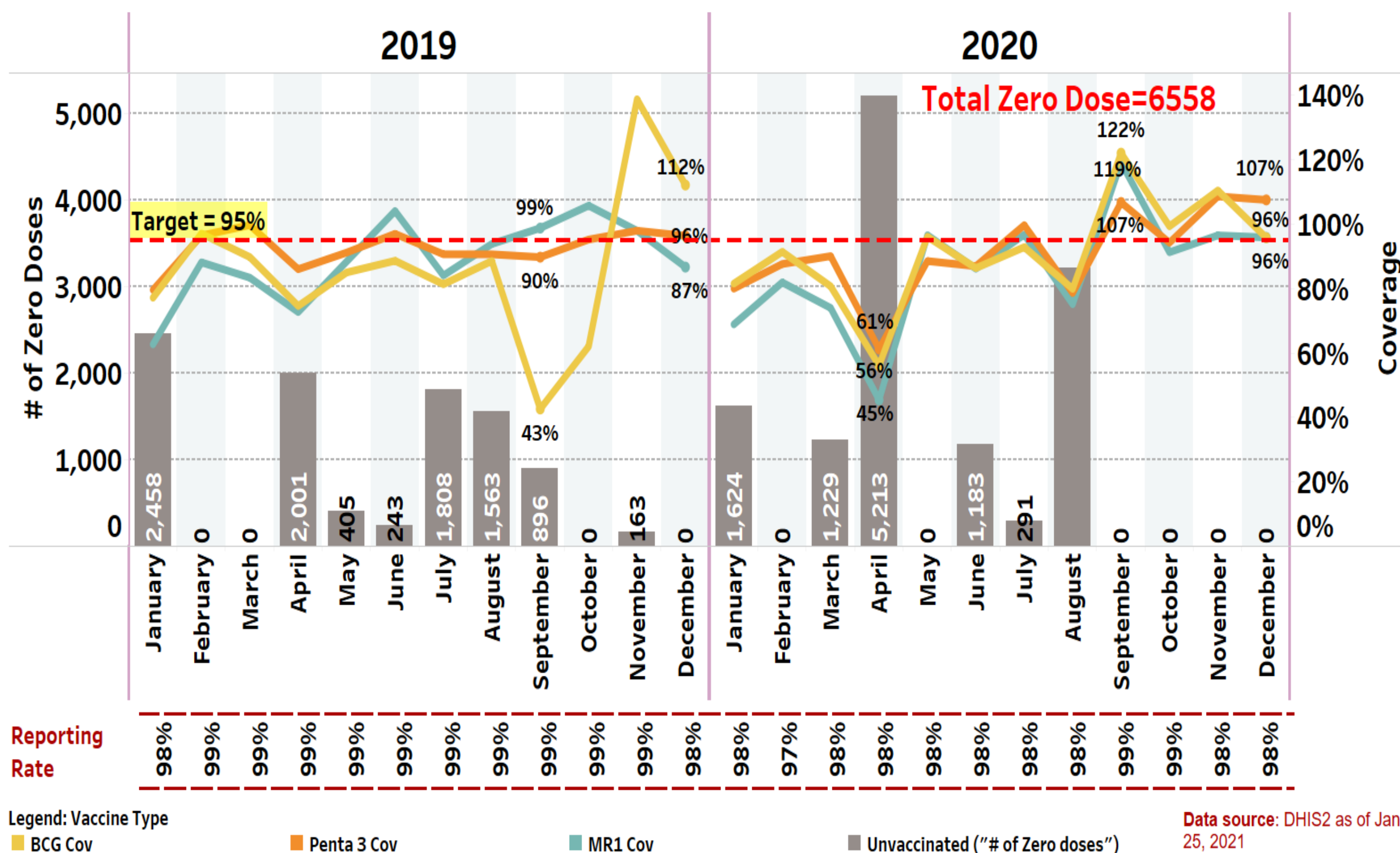


Figure 3: Number of zero-dose children and vaccines coverage, selected vaccines, Lao PDR 2019 and 2020

A significant drop in immunization services was observed in April 2020, coinciding with a nation-wide lockdown imposed as a result of the COVID-19 pandemic. EPI services resumed once restrictions were lifted in May 2020, and annualized year-to-date Penta 3 coverage progressively increased, from 79% (April 2020), to 81% (June 2020), 86% (September 2020) and 91% (December 2020). Increases in the last four months are attributed to periodic intensification of routine immunization (PIRI) in this period. Four rounds of PIRI were conducted by NIP with partner support, targeted to eight priority districts based on immunization performance (low coverage and/or large number of under- or unimmunized children) and history of previous outbreaks.

Decreases in immunization coverage were unevenly spread across the country, with the percentage of districts reporting Penta 3 coverage ≥ 90% further declining to 51% in 2020 (compared to 64% in 2018 and 57% in 2019), with one-fifth of districts reporting Penta 3 coverage ≥ 80% (Figure 4). Changes were also observed in access (Penta 1 coverage ≥ 90%) and utilization (Penta 3 coverage ≥ 90%). Specifically, between 2019 and 2020 there were decreases in the proportion of districts reporting good access and utilization (48% v 43%) and poor access but good utilization (39% v 34%) but increases in those reporting good access and poor utilization (7% v 18%) (Figure 5). Furthermore, the proportion of districts (mainly in central, north and north-eastern Laos) with Penta 1 – 3 dropout rates ≥ 10% almost doubled, from 13% in 2019 to 24% in 2020 (Figure 6). Decreases in access suggest more children are missing out on immunization entirely, while decreases in utilization/increases in drop-out rates suggest some children remain under-immunized. This highlights a need to further strengthen defaulter tracing, health-seeking behaviour or both in these areas.

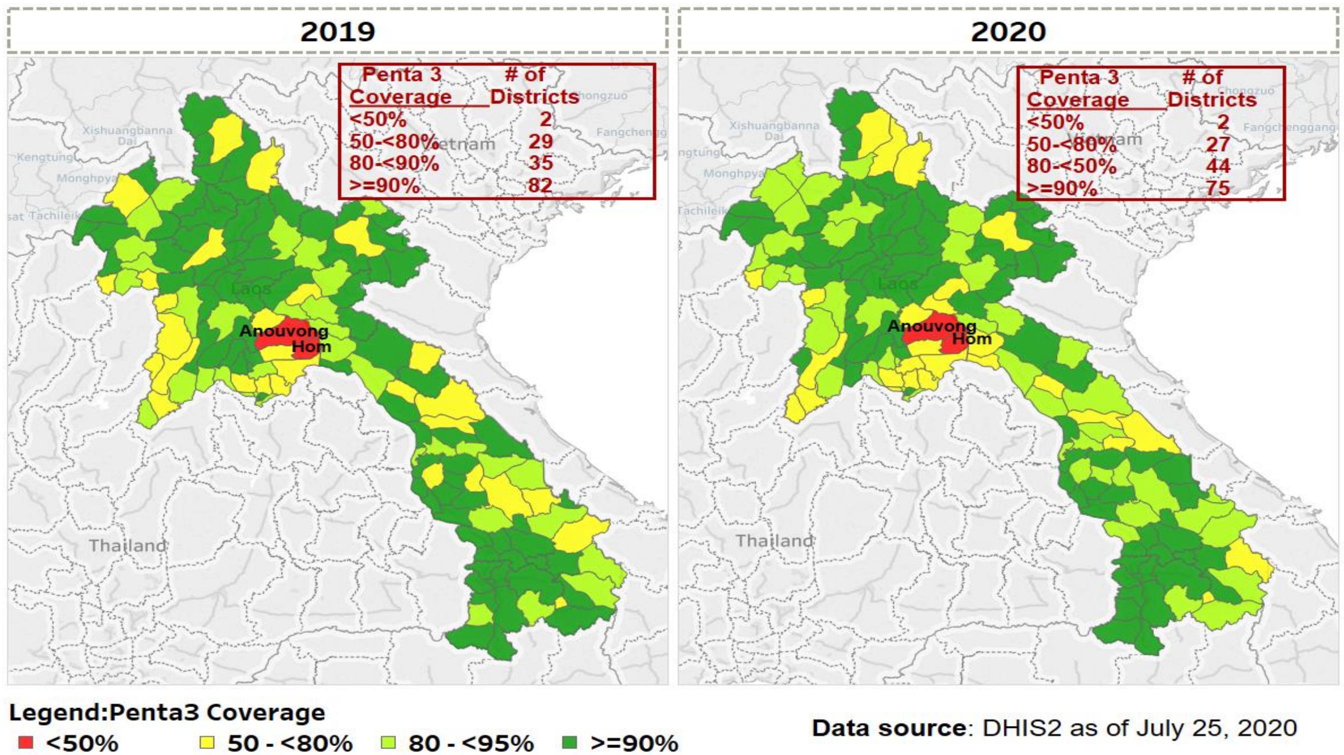


Figure 4: Penta 3 coverage by district, Lao PDR 2019 and 2020

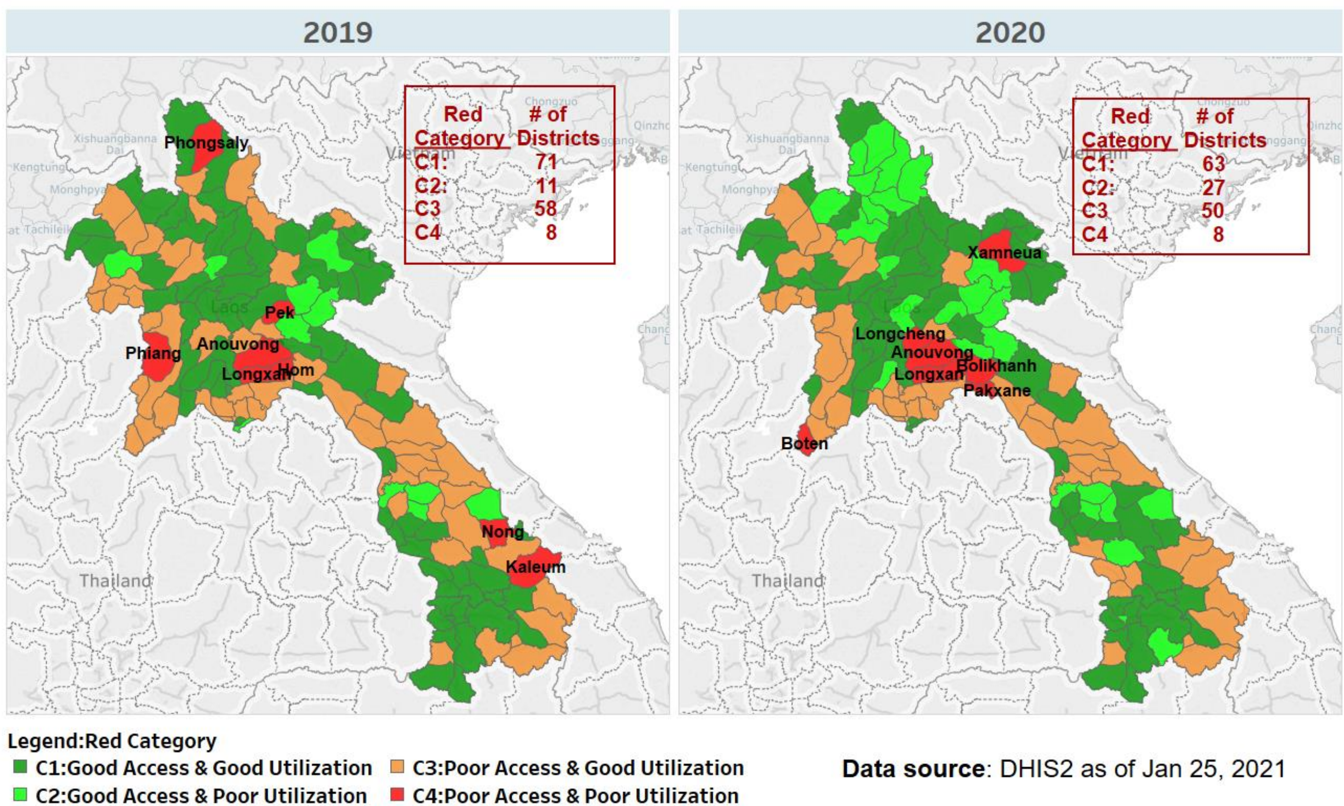


Figure 5: Immunization access and utilization by district, Lao PDR 2019 and 2020

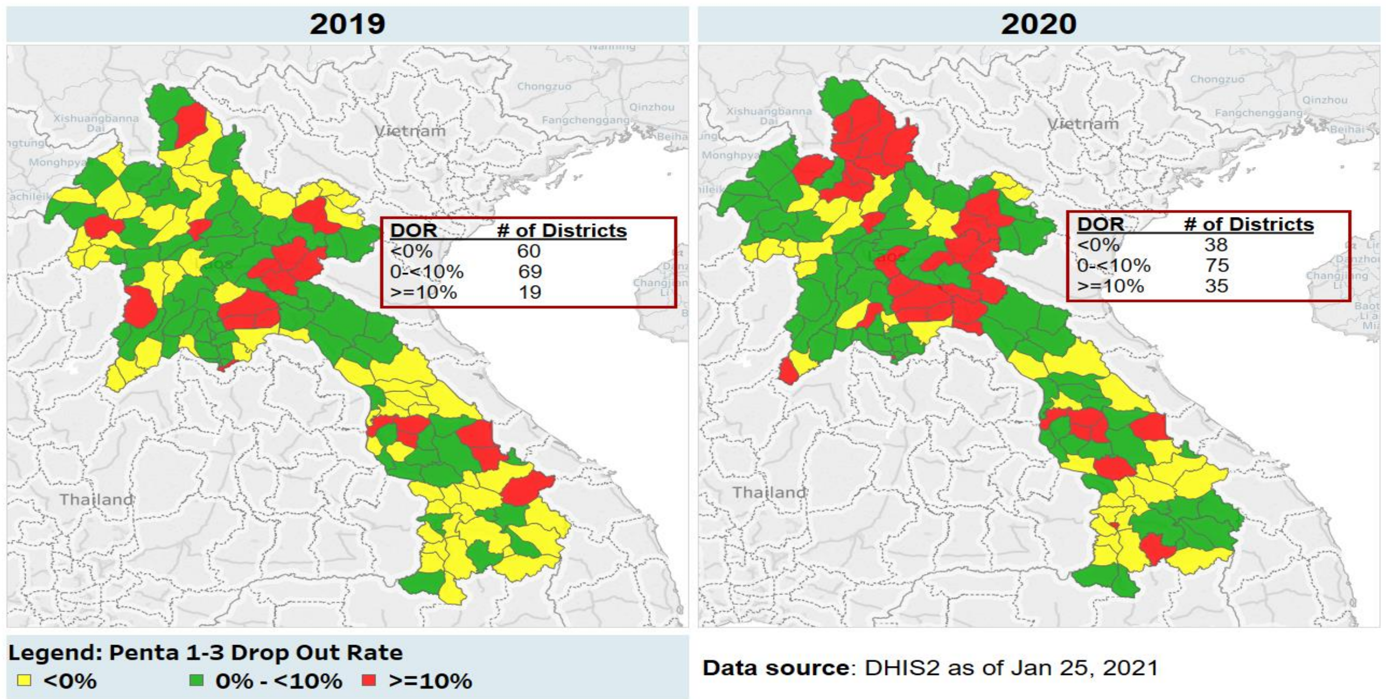


Figure 6: Penta 1-3 drop out rates by district, Lao PDR 2019 and 2020

Equity

In line with the above, disparities in immunization access and uptake by demographic characteristics such as location, ethnicity and socio-economic status persist. In 2020, ten districts were responsible for 35.4% of all un/under-vaccinated children and were high priority for monitoring, supportive supervision and PIRI (Figure 7). Five of these ten districts were in Vientiane Capital and Savannakhet provinces which report overall Penta 3 coverage ≥ 90%, highlighting differences which can exist even between and within districts. Xaythany district in Vientiane Capital has the highest target population and largest number of un-/under immunized children in 2020; and was also the epicentre of the 2019 measles outbreak. Some villages in this district have a significant population belonging to the Hmong ethnic group who have a history of vaccine hesitancy. Inability to conduct outreach as planned due to budget shortages, was also reported.

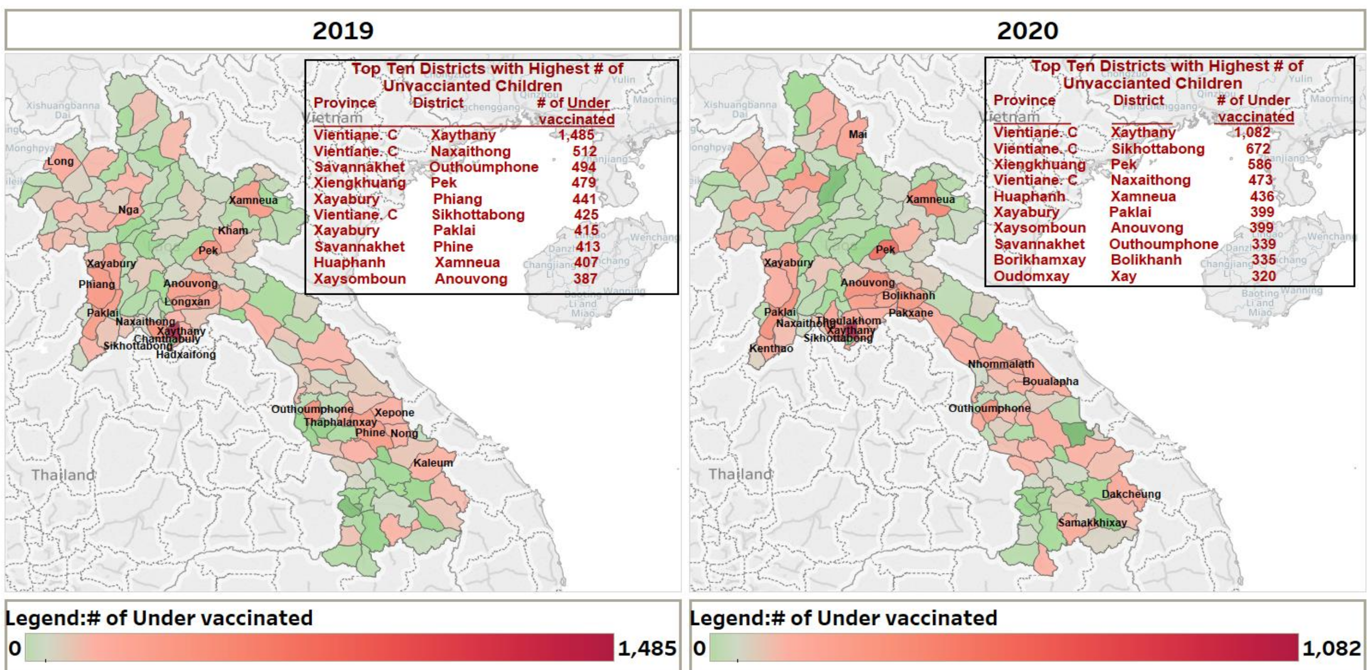


Figure 7: Number of under-vaccinated children, top ten districts, Lao PDR 2019 and 2020

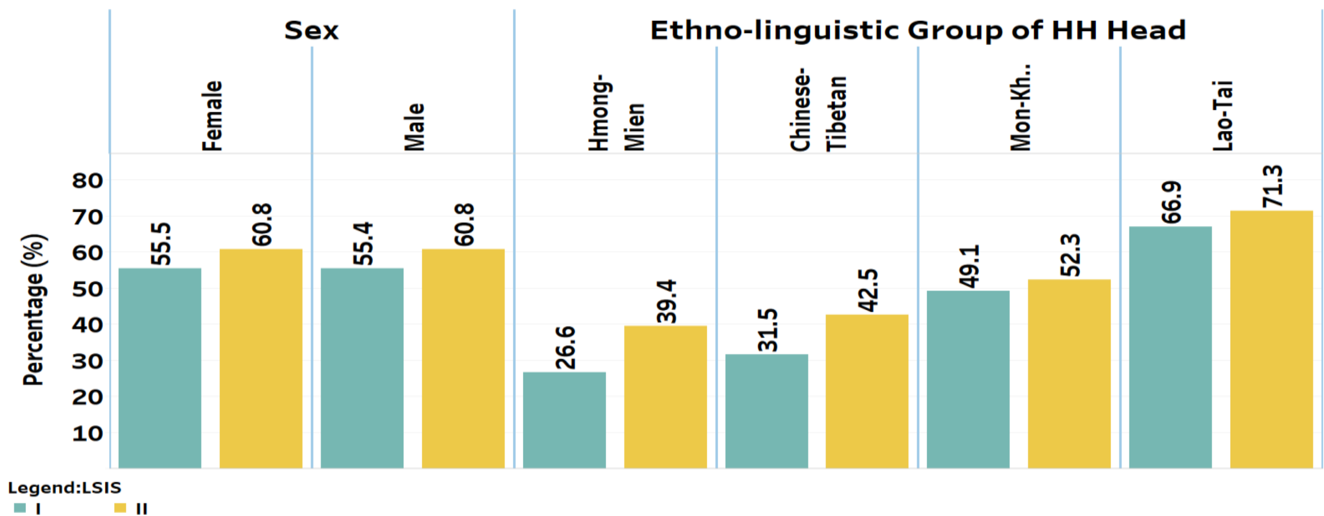


Figure 8: Percentage of children aged 12-23 months immunized against penta3 dose by sex and ethnic group, Lao PDR 2011-12 (LSIS I) and 2017 (LSIS II).

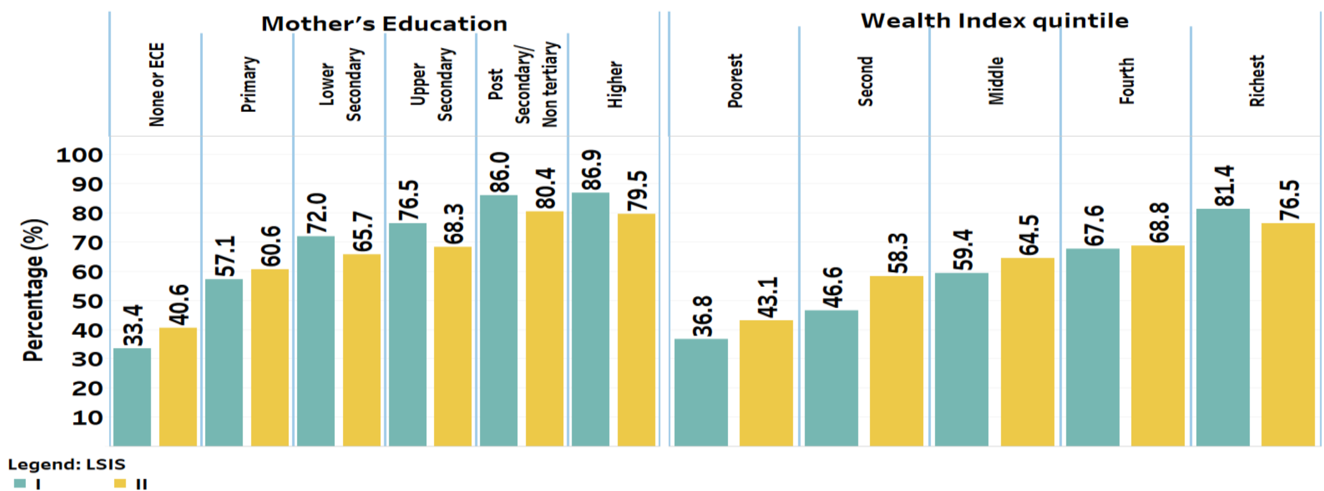


Figure 9: Percentage of children age 12-23 months immunized against penta3 dose by mother's Education and Wealth, Lao PDR 2011-12 (LSIS I) and 2017 (LSIS II).

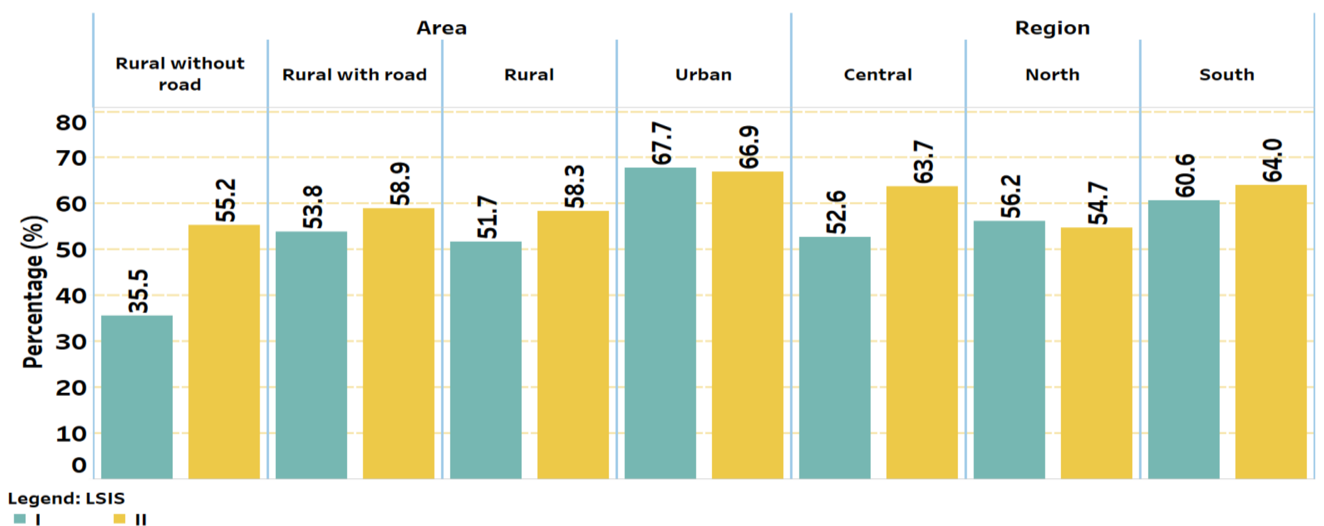


Figure 10: Percentage of children aged 12-23 months immunized against Penta 3 dose by area and region, Lao PDR 2011-12 (LSIS I) and 2017 (LSIS II).

Data on immunization status by socio-demographic variables is available through the periodic LSIS surveys (Figures 7-9). Primary and secondary analysis of data from LSIS II in 2017 shows that lower immunization rates (including probability of having un- or under immunized) are strongly associated with belonging to poorer wealth quintiles, lower maternal education (having a mother with no or only early childhood education), being of Hmong-Mien ethnicity and lacking to access to other services such as skilled birth attendance, water and sanitation.

Few changes were observed between LSIS I (2011) and LSIS II (2017). Non-Lao-Thai children experienced increases in Penta 3 coverage between the two surveys but remained under-immunized compared to children of Lao-Thai ethnicity (Figure 8). There are no significant differences in immunization between male and female children (Figure 7), though research suggests in some groups gender plays an important role in decision making, with flow on effects for immunization access and uptake if women cannot their children for immunization or other health services without approval of other family members (e.g., husband, father or grandparents).

The government is committed to reducing socio-economic disparities in immunization, targeting as part of the new RMNCAH Strategy 2021-25 to ensure Penta 3 coverage by 2025 is the same for the poorest and richest quintiles. A strategy objective is also to ensure all districts in the country achieve 95% coverage in Penta 3 and MR 2 by 2025. These goals and the current status together underline the need to strengthen and tailor routine immunization for hard-to-reach populations and populations at risk of vaccine-preventable diseases, including through ensuring availability of sufficient resources to provide services in diverse contexts and population groups.

Progress against indicators and targets achievement

Vaccine Programme	Source (2020)	Intermediate results Indicator	Reported Actuals (2020)	Rel. % Change
PNEUMO	DHIS2	Number of surviving infants who received the first recommended dose of PCV vaccine (PCV1)	145,454	-1%
	DHIS2	Number of surviving infants who received the third recommended dose of PCV vaccine (PCV3)	136,617	-5%
PENTA	DHIS2	Number of surviving infants who received the first recommended dose of Pentavalent vaccine (Penta1)	146,329	-1%
	DHIS2	Number of surviving infants who received the third recommended dose of Pentavalent vaccine (Penta3)	138,433	-3%
MCV	DHIS2	Number of children in the target population who received the second recommended dose of measles containing vaccine (MCV2)	108,681	5%
	DHIS2	Number of surviving infants who received the first recommended dose of measles containing vaccine (MCV1)	130,500	-5%
IPV	DHIS2	Number of surviving infants who received the first recommended dose of IPV	130,711	-4%
All Others	EVMA Reports	Effective Vaccine management score (Composite score)	NA	NA
		Occurrence of stock-out at national or district level for any Gavi-supported vaccines	17	NA[1]
	Admin (JRF) & Survey	Percentage point difference between Penta 3 national administrative coverage and survey point estimate	NA	NA

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

[1] Only refers to data available through eLMIS for 17 stores, reflecting nation-wide stockout of JE in late 2019 and early 2020 among other factors. Data from 2019 only available for 10 stores and not comparable.

Consistent with coverage data previously reported, figures on the number of children vaccinated show decreases across key antigens and doses between 2019 and 2020. The exception is MR2 where a higher proportion of children vaccinated with MR1 in 2019 were able to receive the second dose in 2020.

1.2 Overview of HSS grant implementation (end of 2019/early 2020; pre-COVID-19)

HSS3 implementation summary (as of December 2020)

Recipient	Grant Amount	Funds Disbursed	Expenditure	Country cash balance
MoH	$9,496,978	$ 5,474,967	$4,837,507	$637,460
UNICEF	$2,250,000	$ 540,257	$489,789	$50,468
Total	**$ 11,746,9787**	**$ 6,015,224**	**$5,327,296**	**$687,928**

HSS key milestones achieved in 2020

	Indicators	2019	2020	% change 2019-2020
OBJ-1	Number of MCH/EPI managers trained on SS	150	204	36%
	Percent of facilities received MCH/EPI service delivery funds on time	85%	90%	5%
	Percent of timely submission of quarterly provincial financial statements	NA	NA	NA
OBJ-2	CCE expansion in existing equipped sites	0%	0%	0%
	CCE extension in unequipped existing and/or new sites which reduced proportionately outreach services	0%	0%	0%
	CCE replacement/rehabilitation in existing equipped sites	10%	0%	-10%
	Cold room expansion in existing equipped sites	33%	33%	0%
	Number of cold chain hubs established in the last year	0	6	NA
	% of facilities offering immunization services as per the revised micro-plan guidelines	80%	85%	5%
	Percent of outreach immunization activities conducted in identified High risk areas	80%	80%	0%
OBJ-3	Percent of social mobilisation activity per villages implemented	85%	80%	-5%
OBJ-4	Number of districts with vaccine stockouts	10	16	60%
	Percent of functional cold chain equipment in health facilities	88%	88%	0%
OBJ-5	Number of health facilities where incinerator installed and functioning	0	0	0%
OBJ-6	Number of planned, periodic DQA conducted against plan	8	3	-63%
	Number of supportive supervisions conducted by each level (National + Provinces + Districts)	466	210	-62%

Reporting against the grant performance framework (above table) indicates some progress between 2019 and 2020, though these figures must be interpreted with extreme caution, as some reflect only HSS

expenditure and activities, overall decreases observed in service provision and lack of a robust routine system for monitoring intermediate indicators. The cash suspension[2] which remained in place until September 2020 also led to many longer-term strengthening activities being delayed or cancelled, some of which are reflected in the 2021-22 HSS 3 reprogramming.

To note:

- In 2019 and 2020 provincial funding was implemented on an activity basis and therefore it is not possible to calculate an indicator of timely submission of provincial financial statements
- COVID-19 related delays in CCEOP implementation resulted in 2020 targets for CCE replacement, extension and expansion not being met. Procurement, installation and other activities planned for 2021 are expected to redress this;
- Number of districts with vaccine stockouts only reflects the 16 (out of 148) districts in two provinces (Oudomxay and Champasak) which have started fully monitoring vaccine stock through the eLMIS (mSupply), compared to10 districts who were monitoring vaccine stock in the previous reporting period. This should not be considered indicative;
- No procurement was not possible under the cash suspension; hence installation of incinerators was 0 in the last two years; and
- Supportive supervision and DQAs only commenced in quarter 3 2020 due to COVID restrictions earlier in the year, and budgetary constraints. Numbers are therefore much lower than in 2019.

Summary of HSS Activities in 2020

Component	Key Achievements
[1] Information, Data and Systems for Decision Making	EPI data collection tools and SOPs developed and implemented. EPI supportive supervision checklist revised, electronic version in DHIS 2 created. Data management training conducted in five provinces, data quality assessments conducted in one province. STOP ISDS expanded to 11 new districts and 47 HFs within five provinces. Ongoing support provided for AEFI surveillance, monitoring and case investigation.
[2] Leadership and Governance	Joint NIP-Partner 2020 AOP developed, regular monitoring and coordination systems established. 5 ICC meetings and 6 NITAG meetings held. Estimates for the cost of immunization as part of the Essential Health Services Package (unit costs) and Well Child Package (integrated with nutrition and early childhood development) developed for use in routine planning and budgeting. Provision of public financial management TA commenced at district level in 4 provinces commenced. EPI managers training completed in four provinces.
[3] Immunisation Performance and Service Delivery	Quarterly community meetings (QCMs) to strengthen microplanning, supportive supervision and role of community leaders held in 7 provinces. Supportive supervision and monitoring from national to sub-national level conducted in17 provinces. Intensified outreach and PIRI conducted in 8 high risk districts. Village health volunteer (VHV) mapping complete in one province, tools (e.g. counselling package, supervision, monitoring, training and communication) developed or under development Tools developed to assist village leaders and VHVs address vaccine hesitancy and safety concerns in high-risk and/or hard to reach populations
[4] Vaccine Supply	Supportive supervision on cold chain and vaccine management in 13 provinces. Cold chain maintenance, monitoring and vaccine distribution support in 7 provinces. CCE (e.g., 4 walk-in cold rooms, generators and tool kits) procured with expected arrival in December 2020, other infrastructure (e.g. computers for electronic stock management) also procured. Effective Vaccine Management SOPs developed CCEOP de-linking approved and costed operational plan ahead of deployment in 2021

[2] Following the Gavi audit (2018) and the severity of the findings, Gavi suspended cash funds in December 2018 to mitigate financial risks, allowing the audit to conclude with a clear reimbursement schedule and post audit improvement measures. This was mutually agreed between Gavi and the MoH in September 2020, which led to lifting immediately the cash suspension. During the “suspension period”, cash utilization was still allowed but only for essential activities and approved on a quarterly basis. Since September 2020, normalcy of Gavi financing in Lao PDR has resumed.

A summary of HSS activities and achievements contributing the indicators above by Gavi cost category is provided in the above table together with TCA activities, noting complementarity of HSS and TCA funding. Further detail on TCA milestones is provided in section 1.4.

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

	Start Date	End Date	Recipient	Grant Value	Disbursed	Expenditure	Cash balance	Status Update[1]
CCEOP	2019	2019	UNICEF SD	693,289	693,029.74	Not yet available	Not yet available	The goods are done transported
Transition grant	2017	2019	WHO	1,625,179	541,420	541,420	0	
			UNICEF		718,200	718,200	0	
			CHAI		365,559	356,457	9,102	Remaining cash to be spent in Q1 2021 as per the extension request approved by Gavi in January 2021
HPV MAC Ops	2019	2019	WHO	134,667	134,667	134,667	0	All funds expended
HPV VIG	2019	2019	MoH	185,911	185,911	172,054	13,857	Budget of activities using the leftover approved by Gavi in Feb2021
PCV switch grant	2018	2018	MoH	45,000	45,000	45,000	0	Balance rolled over to HSS
MR 2nd dose VIG	2017	2017	MoH	149,330	149,330	149,330	0	Balance rolled over to HSS

	Start Date	End Date	Recipient	Grant Value	Disbursed	Expenditure	Cash balance	Status Update[1]
Rota VIG	2019	2020		115,576	0	N/A	N/A	N/A – MoH cancelled the application – on hold

1.3. Compliance, absorption and other fiduciary risk matters

The annual absorption rate for 2020 stands at 58 percent (Q1 – 42 per cent, Q2 – 60 per cent, Q3 - 60 per cent & Q4 - 68 per cent) as at 31st December 2020. In light of the need for quarterly budgets under the emergency funding scenario and the program complications resulting from the Covid-19 pandemic this is assessed as a reasonable program outcome. The untimely preparation of the 2021 annual budget has caused delay in program activities for Q1 2021. This delay and previous low absorption rates are further complicated by the Covid19 pandemic. Although significant procurement activities are included in the draft 2021 budget, there is still a strong likelihood that the HSS3 grant funds will not be completely absorbed in 2021. A further concern is that the MoH is restructuring the MCHC/EPI staffing structure and this activity may also contribute to delayed program activities.

It is noted that the 2019 audited financial statements were not delivered to Gavi within the specified time frame. This was in part due to the late arrival of the 2018 audited financial statement and further delayed by BDO's executive management not signing off in a timely manner. The 2020 financial statements are currently being developed and it is expected that these financial statements will be provided to Gavi within the deadline.

The financial management of Gavi funds by MCH/MoH staff strong made progress during the period of 2019-2020, through the implementation of the fiscal agent and mobilization of national financial management resources; the key achievements highlighted as followings:

- External audit reports for 2017 & 2018 (and the Gavi Program Audit) have been reviewed and material concerns have been addressed with relevant systems reforms and accounting treatment. These reforms resulted in an un-qualified audit opinion for 2019. There is a matter of undocumented transactions noted in the 2017 external audit report and Gavi is considering the treatment of these funds.
- Designed and embedded financial & administrative staff and platforms to ensure accountability and the efficient distribution of Gavi funds and to ensure compliance with future financial reporting obligations.
- Provided day to day training for relevant MCHC/EPI staff and encouraged team building and problem-solving skills.
- Accounted for outstanding provincial funds and designed fund procedures, application structure and reporting tools for provincial use.
- Registered the EPI Unit for tax purposes and obtain formal tax exemption for purchases using Gavi funds;
- Introduced routine reconciliations for all bank accounts and cash on hand.
- Provided all necessary support throughout 2020 to ensure funds were returned to normal Gavi processes and procedures. During the period, the FA approved 380 transactions totalling $881,321.08. An approval rate of 97.5 percent is noted on the first submission of vouchers for payment; and,

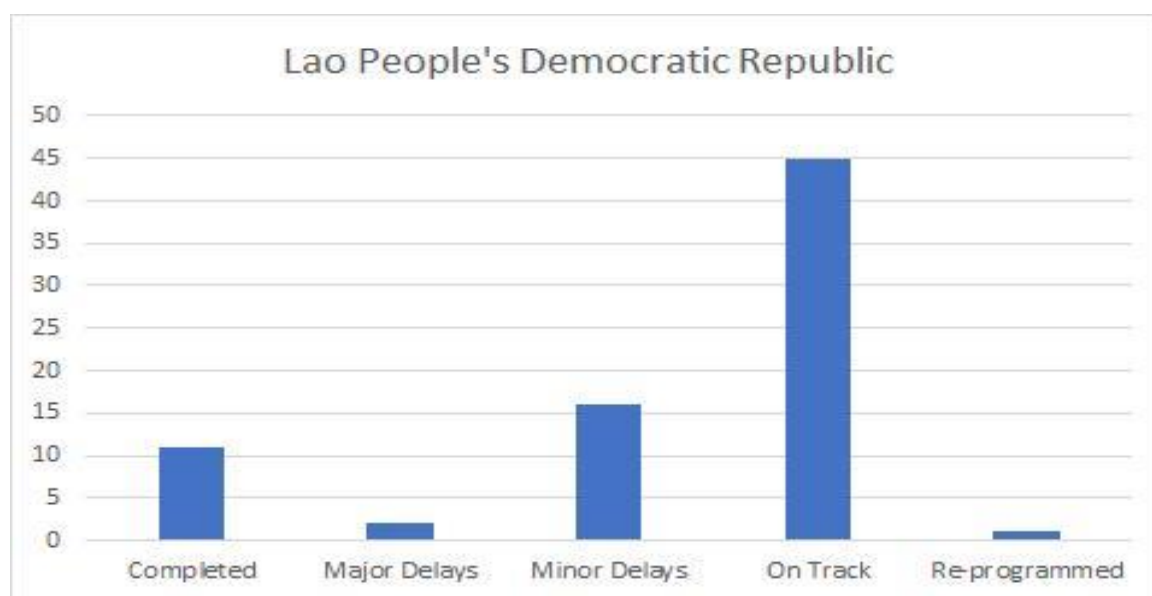
The MCHC/EPI is now fully capable of supporting program activities, fully functional with finance and accounting systems, well positioned to oversee funding to sub-National levels and staffed with competent and capable people. While some systems problems persist, there are now safeguards to ensure that Gavi funds are not exposed to potential loss and these issues will be further addressed in 2021.

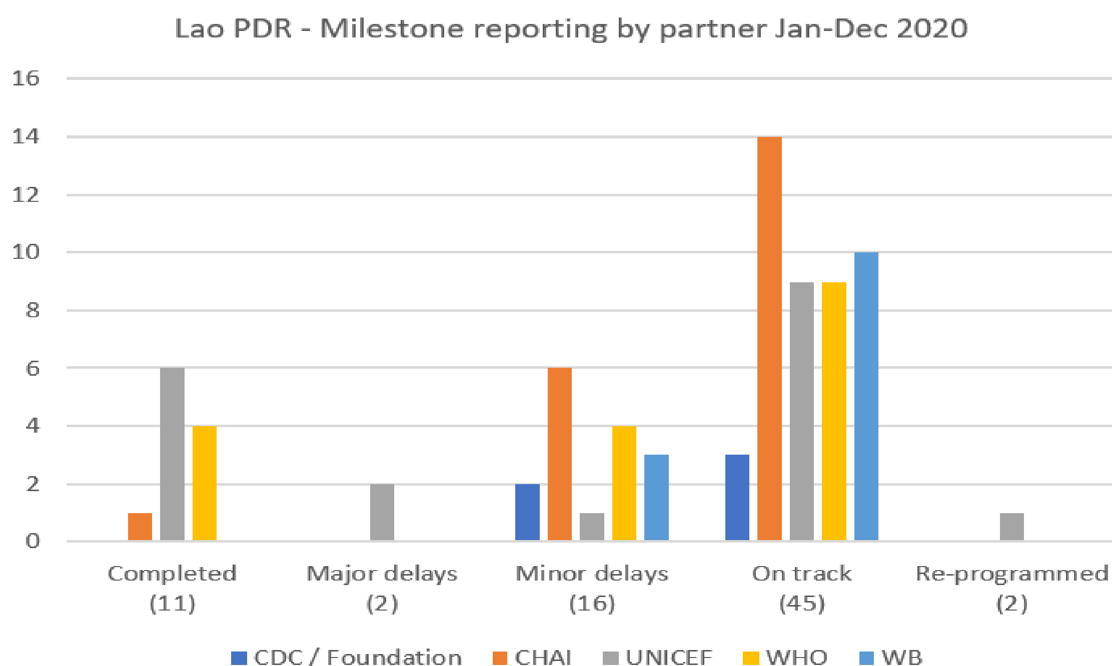
A stock-take of all assets purchased with Gavi funds was undertaken by MCHC/EPI staff September 2020 and verified by the external auditor during the course of fieldwork for the 2019 financial statements.

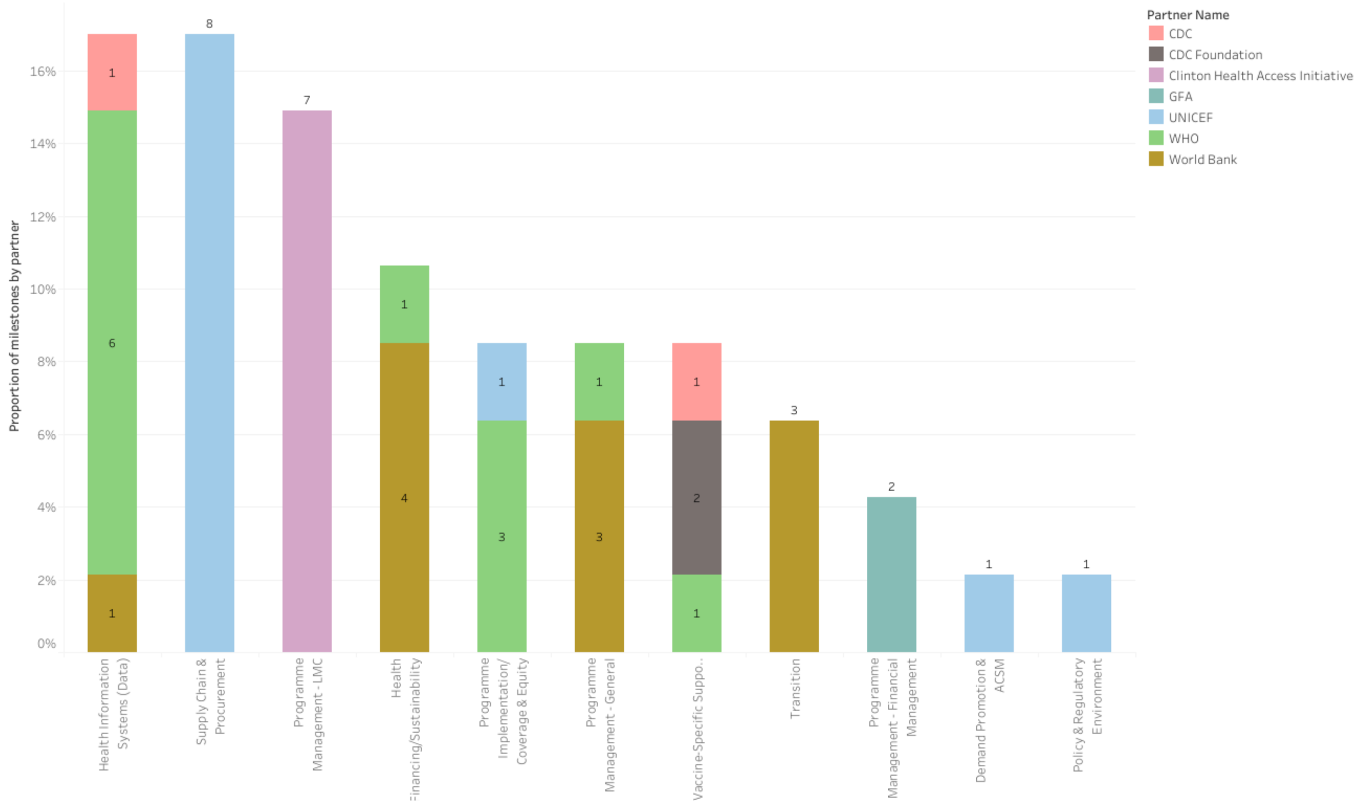
The program, with the support of partners, the fiscal agent services of GFA and a new joint PFM project between Gavi and WB to improve the health sectors' financial management, will be working to mitigate these risks through improved financial controls and the implementation of rigorous financial management.

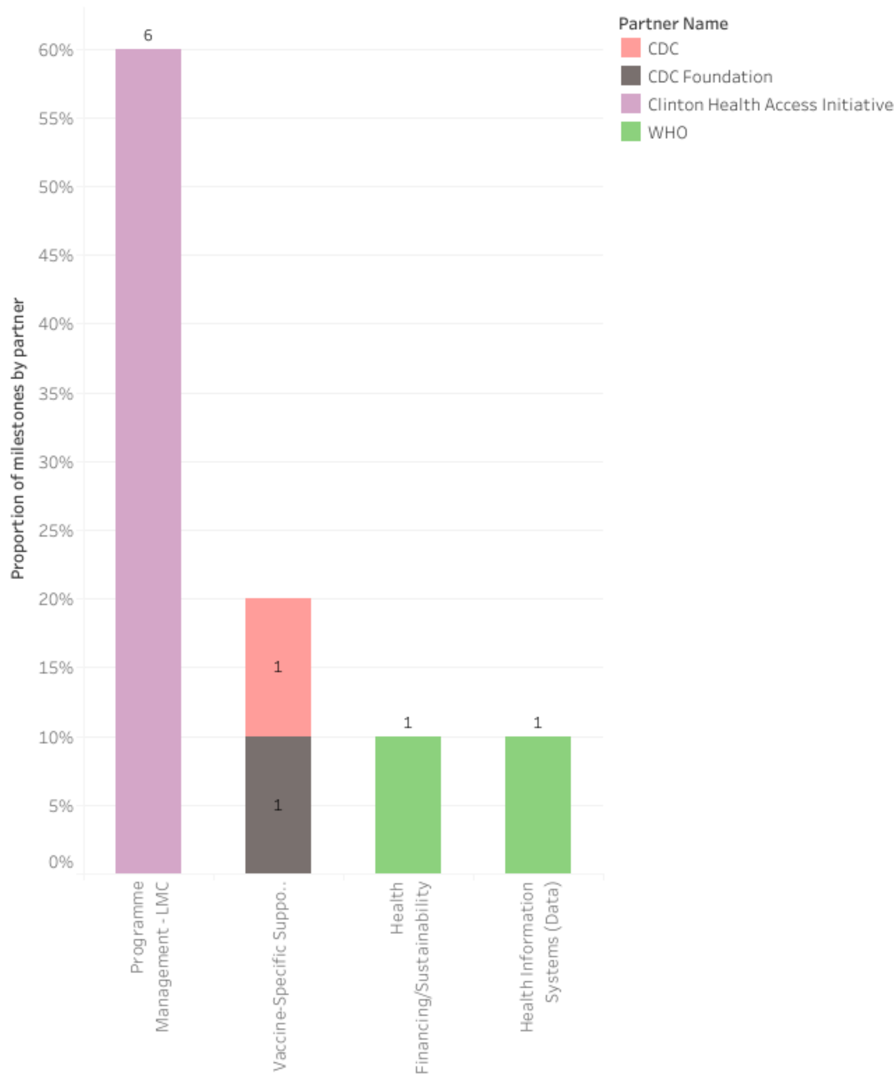
1.4. Overview of PEF TCA progress

PEF TCA milestones reported January to December 2020









By the end of 2020, the majority (73% or 56/76) of TCA milestones were completed or on track. Delayed activities have been incorporated into 2021 plans and/or adjusted to reflect priorities and approach agreed in the multi-stakeholder dialogue.

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

2.1 COVID-19 cases and deaths (as of 5 February 2021)

Lao PDR has reported a cumulative total of 45 confirmed COVID-19 cases (all linked to travel) and no deaths since March 2020. A total of 2,211 suspected cases have been reported and of 105,386 specimens collected, 45 were positive, 104,788 negative and 553 are pending. Enhanced surveillance including testing of influenza-like-illness and severe acute respiratory illness from sentinel sites since January 2020 onwards has produced no positive results for COVID-19, suggesting there is no community transmission in the country.

The *Lao PDR National COVID-19 Preparedness and Response Plan for the Health Sector 2020-2024* was finalized in August 2020 and outlines a comprehensive set of measures for the prevention and control of Lao PDR, and for the maintenance of other essential services.

As of 23 December 2020, issuance of tourist and visit visas will continue to be suspended for all nationals, except diplomats, staff of international organizations, experts, investors with essential and urgent needs to enter Lao to carry out their duties, which will be considered and approved in a case-by-case basis by the National COVID-19 Taskforce. In addition, every individual will be requested to submit a negative COVID-19 test result within 72 hours before departure to Lao PDR, undergo COVID-19 testing upon arrival at point of entry and quarantine must be completed at a venue or hotel designated by the Taskforce Committee. These measures will remain until further notice.

As of the 4th February, the Government of Lao PDR has decided to temporarily suspend all UN humanitarian flights and T-Way airlines flights during the month of February 2021.

2.2 Disease Surveillance and Incidence

Impact of COVID-19 on disease surveillance

Vaccine-preventable disease surveillance in Lao PDR has been affected by COVID-19 mainly because most resources were drained to the COVID-19 response from human resources to laboratory tests, diseases other than COVID-19 have often been mostly deprioritised. However, COVID-19 provided an opportunity as well. Community-based event-based surveillance, which was launched to detect COVID-19 cases timely, included fever and maculopapular rash in its list of reportable diseases.

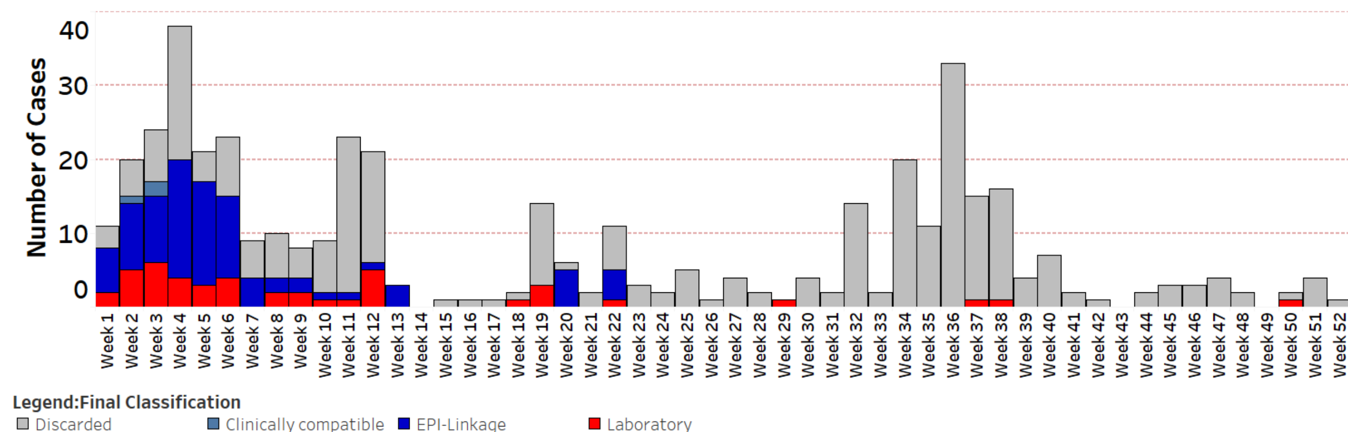
Measles

The number of reported suspected measles/rubella cases was lower in 2019 than in 2020 due to big measles outbreaks in multiple provinces in 2019. Sensitivity indicators of measles surveillance were above the target at the national level in 2020, but not at the provincial level. Adequacy of case investigation as well as laboratory testing was improved in 2020. Outbreak investigations in Savannakhet and Xiengkhouang identified problems at all levels. In particular, suspected measles/rubella cases not seeking for health care were not detected, not reported and not investigated.

Measles surveillance performance indicators

	Reported suspected cases	Discarded non-measles rate per 100 000 population	Second level units with ≥ 2 discarded cases per 100 000 population [annualised]	Suspected cases with adequate investigation	Suspected cases with adequate specimens for laboratory confirmation
Target	N/A	≥2	≥80%	≥80%	≥80%
2019	2 194	12.8	100%	85.2%	85.6%
2020	428	3.5	77.8%	94.3%	85.3%

* Source: MRSRS; WPRO Bulletin



Impact of COVID-19 on disease cases

Overall, the number of reported vaccine-preventable diseases decreased, which can be attributed to COVID-19 countermeasures such as physical distancing, wearing face masks, respiratory etiquette and hand hygiene which prevent transmission of pathogens. However, the COVID-19 response also negatively impacted surveillance. Resurgence of vaccine-preventable diseases due decreased vaccination coverage (including as a result of COVID-19 response measures) and increased immunity gaps is possible in with a time lag.

Confirmed vaccine-preventable disease cases in Lao PDR, 2018–2020

	Measles	Rubella	Polio	Diphtheria	Tetanus	Pertussis
2018	10	16	0	0	29	289
2019	1241	30	0	73	5	359
2020	132	22	0	6	25	17

* Source: MRSRS, PASRS and EWARN

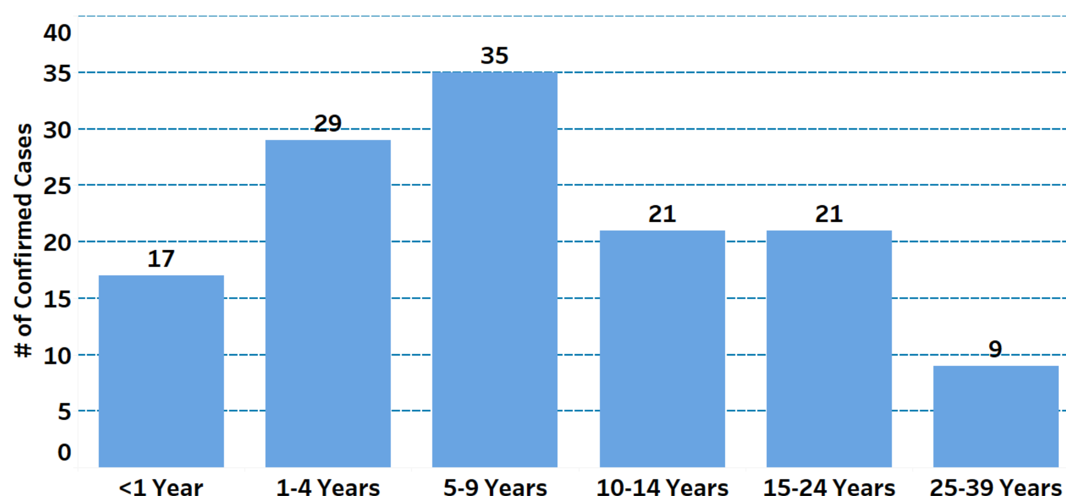


Figure. Confirmed measles cases by age group, Lao PDR, 2020

Overall, 132 measles cases were confirmed in 2020. Most of the cases (n=114, 87%) were reported in the first three months of 2020. Seventeen (13%) cases were under 1 year old, and 9 (7%) cases were 25

years or older. Almost half of the confirmed cases (48%) were in 1–9-year olds, who were the target of 2019–2020 MR SIAs.

Lao PDR conducted a sub-national measles SIA in 2019 for 6-month- to 9-year-old children in 14 Provinces and 3 Districts in Phongsaly Province. Despite the SIA, sporadic and clustered measles cases have continued to occur since February 2019. Patchy SIA coverages across the country and a weak surveillance system (further impacted by COVID-19) seems to have increased risk of sizable measles outbreaks. Furthermore, MR2 coverage in the first half of the year was only 54% (annualised), far below the target of 95%. Lao NIP is planning to fill the immunity gap by conducting MR-OPV SIA in the provinces which missed the recent campaigns and periodic intensification of routine immunisation in low performing districts to minimise the risk of resurgence.

2.3 Impact of COVID-19 on immunisation

Routine Immunisation

As outlined previously, decreases in immunization services were observed particularly during the nationwide lockdown between March to May 2020. A survey of health facilities across the country conducted in June and July 2020 found perceived risk of COVID-19 infection among both health workers and the community were the most commonly reported barriers to accessing and utilizing essential health services such as EPI. Under directive of the Maternal and Child Health Center and in line with the COVID-19 NPRP, health facilities at all levels continued to provide essential health services including immunization at both fixed sites and in the community. To ensure the safety of frontline health care workers and communities from COVID-19 infection during immunization services, social distancing, hand hygiene and utilization of protective equipment has been followed strictly.

Immunization coverage recovered after restrictions were lifted in May 2020, suggesting there was little ongoing effect of COVID-19 on access and uptake of immunization services, given implementation of safety measures together with absence of local transmission. However, 2020 coverage was still lower for many antigens compared to 2019, suggesting catch-up efforts in the second half of the year were not able to fully compensate for losses in early 2021.

New Vaccine Introduction

On 4 March 2020, Lao PDR launched a national school-based HPV vaccination programme targeting girls aged 10–14 years, following the Government decision in 2017 to introduce the HPV vaccine with Gavi financial support. Cervical cancer is the leading cause of cancer among women in the Lao PDR and with limited access to screening and treatment for cervical cancer, HPV vaccination is the most important intervention to reduce the burden of cervical cancer.

Collaboration and coordination with health centres, schools, village heads and village health volunteers played a critical part in identifying out-of-school girls and inviting them to the nearby school on the vaccination day. Although the response to COVID-19, including school closures and lock-down, presented a huge challenge for the roll-out of the programme, the country still successfully introduced the HPV vaccine and, as of 12 October 2020, 282,464 girls (78% of target population) had been vaccinated. The vaccine was extremely well accepted and tolerated without any major safety concerns being raised. This great public health achievement was accomplished through the leadership and commitment of the Mother-and-Child Health Centre, Ministry of Health with support from Gavi, the Vaccine Alliance, World Health Organization, UNICEF and the US CDC.

Lao PDR planned to introduce rotavirus vaccine in first half of 2020, however, due to concerns about ability to meet vaccine and non-vaccine costs in the context of COVID-19 impacts on the economy (see below) and Gavi transition. The planned introduction was therefore cancelled and will be reconsidered once the environment is more conducive to new vaccine introduction.

Economic and Fiscal Impact

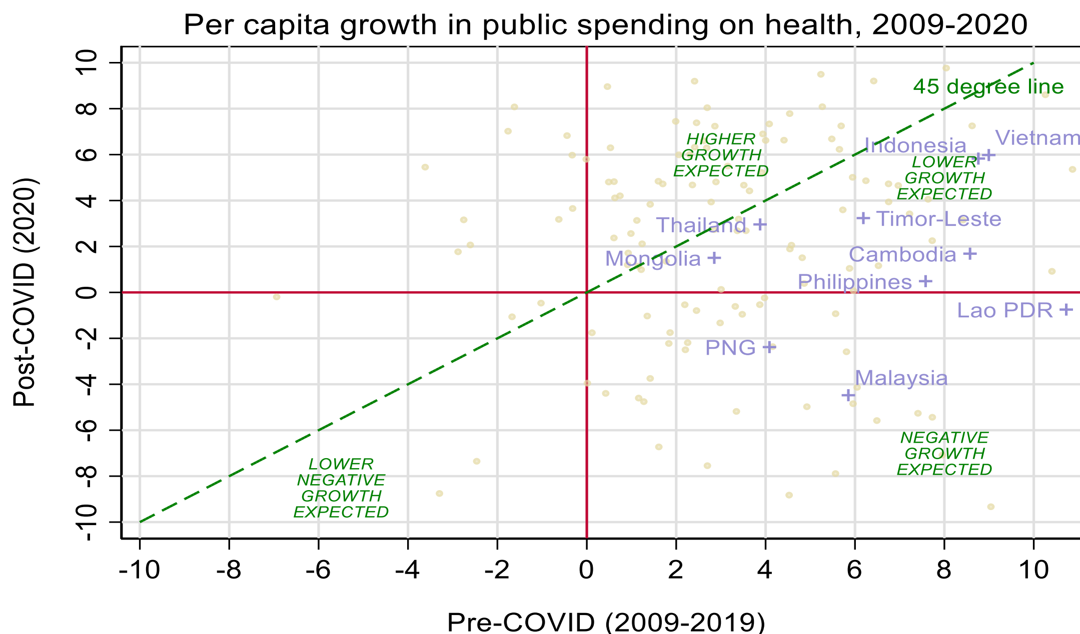
The most significant impact of the COVID-19 pandemic for Lao PDR has undoubtedly been the economic impact, with the Lao economy due to register in 2020 its slowest growth rate in three decades with estimated growth between -0.6% (baseline) to -2.4% (downside).

Total government debt is projected to reach 69% of GDP in 2020. To minimize the budget deficits and manage debt servicing, GoL has implemented measures such a temporary moratorium on new projects

and budget reductions, including reducing health sector budgets by 30% at the central level and 10% at the provincial level. As a result, the 2020 health sector plan was revised downward from 1.7 billion to 1.3 billion LAK, with only 0.9 billion LAK (76% of the revised plan, 52% of the original plan) released by October 2020. This is 18% lower than the 1.1 billion LAK released by October 2019.

A contingency fund for COVID-19 was mobilized totalling 10 billion LAK (1.1 million USD); as of October 2020, nearly 90% of this has been released.

If these trends continue and health's share of public expenditure remains unchanged, Lao PDR will be 'at risk' of decline in real per capita public spending levels on health including immunization services (see figure below).



Source: WB/IMF staff estimates

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

NA - NIP did request any HSS 3 budget reallocations.

2.5 Already agreed modifications in Technical Assistance (if applicable)

Agreement to extend implementation of the 2019 UNICEF and WHO TCA until December 2020. As of 31 Jan 2021, 63% of the total 2020 allocation for these two agencies had been spent.

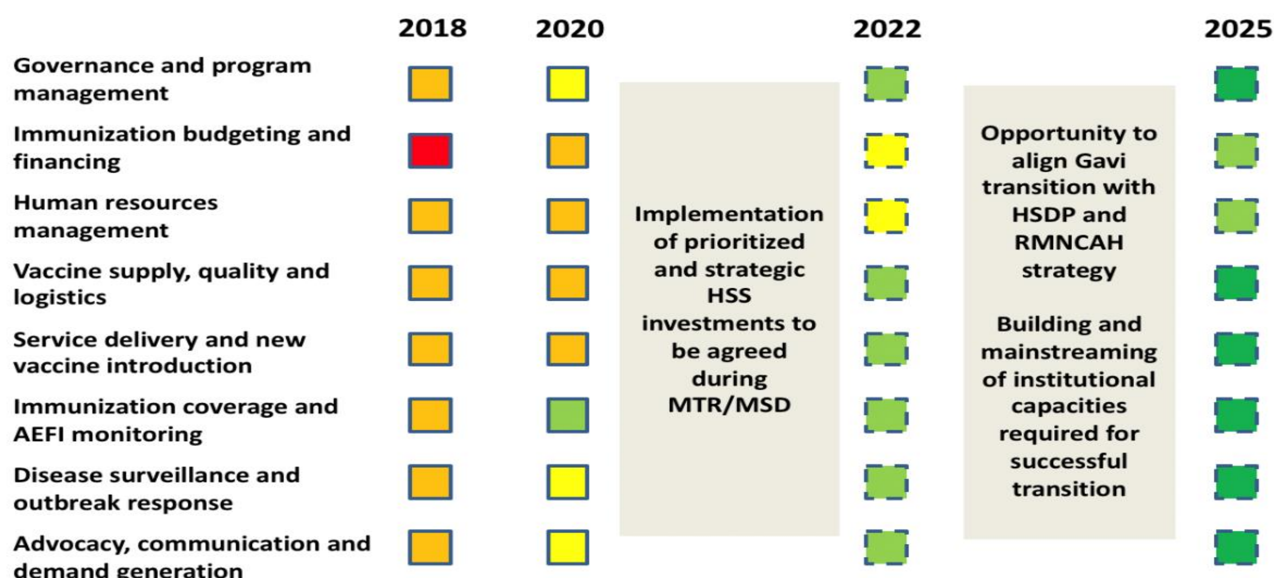
2.6 Unspent funds and savings from Gavi support, available for re-allocation to the COVID-19 response.

NA

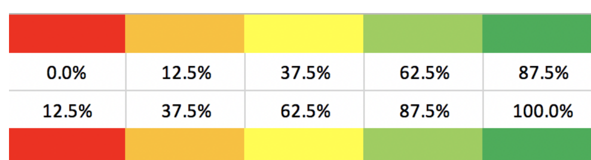
3. Discussions on priorities, action plan and technical assistance needs; Roadmap for further re-allocation/planning

2021 marks the beginning of a new 5-year strategic period (2021- 2025) for the Government of Lao PDR. This includes finalization of a revised RMNCAH Strategy which articulates the priorities and actions for maternal and child health services including immunization in the coming years. People-centred care, reducing missed opportunities and increasing efficiencies including through service integration is key, with increasing routine immunization access and utilization envisioned through delivery of a "Well Child" package alongside nutrition and early childhood development. Specific EPI objectives and targets by 2025 are (i) 85% of children under 2 fully immunized (coverage); (ii) all districts achieve 95% coverage for Penta 3 and MR2 (equity); and (iii) all children attending a health facility or via outreach receive a fully integrated Well Child Care visit (access, utilization and quality).

Aligned to the 2020 multi-stakeholder dialogue and in the context of revised RMNCAH Strategy, COVID-19 pandemic and Gavi transition at end 2022, a mid-term review of progress against recommendations of the 2018 EPI review was conducted, and findings used to inform prioritization and planning going forward. Findings from the review by immunization component is provided in the diagram below, which also projects likely status in 2022 (Gavi Transition) and 2025 (end of current RMNCAH strategy) assuming rate of progress between 2018 and 2020 is maintained.



Source: 2018 based on international EPI review; 2020 based on midterm review



Progress in implementing EPI review recommendations was measured using a "traffic light" system as outlined above, which should be considered indicative rather than fully reflective of the status of each immunization system component.

Progress was observed across all components but was uneven, with many recommendations related to immunization budgeting and financing, human resources management, vaccine supply and logistics and service delivery implemented incompletely or not at all. Critical remaining gaps include implementation of costed, integrated microplanning at all levels, planning for and ensuring sustainable human resource capacity to deliver EPI and increasing service delivery including through fixed sites.

This assessment shows that, assuming highly targeted resource allocation and implementation, reasonable progress towards a sustainable EPI program can be made by 2022 but it is most likely that the critical components for a successful transition from donor support will only be feasible by 2025. Additionally, the ongoing impact of the COVID-19 pandemic on the Lao economy and fiscal space for health in turn will influence the government's ability to self-finance vaccine and non-vaccine costs of the immunization program.

To support GoL to increase and sustain EPI coverage and equity, priorities for 2021 were identified in the multi-stakeholder dialogue and subsequent discussions with NIP and partners (Figure X, p20 – non-exhaustive). These are aligned to RMNCAH Strategy and MTR findings, reflected in HSS and TCA proposals for 2021 and designed to both achieve short-term increases in capacity and immunization performance, and to enhance ability of the NIP/MCHC to continue to improve and self-sustain these gains into the future. These priorities – as per the RMNCAH Strategy – all support reaching zero-dose children, un/under-vaccinated children and missed communities, and are presented here within Gavi's Advocate, Identify, Reach, Measure and Monitor (AIRMM) framework to clarify relationship to existing strategy and application in the Lao context.

Supporting and underpinning efforts in 2021 to improve immunization performance and plan for sustainability in 2021 are:

- Extended financial analysis to consider current and future investment required in routine immunization by GoL to meet immunization targets over the next five years, and inform sustainable budgeting and planning in the context of COVID-19 and Gavi transition
- Establishing a joint monitoring and accountability framework for the NIP and partners to assess progress towards program and financial sustainability of EPI, evaluate effectiveness and contribution of activities towards outcomes, and guide ongoing program prioritization, planning and implementation.

Finally, response to the COVID-19 pandemic will remain a high priority in 2021 for the MoH. This includes the deployment of COVID-19 vaccines to priority populations. In planning and implementation of COVID-19 vaccination all efforts will be made to ensure this does not detract from but rather strengthens routine immunization wherever possible.

IDENTIFY		REACH		MEASURE/MONITOR		ADVOCATE
Complement routinely collected data with enhanced tools and methods e.g. ✓ Electronic Immunization Registry (eIR) ✓ Geospatial technologies ✓ Rapid convenience monitoring Conduct KAP surveys to further understand barriers to vaccination		Demand (aligned with broader Primary Health Care and Community Health Systems Strengthening Strategies) ✓ Recruit health and community workers in different ethnic/cultural groups ✓ Expand QCMs at district level for discussion and awareness raising of immunization and other health and education priorities ✓ Strengthen social mobilization and demand generation at district and community level, including through capacity building of VHVs and CHWs Supply (aligned with broader RMNCAH and health financing strategies and reforms e.g., *Dok Champa* agenda to improve quality and patient satisfaction) Increase (e.g., in-service training in delivery of integrated Well Child care, interpersonal communication, people-centred approach) and sustain (e.g., revise university curricula, scope MCH training centre) capacity of health workers to deliver EPI services ✓ Develop and implement costed, prioritized and integrated microplans at all levels ✓ Conduct additional outreach (short term); develop and implement population and context-specific strategies (medium to long term) to increase immunization coverage and equity ✓ Increase availability of vaccine supply and reduce likelihood of stock outs and wastage by integrating vaccine monitoring and management into eLMIS for other commodities ✓ Deploy new CCE and build systems and capacity for ongoing monitoring, maintenance and repair ✓ Continue PFM strengthening at all levels and incorporate validated cost estimates into routine plans and budgets to increase adequacy and timeliness of funding for service delivery		✓ Joint NIP-partner annual planning, implementation and monitoring ✓ Routine program review and evaluation at national and sub-national levels – to assess progress and adapt as required ✓ Continue to improve data quality, management and use at all levels (including routinely collected HMIS and eLMIS data and quality assessments routine data collection ✓ VPD and AEFI surveillance		✓ Conduct biannual advocacy workshops at district level to ensure coordinated approach and priorities ✓ Analysis and evidence to support resource mobilization for delivery of immunization and other essential health services, including in the context of the COVID-19 pandemic