

Liberia's EPI Multi-stakeholder Dialogue Report
August 24-25, 2020

Introduction

The Novel Coronavirus 2019 (COVID-19) pandemic is over-stretching health systems and economies of developed, developing and under-developed countries globally at an unprecedented level. The health systems are strained as they don't have the capacity to deal with COVID-19 in addition to the pre-existing service needs, and this has resulted in deaths. Health workers are working round-the-clock to respond to the pockets of outbreaks, putting them at risk of being infected by the coronavirus disease or other diseases and even lead to death. The health workers' fear of getting infected and other factors including disruption in health supply chains, rumours and misinformation, have further compromised quality of service delivery. Moreover, routine immunisation, which is one of the safest and most cost-effective ways to end vaccine-preventable child deaths, has been interrupted as parents are hesitant to visit health facilities for fear of contracting COVID-19.

The COVID-19 pandemic has and is providing vivid evidence on the morbidity and epidemic potential of an infectious disease without a vaccine to provide immunity for the population. Though the longer-term trajectory of the pandemic remains uncertain, there is sufficient evidence that the epidemic has disrupted immunisation services in Liberia. A more sustainable way to those is through the delivery of a well-functioning routine immunisation programme. Routine immunisation is a sustainable, reliable and timely interaction between the vaccines, those who deliver the vaccines and the vaccinees to ensure every person is fully immunised against vaccine-preventable diseases (WHO, 2020 Report). Therefore, Liberia's EPI is improving the quality of immunisation services by reducing the number of zero dose and unvaccinated children and the dropout rate.

As we continue to discuss the impact of COVID-19 on routine immunisation, it is crucial to provide a clear perspective on coverage and equity. Therefore, the Programme conducted a review of routine HMIS data to determine to what extent immunisation indicators ebbed, stagnated, or increased. This review revealed that between January and July 2020 there was drop in routine immunisation coverage with increases in dropout rates, the number of zero dose children and under or unvaccinated adolescents and women of child-bearing age of Liberia. The analysis further revealed 14% and 16% decline for Penta 3 and Measles containing vaccine first dose (MCV1 to 76% and 72%, from 89.5% and 88% respectively (using 2019 quarters 1 & 2 as the baseline period).

The decline in immunisation outcomes is likely to lead to a resurgence of vaccine-preventable diseases (VPDs) and outbreaks of measles, as seen in the counties of Lofa, Bong, and Sinoe (Weekly Epidemiological Bulletin, 2020). Also, the COVID-19 epidemic has further exacerbated already existing challenges with immunisation inequities and putting the most vulnerable, marginalised, underserved and most impoverished communities at greater risk of being diseased. The protection of a child against vaccine-preventable diseases is a fundamental right of a child and as such efforts are on hand to restore and sustain routine immunisation coverage.

Further, the general population is experiencing a growing sense of vaccine hesitancy likely due to misinformation about the existence of a COVID-19 vaccine in Liberia. Anecdotal evidence showed that some parents were purposely hiding children from health care workers conducting outreach. Also, complacency and scepticism on safety and vaccines effectiveness and fueling of deliberate rumours that the government would test a COVID-19 vaccine on people seeking routine immunisations were proliferating in communities and social media platforms. Given the growing scepticism by communities and fear for vaccination services amidst COVID-19 pandemic and out of

concern for the safety of the vaccinators, the EPI programme temporarily suspended routine immunisation at the health facility as well as community outreach services March 21, 2020. During this time, the EPI programme conducted media campaigns over the radio to share information about the importance of routine immunisations, dispel rumours about the COVID-19 vaccination, and begun the process of rebuilding community members' trust in immunisation services.

To address immunisation demand barriers, the EPI programme sought to determine and address the level of myths, misinformation and rumours about vaccination services. Gavi approved the reallocation of USD 459,221 of existing Health Systems Strengthening (HSS) support toward COVID-19 response activities. The Programme used USD 25,000 of the reallocation to conduct an immunisation risk assessment / vaccine perception study in Montserrado and Margibi Counties between April 24-30, 2020. Another USD 100,000 will be used to implement the study recommendations, which include Periodic Intensification of Routine Immunisation (PIRI) and supportive supervision among other interventions.

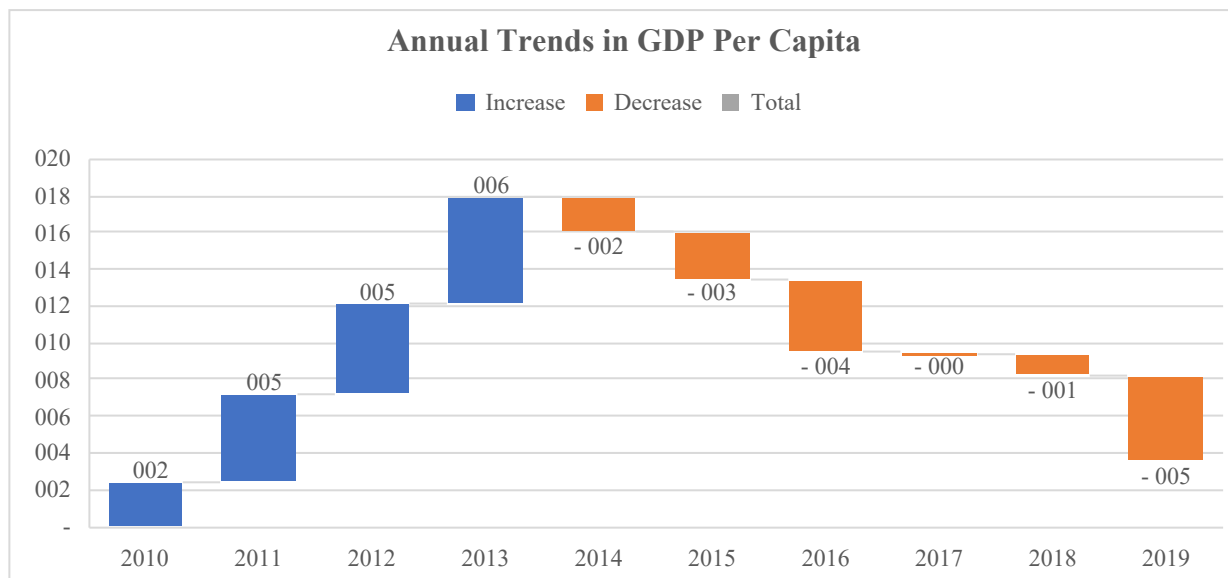
It is also imperative to engage reputable Civil Society Organisations (CSOs) to rebuild trust, create demand at the community level, and deliver services where there are gaps in government provision and in overcoming gender-related barriers.

Against this backdrop, from 24 to 25 August 2020 partners of immunisation in Liberia held the Gavi multi-stakeholder dialogue. The dialogue discussed:

- performance of the immunisation programme in the 2019 – 2020 fiscal year,
- the impact of the COVID-19 pandemic on immunisation,
- the needs for maintaining and restoring immunisation services in the context of primary health care,
- short-term plans to catch-up with scheduled activities and, where needed, create a roadmap for further re-allocation/planning within the country's health sector recovery plan.

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

The economy of Liberia has experienced social and political pressures over the past 10 years that have impacted the pace of economic growth. The graph below shows the annual changes in GDP per capital between 2010 and 2019.



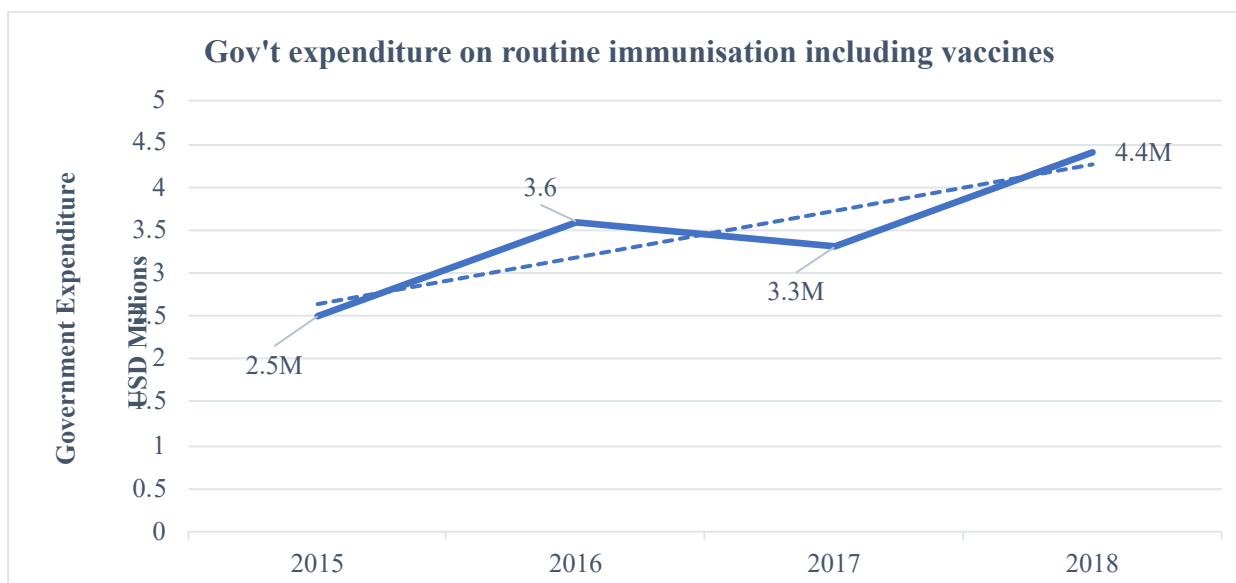
Trends in GDP per capita (Source: World Bank website – October 2020)

The table below provides highlights of key matrices for health services in Liberia:

SN	Indicator Name	Years	Source	Value	Purchasing Power Parity
1	GNI per capital	2019	World Bank	580	1320
2	Health Facility density per 10,000 population	2018	SARA	1.95	NA
3	Core Health worker per 10000 population	2018	SARA	10.7	NA
4	Under 5 Mortality (per 1000)	2019-2020	LDHS	93	NA
5	Surviving Infants	2019	NHPC (2008)	177,336	NA

Table showing health related matrices for Liberia.

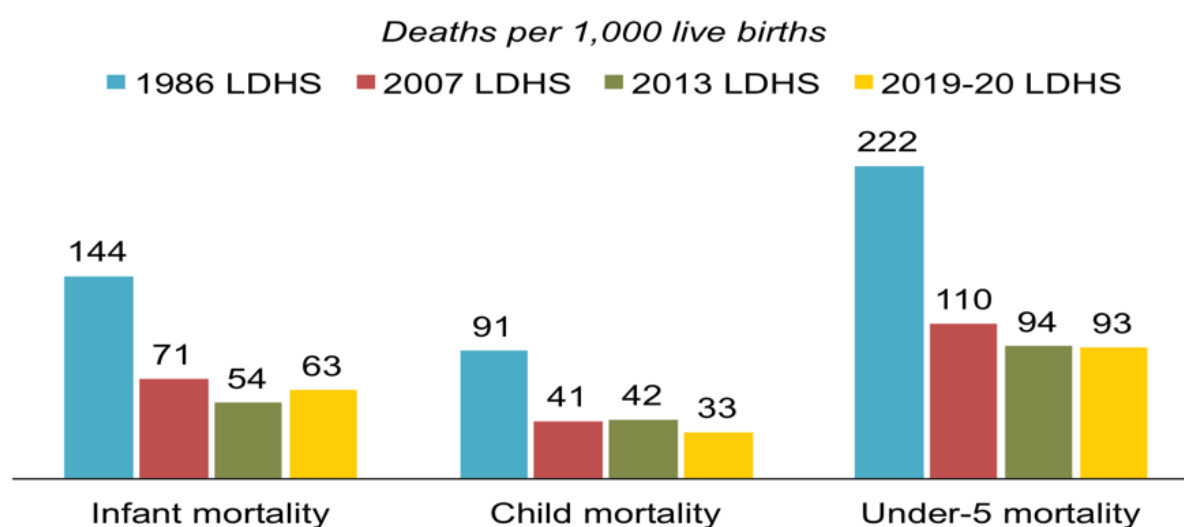
As the graph below illustrates, the Government of Liberia has been increasing expenditure in routine immunisation at an average of 60% per annum between 2015 and 2018. This upward trend is however likely to be impacted by the economic pressures which the country experienced in 2019 and further by the COVID-19 pandemic.



A graph of health financing (and Trends) - Liberia

Analysis of the trend of infant, child and under-five mortalities indicate a gradual reduction in child and under-five mortality but increased by 9% for infant mortality. Therefore, it is imperative to conduct deep-diving root cause analysis to understanding factors responsible and institute the appropriate action (s).

Key indicators: Early childhood mortality trend



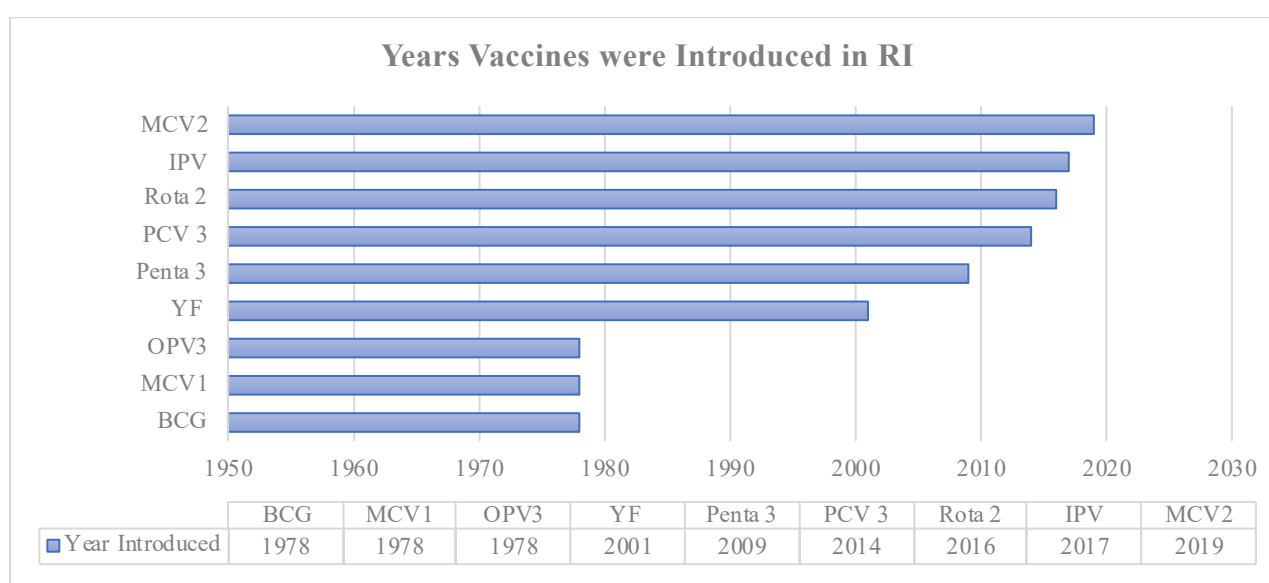
Trends of early childhood mortality in Liberia

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

Vaccines introduced and forecasted to be introduced

2.1 New Vaccine Support – Routine Introduction

Liberia has nine vaccines in routine immunisation, four of which were introduced between 2010 and 2019. The table below illustrates:



A summary of vaccines in Routine Immunisation by year of introduction

2.1.2 New Vaccine Support – Forecasted routine and campaign introduction

Vaccine Name	Type	Sub-Type	Status	CP Date	Phase
Typhoid Conjugate Vaccine	Routine	1st Dose	Forecasted 2020	Jul-22	NA
Typhoid Conjugate Vaccine	Campaign	Catch-up	Forecasted 2020	Jul-22	NA

Performance against Alliance KPIs

Indicator	Source Name	Year	Value	Previous Value	Trend
<i>Measles Containing vaccine (second dose) coverage at the national level (MCV2)</i>	WUENIC	2019	13	ND	-
<i>Pentavalent 3 coverage at the national level (Penta 3)</i>	WUENIC	2019	74	84	↓
<i>Drop-out rate between Penta1 and Penta3</i>	WUENIC	2019	21	15	↑
<i>Difference in Penta3 coverage between children of urban and rural residence</i>	LDHS	2019-2020	1.5	9.1	↓
<i>Difference in Penta3 coverage between the highest and lowest wealth quintiles</i>	LDHS	2019-2020	15.9	21.5	↓
<i>Penta3 coverage difference between the children of educated and uneducated mothers/caretakers</i>	LDHS	2019-2020	3.2	6.6	↓
<i>EVM Composite Score</i>	EVM	2015	60		
<i># of Unvaccinated/Underimmunised Children</i>	Calculated	2019	135,650	137,185	↓

Trends in routine immunisation performance and district equity

Routine immunisation (RI) is the sustainable, reliable and timely interaction between the vaccine, those who deliver it and those who receive it to ensure every person is fully immunised against vaccine-preventable diseases (WHO). To fully immunise persons requires proper and detailed microplanning, well trained and compensated personnel, effective cold chain management, monitoring and supportive supervision, etc.

To address the devastating effects of the Ebola Virus Disease (EVD) in Liberia, significant investments were made to strengthen routine immunisation. These investments led to a gradual improvement in the performance of almost all immunisation service delivery indicators through practical and tangible interventions, such as: (i) immunisation service delivery points increased from 517 in 2013 to 614 in 2020, (ii) using HSS and CCEOP grants, cold chain equipment was expanded by 383 CCE (SDD – 351 and ILR -32) to health facilities and county depots, (iii) quarterly periodic intensification of routine immunisation, (iv) increased outreach activities and (v) increased support from partners.

In 2019, the Liberia's EPI experienced a decline in the WUENIC for all antigens especially Penta 3. This decline was largely due to the delay in receiving the HSS disbursement and a lack of domestic financial resources to conduct outreaches, PIRI, supportive supervision and other immunisation activities. This delay was as a result of the failure to submit the financial audit report timely. Additionally, there was a drop YF coverage due to stock-out of vaccines.

This drop in indicators in 2019 due to funding interruption, is evidence of Liberia's high dependence on Gavi's HSS funding as the government is unable to meet the gap. The programme is affected by the economic challenges in the country as well as the dwindling donor support. This is a potential

risk as EPI cannot implement its core functions nor sustain and maintain coverage gains in the absence of Gavi’s support. Amid the fiscal challenges, the government remains committed to immunisation, the actual reality on hand is that without sustained external support Liberia’s immunisation coverage remains fragile.

Inconsistencies in between WUENIC and Administrative data

The performance of the immunisation program is measured using different sources of information. Some of these sources include the WHO Unicef Estimate for National Immunization Coverage (WUENIC), the Liberia Demographic and Health Survey, Administrative coverage etc. The figures below reveal consistencies and gaps that occurred over time (2013 – 2019) between and amongst the sources for EPI key indicators (Penta 3 and MCV1). From 2013 – 2019, there were no significant differences between the administrative coverage, WUENIC and the LDHS for the mono-administered vaccine (e.g. MCV1).

However, there were significant gaps shown for Penta 3 from 2013 – 2019 comparing the various sources.

Trends of Measles Cases Vs MCV1 coverage

As the figure below shows, in 2013 there was convergence among administrative coverage at 74%, WUENIC estimate at 71% and LDHS at 74%. From 2014 to 2018, a comparison was only made between administrative coverage and the WUENIC estimate because LDHS was not conducted. The DHS was conducted in 2019 and found that the percentage differences in the sources (administrative coverage at 85%, WUENIC at 85%, LDHS at 87%) were in the acceptable range. Further analysis in this figure shows the triangulation of measles case reported against the coverage from 2013 to 2020 with the highest number of cases (3781) and coverage (91%) occurring in 2018.

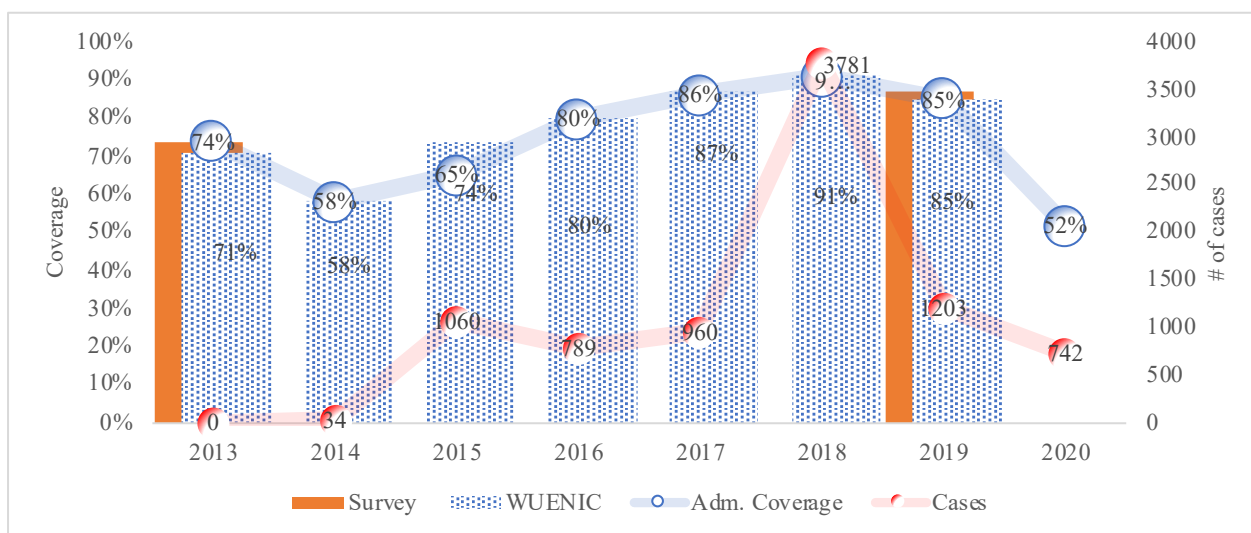


Figure 3: Graph showing trends of Measles Cases Vs MCV1 coverage Estimate (2013 to 2020 Administrative, WUENIC & Survey). Sources: DHIS2, WUENIC, LDHS 2019/2020

Trends of MCV1 Target Vs MCV1 coverage

The figure below illustrates the gaps between the coverage and the national target set for MCV1 from 2013 to 2020. In 2013, the set target set of 80% and achievements reported by various sources (administrative coverage of 74% WUENIC of 71% and LDHS of 74) were nearly the same. The years 2014 (58%) and 2015 (65%) saw a significant decline in immunisation performance as a result

of the EVD outbreak which lasted two years. Coverage for MCV1 improved in 2016 (80%), 2017 (86%), 2018 (91%) but begin to experience a dip in performance in 2019 (85%) and 2020 (52% as of July)

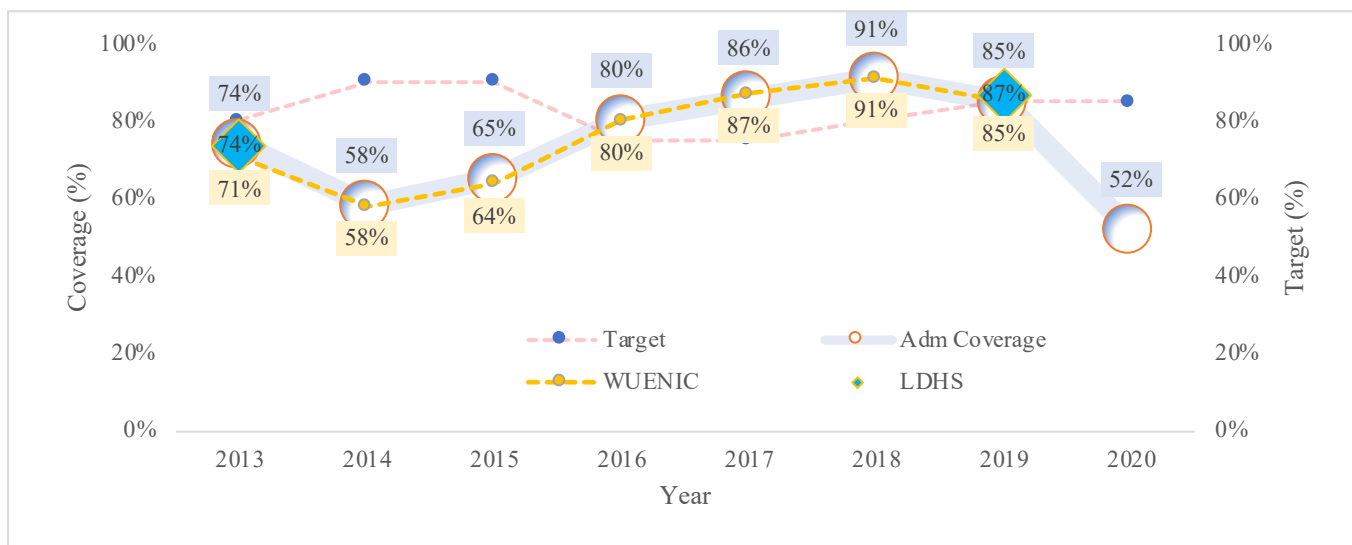


Figure 4: Graph showing trends of MCV1 Target Vs MCV1 coverage Estimate (2013 to 2020 Administrative, WUENIC & Survey) Sources: DHIS2, WUENIC, LDHS 2019/2020

Trends Penta 3 Target Vs. Coverage

The figure below shows the percentage difference between the coverage and the national target set for Penta 1 from 2013 to 2020. In 2013, the target set (85%) and achievements reported by various sources (administrative coverage - 85%, WUENIC - 76% and LDHS - 71) showed significant gaps. The years 2014 (63%) and 2015 (67%) saw a great decline in immunisation performance as a result of the EVD outbreak that lasted for the years mentioned above. Coverage for Penta 3 improved in 2016 (92%), 2017(92%), 2018 (99%). However, performance in 2019 (87%) and 2020 (55%) dropped.

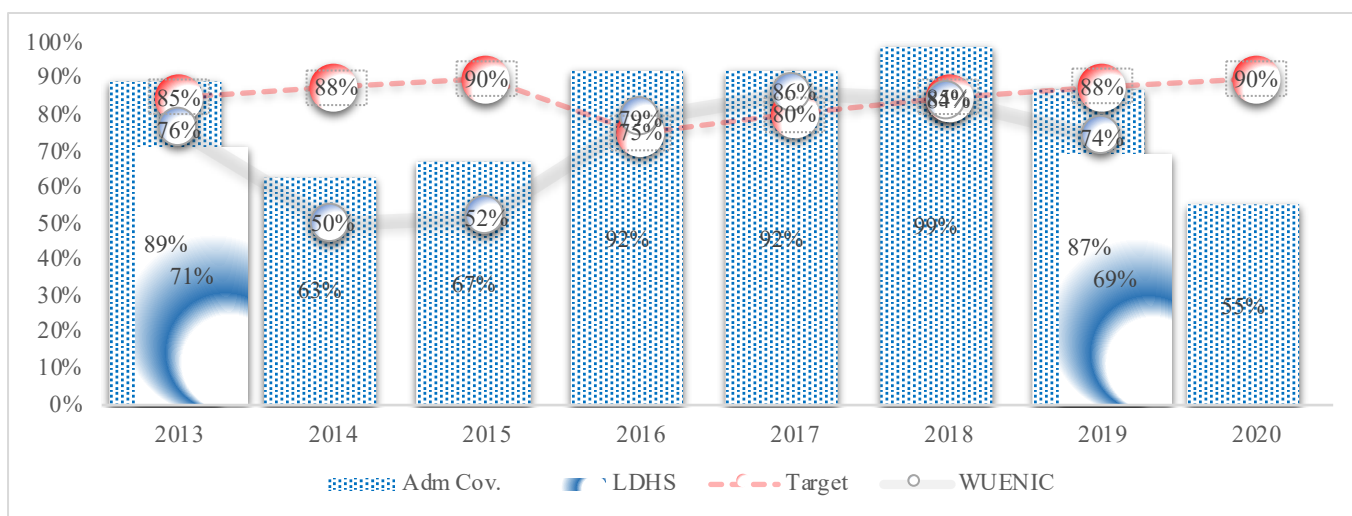


Figure 5: Comparative Analysis of Penta 3 Target Vs. Coverage Estimate (2013 to 2020 Administrative & WUENIC) Sources: DHIS2, WUENIC

The 2019 WUENIC results show a decline for all antigens especially Penta 3 and other multiple administration antigens. This can be attributed to the delayed in HSS disbursement and the lack of domestic financial resources to conduct outreaches, PIRI, supportive supervision and other immunisation activities. This delayed was as a result of the delayed in the submission of the audit report. Additionally, the dip in YF coverage was also due to stock-out. Additionally, the COVID-19 pandemic is a contributing factor to the 2020 decline.

Trends in District level reporting

The figure below depicts the performance of routine immunisation per district against the national target set for Penta 1 from 2013 to 2019. The data shows a fluctuation in from 2013 to 2019. In addition, the WUENIC score showed a progressive trend from 2014 – 2017 and started declining by 2018 to present. Therefore, it is extremely important to do a deep dive into the data to understand the reason(s) behind such a decline and what can be done to increase the coverage. As such MoH has launched a data improvement plan across the health sector. PATH, with gavi funding, is providing TA support to target immunisation data strengthening.

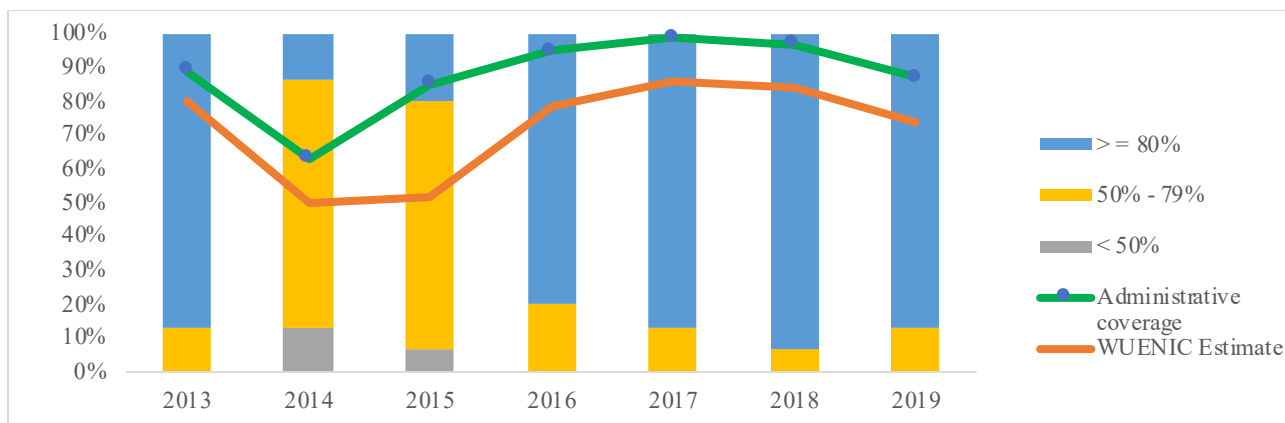










Figure 4: Percentage of Districts Reporting < 50%; 50% - 79% & Penta 3 Coverage, 2013-2019. Sources: DHIS2 and WUENIC

Progress against indicators and targets achievement

Vaccine Program	Source (2018/2019)	Intermediate Result Indicator	Reported Actual		Relative Change
			2018	2019	
Pneumo	Admin (JRF)	Number of surviving infants who received the first recommended does of PCV vaccine (PCV1)	180805	166736	
	Admin (JRF)	Number of surviving infants who received the third recommended does of PCV vaccine (PCV3)	168648	154329	
Penta	Admin (JRF)	Number of surviving infants who received the first recommended does of Pentavalent vaccine (Penta1)	181243	166907	
	Admin (JRF)	Number of surviving infants who received the third recommended does of Pentavalent vaccine (Penta3)	168772	154635	
MCV	Admin (JRF)	Number of children in the target population who received first recommended does of measles containing vaccine (MCV1)	157311	151687	
	Admin (JRF)	Number of children in the target population who received second recommended does of measles containing vaccine (MCV2)	ND	22657	
IPV	Admin (JRF)	Number of surviving infants who received the first recommended does of IPV	142510	147282	

Ministry of Health, Republic of Liberia
Report of the Multi-Stakeholder Dialogue Held from 24th to 25th August 2020

Vaccine Programme	Source (2011-2019)	Immediate Results Indicators	2011-2018	2019	Relative Ch
Others	EVMA Report	Effective Vaccine Management Score (Composite score)	58	61	
	JRF	Occurance of stock out at the national or district level for any other GAVI supported vaccine	NA	NA	
	Admin (JRF) & Survey	Percentage point difference between Penta 3 national administrative coverage and survey point estimate	87	69	
	GAVI Secretariate Records	Timely fulfillment of the co-financing commitment for all GAVI supported vaccines			

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

HSS implementation summary (as of June 30, 2020)

Country Institution	Grant	Grant Amount	Total disbursements by Gavi	Expenditure & Commitments	Country cash Balance	Percentage (%) of funds utilised
Expanded Programme on Immunization / Ministry of Health	HSS	9,689,424	9,689,424	6,660,878	3,028,547	69%
	Op Support - TCV	1,235,650	1,235,650	25	1,235,625	0%
	CCEOP	1,456,717	1,456,717	1,456,717	-	100%
	VIG - HPV	152,850	152,850	127,755	25,095	84%
	VIG - Measles	150,400	150,400	130,922	19,478	87%
	VIG – Inactivated Polio Vaccine	120,880	120,880	118,739	2,141	98%
	VIG - TCV	155,710	155,710	20	155,690	0%

Ministry of Health, Republic of Liberia
Report of the Multi-Stakeholder Dialogue Held from 24th to 25th August 2020

The above table provides a financial summary of all active Gavi grants to Liberia. However, the HPV Demonstration cash grant has been formally closed, and balances reprogrammed to support immunisation and other health system strengthening activities as of October 1, 2018. Also, there has been a significant improvement in the HSS expenditure rate from 39% in 2019 to 69% at 30 June 2020. This increase is mainly driven by the successful implementation of the annual procurement plan which ensured that the items below were successfully sourced and delivered to service delivery sites:

- Motorcycles
- Data collection tools for immunisation
- Fuel and Motor vehicle repairs
- Equipment for cold stores
- SSD refrigerators and freezers

Lastly, EPI worked closely with M&E Directorate at MOH to implement planned data managed related activities as per the stipulated timeline. Amid progress made on the budgetary absorption, the slow pace of processing of payments is impacting timely funds utilisation. In addition, there is a challenge of determining the location and condition of all programme assets.

At the end of the fiscal period on 30 June 2020, the expenditure on the HSS grant was 6,660,878 and grant balance USD 3,028,547, of which USD 1,175,225 was already committed. Then a further USD 327,705 was expensed between 30 June and the time of MSD on 21 August 2020, bringing the cash balance to USD 1,525,616.

From a review of the EPI workplan for 2020, the Ministry of Health is proposing the reallocation or reprogramming of USD 246,917 from saving on activities that will not be implemented by 31 December 2020. The table below summarises the activities and efficiencies:

SN	Activity	Amount (USD)
1	Implementation of Urban Immunization Strategy in Montserrado	158 720
2	Quarterly Surveillance Visit to poor performing and silent counties	11 884
3	Participate and respond to all VPDs outbreaks across the country	19 185
4	Conduct internal Effective Vaccine Management Assessment-EVMA	5 018
5	Procure solar charge controller to replace faulty ones at health facility with sunfrost refrigerator.	15 750
6	Supplies for HF motorcycles maintenance	20 360
7	Procure spare parts for existing platform-eligible equipment	16 000
	Total Amount	246 917

The Ministry of Health are proposing the reallocation or reprogramming of cash balances to support other immunisation activities as indicated in the below table:

SN	Activity	Amount (USD)
1	Training for vaccinators on immunisation in practice (IIP) with emphasis on timely detecting zero dose children, un-vaccinated and data use for decision making	144,833
2	Support to conduct EPI Review Exercise	62,325
3	Data improvement planning implementation	39,759
	Total Amount	246,917

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

Disbursement of USD 225,479 Performance Based Funding (PBF) support is still pending with the other budgetary items not being applicable. The country has decided to use the PBF support for the completion and subsequent occupancy of the ground floor of the Partners' Building and staff motivation.

HSS key milestones achieved in 2019

Structured based on grant objectives or GPF indicators (graph prepopulated by the CMM team)

	Process Indicators			Intermediate Results		
	Indicator name	Value	Rel. % change	Indicator name	Value	Rel. % change
OBJ-1				Percentage of districts implementing at least 80% of outreach plans in high priority provinces (Nampula, Zambezia, Tete and Manica)	79	-10%
				Percentage of districts implementing at least 80% of outreach plans in other provinces	78	-2%
				Percentage of districts with updated micro-plans to raise immunization coverage in high priority provinces	76	129%
OBJ-2	Percentage of maintenance request that have been responded in a given year	88	33%			
	Percentage of vaccines delivery performed at provincial level as compared to planned (vaccine Distribution - central, to provincial, level)	65	35%			
OBJ-3	Number of HW training performed (all levels included)	21	5%	Percentage of MCH/EPI HF integrated supervisions performed as per planned	0	ND
	Number of integrated Supportive Supervision from central level to provincial level	6	ND			
	Number of integrated Supportive Supervision from district level to health facilities level	622	8%			
	Number of integrated Supportive Supervision from provincial level to district	567	-28%			
OBJ-4	Number of HF BES (Boletim Epidemiológico Semanal - Weekly Epidemiological Report) received (Integrated Surveillance of Epidemic Prone Diseases - SUB SUB ACTIVITY4.1.2)	84750	2%	Percentage of Districts with Complete reporting	72	-4%
	Number of planned studies implemented:	0	-100%	Percentage of Districts with data verification rate of at least 80% through DQ	68	-14%
OBJ-5	Number of NGOs supporting EPI programs	8	60%			
	Proportion of districts with community radio social mobilisation activities performed	71	-14%			

Color coding:

Value cell is green if target has been met and red if not.

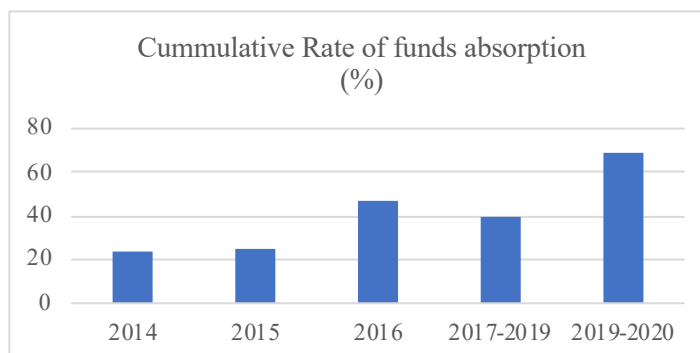
1.4 Compliance, absorption and other fiduciary risk matters

Absorption of Funds

Budgetary analysis of the HSS grant performance showed a relatively marked improvement in the execution of the budget. The rate of absorption for the HSS support increased from a low of 39% between 2017 -2019 fiscal year to 69% at 30 June 2020. This increase was because Gavi disbursed to the Ministry of Health the funds allocated in the first semester so the Programme could proceed with significant activities related to procurement. Also, at the start of the year, the procurement-related activities were included in the Ministry's annual procurement plan, and cycle, which helped to reduce administrative bottlenecks.

The graph below illustrates trends in funds absorption for the HSS grant:

Lastly, in addition to procurement, the activities related to Health Information Systems were fully implemented with the exception of EPI review meetings that were differed due to the COVID-19 pandemic. The EPI programme engaged the Ministry's Monitoring & Evaluation Department, who harmonised immunisation specific activities within their core plans. As a consequence, activities such as data verification, data quality audits, training and support to country health teams on data management were implemented timely. Also, expenditures related to training for EPI staff, as well as salaries for Ministry and partner personnel were executed as budgeted.



In the second quarter of the fiscal year, the Ministry decided to introduce mobile payments for payments to vaccinators at the facility level. The programme piloted three activities for this mode of payment, namely:

- (i) incentives for vaccinators who were not receiving any compensation,
- (ii) facilitation for vaccinators to conduct outreaches, and
- (iii) allowances for country health teams to perform support supervision at the facility level.

The use of mobile payments was to address the challenges of fiduciary risk and delays in reporting. Previously counties failed to liquidate funds advanced by the centre timely and often, the support documentation provided was inadequate and unreliable. These expenditure items were the subject of past audit queries.

The implementation of mobile payments was slow at the start, as the Ministry put in place controls required to ensure that the right persons are paid. The Country Child Survival Officers provided names of payees for each category, i.e. supervisors and vaccinators, County Human Resources Officers validated the names, and the Country Health Director reviewed and approved the schedule. The Mobile Network Operator then validated the list to confirm that the names and phone numbers were correct and aligned. In deploying mobile payments, the EPI Programme addressed a substantial root cause of fiduciary risk. The Ministry will continue to identify activities that can be paid using mobile payments, particularly those involving large numbers of payees beyond the county level.

Delays in procurement affected timely contracting of Civil Society Organisations (CSOs) to conduct community engagement activities. The CSOs have now been selected through an open tender process, and the contracting process is ongoing. Further, several activities were not implemented as planned during the year, mainly because of limitations in mobility due to COVID-19 related restrictions. These activities include:

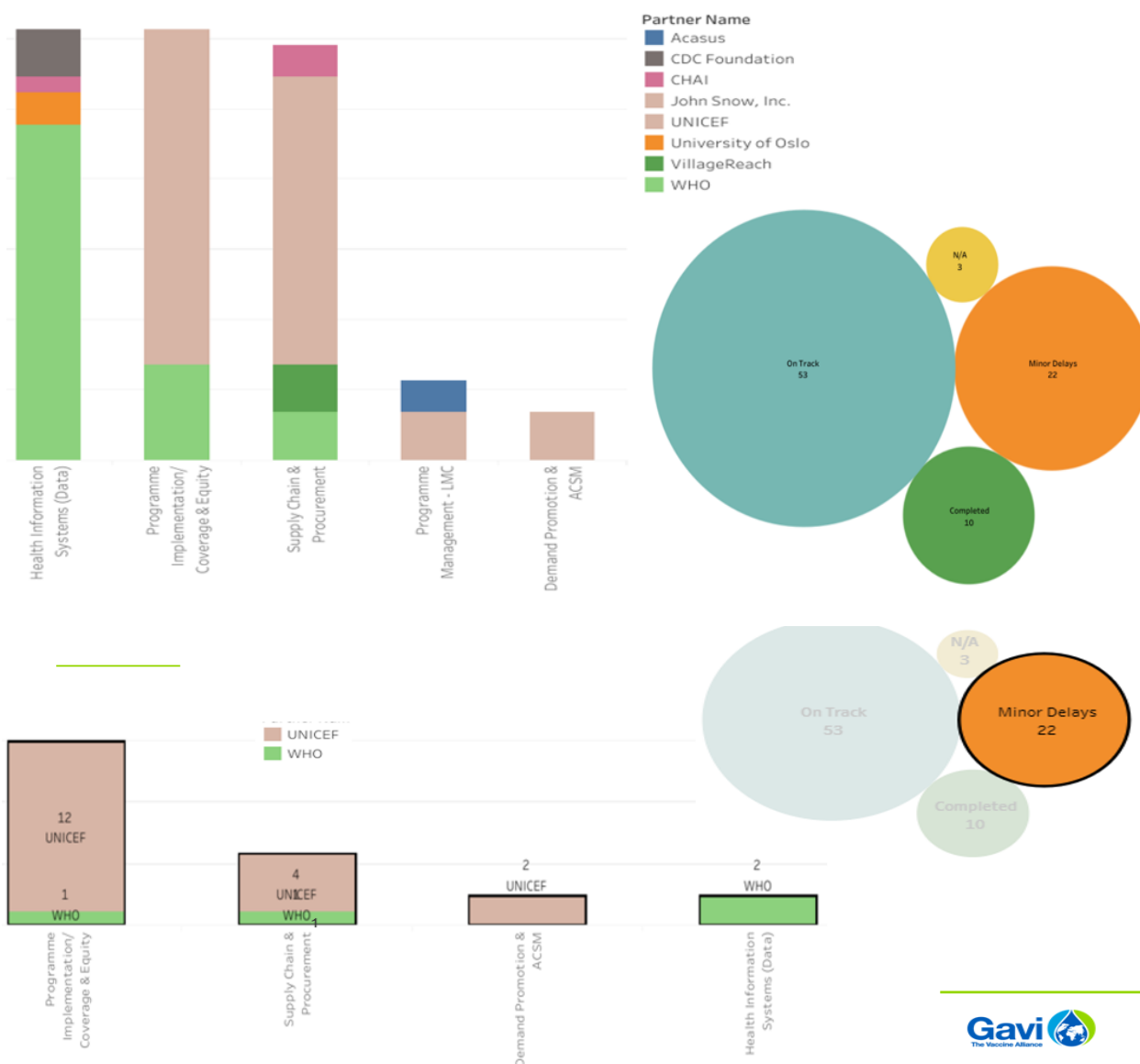
- Health facility Routine Immunization micro-planning
- Implementation of Urban Immunization Strategy in Montserrado, Kakata, Buchanan and Ganta
- Solarisation of the one south-eastern county depot
- Conduct bi-annual Periodic Intensification of Routine Immunization (PIRI) activities

Financial Management Requirements

Four financial reporting milestones fell due during the fiscal year 2019/2020, of which the Ministry met two. Financial reports for the semesters ending 30 June and 31 December 2019 were submitted, and one for 30 June 2020 is outstanding. The audit report for the fiscal year 2018/2019 is also outstanding. The failure to submit this audit report was because the Gavi selected auditor, Moore Stephens was unable to conduct the audit citing resourcing constraints. The process of selecting an alternative auditor was not possible due to the COVID-19 situation. The General Auditing Commission is currently conducting the audits for 2018/19 and 2019/20, and reports will be submitted to Gavi by the revised deadline of 31 December 2020.

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

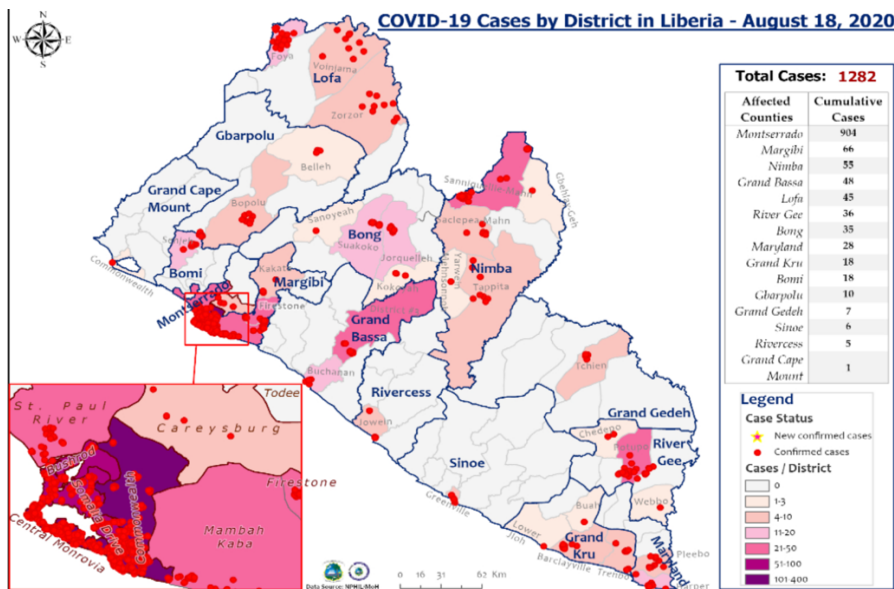
TCA milestone reporting slide by programmatic areas/partners



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

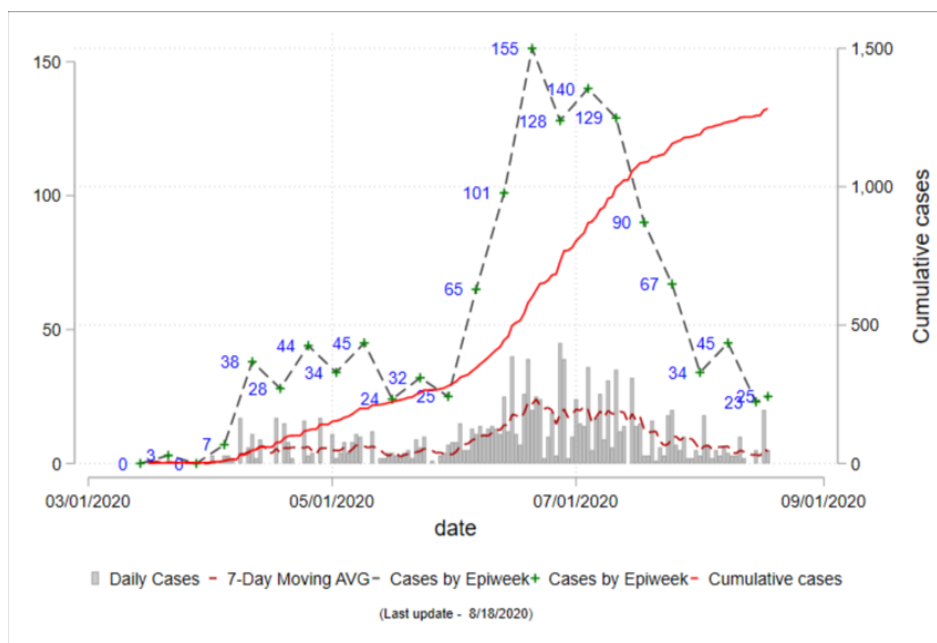
2.1 Chronology of COVID-19 situation in Liberia (cases and deaths)

Liberia reported its first confirmed case of COVID-19 on March 16, 2020, in Monrovia. The Novel Coronavirus Disease 2019 (COVID-19) pandemic continues to take a devastating toll on all sectors of Liberia, especially the economy. This is evidenced by the increasing number of new cases and deaths, although disproportionate across counties; it is imperative to point its impact and morbidity to date. As of August 23, 2020, the country had recorded one thousand two hundred ninety-five (1,290) cumulative confirmed cases, 82 deaths 8,179 contacts with 821 recovered. The below epidemiological curve shows the current COVID-19 situation in Liberia. Montserrat county remains an epicenter with a total of 910 (71%) of the confirmed cases. Amid this, one county (e.g. Gbarpolu) is in preparedness phase, counties with four counties (Grand Cape Mount, Bong, Nimba and River Gee) are completing 28 days countdown with no new case(s) being reported. See figures below:



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Figure 6: Epidemiological situation of COVID-19 in Liberia, March 4 - August 24, 2020



Note: There was a 48.9% reduction observed during the week starting from Sunday, 9th August 2020 as compared to previous week with 45 confirmed cases.

This increase could be due to enhance surveillance conducted in high risk communities. The previous trend has ranged from 155 to 128; 140 to 129, 129 to 90 and 90 to 67; 67 to 34 cases, 34 to 45 and 45 to 23 cases this gone week.

A total of 25 confirmed cases have been reported on day three since the week starting 16th August 2020.

Data is calculated based on WHO-CDC's epi-week which starts on

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

As a result of this devastating effect, immunisation coverage has plummeted with evidence of a considerable number of unvaccinated children which have culminated into outbreaks of vaccine-preventable diseases (e.g. Measles Outbreaks in Bong & Lofa counties). Swift action is required to prevent the emergence of other VPDs and system failures. Some of the system failures include but not limited to:

- Unstable Funding/Donor dependent (extra-budgetary means)
- Unavailability of sustained essential emergency supplies, reporting and data collection tools including lab. Submission forms
- Limited budgetary support for emergencies (i.e. outbreak preparedness and response) that allows more comprehensive response interventions
- Lack of VPD disease-specific contingency plans
- Limited investment in routine AEFI surveillance and mentorship
- Partially paper-based reporting system

2.2 Disease Surveillance and Incidence

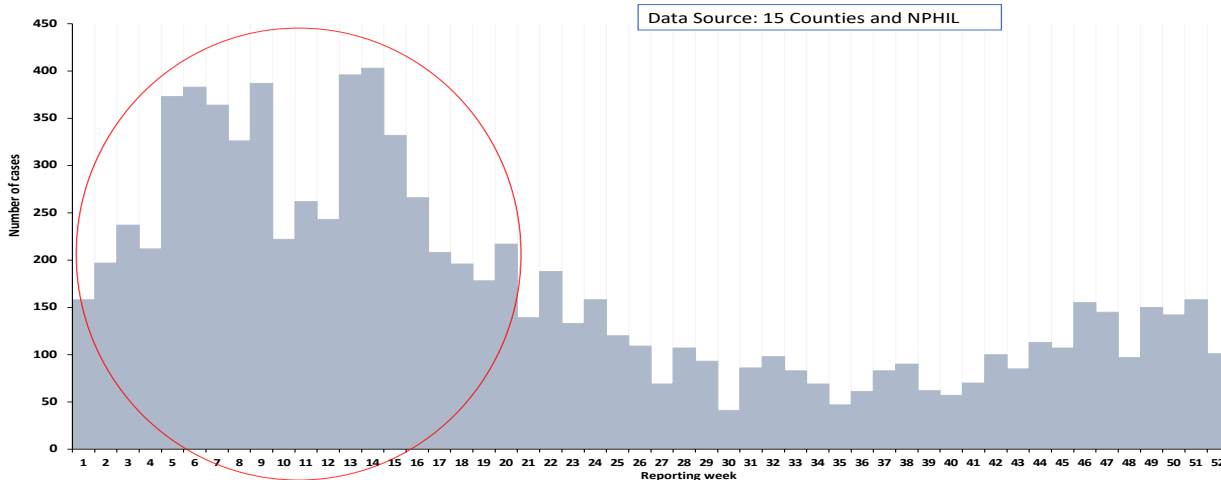
Impact of COVID-19 on disease surveillance and cases

Public health surveillance is an integral part of disease prevention and control as it provides ongoing, systematic collection, analysis and interpretation of health-related data essential to the planning, implementation, and evaluation of public health practice as well as coverage and impact monitoring. Surveillance also guides in making informed decisions on disease prevention and control measures. As a result of the novel coronavirus disease 2019 (COVID-19) pandemic, VPD surveillance has been impacted negatively in many ways, including:

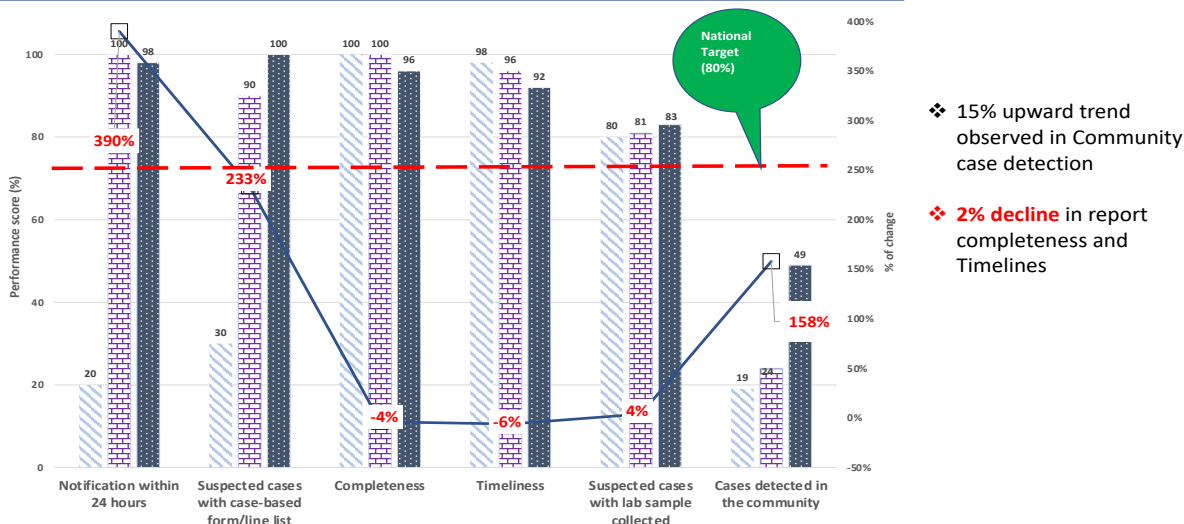
- Reassignment of surveillance officers with different priorities thereby reducing the level of sensitivity and specificity in the timely detection and reporting of VPD cases;
- Lack or limited testing of samples relating to VPDs; reagents and testing capacities;
- Transportation and others;
- Prolongation and increased in the number of unnoticed VPD outbreaks in communities;
- Decline in reporting completeness and timeliness.

The below epidemiological curves provide a picture of the trend of measles in pre and COVID-19 era on the VPD surveillance system.

Weekly Trend of Measles Cases Reported in Liberia, Epi-week 1 - 52, 2016 to 2019



Legend: Week 40, 2016 (baseline), Week 52 2017, Week 52 2018, % of change (baseline vs. 2018)



The figure shows the epi-curve of measles cases by epidemiological week 1-52, 2016 - 2019 with a peak of transmission noted between week 5 and 16. Additionally, there is a 15% upward trend observed in the number of cases detected at the community level with a 2% decline in the timeliness and completeness of report referencing 2018 as the baseline year.

2.3 Impact of COVID-19 on immunisation

The Novel Coronavirus 2019 (COVID-) pandemic is over-stretching health systems and economies of developed, developing and under-developed countries globally at an unprecedented level. This is evident by the rise in the number of new cases, deaths and the downward trend of country economies. With this being said, specific to the health systems, health workers are working round-the-clock to respond to the pockets of outbreaks, putting them at risk of being infected by the coronavirus disease or other diseases and even lead to death. The consequence is the disruption of essential health services and vaccination services which is one of the safest and most cost-effective ways to end vaccine-preventable child deaths.

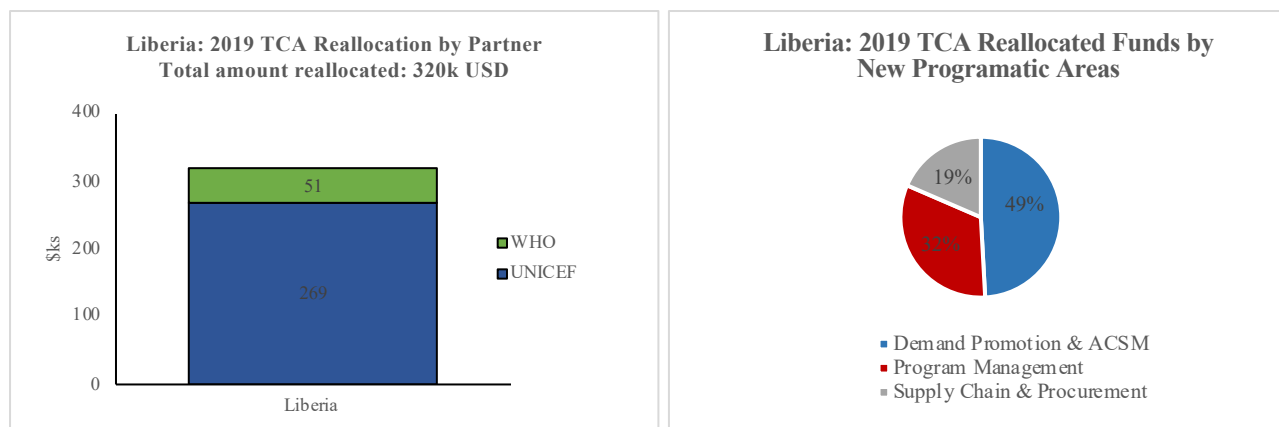
The COVID-19 pandemic has and is providing vivid evidence on the morbidity and epidemic potential of an infectious disease(s) without a vaccine to provide immunity for the population. Though the longer-term trajectory of the pandemic remains uncertain, evidence shows that immunisation services in Liberia have been disrupted by and large due to the coronavirus pandemic. For instance, available empirical evidence suggests an increase in non-compliance and vaccine hesitancy rate by community dwellers, fluctuation in the coverage rates, the number of zero dose, unvaccinated children and high dropout rates, issues relating to coverage and equity, interruption of the immunisation supply chain and logistics, stock management – the risk of stock expiring due to low or under-utilization, outbreaks of some vaccine preventable diseases (e.g. Measles). In addition to mentioned supra, it has brought into the lamplight a sense of financial incertitude due to its impact on the Liberian economy relative to domestic resource mobilisation. Hence, the repercussion of this on the immunisation budgetary allocation could potentially lead to delay in payment of co-financing obligations, thereby seeking donor intervention to write off any debt that may or might incurred.

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

SN	COVID-19 activity	Amount reallocated	Status of implementation
Activity 1	Immunisation Risk Communication Assessment	124,970	Completed
Activity 2	Infection prevention and Control	190,120	Pending
Activity 3	Epi Surveillance, Coordination, Points of Entry	72,131	Ongoing
Activity 4	Support to COVID-19 laboratory services	72,000	Funds have been requested for

2.5 Already agreed modifications in Technical Assistance (if applicable)

As a result of the COVID-19 pandemic, agreed Technical Assistance had to be modified to reflect urgent realities that were confronting Liberia’s Expanded Programme on Immunization. For instance, the coverage and equity analysis support along with funds through the TA support had to be reprogrammed to facilitate the conduct of defaulter tracking training of vaccinators and other service providers; CCEOP project management team monitoring visit during year two installation; production of IEC/SBCC materials for demand generation for immunisation to name a few. While funds WHO supported contact tracers training and motivation in few counties couple with monitoring visits. The below figures provide a detailed breakdown of TCA reallocation by the institution and programmatic areas.



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

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

The immunisation programme conducted a purposive review exercise identify the barriers to immunisation in the COVID-19 context and develop practical mitigating strategies to address them. Amid COVID-19, the following critical mitigating strategies have been implemented as a means of re-activating immunisation service delivery nationwide. This was made successful through the collaborative efforts of all immunisation actors at all levels of the immunisation tiers plus Gavi’s approval to reallocate funds within the HSS grant .

The mitigating strategies introduced to reduce the number of zero dose, and unvaccinated children include but not limited to, the following:

- Conduct of immunisation vaccine perception/risk communication assessment study in two counties (e.g. Margibi and Montserrado). Findings from this exercise were used to develop a costed risk communication strategic action plan. This will help in adequately tackling issues relating directly and indirectly with risk communication.
- Conduct of the first leg of periodic intensification of routine immunisation in 11 counties. Additional two rounds are expected September and November 2020.
- Re-establishment of monthly health facility outreaches
- Supportive supervision from national to county and county to health facilities
- Conduct of desk review for data improvement (planning) with preparation for the field work ongoing
- Working with physically challenged and vulnerable population through the broadening of partnerships
- EPI Desk review exercise completed
- Preparatory works nearing conclusion for the scaling-up of the urban immunisation strategy
- Partnership – working with community health services programme to increase immunisation uptake through the tracking and timely referral of defaulters.
- Development of an electronic vaccine tracking system for real-time immunisation dissemination and action(s)
- Immunisation county engagement meeting
- Mobile payment to reduce transitional time and risk(s)

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The below table provides detailed on pending and ongoing activities gear toward prioritising the reach of zero dose and unvaccinated children with efficacious and potent life-saving vaccines to afford them the opportunity of reaching the full potential.

TASKS	STATUS	2020						2021					
		3rd Quarter			4th Quarter			1st Quarter			2nd Quarter		
		Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Activities													
PIRI	Pending			■			■						
Outreach	Ongoing	■	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨
EPI Review Meeting	Pending			■									
Comm. Action plan	Ongoing			▲	▨	▨	▨	▲					
DIP Assessment	Ongoing			●									
Supervision	Pending					▲						▲	
TCV intro. & Campaign	Pending					▲	▨	▨	▨	▨	▨	▲	
Polio Sub-NID	Pending												
EPI Desk Review	Completed								●				
EPI Review Field Exercise	Ongoing	■	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨	▨

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

There is a need to address barriers to the uptake of and negative consequences of COVID-19 to immunisation across the country. It is imperative that the Programme and partners reverse this unfortunate situation through sustainable immunisation and strategic management approaches at all levels. For the purpose of this multi-stakeholders’ dialogue, technical assistance needs are categorised into three areas, namely, short, medium and long term. Moreover, UNICEF, WHO, CDC, World Bank and expanded partners (PATH, JHPIEGO, JSI, etc.) will continue to provide both technical and financial support to the EPI in its mandate of reducing the morbidity and mortality of vaccine preventable diseases in children, adolescent and women of childbearing ages is restored and sustained.

Technical support will be provided at national and sub-national levels and will include capacity building through skills transfer as well as gap filling and embedded support. With funding from Gavi, The Vaccine Alliance through the Cold Chain Equipment Optimisation Platform (CCEOP) and technical assistance from UNICEF, 103 pieces of solar direct drive (SDD) equipment were procured and installed across the entire country aim at expanding the cold chain capacity at all levels. During the reporting period, both WHO and UNICEF TCA support were amended to address unforeseeable events that occurred as a result of the COVID-19 pandemic thereby impacting the successful implementation of agreed activities within the one TA plan.

Technical Assistance/support Needed:

Short term: EPI review, planning for new vaccine(s) introduction, coverage and equity; implementation of EVM cIP.

- EVM cIP implementation
- Planning for new vaccine introductions (e.g. MR, IPV dose 2, Covax, etc.)
- Temperature mapping of the Central Medical Store (CMS)
- Advocacy, social mobilization and community engagement for new vaccine introduction

- Conduct EPI review and update EPI policy where applicable
- Capacity building for Mid and Lower Level Managers

Medium Term:

- Maintained and reinforce VPD and AEFI Surveillance monitoring within the National Strategic Plan and its enhancement.
- Integration and cost efficiency
- Leverage on CHA platform
- Demand generation for immunisation (DG4I)
- Data quality and use for decision making
- Scaling up of the Urban Strategy
- Establishment of a NITAG
- Operational Research to understand why there are differences in the coverages btw coverages of vaccines administered at the same time, multiple dose administer and why the significant drop out rates between Penta 1 and MCV1
- Advocacy for sustainable immunisation through domestication
- Strengthening of financial management and internal controls in 6 counties (Montserrado, Bong, Lofa, Margibi, Nimba and Grand Bassa)

Long term: Strengthening of immunisation supply chain and logistics and communication for immunisation

- Strengthening of Immunisation Supply Chain Management (iSCM) and logistics for efficiency and un-interruption of the supply chain system.
- Scaling up of the urban strategy in Grand Bassa, Margibi and Nimba counties to reduce the number of zero dose children, unvaccinated and subsequently close the immunity gap created as a result of the COVID-19 impact on immunisation.
- Strengthening community engagements at all levels through sustain public private partnership and civil society organization inclusion.

For demonstrative efficiencies, Technical Assistance (TA) institution will work with the immunisation programme with support from Gavi, the Vaccine Alliance in the following areas based on their proven comparative advantages:

1. World Health Organization (WHO)
 - a) WHO as a core partner will provide technical assistance in data quality and use, surveillance and AEFI monitoring, establishment of typhoid surveillance sentinel site, and the establishment of NITAG
2. UNICEF
 - i. UNICEF as a core partner will provide technical assistance in the areas of communication for immunisation, supply chain and logistics, coverage and equity as well as the implementation of the updated immunisation communication strategy.
3. Other Potential Partnerships identified include:
 - CDC – MR campaign and introduction into routine immunisation
 - PATH – Application and implementation of covax vaccine introduction, monitoring and evaluation
 - JHPIEGO – Increasing uptake for HPV with a focus on school health programming in two counties (Grand Bassa & Margibi) that are densely populated

- Last Mile Health will support EPI/MOH to strengthen defaulter tracking through the use of the CHA platform and real-time vaccine tracking.
- Rocque Advisory - Strengthening of financial management and internal controls in 6 counties (Montserrado, Bong, Lofa, Margibi, Nimba and Grand Bassa)

Roadmap

Empirical evidence clearly demonstrates the over-stretching impact of COVID-19 impact on the immunisation programme of Liberia. Hence, to adequately and robustly recovery address this devastating and unfortunate situation, a more detailed roadmap is being provided in the below table with clear goals or desire outcomes with practical steps on how to achieve them. In addition, it gives insight into the appropriateness of the thinking process and its rationale. It provides further insight on efforts to increase and improve immunisation services through community engagement; multi-sectorial and strong partnership as well as harmonisation of support with all relevant bi-lateral and multi-lateral development partners.

Goal: Improvement in immunisation services and national coverage within the next 10 in 2021.

Objective 1: To achieve at least 85% coverage for DPT 3/ Penta 3 by December 31, 2021.

Objective 2: To reduce the number of zero dose children with an acceptable range of < 10% by December 31, 2021

Roadmap: Improving Immunization Coverage

			Timeline 2020 -2021			
SN	Tasks	Responsible Person / Unit	Q4	Q1	Q2	Q3
1	Ensure that the Communication Strategic Action Plan is implemented fully	Comm Team/Partners				
2	Strengthening community engagement activities for immunisation at all levels	Comm Team/Partners				
3	Conduct periodic intensification of routine immunisation activities in counties/districts/health facilities that are lagging behind	RI Team/Partners				
4	Conduct monthly health facilities outreaches to reduce the number of zero dose/un-vaccinated children in hard to reach/unserved/difficult communities	RI Team/Partners				
5	Strengthening VPD surveillance, AEFI monitoring and outbreak response especially in silent and counties with international borders	Surv. Team / Partners				
6	Strengthening laboratory capacity for testing of VPD	NRL/Partner				
7	Expansion of immunisation cold chain capacity beyond CCEOP to protect the vaccines viability and integrity upto the point of administration	Log. Team / Partners				
8	Strengthening immunisation supply chain, vaccine management and logistics with emphasis on last mile vaccines distribution	Log. Team / Partners				
9	Conduct TCV campaign and introduction					

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10	Training for vaccinators on immunisation in practice (IIP) with emphasis on timely detecting zero dose children, un-vaccinated and data use for decision making	Training Officer / Partners				
11	Support to conduct EPI Review Exercise	EPI Manager / Partners				
12	Data improvement planning implementation	EPI/M&E/HMIS/Partners				