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

Introduction

2020 has been marked by the unprecedented crisis caused by COVID-19. Though the longer-term trajectory of the pandemic remains uncertain, evidence shows that immunisation services in Gavi-supported countries have been disrupted. Millions of people are expected to miss out on immunisation, likely leading to a resurgence of VPDs, further exacerbating existing inequities and putting the most marginalised and poorest communities at greater risk. Gavi-supported countries have already had the opportunity to re-allocate or re-programme[1] existing HSS and TCA support to respond to immediate needs presented by the COVID-19 pandemic. The Gavi Alliance is fully committed to assisting countries to restore immunisation services that have been scaled-back, brought off-track or otherwise affected during the pandemic response.

As an alliance, multi-stakeholder engagement remains key to Gavi's portfolio management approach. It is particularly critical in 2020 as a forum for engagement on how the Gavi Alliance partners and other stakeholders can support countries as they deal with the different phases of the COVID-19 pandemic and seek to maintain and restore primary health care, including immunisation services that have been disrupted. Civil society organisations (CSOs), in particular, will have a vital role to play in engaging communities to rebuild trust and demand, deliver services where there are gaps in government provision and in overcoming gender-related barriers.

Recognising the difficult operating environment and the rapidly evolving landscape currently faced by countries, and to ensure that Gavi's continuing support to the EPI programme is aligned with realities, countries are not requested to conduct a traditional Joint Appraisal in 2020. However, countries are encouraged to sustain the multi-stakeholder dialogue. This dialogue should review the immunisation programme performance in 2019, the impact of the COVID-19 pandemic on immunisation, discuss the needs for maintaining and restoring immunisation services in the context of primary health care, plan for short-term catch-up activities and, where needed, create a roadmap for further re-allocation/planning within the country's recovery plan.

The 2020 multi-stakeholder dialogue exercise

This 2020 multi-stakeholder dialogue exercise will be tailored to the country context, taking into account current constraints in terms of travel, meetings, and workload. The process will involve preparatory work on data for the review, potentially multiple exchanges with at least one event for live discussion (likely a virtual meeting), concluding with the finalisation of a report and relevant additional documents (e.g., workplan and budget for short-term response/recovery activities, roadmap for further planning). The process should be inclusive and transparent, with meaningful engagement of partners and civil society.

The 2020 multi-stakeholder dialogue report is structured as follows

- Section 1: Country situation: overview of performance of vaccine support, HSS grant implementation, PEF-TCA and other Gavi support, up to end of 2019/early 2020; pre-COVID-19.
- Section 2: Update on impact of COVID-19 immunisation service delivery and immunisation coverage (in 2020) and status of the implementation of the COVID-19 recovery plan (if relevant).
- Section 3: Discussion on priorities, immediate catch-up needs, related action plan, estimated budget and technical assistance needs. Roadmap for further analysis and re-allocation/planning in the context of the country health sector recovery plan.

Much of the information contained in sections 1 and 2 on the country immunisation programme and Gavi support is pre-filled by Gavi from existing documents and completed by the country. ;

[1] This document refers generally to the reallocation of Gavi support. Changes might also be categorized as reprogramming which is used for more significant modifications and may require to be reviewed by the Independent Review Committee.

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

*[This section is pre-filled by the Gavi Secretariat. **The main source is the country dashboard**, as well as the analysis slide set prepared by Gavi's Country performance Monitoring and Measurement (CMM) Team]*

Indicator Name	Year	Source	Value
GNI per capita	2019	World Bank	380
Health Centres per 100k population	2013	WHO - GHO	2.3
Nurses/Midwives per 1000 population	2018	WHO - GHO	4.4
Population	2020	UNPD	19,129,955
Surviving Infants	2020	UNPD	618,131
Under-5 mortality (per 1000)	2018	UNICEF	50

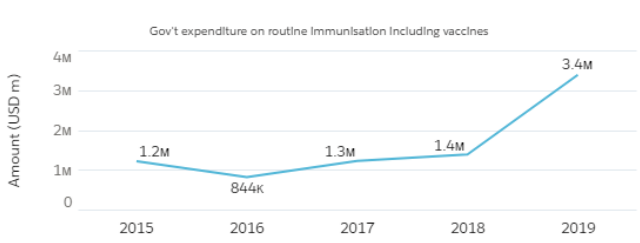


Figure 1:Key national indicators and funding trends

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

Vaccine	Introduction Date	2017 Coverage (%)	2018 Coverage (%)	2019 Target
PENTA	01-2002	88	92	94
PNEUMO	11-2011	88	92	94
ROTA	10-2012	85	90	94
MEASLES	07-2015	83	87	87
IPV	12-2018	-	-	94
HPV	01-2019	-	-	-

Vaccine Name	Type	Sub-Type	Status	CP Date ↑	Phase
IPV	Campaign	Catch-up	Applied	2020-09-30	NA
HPV	Campaign	MAC	Approved	2021-01-31	NA
MR	Campaign	Follow-up	Forecasted	2021-12-31	NA
TYPHOID	Routine	-	Forecasted	2021-12-31	NA
TYPHOID	Campaign	-	Forecasted	2021-12-31	NA
MR	Campaign	Follow-up	Forecasted	2025-12-31	NA
MR	Campaign	Follow-up	Forecasted	2029-12-31	NA

Figure 2: Overview of vaccine support performance

Performance against Alliance KPIs

Indicator	Source Name	Year	Value	Previous Value	Trend
Measles containing vaccine (second dose) coverage at the national level (MCV2)	WUENIC	2019	75	72	▲
Pentavalent 3 coverage at the national level (Penta 3)	WUENIC	2019	95	92	▲
Drop-out rate between Penta1 and Penta3	WUENIC	2019	2.1	4.2	▲
Difference in Penta3 coverage between children of urban and rural residences	Survey	2019	0	0	→
Difference in Penta3 coverage between the highest and lowest wealth quintiles	Survey	2019	0	0	→
Penta3 coverage difference between the children of educated and uneducated mothers/care-takers	Survey	2019	0	0	→
EVM	EVM	2016	90.4	86.9	▲
# of Underimmunised Children	Calculated	2019	30313.95	47653.84	▲

Figure 3: Performance against Alliance Key Performance Indicators

Trends and district equity

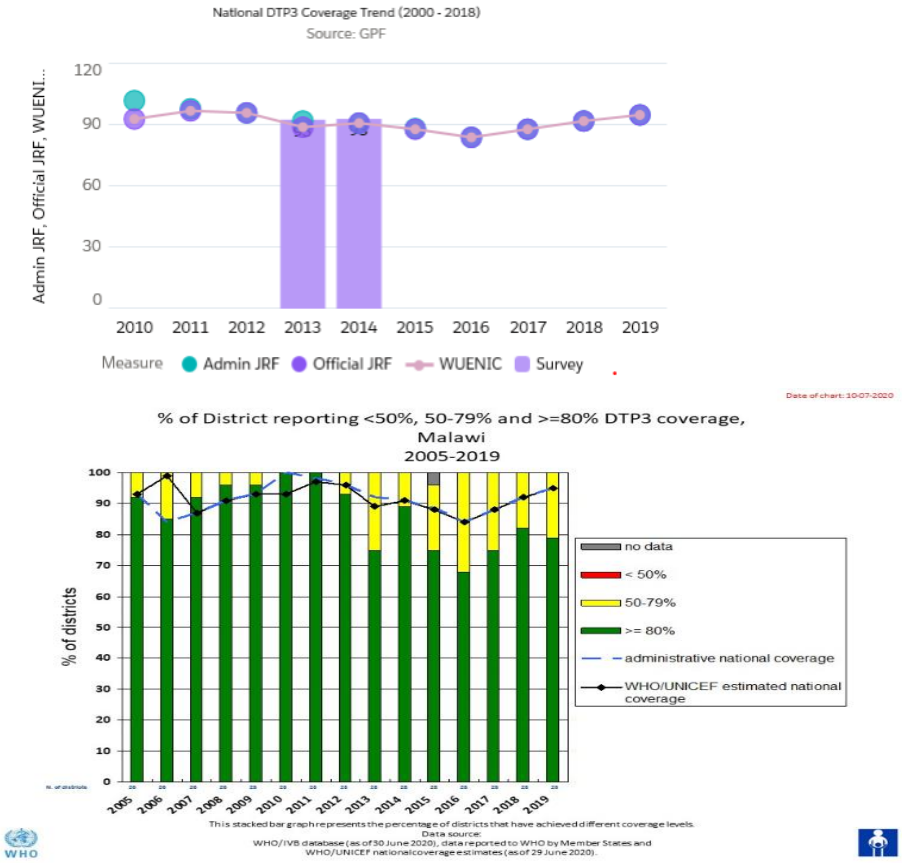


Figure 4: Coverage Performance and district equity

Progress against indicators and targets achievement - done

Table provided by CMM

Vaccine Programme	Source (2018)	Intermediate results Indicator	Reported actuals	Rel. % change
PNEUMO	Admin (JRF)	Number of surviving infants who received the first recommended dose of PCV vaccine (PCV1)	692,714	8%
	Admin (JRF)	Number of surviving infants who received the third recommended dose of PCV vaccine (PCV3)	666,306	8%
PENTA	Admin (JRF)	Number of surviving infants who received the first recommended dose of pentavalent vaccine (Penta1)	694,746	7%
	Admin (JRF)	Number of surviving infants who received the third recommended dose of pentavalent vaccine (Penta3)	665,796	9%
MCV	Admin (JRF)	Number of children in the target population who received the second recommended dose of measles containing vaccine (routine) (MCV 2)	501,181	10%
	Admin (JRF)	Number of surviving infants who received the first recommended dose of measles containing vaccine (MCV1)	632,972	9%
IPV	Admin (JRF)	Number of surviving infants who received the first recommended dose of IPV	NA	NA
All others	EVMA Reports	Effective Vaccine Management Score (composite score)	NA	NA
	JRF	Occurrence of stock-out at national or district level for any Gavi-supported vaccine	No	NA
	Admin (JRF) & Survey	Percentage point difference between Penta 3 national administrative coverage and survey point estimate	NA	NA

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

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

1.2.1 HSS implementation summary (as of 30June 2020)

Table 1: Overview of the Gavi HSS Grant Implementation

Recipient	Grant Amount	Funds Disbursed	Expenditure	Country cash balance
MoH/PIU	[redacted]	5,185,246	4.223,079	132,220
UNICEF		9,110,450	5,541,838	3,134,780
UNICEF SD		633,521	633,521	0
Total	**49,000,000**	**14,929,217**	**10,398,438**	**3,267,000**

1.2.2 Budget monitoring Expenditure

Funds for Gavi financial grants to Malawi (except for procurement carried out by UNICEF) is disbursed to the Project Implementation Unit (PIU) at the Ministry of Health (MoH). The PIU uses Malawi Government and its own operational procedures to manage Gavi programs, including involvement of the Fiscal Agent, to ensure compliance with Gavi requirements. ((Partnership Framework Agreement – Annex 6 (GMR)).

The MoH Global Fund and Gavi PIU therefore has grant management responsibility on behalf of the Ministry of Health.

The total Health Systems and Immunisation Strengthening grant for the period 2018 to 2023 was USD41, 160,000.00 adjusted to USD49, 000.000.00 after reprogramming.

For the period under consideration (July 2018 to March 2020) the total budget for the PIU was USD12, 840,711, however the total funds that had been disbursed by Gavi amounted to USD 5, 185,246.00.

It should be noted that the disbursed amount was meant to be utilized in year 1 only, however due to low utilization rate the funds were carried over to year 2.

The PIU works with implementing entities and sub grantees as follows;

- Internal Implementing Entities (these are MoH departments and sections i.e. EPI,NCHS, CMED, Internal Audit, Environmental Health, Health Education Unit and MoH Finance)
- Sub Grantees (these are partners engaged by the MoH to implement specialized activities and these are College Of Medicine and MHEN.

The individual performance of the implementing entities for the period under review based on the funds disbursed is as follows;

Table 2: Breakdown of funds utilisation for HSS Implementing Entities Supported by MoH Project Implementation Unit

Implementing entity	**Budget amount (July 2018 – June 2020) USD**	**Incurred expenditure (USD)**	**Absorption rate %**
MHEN	992,830	928,807	93
NCHS	436,035	288,794	66
EPI	888,266	935,884	105
HES	135,099	25,946	19
MOH Finance	0	16,934	
COM	170,574	349,018	205
CMED	1,069,342	640,635	60
INFRASTRUCTURE	617,033	6,051	
ENV. HEALTH	284,962	85,343	30
PIU	591,145	945,100	160
Total	**5,185,286**	**3,531,346**	**81%**

HSS key milestones achieved in 2019

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

	Process Indicators			Intermediate Indicators		
Objective	**Indicator name**	**Value**	**Relative change**	**Indicator name**	**Value**	**Relative change**
OBJ 1	Proportion of children vaccinated for Penta3 in outreach sessions	52	2%	Number of new under 5 shelters/village clinics	29	NA
	Proportion of health facilities (higher than health posts) with incinerators	72	NA	Proportion of dropped (outreach) immunization sessionsÂ	4	-100%
				Proportion of health facilities with access to solar energy		NA
				Total number of outreach sessions performed	57162	-5%
OBJ 2	Proportion of facilities reporting data monthly (Completeness of reports)	98	-2%			
	Proportion of health facilities reporting data to districts on a timely basis. (12 times per year by the 5th of the month).	93	1%			
	Proportion of health facilities reporting data to districts with electronic data systems.	25	NA			
OBJ 3	Proportion of health facilities with functional CC prequalified refrigerators	95	-1%	Number of SCM staff and CC technicians trained.	89	14%
	Number of health workers trained in vaccine management	0	NA	Proportion of prequalified refrigerators that have functional continuous temperature monitoring devices	100	0%
OBJ 4				Proportion of national health budget (government financing) disbursed for immunisation programme	5	18%
				Proportion of total EPI expenditure that comes from the government	2	0%
OBJ 5				Proportion of facilities receiving at least 9 supervised visits using Integrated supervision checklist. (from district reports)		NA

Indicator type	CCEOP indicator	Value	Rel. % change
Core	CCE expansion in existing equipped sites	NA	NA
	CCE extension in unequipped existing and/or new sites	0	-100%
	CCE replacement/rehabilitation in existing equipped sites	NA	NA
	Freeze-free to non-freeze-free carrier ratio	NA	NA
Tailored	Full stock availability	100	NA
	Functional status of cold chain equipment: Ratio of functional CCE	95	14%
	Number of CCE devices with temperature excursion	NA	NA
	Number of cold chain equipment maintained through Planned Preventive Maintenance at all levels of supply chain	NA	NA
	Proportion of health facilities with functional CC prequalified refrigerators	95	-1%

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

1.3 Overview of other Gavi support, such as VIGs, OPS, PBF, switch grants, transition grants etc. (as applicable) (as of 30 June2020)

Table 3: Overview of other Gavi Supports

				In US$				
	Start Date	End Date	Recipient	Grant Value	Disbursed	Expenditure	Cash balance	Status Update
HPV VIG	2018	2020	MOH	674,500	674,500	619,790	55,148	
IPV VIG	2016	2019	MOH	273,100	273,100	71,557	201,543	
PBF	2019	2019	MOH UNICEF	3,191,970	0	0	0	
CCEOP	2017	2021		4,481,534	3,417,202	3,417,202	0	

1.4. Compliance, absorption and other fiduciary risk matters

- Comments on financial absorption as of 30 JUNE 2020:
  - 30 June 2020 marked two years of HSIS grant management by the Ministry of Health Global Fund and Gavi Project implementation Unit (MoH PIU).
  - Gavi disbursed USD5,185,246 in May of 2018.
  - These funds were to be utilised for year 1 as per the budget, however due to a number of factors only 33% was expensed in year one and the 67% was carried forward to year 2.
  - 81% of funds had been expensed as of 30 June 2020, 16% had been spent by the programs, however, it was yet to be expensed.
  - This represents a 97% absorption rate on the USD 5,185,246 disbursed by Gavi.

- Compliance with financial reporting requirements (periodic/annual financial reports, audits):
  - The MoH PIU prepares quarterly financial reports to Gavi, every 45 days after the end of the quarter. MoH PIU with has provided all quarterly financial reports to Gavi on time with exceptions of quarter ended 30 September 2019 and 31 December 2019.
  - MoH PIU submitted on time both yearend reports for both year 1 and year 2.
  - An external audit report for the year ended 30 June 2019 was submitted to Gavi in May of 2020, this was four months late than the required 31 December 2019. The reasons for the delay were communicated to Gavi in writing and a time frame for the audit report to be submitted was agreed.
  - The external audit report for the year ended 30 June 2020 is expected to be submitted to Gavi on time as the audit process is underway.

- Compliance with programmatic reporting requirements:
  - The Country prepares annual report on Joint Reporting Form with all EPI indicators. The JRF is reviewed by WHO & Unicef before final submission. The JRF of 2019 was submitted in March 2020.
  - 2019 GPF was reported and country desk review was submitted through the Gavi portal though submission was made late due to preoccupation with COVID 19 pandemic related activities.
  - The HPV campaign report was supposed to be submitted three months after the campaign. However, the submission was done late because the programme was preoccupied with COVID 19 pandemic related activities.

Table 4: Other Financial Management and Fiduciary Risk Matters

Challenges Identified	Detailed description	Risk category	Risk rating	Mitigation measures by FA
Overdue Advance Liquidations	Our records indicate that PIU has a substantial amount of overdue fund under the HPV, dating back to January 2019 and 2020.	Fiduciary risk – PIU stands with the risk of financial liabilities for these transactions, as the likelihood of securing liquidation becomes uncertain 10 months after conclusion of the HPV campaign.	High	FA has engaged PIU on this matter. PIU has since deployed teams to the concerned districts for evidence collection. We have also recommended suspension of payments to the officers involved.
	A number of central MOH staffers do stand with overdue advances under the HSIS, each over US$10,000, including those who are no longer with the PR.	Fiduciary risk – PIU stands with the risk of financial liabilities for these transactions, as the likelihood of securing liquidation becomes uncertain, given the protracted period of time.	High	PIU has made commitment to follow these up with MOH senior leadership team. Concomitantly, FA has recommended suspension of payment to any member of staff with an outstanding liquidation.
High staff turnover – PIU Head of finance and Procurement Specialist	Lack of adequate technical leadership within PIU Finance is adversely affecting overall performance of Finance Team	Financial reporting risk – This could lead to inadequate grant financial reporting and accountability (lack of proper oversight and quality control). Procurement processes have also been affected (heavy procrastination and non-compliance) -	High	FA currently assumes the review and quality control functions. We are also actively engaging PIU in order to ensure timely and compliant procurement processes.

		value for money into questioning.		
Lack of proper policy guidance on accounting systems management	The existing FM policy manual lacks adequate description of controls applicable to system access and administration.	System Integrity and Operational Risk – The lack of dedicated sections in the FM manual has affected the integrity of accounting data and financial reporting (accounting entries are prone to human manipulation due to inadequate system controls).	High	FA is currently joining efforts with PIU management for the recruitment of an external service provider that will be responsible for a comprehensive system upgrade. The teams are also actively working to revise the FM manual for the integration of missing critical control sections.
Low financial absorption under HSIS grant	The resources under HSIS grant managed by PIU are heavily underutilized. This could potentially lead to loss of much-needed resources for the country's healthcare service delivery.	Financial and Operational Risk This could potentially lead to loss of much-needed resources for the country's healthcare service delivery.	High	FA recommends a robust overhaul of existing planning and coordination between PIU/MOH and Gavi. Most specifically, the channels of coordination between PIU, Programme and decentralized levels should be thoroughly recalibrated, in order to ensure effective grant implementation and enhanced financial absorption.

1. **Overview of PEF TCA progress-** Total milestones for Malawi TCA (June 2019 – June 2020) by programmatic area and status

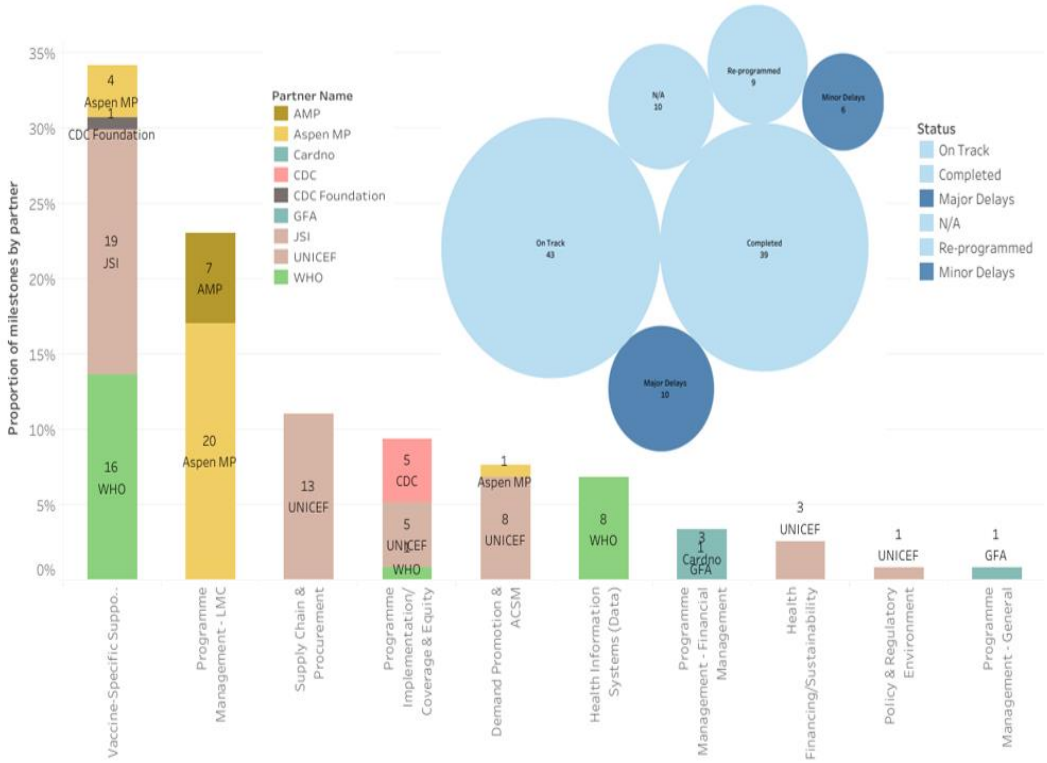


Figure 5: PEF TCA milestone progress

2. Total number of delayed milestones (16/117) for Malawi TCA (June 2019 – June 2020)

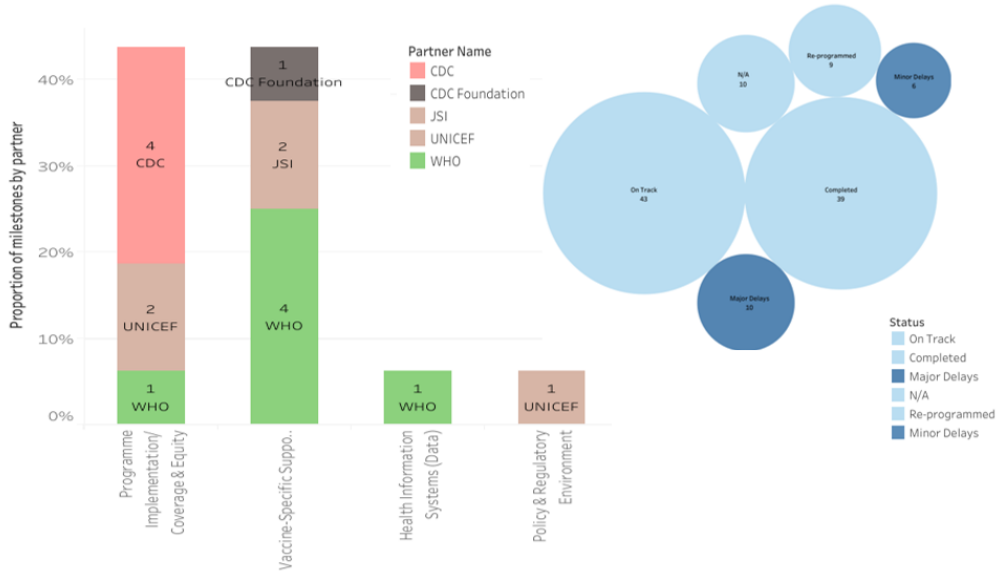


Figure 6: Number of delayed milestones

One TA Plan – UNICEF/WHO

The 2020 one TA plan was based on discussions and deliberations at the Joint Appraisal (2019) and reflections on key challenges affecting the EPI program in Malawi. It covers 4 broad areas namely: 1) Vaccine forecasting and management, 2) 2YL Demand creation: 3) Data Quality Improvement: A data quality assessment (DQA) was conducted in 2019 and preliminary findings revealed the need for harmonization of paper data tools and. 4. Adverse Events Following Immunization (AEFI). The proposed activities for 2020 are aligned with other planned investments for health sector strengthening by complementing already existing efforts for instance, the health information strengthening components will build on the capacity strengthening for human resource to be able to use EPI data in the DHIS2 following the complete migration of EPI reporting system from DVDMT to DHIS2.Further,the proposed harmonization of EPI data tools is aligned with data quality improvement plan and other plans by CMED and MOH community health department to develop user friendly and comprehensive EPI data collection tools. Other planned activities (MOV,2YL, EPI social mobilization) have been informed by the bottleneck analysis, KAP and pilot implementation studies which were conducted under HSS and previous TCA plans.

UNICEF has been responsible for the implementation of TCA activities related to its areas of comparative advantage and expertise notably Advocacy, Communication & Social Mobilization (ACSM), Programme Implementation/Coverage & Equity, Supply Chain & Procurement, Health Financing/Sustainability. While COVID-19 affected the implementation, so far, several activities have either been completed or are on track. For instance, three national stations and 22 sub-national media houses aired programs promoting routine immunization including 2YL and MAC vaccination. This was achieved through integration with other MNCH interventions that creatively weave immunization with other MNH messages. In addition, UNICEF has supported the capacity development and skills transfer of Health Workers on IPC for immunization - Health workers in 10 low performing districts were trained in Interpersonal Communication (IPC) to improve uptake of vaccination. These included District Health Promotion Officers (DHPOs) who were trained on using a full IPC package and Health Surveillance Assistants (HSAs) who were orientated on using selected interactive tools from the package.

UNICEF also continued providing on-going TA support for skill transfer to EPI unit of the Ministry of Health to strengthen immunisation cold chain supply management including EVMA support, solarization of health facilities and monitoring of CCEOP project progress. Monitoring and reporting of vaccine cold chain management including preventive maintenance of cold chain equipment (CCE installed under CCEOP). For instance, we are currently cleaning data on IMT following updates that have been ongoing. The final updated Inventory Management Tool (IMT) was prepared and final version was shared at the end of June 2020. UNICEF has also supported Ministry of Health in Operational Deployment Plan 2 preparations as installation is to take place soon. Currently supporting Ministry of Health in development of ODP3,4&5.

The planned EVMA and CCEOP Post Installation Inspection that was conceived to be supported by UNICEF RO and Supply Division has been delayed due to COVID-19 and is expected to now be conducted in the first quarter of 2021. TA to conduct Vaccine Wastage Study for new vaccines (Rota, PCV, IPV) to provide evidence and basis for quantification and allocation of vaccines to districts and health facilities is also delayed.

The development of the urban immunization strategy which was part of the 2019 TCA plans under UNICEF has also been delayed. The original plan was to engage an international consultant to support the MOH in developing this important strategy in view of recent declines in immunization coverage in urban areas. However, flight restrictions resulting from global impact of COVID-19 meant this was not feasible and the recruitment process had to be revised to accommodate a local consultant. This has now progressed and a consultant has been recruited and expected to complete the assignment in the first quarter of 2021. Subsequently, UNICEF will support the MOH in plans to implement REC microplanning in two urban settings namely Lilongwe and Blantyre as part of the 2020 TCA.

WHO's responsibilities under the TCA cantered around supporting improvements in EPI data reporting, data quality and AEFI reporting; reducing missed opportunities for vaccination in the second year of life; programme reviews to inform decision making and applications for new vaccine introduction and supplemental immunisation activities.

Training of district investigation teams on systematic investigation of serious and severe AEFIs was completed in August 2019 with teams of three participants per districts from all the 29 districts.. Continued feedback and support to keep the investigation teams vibrant is required.

Development of national data quality improvement plan (DQIP) has delayed. However, some proceeding milestones have been achieved including conducting of data quality review (DQR). The DQIP will be informed by results from the DQR focusing on bottlenecks to be addressed and strengths to be sustained. External technical assistance was required to support development of the DQIP but could not be obtained due travel restrictions in view of the COVID-19 situation.

Capacity building on MOV/2YL strategy and checklist to identify and vaccinate children who missed immunisations has not yet been done. However, MAITAG gave a positive recommendation regarding MOV/2YL in March 2020, the necessary job aids have been developed and project activities are in place.

The EPI Comprehensive review and IPV PIE was postponed to 2020 TCA plan due to funding gap which was a result of under budgeting. Development of concept notes and tools for the activity which are milestones for the technical support were also postponed for the 2020 TCA plan.

The WHO technical support for Typhoid vaccine application was carried forward to 2020 TCA plan. The application was submitted to Gavi in September 2020. Technical support was led by PATH. WHO provided support at all levels. WHO led the technical support for submission of MR supplementary immunization application to GAVI

The HPV PIE was conducted in January 2020. The findings have informed the draft National HPVV roll out strategy.

JSI TCA Support

In the period under review, JSI Malawi support (global level multi-country TCA) in the introduction of HPV vaccine under components of planning and coordination, communication and social mobilization, monitoring and evaluation. In the planning and coordination, JSI, supported planning and co-facilitation of National Task Force meetings in preparation for January 2020 vaccination and adoption of new strategy, setting of mapping and verification of eligible girls` at the district level, and revised microplanning tools according to the new strategy. In preparation for the HPV routinization, JSI supported the drafting of HPVV routinization concept note as guided by stakeholders' workshop. TA was also provided to integrate HPV into the routine immunization micro plans to allow mapping of girls and HPV microplanning done together with the RI microplanning process.

The outcomes from these activities were updated timelines which guided implementation of activities, NTF meetings took place as planned and new strategy adopted which provided direction to the implementation of the second round of HPV vaccination, eligible girls were identified in all schools and some communities. Due to the verification exercise, the mapping target in 2020 was lower than NSO target (287,732 against 264,969), unlike in 2019 when mapping target was higher than the NSO target. See Figure 7 below. Using these targets micro plans were developed which guided the implementation and a workplan for routinization is in place.

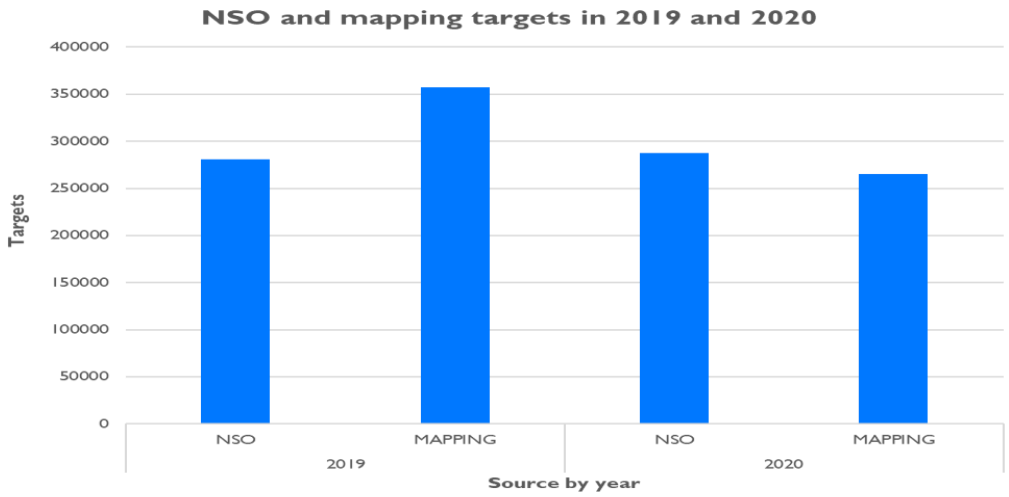


Figure 7: Comparison of NSO and mapping targets

Under communication and social mobilization JSI in collaboration with other partners, supported review of communication messages in relation to the new strategy, monitored availability of the materials in schools and facilities and supported orientation of district spokespersons and media personnel. This support contributed to production of Communication materials which were available in all health facilities and schools, airing of HPVV jingles before and during vaccination. Interpersonal Communication (IPC) done by some health workers and teachers in health facilities and communities. Risk communication done where myths arose. These outcomes led to massive dissemination of key HPVV messages, resulting into high demand for the vaccine, with few refusals.

To build the capacity of health workers and teachers to deliver the new HPV vaccination strategy, JSI revised the training materials**.** co-facilitated TOT training sessions and supervised district level trainings in some districts, conducted supervision visits during HPV vaccination and routine immunization supervisory visits to provide mentorship.

Under the monitoring and evaluation component, JSI supported the WHO led PIE exercise, which identified strengths and weaknesses that led to recommendations for future rounds of HPV vaccinations in the country and even beyond Malawi. After vaccination, JSI supported data collection from the districts and followed up with districts that submitted data late, analyzed the data, provided feedback to districts, and shared the data with stakeholders. Coverage for HPV 1 was 78% and HPV 2 was 73% with a Drop Out Rate of 13%. After the vaccination exercise JSI led a post-vaccination visit to poor performing districts. . The objective of the post vaccination visit was to assess factors contributing to low coverage and explore possibility of conducting mop ups. All the schools and health facilities visited accepted to continue with vaccination to reach the remaining girls**.** JSI also assisted in preparing the HPV introduction lessons learnt report in collaboration with other partners**.** The report also made recommendation on HPV routinization in the country. This report will assist in the introduction of other new vaccines involving adolescents in the country.

The challenges faced during this period include funding gaps leading to delays in revision of HPV vaccination strategy and implementation of preparatory activities. Teachers' sit-in affected vaccinations in the first week and poor quality of cascade trainings at district level. There were also reports of refusals by some parents to have their girls vaccinated due to misconceptions.

Using lessons learnt during the introduction phase, JSI will support the routinization of HPV vaccination with a focus on planning for routinization of HPV vaccinations in 2021, review of social mobilization materials, capacity building of health workers and teachers on routinization strategy, mentoring health workers on identification of eligible girls through proper mapping and mapping verification, timely data

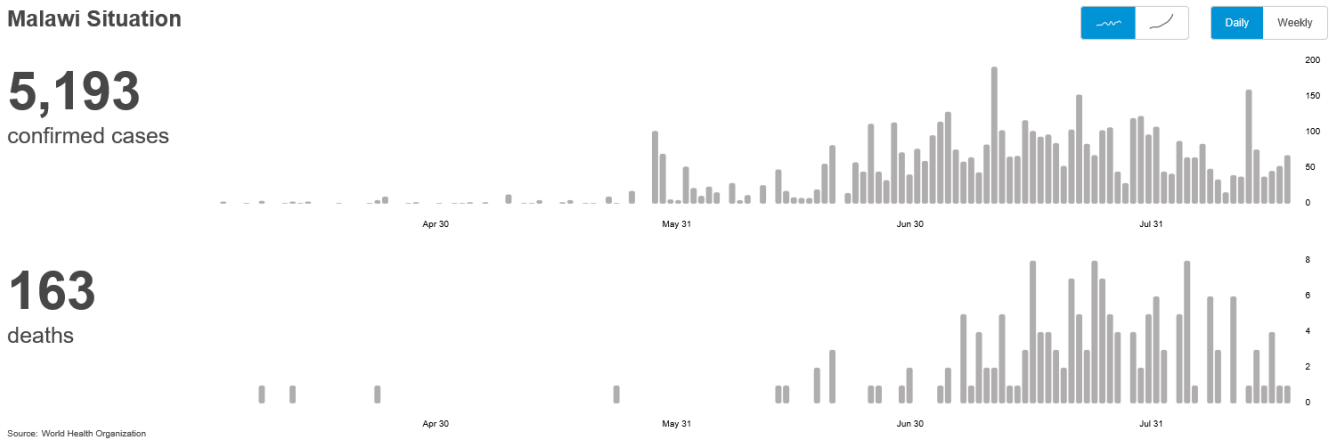
analysis at all levels, integration of HPVV microplanning into the routine micro plans. This will be implemented under a no cost extension of HPV 3 contract

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

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

2.1 COVID-19 cases and deaths (as of 20 August 2020) - done

In **Malawi**, from **Apr 3** to **10:28am CEST, 20 August 2020**, there have been **5,193 confirmed cases** of COVID-19 with **163 deaths**.



2.1 Overview of COVID-19 situation in Malawi

On the 2nd April 2020, Malawi registered the first cases of COVID-19. As of 04th December, 2020, **6,047 COVID-19 cases** have been detected including 185 deaths (141 males, 44 females – one pregnant), in all the districts (Figure 8). Cumulatively, 5,472 cases had recovered bringing the total number of active cases to 44 with some lost to follow up cases. The average age of the cases was 36.7 years, the youngest case aged 1 month, the oldest 98 years and 68% were male.

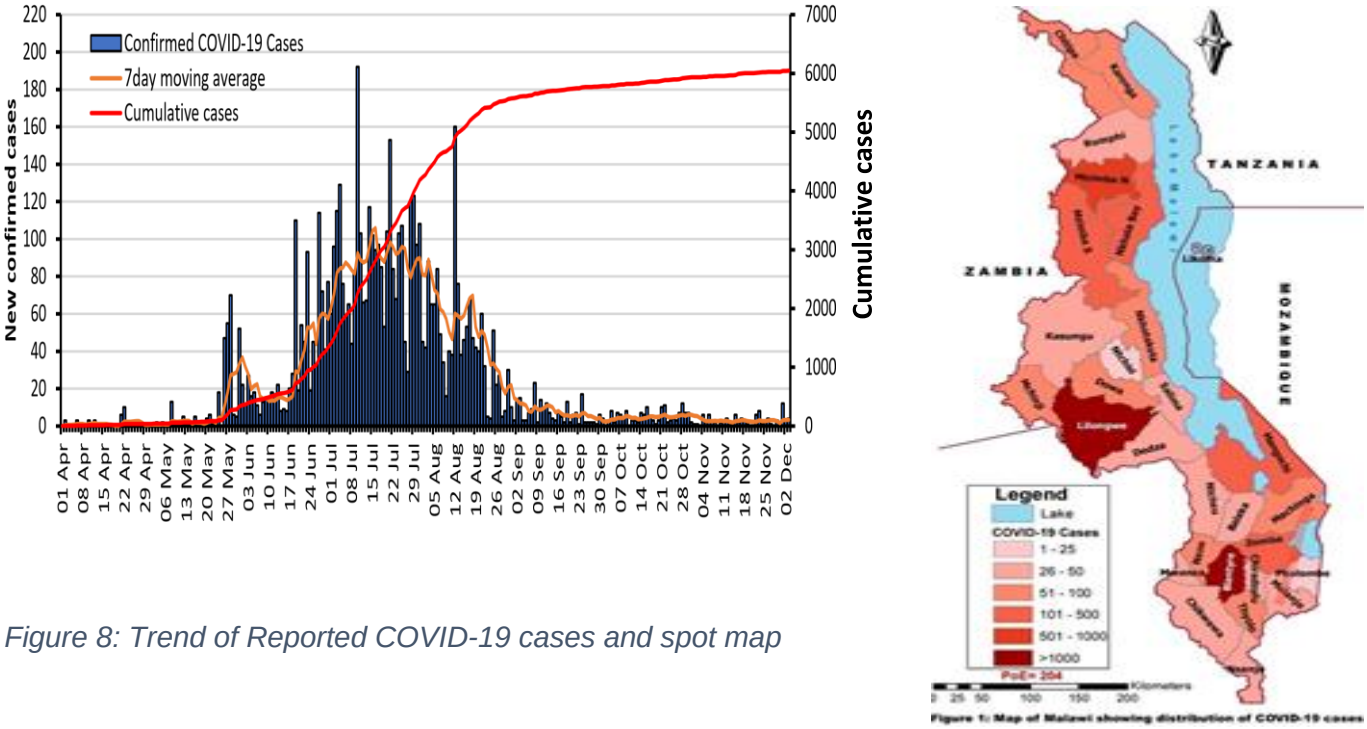


Figure 8: Trend of Reported COVID-19 cases and spot map

2.2 Disease Surveillance and Incidence

[https://www.who.int/immunisation/monitoring_surveillance/data/en/]

The Expanded programme on Immunization operates under the disease control unit in collaboration with the Public health institute of Malawi (PHIM). The main functions of the unit include; conducting disease surveillance and International Health Regulations (IHR)activities using the Integrated Disease Surveillance and Response (IDSR) strategy, outbreak investigation and response in collaboration with the public health reference laboratories. Malawi is committed to eradicating polio, eliminate Measles and sustaining Maternal and Neonatal Tetanus (MNT) elimination. The strategies to achieve these goals include sustaining high routine immunization coverage, strengthening disease surveillance and conducting periodic immunization activities.

There has been notable improvements in the reporting rates in terms of timelines and completeness of surveillance data comparing January- September 2019 to January to September 2020.lReporting rates will continue to improve due to the pilot introduction of the digital reporting that was initiated in 2017 and has been cascaded to all facilities in the country this year. Other surveillance aspects had benefited from the implementation of different activities during COVID 19 such as briefing of National and district rapid response teams and cross border meetings.

Malawi is committed to eradicating polio, eliminating Measles and sustaining Maternal and Neonatal Tetanus (MNT) elimination. The strategies to achieve these goals include sustaining high routine immunization coverage, strengthening disease surveillance and conducting periodic immunization activities

2.2.1 Acute Flaccid Paralysis:

The country achieved its targets for the two main indicators for AFP surveillance of non-Polio AFP rate and stool adequacy at 2.0/100,000 and 89% respectively in 2019. Despite achieving great strides in AFP surveillance nationally, there was one silent district (Likoma) that did not report any case of AFP. Also, eight districts-Dedza, Dowa, Lilongwe, Mangochi, Mzimba, Nkhotakota, Salima & Thyolo did not attain the required reporting rate of 2/100,000. In January- September 2020, the Non-polio AFP rate is at 1.4 and stool adequacy at 82%. Only 7 out of 28 districts attained the non-Polio AFP rate of 2/100,000 and no compatible case has been registered.

Districts that have met both AFP key indicators (NP-AFP rate & stool adequacy), 2018- Jan-Sept. 2020

2018 2019 2020

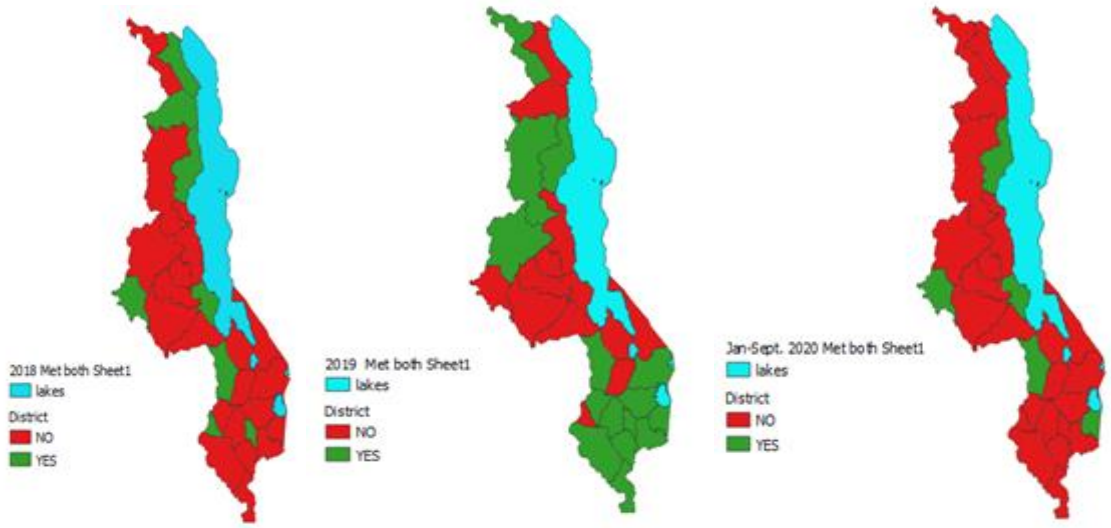


Figure 9: NP-AFP rate and stool adequacy 2018 – Jan-Sept 2020.

2.2.2 Measles Surveillance:

About 267 suspected measles cases were reported in 2019. In the past five years there has been an increased number of Rubella positive cases diagnosed as compared to measles positive cases except 2019 where 17 measles cases and 8 rubella cases were detected. In 2018 and 2019, 11 and 8 Rubella positive cases had been reported respectively as compared to 1 measles positive cases in 2018 and 17 measles positive cases in 2019. The country has reported measles outbreaks at Balaka in 2019 and no other outbreak in over the past five years and has sustained measles-Rubella 1 coverage of ≥ 80 % at national level.

In 2019, the country attained annualized non-measles febrile rash illness of 1.4 and 79% of districts had reported at least one case of suspected measles case. In January to September, 2020, 46 measles suspects were reported, only 1 case was found to be positive and no rubella positive case was found. Sixteen (57.1%) districts, see figure 10, have reported at least 1 measles suspect. There has been a decrease in number of suspected Measles cases reported in 2020 compared to same period in 2019 and resulting in few cases being tested at the laboratory.

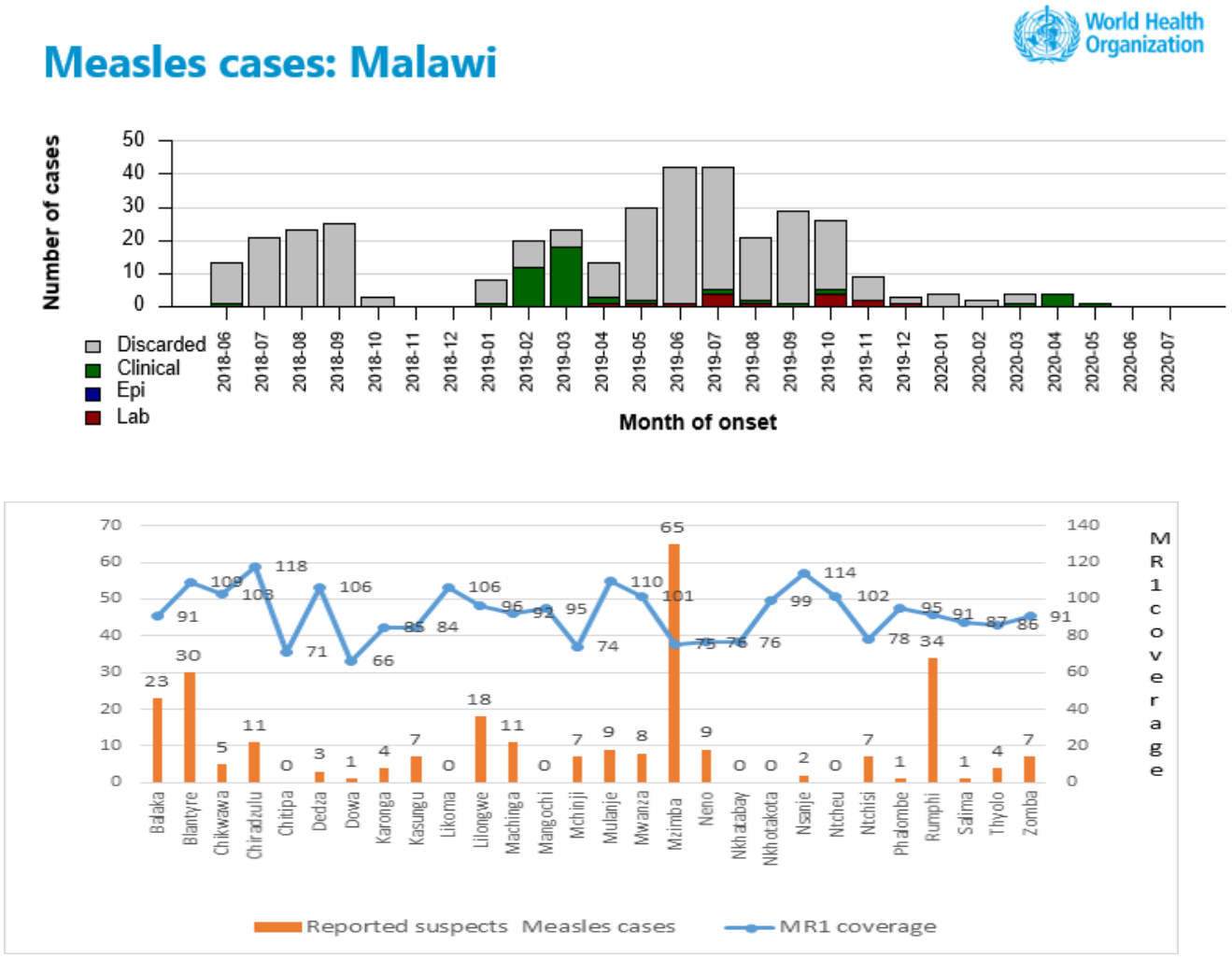


Figure 10: Triangulation of MR 1 coverage with reported Suspected Measles cases by district, 2019

Among the key successes we registered in the area of VPD surveillance in the country is the establishment of remote surveillance through WhatsApp groups to assist monitoring performance in the COVID context. Since 2017 to date the country has achieved stool adequacy above the standard of 80%. Active search was carried out by national level officers in high and medium surveillance priority sites. The program conducted disease Surveillance facility-based briefings. and active search visits was carried out by national level officers in high and medium surveillance priority sites.

2.3 Impact of COVID-19 on immunisation

Impact on Health care services and immunization

According to the Primary Health Care Performance Initiative, some routine services have been interrupted in some health facilities during the outbreak to decongest the facilities or due to lack of personnel (diverted to respond to COVID-19), temporary interruption of support (by NGO for instance) or fear from patients to be exposed to COVID-19 while seeking care. In some facilities, routine growth monitoring of infants and children or vaccinations have been disrupted. Non-emergency procedures were put on hold and referrals to central hospitals for higher levels of care have drastically been reduced. This can significantly delay diagnosis and or treatment[2].

A model analysis conducted by Global Financing Facility estimated that COVID-19-related disruptions due to barriers to the supply and demand for services could leave many women and children without access to essential services (such as oral antibiotics for pneumonia for children, vaccinations, no access to facility-based deliveries, no access to family planning services) and result in increased maternal and child morbidity and mortality, estimated by 42 percent and 66 percent over the next year, respectively[3].

The Government of Malawi has prioritized all essential health services including EPI to ensure that services continue to be provided during the pandemic. In April, 2020, the EPI Program working collaboratively with other MOH departments and stakeholders developed additional Standard Operating Procedures, (SOP) to ensure service continuity in the context of COVID. This was reinforced in other similar COVID adapted guidelines such as the guidelines for the provision of iCCM and Community Health programs broadly. The program leveraged resources from a range of donors and partners notably Gavi, the Health Sector Joint Fund, World Bank and DFID and distributed PPEs and other COVID supplies to health workers across the country to sustain service provision. The program further conducted nationwide supervision of EPI services to identify and troubleshoot any challenges faced. To assess the program performance, the conducted regular analyses of administrative coverage data comparing 2019 against 2020 to see if there were any observed declines in numbers of vaccinations and immunization coverage. As reflected in the figure 13 below, the vaccine coverage has either remained relatively stable or slightly declined and increased in 2020 compared to similar period of 2019 despite COVID. For instance, DTP 3 coverage was 90% in 2019 and slightly increased to 94% 2020, BCG dropped by one percentage point in 2020 compared to 2019. MR 2 coverage increased by one percentage point between 2019 and 2020, see figure 11. The increase of coverage in 2020 despite COVID -19 pandemic can be attributed to utilization of micro plans by health facilities, remote supportive supervision using phones and WhatsApp, provision of immunization SOPS and PPEs to vaccinators in context of coronavirus pandemic and assigning national staff to specific zones and districts to track implementation of immunization services.

[2] https://improvingphc.org/blog/2020/06/04/covid-19-malawi-innovating-new-approaches-resource-limited-settings

[3] https://www.globalfinancingfacility.org/sites/gff_new/files/documents/Malawi-Covid-Brief_GFF.pdf

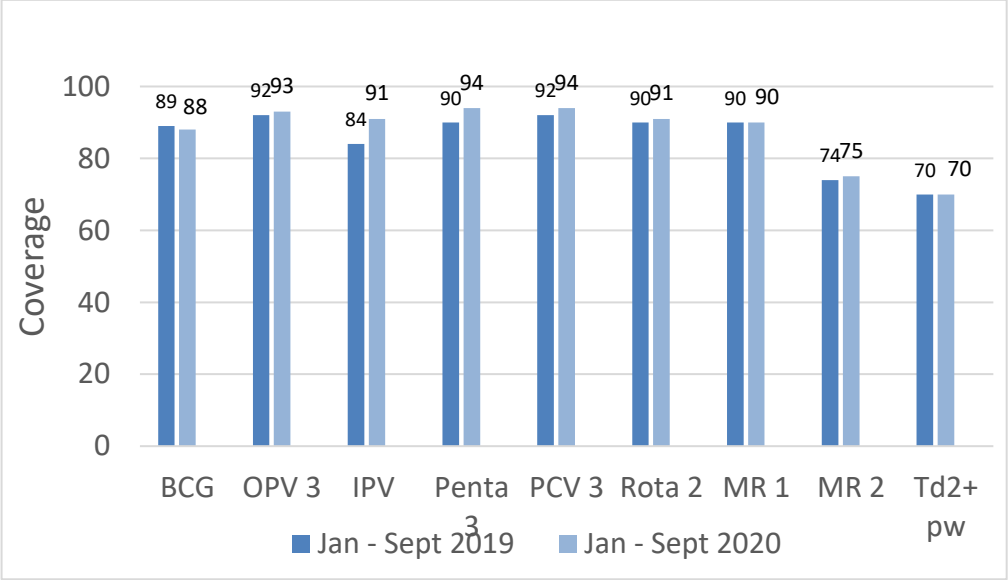


Figure 11: National immunization coverage Jan-Sept 2019 & 2020.

A total of 1,706 outreach sessions out of 48,050 planned between Jan – sept 2020 was cancelled representing a cancellation rate of 3.6%. This was more than one percent (2.6%) of what was reported in the similar period of Jan – sept 2019. Figure 14 contrasts monthly outreach clinics cancellation for Jan – sept 2019 and 2020. More outreach clinics were cancelled in the month of April 2020. This was the month when the country reported the first confirmed coronavirus case and health workers were not providing immunization services as they were demanding for personal protective equipment (PPEs). The reported high number of clinic cancellation in January -Feb in both years is due to heavy rains in these months making impassable roads in and also flooding in other areas. In addition, January 2019 and 2020, we had HPV campaigns and most vaccinators were involved in these campaigns and did not plan properly to avoid outreach cancellations.

The overall increase in immunization coverage in Jan – Sept 2020 despite the COVID 19 pandemic is generally attributed to high levels of vaccine acceptance in the country, interventions and support towards service continuity, commitment of vaccinators, use of outreach clinics as main service delivery points, communication and social mobilization activities and the relatively low reported incidence of COVID cases and mortality rate in the country.

Although more of outreach clinic sessions have been cancelled in 2020, see figure 12 , but this has not significantly affected the immunization performance because most of the outreach clinics in the country are in northern part which sparsely populated. Therefore, the clinics serve few people compared to other outreach clinics in other parts of the country.

There is however an on-going need to monitor progress of program performance to inform decision making as the pandemic evolves.

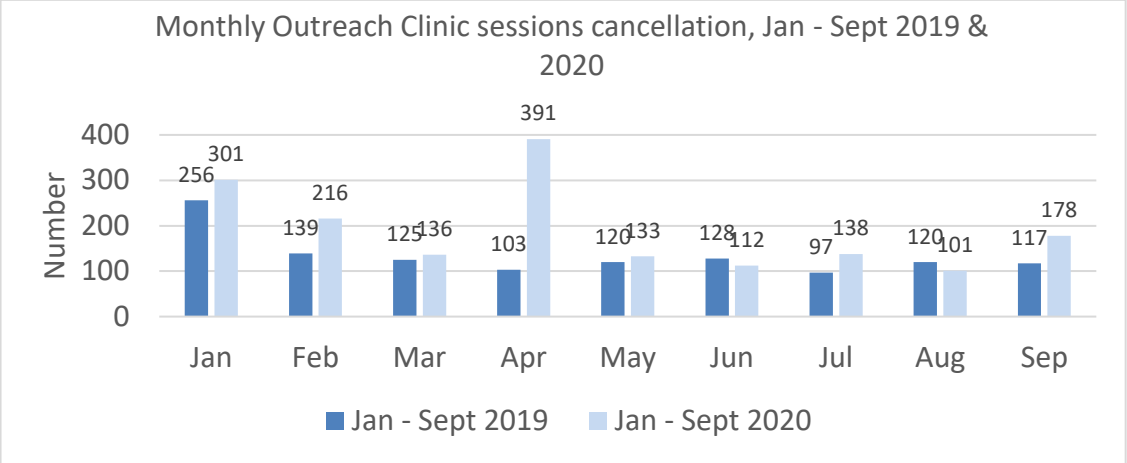


Figure 12: Comparison of Outreach clinic cancellations in Jan – Sept 2019 and 2020

In addition, there were no stock outs of the vaccines at both National and District level. However, the COVID-19 pandemic caused delayed delivery schedule of BCG, HPV and Injection Materials. Detection of potential stockout at subnational level was reinforced to ensure quick detection and response by immunization focal persons.

The Malaria vaccine implementation in the 11 districts of Malawi has been drastically increasing performance with current being 86% for Malaria Vaccine 1 and 70% for Malaria Vaccine 3. The MV4 has just been introduced in September 2020. About 17% (1203) out of 7010 children vaccinated in April and May 2019 received the fourth dose of Malaria vaccine in September 2020.

Disease surveillance was maintained and sample transportation to South Africa as well as Kamuzu Central Hospital were done despite the challenges.

Despite the above, it is worth highlighting that the program faced some challenges:

1. Generally, HR demands due to Covid19 contact tracing, allowance demands by health workers affected immunization clinics both outreach and static clinics
2. Lack of PPE in country for health workers. Despite Gavi allocating funds around US$3 Million, the huge global demand for PPEs and the categorisation of Malawi to Level 4 meant that the country had few and delayed availability of the needed PPES.
3. Partner support and availability for EPI services drastically went down especially with escalated community transmission.
4. Overall program deliverables were equally affected since we had to adhere to government restrictions as provided for in the government Gazette
5. Overall delivery of the HSS grant by Gavi was impacted. For instance, the EVM training and Cold chain Preventive Maintenance training were postponed.
6. Routine program technical meetings especially those that need more people and physically meeting have been brought to halt e.g. Biannual program review meetings with districts that help to track performance could not be convened.
7. EPI surveillance activities also went down except for disease surveillance which we introduced a WhatsApp based platform that helps us link up with districts
8. Several critical global and international meetings including the 2020 EPI Managers that routinely happen physically each year to shape immunization programs across the globe could not take place. However, some meetings were conducted virtually.

Nonetheless, while COVID-19 impacts on broader health services have been huge, it is encouraging to note that the impact on immunization has so far been minimal. There is however need to maintain vigilance to sustain service continuity efforts including but not limited to providing health workers with PPEs and related supplies, regular supportive supervision, and regularly analyse and use data for decision making. Given the rapidly changing COVID pandemic situation, government, donors and all stakeholders need to

continually adapt program delivery to the changing situation. Response mechanisms to the pandemic have to be contextualized to suit the needs of the particular population.

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

	COVID-19 activity	Amount reallocated	Status of implementation
Activity 1	Identification of zonal core teams for case management	1,691	Activity completed
Activity 2	Train district infectious disease Personnel	14,773	Activity completed
Activity 3	Establish infection prevention measures for all Pos	55,630	Funds Partly Reallocated towards Kamuzu Central Hospital Gas plant
Activity 4	Train laboratory technologists to test COVID-19	16,822	Activity completed
Activity 5	Provide isolation for 4 PoEs	370,822	Kameza – completed, Karonga & Mzuzu renovations underway–, Mwanza – No successful bidder, under-going readvertisement
Activity 6	Renovate old boiler to gas plan @KCH	41,487	Complete and fully functional
Activity 7	Renovate BSL lab to level 3	98,779	Under processing
Activity 8	Renovate 7 infectious disease treatment centers	90,877	Funds Reallocated towards KCH Gas plant
Activity 9	Service RT PCR Machine	17,780	To be done after PCR machine
Activity 10	Establish fast reliabe internet services at EOC	4,939	Yet to be Utilized
Activity 11	Procure RT PCR Machine	296,336	Procurement underway with some savings available
Activity 12	Operation cost for quarantine units	1,976	Funds fully utilized
Activity 13	Operation cost for Infectious Disease treatment centers ITCs	27,658	60% of resources utilized
Activity 14	Enforce adherence to quarantine arrangements	114,716	Implementation underway –
Activity 15	Procure various commodities and supplies	3,306,359	$1,3M processes, $1,9M test kits procurement under processing
Activity 16	Procurement of tents for quarantine at ground crossing	23,707	Procurement underway
Activity 17	Procure thermal scanner at all PoEs to strengthen screening	412,660	Yet to be procured
	Total	4,897,012	

2.5 Already agreed modifications in Technical Assistance (if applicable)

Not applicable – no Covid-19 related reallocations approved for Malawi.

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

[Brief narrative and/or table. Considering that some activities have been cancelled, delayed or modified, this is an overview of funds available to be re-allocated.]

UNSPENT FUNDS AVAILABLE FOR REALLOCATION AS OF JUNE 2020

Recipient	Grant	Approved Amount in US$	Funds Utilized (US$)	Funds remaining (US$)	Area for reallocation
PIU	VIG- HPV	674,500	272,395	55,148*	HPV routinization budget
PIU	VIG- IPV	273,100	211,619	201,543	2021 IPV Catch up

**Due to commitments for on some activities, transactions were still being processed and as of November 2020, remaining funds under HPV were abound $20,000*

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

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

To maintain high rates of vaccine coverage during the COVID period, reduce zero dose children while protecting health workers, mothers and children from COVID during service delivery, the Ministry of Health will employ an equity focussed approach which will ensure EPI services continue to be provided. The areas of focus for the EPI program recovery plan will target communities or areas where EPI services were most affected by the COVID-19, hard to reach areas, and underperforming districts including urban and peri-urban areas. These communities experienced interruptions of routine services as a result of cancellation of immunisation clinics; caregivers fear of Covid-19 exposure and health workers movement from health programs to focus on Covid-19 activities and surveillance.

3.1.1. Short term activities

The short-term activities that will be implemented within one year from January to December 2021 include SIAs and PIRIs, EPI in-depth Comprehensive Review and cMYP, Provision of PPEs and Supplies, Stock management & Monitoring, Improvement of Cold chain capacity and New Vaccine Introduction

3.1.1.1 Catch Up/SIAs / PIRIs

The program has come up with draft strategies to be implemented at the service delivery points to re-activate immunisation services and to address any immunisation gaps resulting from COVID-19. Catch up campaigns have been planned in underperforming districts to provide opportunity to children that were left out or those with zero dose. PIRIs will also be conducted in areas with low coverage and high numbers of unimmunized children in selected districts, including CBCCs as outreach sites to reach more children. The program will leverage on the MR SIA, upcoming HPV vaccine roll out in 2021, IPV catch up campaigns and COVID vaccine introduction to provide vaccine doses to all children who are due for vaccines or have missed their doses. Key to this will be to ensure that under-immunized and zero dose children are mapped and micro plans developed to have adequate resources for catching up on all the identified children.

3.1.1.2 EPI in-depth comprehensive review / cMYP

The last comprehensive review of the program was conducted in 2015, as such the country needs to conduct another review of the program`s situation since a lot of interventions have been conducted, especially under HSS funding. The current cMYP ends in 2021 and there is need to develop a new cMYP for the period 2022 – 2026, which will be guided by the issues identified during the EPI comprehensive review.

3.1.1.3 Provision of PPE's and Supplies

A key activity to ensure that EPI services continue to be provided during COVID is to ensure health workers have the minimum required supplies and equipment for protection against COVID. The program will work with the Community Health Services Section to advocate for HSAs to be among the prioritized cadres to receive PPEs at the district level leveraging on already existing Gavi Covid-19 support of $ 3.2 Million on PPEs and other health supplies among other supports from other partners.

3.1.1.4 Stock Management and monitoring

Vaccine availability is key to ensure that all children are vaccinated. At national level, vaccines stock levels will be monitored using the online ViVa platform which tracks status of vaccines in the national vaccine stores including those in pipeline. At the district and health facility level, the program will use remote and online platforms including cStock for reporting and also ensuring vaccine stock visibility at all levels

3.1.1.5 Improvements in Cold Chain Capacity

Malawi has improved it's cold chain capacity recently through the installation of 106 Solar Direct Drive fridges in 2018 and an additional 203 currently on-going under the Gavi funded Cold Chain Equipment Optimization Platform (CCEOP).The introduction of the COVID vaccine and and IPV dose two will result in need for the country's CCE capacity to undergo further expansion. As such the Ministry of Health will require support for this expansion with regards to procurement of cold rooms, refrigerators, SDDs and vaccine carriers. The program will also conduct EVM assessment and further develop an improvement plan on vaccine management.

3.1.1.6 New vaccine introduction

To contribute to the reduction of burden due to cervical cancer, Polio and COVID 19, the country will introduce COVID-19 Vaccine, routinize HPV vaccine and conduct IPV catch up campaign.. The country will also conduct MVIP PIE to advise possible roll out to the routine schedule.

3.1.2 Medium to Long term activities

3.1.2.1 Data management improvement

The program is still using the DVDMT alongside DHIS 2 for data management at district and national level, which is creating high workload for the staff. In the coming year the program will migrate to use of DHIS 2 as the main source of EPI data.

Currently, mobile DHIS2 is being piloted in 15 districts across the country using tablets that were procured using the HSS grant. There are plans to scale up the initiative to the remaining districts upon successful implementation of the pilot phase. .he program will harmonize the data collection and reporting tools and reduce the number of tools to be used. Immunization Information System Assessment was conducted in 2019 and the Data Quality Improvement Plan (DQIP) was not developed. There is need to finalise the DQIP to guide the improvement of Data Quality. The coming year, the Data Quality Improvement Plan (DQIP) will be finalized in order to guide the improvement of data quality in the country,
The EPI program will draw from the experiences of other programs to introduce and roll out real time data monitoring in order to ensure drops in coverage or anticipated vaccine stock outs are identified early and appropriate interventions are implemented timely. The program will utilize the Integrated Supportive Supervision (ODK platform) and will explore further opportunities for further reporting.

3.1.2.2 MOV/ 2YL

The MOV study conducted in 2015 showed that children who visit our health facilities missed for vaccinations to which they are eligible. Also coverage for MR2 which is given in second year of life is low. The program has started piloting of MOV/ 2YL program in three districts of Ntcheu, Lilongwe and Blantyre for a period of six months. Lessons drawn from the pilot implementation of MOV/2YL will be used to guide

national scale up of strategies to reduce missed opportunities for vaccination and improve uptake of vaccinations provided during the second year of life. This will include briefing of front line health workers to actively screen immunization status of children at every contact in health facilities.

3.1.2.3 REC strategy

The country is implementing the REC strategy in some districts, especially those supported by Gavi HSS grant and UNICEF for the Vitamin A integration into routine immunization. There are some districts which do not have funding for comprehensive REC implementation. During the post COVID-19 period, there is need to expand the REC strategy implementation in all the districts with active engagement of communities to identify all the zero dose children and un/ under immunized children to ensure all children are fully immunized. This will also help increase coverage for vaccines beyond first year of life e.g. MR2, MVIP and HPV. To achieve this, there will be need for conducting microplanning sessions together with the communities, community mobilization on tracking of immunization status of all children using tools like My Village My Home (MVMH), Intensify IEC on the importance of immunization and where immunization is provided, increased numbers of Outreach Clinics where need be and Defaulter Tracing by reviewing under 2 registers for missed appointments.

3.1.2.4 Disease surveillance

There is reduction in the surveillance indicators in the country during the Covid period. Non-FP rate has reduced from 2/100,000 under 15 children to 1.4/100,000 in January to September 2020. Stool adequacy has also reduced from 89% in January to September 2019 to 82% same reporting period in 2020. As such, during the post covid period, the program will strengthen active search and reporting, including AEFIs, in all districts. As part of the polio eradication strategy, the country will introduce environmental surveillance since it will be introducing nOPV2.

3.1.2.5. Deployment health work force

The Government of Malawi has recently completed the recruitment of 1920 additional Health Surveillance Assistants as part of the implementation of the National COVID Response Plan. This has increased the number of HSAs to 11,134 However, the number is still inadequate to meet the country requirements of 1 HSA/1000Population. The EPI program will work closely with the Community Health Services section to lobby for recruitment of more HSAs and also to ensure that the recruited HSAs are equitably distributed to hard to areas and under-served areas where coverage of EPI services is lower. Availability of more HSAs will ensure quality delivery of immunization services since immunization sessions will have adequate numbers of vaccinators to deliver a good quality service where children are properly vaccinated, data recording done properly, key immunization messages delivered to caretakers through IPC and wastes properly managed.

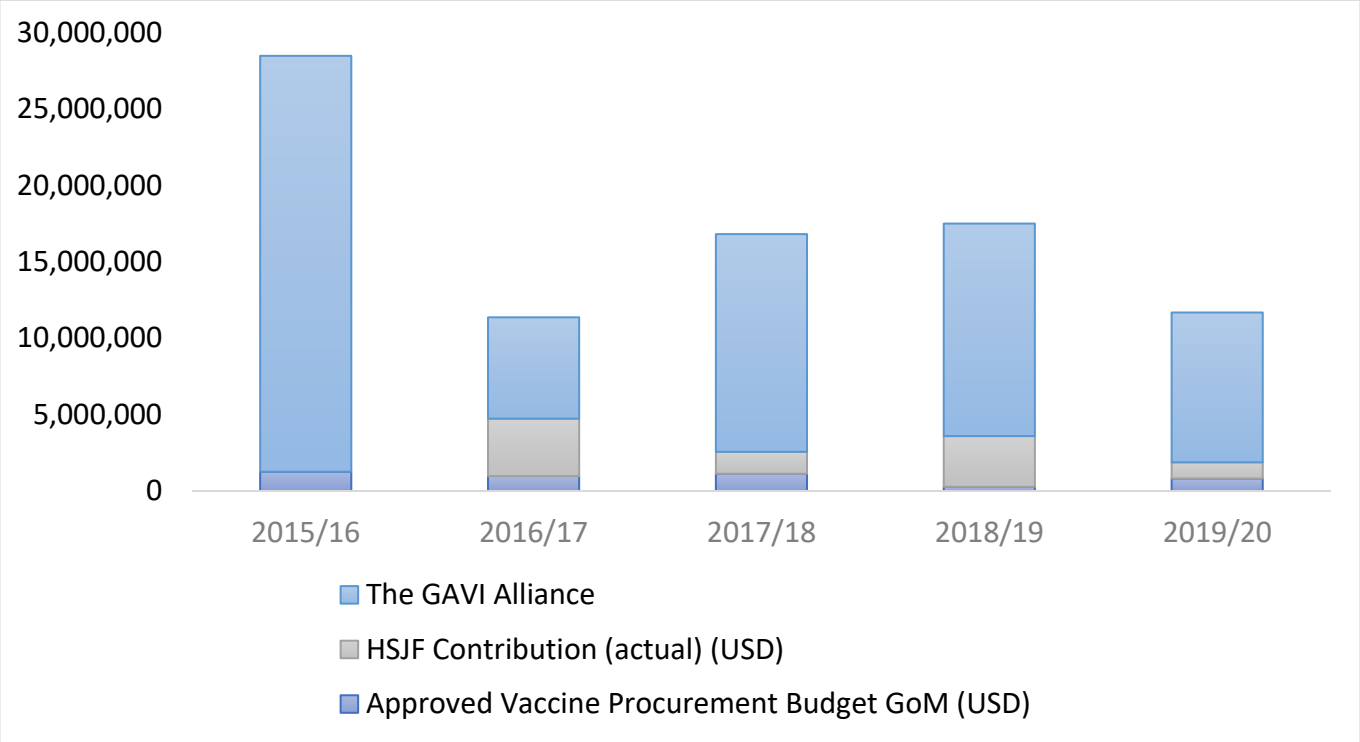
Availability of transport to immunization clinics and supervision of immunization delivery are also key in the post COVID period. The program intends to provide push bikes, motorbikes and fuel to ensure uninterrupted service delivery. These will be procured from PBF, MR SIAs and TCV introductions.

3.2. Immunisation financing

The procurement of vaccines and related operational costs for Malawi are supported through GAVI, the Ministry of Health (MoH), and the Health Services Joint Fund (HSJF). Specifically, the following areas are funded by each financier. GAVI supports the procurement of new vaccines and supporting of New introductions, while the Ministry of Health and HSJF support the payments of traditional vaccine and co-financing of new. The latter are also responsible for paying towards related clearing costs as well as other in-country logistical costs for the vaccines.

GAVI remains the biggest financier of the vaccine program in Malawi followed by HSJF and then MoH. The HSJF has been supporting the procurement of vaccines since the 2017/18 FY. The breakdown of financing by donor for the previous two Financial Years is presented in figure 13 below.

Figure 13: Overall Financing Trends by Key Funders from 2015-2020



From the 2015/16 FY the MoH allocation towards vaccines has been decreasing culminating in the lowest allocation in the 2018/19 FY leaning towards a heavy reliance on external assistance for vaccines programming. In trying to address this negative trend, the MoH has been engaging with the Ministry of Finance (MoF) in efforts to increase the proportion of MoH's funds allocated to vaccine procurement. Additionally, in-year budget discussions were held to reallocate resources within the MoH budget which resulted in the creation of additional fiscal space for vaccine related expenses in the 2019/20 FY. The reallocation of resources allowed the MoH to contribute an additional $789,985 towards the procurement of vaccines. It should also be noted that following the discussions with MoF, the Government allocation towards vaccines will further increase in the 2020/2021 FY. Figure 14 below shows the allocation trends for MoH support towards vaccines programming.

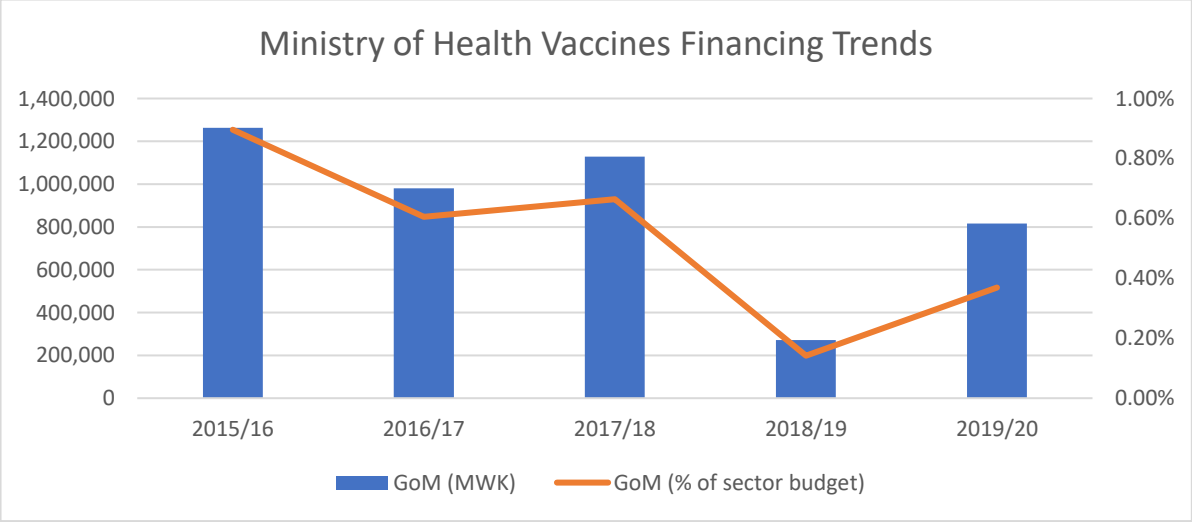


Figure 14: Trends in MOH vaccine financing

In addition to vaccines procurement, the MoH also contributes to the operational costs related to ensuring continuous immunization service delivery. These are supply chain related expenses which include vaccine waste management costs, vaccines and injection materials quantification exercises; data management including efforts for improving data quality; and Operational costs which include printing of temperature monitoring charts and stock books, electricity, and maintenance of generators for vaccine cold rooms among others.

3.3. Support required from Gavi

For the planned short/medium-term response efforts, funding from Gavi will be required particularly towards procurement of PPEs, establishment of a real time data monitoring system, expansion of Cold Chain capacity to accommodate new vaccines. Funds will be re-allocated from existing Gavi HSS-III grant as well as the further opportunities for funding through the COVAX facility.

3.3.1 Reallocation of Gavi HSS

Listed below are the proposed activities to be conducted using reallocated funds of HSS:

1. Mapping of unvaccinated (zero dose) or under vaccinated children in communities with low coverage – including School vaccination checks in ECD centers and primary Schools
2. Conduct catch up campaigns/PIRI including microplanning in Low performing areas by coverage and high numbers of unimmunized children
3. Conduct quarterly service continuity supervisory visits to all districts
4. Conduct Zonal quarterly Data review meetings to promote data quality and usage of data for decision making
5. Carry out health promotion initiative through the broadcasting jingles and radio/TV slots through public, private and community radios
6. Conduct surveillance trainings for health workers for newly recruited health workers
7. Conduct Capacity building in AEFI surveillance for health workers
8. Conducting EVMA and production of report post-assessment

3.3.2 Technical Assistance

For the program to implement the above short- and medium-term activities, there will be need for partners to provide Technical Assistance to support the following activities:

1. Planning and implementation of EPI comprehensive review and cMYP. The country`s cMYP will be ending in 2021 and there will be need for a thorough assessment of the program, whose findings will inform the new cMYP development.
2. Planning and implementation of IPV catch up campaign. The catch-up campaign aims to vaccinate children who were missed with IPV during tOPV – bOPV switch and therefore are at risk of exposure to polio virus serotype 2.
3. Planning and implementation of MR SIA Measles is targeted for elimination. SIA is planned for 2021with the aim of reducing numbers of susceptible individuals in the population.
4. Evaluation of MOV/2YL pilot to inform scale up in an effort to reduce missed opportunities.
5. Development of Data quality improvement Plan for effective programmatic decisions
6. Implementation of preparatory activities on introduction of Typhoid vaccine and routinization of HPV vaccine.
7. Introduction of environmental surveillance since the country will be introducing nOPV2.
8. Community engagement using My Village My Home (MVMH) tool to improve equity and reduce zero dose children and un/ under immunized children.

9. Support towards strengthening of immunization supply chain & cold chain in terms of Quantification, procurement and distribution of vaccines including COVID vaccine and TCV.
10. Establish Information system for immunization supply chain data from the peripheral level for Temperature, stock and vaccine wastage monitoring system at central levels
11. Updating cold chain inventory and development of Cold Chain Expansion and Replacement and maintenance Plan
12. Development of Operational Deployment Plan 4 (ODP4) and ODP 5
13. Conduct Cold Chain Equipment Post Installation Assessment
14. Support EVM Assessment with TA
15. Development of Strategy on integration of Immunization Supply Chain into the general Health Supply Chain
16. Documentation of impact of cold chain and supply chain on broader immunization program performance
17. Support towards strengthening advocacy, communication and social mobilization for increased immunization uptake , including urban areas.
18. Planning and implementing malaria vaccine PIE to assess the impact of introducing the malaria vaccine into routine immunization programme
19. Supporting malaria vaccine implementing districts with demand creation for MV4
20. Develop an EPI program recovery plan

3.4. Roadmap for implementation of short, medium and long-term activities

The roadmap for implementing the above listed activities is tabulated in the Table below. However, a definitive EPI program recovery plan will be developed by UNICEF between December 2020 – January, 2021.

Road Map for Implementation of Short, medium and long-term recovery activities

Thematic Area	Activity/TA	2021				2022				Estimated Budget	Possible Funding source/s
		Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4		
Routine Immunization	Mapping of unvaccinated (zero dose) or under vaccinated children in communities with low coverage – including School vaccination checks in ECD centers and primary Schools	x								$73,350	Gavi HSS Activity # 1.1.4.7(Yr1-2)
	Conduct catch up campaigns/PIRI including microplanning in Low performing areas by coverage and high numbers of unimmunized children	x	x	x						$90,000	Gavi HSS Activity # 1.1.4.7 – available is $15,594 for microplanning, PIRI has available budget of $83,919 (Gavi HSS Activity # 1.3.4.1) -(Yr1-2)
	Leverage on IPV catch up, MR SIA and TCV vaccine introduction to vaccinate missed children		x		X						IPV Catch Up grant ($1,218,121) MR SIA Follow Up Grant

	Procure and distribute routine IEC materials	x	x							$50,000	To re-allocate from Gavi HSS Activity #: 1.1.4.5 (Y3-5) budget
	Broadcasting jingles and radio/TV slots through public, private and community radios	x	x	x	X					$28,303	Gavi HSS Activity #1.1.4.4 (Yr3-5)
	Conduct service continuity supervisory visits	x	x	x	X	X	X	x	x	$120,000	Gavi HSS Activity #: 4.1.1.4 (Yr3-5)
	Conduct Zonal quarterly Data review meetings	x	x	x	X	x	X	x	x	$100,000	Gavi HSS Activity # 2.2.1.1 with $57,396 from Yr1-2 budget and $ 42,604 from Y3-5
	Scaling up MoV2YL in the 26 Districts					X	X	x	x		UNICEF, WHO, GAVI
	Conduct Comprehensive EPI review			X							WHO
	TA to conduct EPI Comprehensive Review, including IPV PIE		x	X							WHO
Disease Surveillance	Conduct surveillance trainings for health workers			x						$60,000	Gavi HSS Activity #: 2.2.1.2 (Yr 1 & 2)

	for newly recruited health workers										
	Establish Environmental surveillance		x								
	Conduct training for community informants			x							
	Procurement of reagents and laboratory supplies Data harmonisations meetings			x	X						
	Active case search visits	X	x	x	X	X	X	x	x		
	Capacity building in AEFI surveillance for health workers					X	X				
	Conduct meetings for AEFI investigation teams	X		x		X		x			

	Printing of AEFI material					X					
Cold chain/Vaccine supply management	Install Remote temperature monitoring - come with an electronic system to capture and analyze temperature data			x	X						UNICEF
	Development of Strategy on optimization of Immunization Supply Chain with the general Health Supply Chain		x								UNICEF
	Conducting EVMA and report writing		x							$30,000	Gavi HSS Grant, Budget line # 3.7.2.1 (Yr1-2)
	TA for EVMA		x								UNICEF

	Monitoring of CCEOP project progress, including Post Installation Inspection	x	x	x	X						UNICEF