

2019/20 Child Immunization Budget Brief

Upscaling Investments in Child Immunization: A Step Towards Achieving Immunization Targets by 2021

Key messages and recommendations

- **1** The Government is commended for allocating a total of MK558 million to the Expanded Program on Immunization (EPI) in fiscal year (FY) 2019/20, up from MK264 million in 2018/19. However, the amount allocated to vaccine procurement under the EPI has remained the same at MK200 million, far below the estimated Program's financial needs.
- → Recommendation: The Government is recommended to explore sustainable ways to finance the procurement of vaccines for immunization and to meet the programs' financial needs, estimated at MK1.3 billion in 2020/21, in constant prices.

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- 2 There are disparities in immunization outcomes in Malawi between urban and rural populations and wealth quintiles, with immunization coverage being surprisingly lower in urban than rural areas. It is not clear yet what is driving these disparities.
- → **Recommendation:** The Government is encouraged to comprehensively investigate underlying causes of the disparities in order to inform future programming and financing decisions

3 The decrease in the discretionary budget allocation to other recurrent transactions (ORT) to the Ministry of Health and Population (MoHP) has resulted in limited resources being available to be allocated to immunization services, including the procurement of vaccines.

Recommendation: The Treasury is requested to increase the discretionary ORT allocation to the MoHP, and to ring-fence the budget for procurement of vaccines in fiscal year 2020/21 in order to help protect EPI resources, including from in-year revisions and budget amendments.

MALAWI

4 The current financing methods for Malawi's EPI are unsustainable, with over 80% of funding coming from Gavi, the Vaccine Alliance.

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- → Recommendation: The Government, with donor support, is encouraged to develop a robust EPI financing plan, which includes innovative financing schemes, in order to improve spending on immunization.
- **5** There are several EPI system issues in the areas of logistics and supply chain management, human resources, leadership and governance, limited capacity in terms of planning, quantification and forecasting of vaccine needs as well as data quality which are affecting the effectiveness of Malawi's EPI.
- → Recommendation: There is need to strengthen end-to-end tracking of the entire vaccine supply chain system in Malawi, including targeted technical support in the areas of planning, quantification and forecasting of vaccine budgetary needs. At service delivery level, the recruitment, strategic deployment as well as professional development of HSAs is key to enable timely and sustainable provision of EPI services.

1. INTRODUCTION

This budget brief assesses the extent to which the 2019/20 Government budget contributed to the implementation of the Expanded Program on Immunization (EPI)¹ in Malawi. The brief analyses trends, composition, equity and credibility of public spending on the EPI. Based on this analysis, it offers recommendations on how the Government can increase and improve the quality of its spending, by enhancing efficiency, transparency and equity in the allocation and utilization of EPI resources to benefit all children in Malawi.

The information used in this budget brief is based on EPI budgetary data obtained from the Ministry of Health and Population (MoHP). Several budget documents, especially Detailed Budget Estimates (DBE) and Program Based Budgets (PBBs) were reviewed to complement the analysis. The brief also significantly benefited from the 2018/19 Child Immunization Budget Brief and the 2019/20 Health Budget Brief produced by UNICEF. The analysis was complemented by review of EPI related reports produced by the Government, Development Partners, especially the Gavi and the results from the fifth round of the health sector resource mapping.



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2. OVERVIEW OF EPI IN MALAWI

Child immunization remains a key preventive health priority area for the Government of Malawi (GoM). The Second Health Sector Strategic Plan (HSSP II) outlines the Government's commitment to improve immunization outcomes in Malawi. Through the HSSP II, which is operationalized through the Essential Health Package (EHP) (2017-2022)² and several issue specific strategic plans such as the EPI Multi-Year Plan (2017-2021), Sexual and Reproductive Health Policy (2017-2022) and the National Community Health Strategy (2017-2022), the Government has committed itself to improve access, equity and quality of primary, secondary and tertiary health services.

A 5-year modifiable National EPI Policy (2017-2021) was developed to guide immunization programs in Malawi. The policy is used as the reference document for national immunization efforts at all governance levels. The policy is revised every five years in line with changing circumstances, needs, practices and technologies. To implement the EPI policy, a multi-year plan was developed, covering the period 2017 to 2021. The plan, which is also a tool for resource mobilization, is aligned to the HSSP II, which aims at having 95% of under 1-year children immunized by 2021. Malawi's EPI is organized along national, regional, district, sub-district and community level structures in line with the National Health Delivery System. At all levels, static and mobile immunization services are provided alongside other child health interventions. Routine EPI services and occasional supplemental national immunization campaigns for poliomyelitis and measles vaccinations are provided. At community level, surveillance is strengthened by Health Surveillance Assistants (HSAs).

The MoHP (Vote 310) is responsible for planning and budgeting for immunization programmes. Within the MoHP, the EPI is under the Directorate of Preventive Health Programmes. Day to day program management issues are handled by an EPI Sub-Technical Working Group (Sub-TWG), created by the MoHP and partners, to provide oversight in the implementation of EPI policy guidelines. The Sub-TWG meets regularly to discuss planning, implementation and evaluation of EPI policies, programs and budgets. At the district level, immunization services are coordinated and managed by the District Health Management Team.

The EPI currently focuses on three main health risks namely polio, measles and neonatal tetanus (NNT). Six basic vaccinations are recommended for a child in Malawi. These are: one dose of bacillus calmette-guerin (BCG) vaccine – which protects against tuberculosis, three doses of DPT – which protects against diphtheria, pertussis (whooping cough) and tetanus, at least three doses of oral polio vaccine (OPV), and one dose of measles vaccine (MR). The Government introduced the pneumococcal conjugate vaccine (PCV13) and monovalent human rotavirus vaccine

The programme was established in 1979 with the aim of reducing infant morbidity and mortality rates due to vaccine preventable diseases by providing quality immunization services.

² The specific vaccines included in the EHP are: rotavirus, measles rubella, polio, BCG, Pneumococcal, DPT-Heb-Hib/Pentavalent.

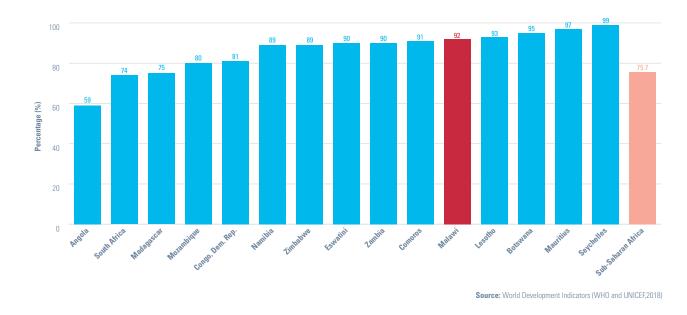


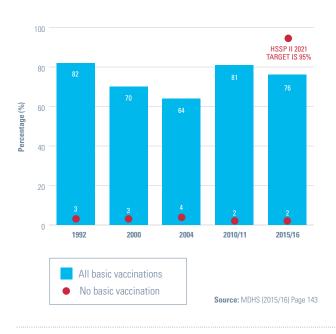
FIGURE 1 Immunization, DPT (% of children ages 12-23 months) (2018)

(RV1) into the national's infant immunization programme in November 2011 and October 2012, respectively. In addition to basic vaccinations, the MoHP has recommended that all children (12-23 months) should receive one dose of polio vaccine at birth, three doses of the pneumococcal vaccine (PCV), and two doses of the rotavirus vaccine before their first birthday. The EPI also provides tetanus toxoid vaccine for pregnant women and women of childbearing age.

For many years, Malawi has sustained a high coverage of immunization, with well above 80% of the population having received the 6 basic vaccinations. High immunization rates in Malawi have resulted in reduced burden of infectious diseases. Furthermore, Supplemental Immunization Activities (SIA's), popularly known as mass vaccination campaigns, have contributed to high immunizations rate of Malawian children, especially against measles. Periodic national immunization campaigns for Polio and Measles have been successfully conducted in Malawi since 1996 in line with World Health Organization (WHO) recommendations. On average, a coverage of 95% was achieved during each campaign. Figure 1 shows DPT immunization coverage in Malawi and selected SADC countries in relation to the SSA average.

Regrettably, recent trends from survey data show a decline in immunization coverage for all six basic vaccinations in Malawi. For example, the 2015/16 Malawi Demographic Health Survey (MDHS) revealed a decline in the percentage of fully immunized children (aged 12-23 months) from 81% in 2010 to 76% in 2015/16 as shown in Figure 2. However, administrative data on routine immunization shows an improvement of national immunization coverage in 2017 compared to the coverage in 2016. It is also noteworthy that although immunization

FIGURE 2 Trends in Immunization Coverage in Malawi



coverage is high, about half of the children are not being vaccinated in due time, as reflected by the national age appropriate vaccination coverage (for children aged 12-23 months) of 51% (MDHS, 2015/16).

There are surprising disparities in immunization outcomes in Malawi, especially between rural and urban populations. Unlike the trend with most child development indicators in Malawi³, vaccination coverage

³ In Malawi, urban areas tend to perform better on most child development indicators than rural areas.

(for children aged 12-23 months) is higher in rural (77%) than urban areas (70%). The underlying reasons need to be investigated. By region, vaccination coverage is higher in the North (78.7%), followed by Central (76.8%) and least in the South (74.1%). Populations in the lowest wealth quintile have the lowest rate of vaccine coverage compared to the higher wealth quintiles as shown in Table 1. Immunization coverage also increases with the educational level of the mother. For instance, 79% of children (12-23 months) whose mothers have a secondary education have received all basic vaccinations compared with 72% for children whose mothers have no education.

TABLE 1 Vaccinations by Background Characteristics

Background Characteristic	Stratification	Figure
National	National Coverage	75.8
Residence	Urban	69.7
	Rural	76.8
Region	North	78.7
	Central	76.8
	South	74.1
Wealth	Lowest (WQ1)	71.5
	Middle (WQ3)	74.7
	Highest (WQ5)	77.4
Mother's Education	None	72.1
	Secondary	78.5

Source: Malawi Health and Demographic Survey (MDHS) (2015/16), Table 10.3, page 150

KEY TAKEAWAYS

- Sustaining the high immunization coverage realized over the past years requires the Government to continue with its efforts to increase funding of immunization programs in line with established needs and to also strengthen behavior change communications.
- Going forward, a key challenge for Malawi is
 to ensure equitable and effective immunization
 coverage. A comprehensive investigation of the
 underlying causes of the existing disparities is
 necessary to inform future programming and
 financing decisions.

High immunization rates in Malawi have resulted in reduced burden of infectious diseases.



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3. OVERVIEW OF HEALTH SPENDING IN MALAWI

A total of MK163 billion was allocated to the health sector in FY2019/20, up from the revised estimate of MK134 billion in FY2018/19 (Figure 3). This implied a 21.4% increase of the allocations to the health sector in nominal terms and of 10% in real terms. In FY2019/20, the health sector is the third largest sector in terms of budget allocations. The sector has been allocated 9.4% of the total budget, after education with 25% and agriculture with 10.4%. This only holds if public debt charges, making up 14% of the total budget, are excluded. It must be noted that the health sector receives significant off-budget support from development partners.

Since 2012/13 Malawi's spending on health has been below the Abuja Declaration target for African States to allocate at least 15% of their total budget to the health sector. The share of the total Government budget allocated to the health sector has averaged 9.6% between 2012/13 and 2019/20. As a share of GDP, health sector budgets stagnated at around 3% over the same period.

The health sector budget allocations have been constantly falling short of required minimum investments. The 2019/20 health sector allocation is worth about US\$217 million, around 40% of the required US\$519 million per year estimated in the HSSP II. The financial gap is even wider for the Essential Health Package (88%) and the Social Determinants of Health (94%). The figures, however, excludes significant resources that are channeled to communities through off-budget means. In per capita terms, at MK9,268 (US\$12.4, current prices), the 2019/20 health allocation reaches roughly 40% of the HSSP II annual per capita cost requirement, estimated at US\$30, and is a mere 14% of the US\$86 minimum per capita investment recommended by World Health Organization (WHO) to provide basic health services.

KEY TAKEAWAYS

- The health sector is a key spending priority for the Government, but allocations are insufficient to meet financial needs according to cost estimates in the HSSP II.
- The Government is encouraged to finalize the health sector financing strategy, which will serve as a framework to mobilize additional resources to improve the size of the health sector budget.

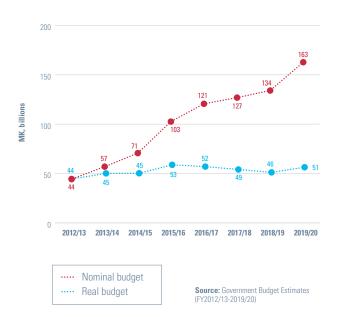


FIGURE 3 Trends in Health Sector Spending, 2012/13 as base fiscal year



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4. SIZE, COMPOSITION AND FOUITY OF FPI SPENDING

The Treasury allocated a total of MK558 million for EPI in 2019/20, up from MK264 million in 2018/19. On top of the allocation for the fiscal year, the MoHP used underutilized funds from the Zomba Mental Hospital's Drug budget for 2018/19, to the tune of MK600 million, to frontload the payment for the procurement of vaccines in 2019/20 as shown in Figure 4. This brings the total available amount for EPI in 2019/20 to MK1.158 billion. To date, Malawi has only been able to meet its co-financing obligations through financial support provided by the Health Sector Joint Fund (HSJF). For 2020/21, the total EPI budgetary needs for the Government are estimated at MK1.3 billion (US\$1.74 million), as shown in Table 2.

The decrease in allocations to EPI, especially in FY2018/19 is mainly due to the reduction of the discretionary ORT budget allocated to the MoHP. The reduction in the discretionary ORT budget for the MoHP, from which the EPI resources are drawn, is linked to the ring-fencing of major items, such as the procurement of ambulances. The Treasury ring-fenced the item "Vaccines and Blood Products" for the Central Hospitals in 2019/20. However, the Central Hospitals mostly use it to only procure blood products given that immunization activities and the related procurement are handled by the MoHP directly.

Out of the allocated MK558 million, only MK200 million (36%) is for vaccine procurement while the rest is for operational costs. It should be noted that the vaccine budget consists of both funding for traditional vaccines and Government's co-financing contributions to the Gavi⁴. The specific allocation to procurement of vaccines has declined by 9.9% in real terms. As indicated, an additional MK600 million, being underutilized funds from the Zomba Mental Hospital's Drug budget, was availed by the MoHP to cofinance vaccine procurement in 2019/20. The remainder of the budget allocation to EPI (MK358 million) is for operational expenses (fuel and lubricants, maintenance of medical equipment, subsistence allowances and other consumables). The budget for operational expenses was substantially increased up from the MK64 million allocated in 2018/19, in a bid by the MoHP to help address falling coverage rates against the backdrop of scarce resources.

The underfunding of the EPI budget is an issue of concern to development partners. In 2019, Development Partners (DPs) raised concerns about the decline of the EPI budget compared to FY2017/18 as shown in Figure 4. The MoHP continue to face serious funding constraints in mobilizing resources for the EPI.

Due to lack of disaggregated data, it is not possible to under-take meaningful equity analysis of EPI spending

by the Government. The little available evidence suggest that allocations are not made on the basis of immunization rates

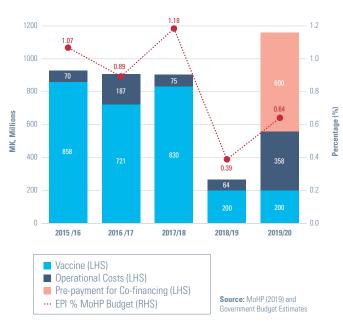


FIGURE 4 Trends in EPI Spending

TABLE 2 EPI Budgetary Needs for 2020/21, **Including Service Costs**

Item	Amount (USD)	Amount (MK)
Traditional Vaccines (excl. injection materials)	589,329	441,996,510
Co-financing (excl. injection materials)	743,493	557,619,750
Injection Materials (for both Td and New Vaccines)	409,467	307,100,040
Total EPI Budgetary Need	1,742,288	1,306,716,300
Source: UNICEF Malawi (2020)		

KEY TAKEAWAYS

- Ring-fencing holds the potential to protect budgets for vaccine procurement from in-year revisions. Given this scenario, the Treasury is called upon to consider moving the ring-fenced budget for procurement of vaccines from Central Hospitals to the MoHP (Vote 310).
- ⊕ It is not clear whether disparities in immunization outcomes are driven by inequities in public financing. More disaggregated expenditure information by District would be required to measure equity of spending, geographically.

⁴ Under the current co-financing arrangement, the Government contributes US\$0.20 per each dose of Pentavalent, Pneumococcal, Rotavirus and HPV vaccine, the rest being covered by GAVI. Furthermore, the Government contributed 56% of the Measles Rubella Vaccine (MR) doses.

5. BUDGET CREDIBILITY AND EXECUTION

The Government has consistently disbursed EPI resources as per approved budgets over the last two fiscal years. Data from the MoHP show that EPI has generally enjoyed strong budget execution rates over the years, averaging 95%⁵ over the last two fiscal years as shown in Table 3. In 2018/19, for example, a total of MK253.1 million was executed out of the approved EPI budget of MK263.8 million. Allocations to the EPI have consistently been protected at mid-year. This is commendable, considering that allocations to other programs within MoHP usually suffer revisions at mid-year review. For example, in 2018/19, allocations to goods and services under Health Services (program 21), were revised down by 8% from MK9.4 billion to MK8.6 billion.

5 A disbursement rate of 95%+ resembles strong budget credibility by public expenditure and financial accountability (PEFA) framework standards.

TABLE 3 Disbursement rates for EPI

	Approved	Expenditure	Execution Rate (%)
FY2017/18	904.4	865.7	95.7
FY2018/19	263.8	253.1	95.9

Source: MoHP (2019)

KEY TAKEAWAY

 High budget execution rates for the EPI demonstrates Government's appreciation of the criticality of immunization services. Going forward, the challenge for the Government is to maintain the momentum whilst at the same time increasing investments to EPI.

6. FINANCING OF EPI

The EPI is funded by both the Government and Donors. The Government is responsible for funding traditional vaccines (BCG, bOPV andTd) and co-financing new vaccines as stipulated under the Gavi arrangements. In addition to this, the Government also covers operational costs such as fuel, maintenance of medical equipment, stationery and computer expenses and other consumables.

The Gavi is the main development partner funding procurement of vaccines in Malawi. There are also in-country donors under the Health Sector Joint Fund framework, which include KfW and Norway, who financially support the procurement of traditional vaccines as well as contribute to the Gavi co-financing requirements. However, the Gavi is the main donor supporting the procurement of new vaccines and injection materials. The Gavi funds, which come as off-budget, are channeled directly to the Supply Division whenever vaccine procurement is to be initiated.

Malawi is still in the initial self-financing phase of the Gavi arrangements. Under this arrangement, the Government's contribution is a flat amount of US\$0.20 per dose of any Gavi-supported vaccine that is used in routine immunization programmes. This contribution is primarily intended to reinforce country ownership and build procurement capacity, without discouraging new vaccine adoption. Other co-financing arrangements are presented in Box 1.

Given fiscal space challenges, it will take time for Malawi to graduate into the preparatory transition phase. While co-financing is mandatory for GAVI-supported vaccines used in routine immunization, Governments are generally not required to co-finance vaccines for onetime immunization campaigns, such as mass preventative campaigns with meningococcal A vaccine. However, since 2018, co-financing is now required for measles and measlesrubella periodic follow-up campaigns. Low-income countries such as Malawi will be required to contribute 2% of vaccine doses while countries in preparatory transition (phase 1) and accelerated transition (phase 2) will contribute 5%.

BOX 1: OTHER GAVI CO-FINANCING ARRANGEMENTS

Preparatory transition phase: when a country enters the preparatory transition phase, the Government's contribution increases by 15% per year. In this phase, the co-financing requirement is a percentage of the price of vaccines, and the absolute amount will thus vary from vaccine to vaccine.

Accelerated transition phase: when a country enters accelerated transition, the Government's share of vaccine costs increases from the level it had reached during the previous phase to 100% of the cost over a period of five years.

The Gavi co-financing arrangement, explained above, applies only to new vaccines. Currently, there are cofinancing arrangements for Pentavalent, Pneumococcal (PCV), Rotavirus and HPV. The arrangement is such that the Government contributes a flat amount of US\$0.20 per dose while the rest is contributed by GAVI. It should be noted that there is currently no co-financing arrangement on inactivated polio vaccine (IPV) (though it is also a new vaccine). As for measles rubella (MR), under a programme that is concluding in 2020, Malawi is contributing the MR cost equivalent. Ultimately the Government was contributing an average of 56% of the MR doses, with GAVI contributing 44%. However, if GAVI will not propose alternative co-funding arrangements, the Government will ultimately contribute 100% from 2021. The Government is therefore encouraged to devise a financing plan for vaccines to ensure sustainability beyond 2021.

Figure 5 shows funding of different vaccines by source in 2019.

The current financing methods used by the Government to procure vaccines and meet its co-financing obligations are unsustainable. Given low budgetary allocations to EPI, the MoHP has been using different methods to finance vaccine procurement to meet its co-financing obligations. These include requesting for additional funds from the HSJF and re-allocation of funds from other budget lines as was the case in 2018/19. However, the MoHP faces several constraints when attempting to ensure adequate financing for immunization. In some cases, the MoHP has had to lobby Treasury to re-allocate resources from other health cost-centers to co-finance vaccine procurement.

KEY TAKEAWAYS

- ⊕ Current methods used by the Government to meet its co-financing requirements to Gavi, have potential to compromise smooth and timely procurement of vaccines. It is therefore important for the Government to develop a sustainable financing plan for the EPI beyond fiscal year 2021/22.



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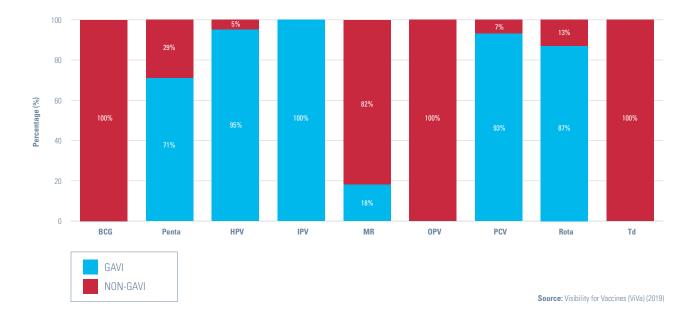


FIGURE 5 Financial Proportions of Vaccine Funding by Source in 2019

7. EPI SYSTEMS AND PLANNING ISSUES

7.1 Logistics and Supply Chain System

Cold chain equipment management, power outages and transportation challenges are affecting the immunization supply chain system, at both the central and sub-national level. According to the Gavi Joint Appraisal Report (2019), challenges in cold chain equipment management include unavailability of spare parts which impacts corrective maintenance of cold chain equipment, frequent breakdown of certain VLS refrigerators, challenges with contractual responsibilities and processes to support the maintenance of cold chain equipment and generators, and challenges tracking maintenance records for cold chain equipment. The scarcity of kerosene on the market also leads to occasional non-functional kerosene refrigerators which affects the longevity and effectiveness of vaccines.

A standardized Effective Vaccine Management (EVM) criteria⁶, which tracks nine indicators, was established to assess the effectiveness of the EPI supply chain system. The EVM initiative encourages countries to achieve or exceed an 80% score for all criteria. According to an EVM Assessment carried out in 2016, the overall EVM score was above the 80% of recommended minimum scores at national, zonal and district level for all selected indicators. At the Health facility level the score of 80% was met for 6 of the 8 criteria. Other cold chain management challenges affecting the EPI system relate to shortage of vaccine carriers as well as technicians to support maintenance of the cold chain refrigerators in health facilities. An estimated 276 of the 4,011 vaccine careers available in the health sector are out of order.

Frequent power outages, experienced over the years, have disrupted vaccine supply for some EPI sessions. Power outages have also affected the quality of vaccines, resulting in high wastage rates. The situation is worse in rural health centers, most of which use solar powered refrigerators for cold chain maintenance. Some health facilities, especially in hard-to-reach areas are not equipped with solar power refrigerators. In addition, poor transport infrastructure makes it difficult to cover hard-to-reach communities, especially those in difficult terrain, with outreach services.

7.2 Planning, quantification and forecasting of vaccine procurement needs

There are capacity gaps in planning, quantification and forecasting of vaccine procurement budgetary needs within the MoHP. Malawi has a weak planning and budgeting framework for the procurement of vaccines. Although the comprehensive multi-pear plan (cMYP) was developed to assist with longer-term planning for immunization, it is not being frequently utilized. With regards to quantification and forecasting, there are currently no tailored templates available to forecast/cost the vaccine procurement needs and operational expenditures. Currently, the EPI Unit uses internal UNICEF tools/documents such as the Visibility for Vaccines (ViVa)⁷. Linking the vaccine procurement forecasting and budgeting with ViVa is important.

⁷ ViVa is a UNICEF tool for EPI managers to enable early identification of potential stock issues, more information can be found here: https:// www.vivaplatform.org/en/default.aspx



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⁶ These are E1: pre-shipment and arrival procedures, E2: temperature monitoring, E3: Storage capacity, E4: building, equipment and transport, E5: Maintenance, E6: Stock management, E7: distribution, E8: vaccine management and E9: information and supportive functions. E1 applies only to national level.

7.3 Human Resources for Health (HRH)

The shortage of human resources in the health sector coupled with poor deployment of HSAs within districts remains a key challenge hampering the effective delivery of immunization services in Malawi. Overall, Malawi faces a shortage of 7,000 HSAs, who conduct the bulk of vaccinations, with most HSAs serving more than the recommended 1,000 population threshold. Apart from Likoma, all districts have less than 80% of HSA positions filled (Figure 6), with majority of the HSAs concentrated in urban areas. While HSAs are key for effective delivery of immunization services, they are burdened with additional tasks. This is linked to the fact that many partners with new health programmes use HSAs in order to reach communities. A sizable number of the HSAs usually travel long distances to outreach clinics, with limited means of transportation such as motorcycles or bicycles.

engagement with communities through the "reaching every child" (REC)⁸ approach should be strengthened and scaled up to ensure all children are fully immunized.

Poor documentation in Under 2 (U2) Registers⁹ and Tally Books have also been reported. The 2019 Gavi Joint Appraisal Report revealed that some health facilities do not use the under 2 registers and only use the tally books thus making defaulter tracing difficult. Non-user friendliness of the U2 registers has been singled out to be resulting in

100 80 60 Percentage (%) 4N Balaka Nikhalahay chillpa Dedta Mehinii Kasungu Ntchisi Mulanie Chikwaw Nichel Rumph Phalom Lombi Chiradau Thyok 004 Mwan NSar Coverage of HSAs Source: The Gavi, Vaccine Alliance, Joint Appraisal Report of 2019

FIGURE 6 Percentage of HSA Positions filled by Districts, 2018

7.4 Leadership and Governance

Inadequate supportive supervision, limited human resource capacity, poor record keeping on immunization services are also hampering the effectiveness of the EPI. In terms of supervision, most HSAs lack adequate supervision which often promotes absenteeism, lowers motivation and in several cases results in cancellation of scheduled clinics. In terms of capacity, there are gaps in knowledge and understanding of EPI issues amongst HSAs, which include limited understanding on the application of the EVM criterion. The limited capacity is also linked to the fact that the development of new guidelines as well as introduction of new mass campaigns, among others, has not been consistently accompanied with appropriate trainings. Ongoing efforts to intensify sensitizations and poor data entry practices as well as data omission after vaccinations by health workers. Introduction of tally sheets have led to some providers abandoning the use of under 2 registers thus cannot conduct defaulter tracing

7.5 Data Quality

Over the years, the EPI has continuously and consistently reported challenges with population denominator figures that has affected target setting and performance. This is linked to variations between population figures from the National Statistics Office (NSO) and the head count approach. Going forward, a consensusbased approach is needed to standardize the denominators to be used in reporting immunization rates across districts.

⁸ Reaching Every Child (REC) is a strategy used to achieve the goal of 80% immunization coverage at district level and 90% at national level in the WHO members' states. REC aims to fully immunize every infant with all vaccines included in the national immunization schedule. To achieve this goal, the strategy focuses on building capacity from health facility level upwards to maximize access to all vaccines.

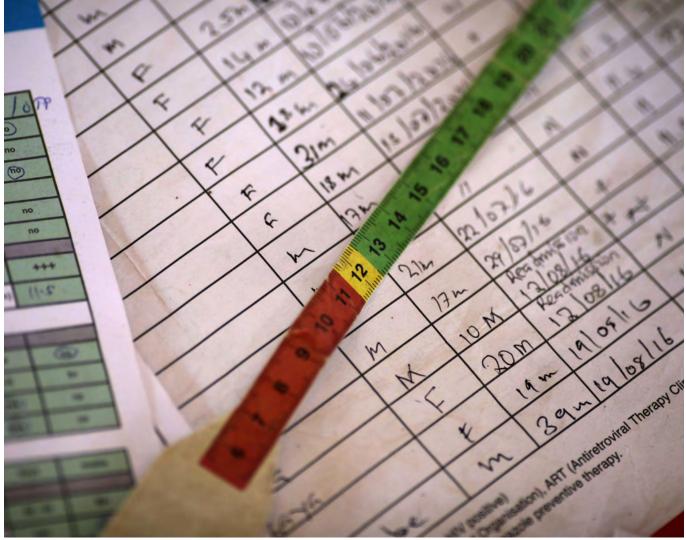
⁹ The U2 registers are used at immunization sites to help track immunized and unimmunized children.

KEY TAKEAWAYS

- There is need to strengthen efforts to enhance the effectiveness of vaccine management activities in the country, with end-to-end tracking of the entire vaccine supply chain system.
- Technical support in the areas of planning, quantification and forecasting of vaccine budgetary needs is needed. Such capacity building exercise should follow the development of budgeting templates, which should include linkages to the ViVa.
- ⊕ The Government should upscale its efforts to recruit more HSAs to better support populations in hard-to-reach areas. This should

be accompanied by strategic procurement and deployment of motorbikes and bicycles to enable timely and sustainable provision of EPI services.

- In parallel, continuous professional development of HSAs is key to enhance understanding, especially in the application of the EVM criterion, the purpose of the vaccine "cold chain" and the importance of continuously maintaining the product quality, including the need to store and transport vaccines within the WHO-recommended temperature ranges.
- ⊕ A consensus is needed to help establish the standard denominators to be used in reporting immunization rates across districts.



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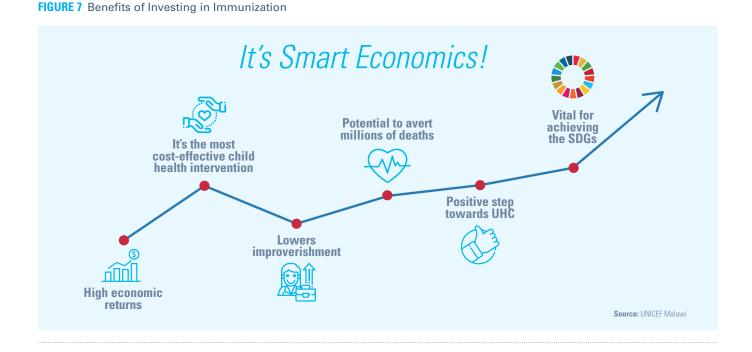
Annex 1: Why Investments in Immunization matter for Malawi?

There are several socio-economic reasons that should compel Malawi to invest in child immunization. According to GAVI, immunization has narrow and broad benefits to a country. The narrow benefits of immunization are limited to preventing healthcare costs and loss of productivity for the patient and the person caring for him or her. The broad effects include ripple effects on many other aspects of society and the economy. Investing in immunization is considered one of the most cost-effective public health interventions with proven potential to avert deaths and prevent disability. Investing in immunization plays a critical role in achieving SDGs.

Also, immunization has ripple effects on many socioeconomic dimensions. Abundant evidence suggests that by preventing illness, immunization improves a child's cognitive skills, physical strength and performance at school, resulting in increased productivity in the long term. Also, by improving financial security and reducing risk, preventing illness through vaccination may lead to increased investment and improved political and economic stability. Moreover, immunization also helps protect unvaccinated individuals in the community through an effect known as herd immunity.

Overall, the economic returns from investing in immunization are significant. A return on investment (ROI) study by Ozawa (2016)¹⁰, estimates that every dollar invested in vaccines, yields a return equivalent to 16 times the costs, taking into account treatment costs and productivity losses. The returns would reach up to US\$44 when broader economic benefits are included. These economic benefits include financial savings from the money that families lose when a child is sick, and a parent cannot work. The benefits of investing in immunization are summarized in Figure 7.

¹⁰ Sachiko Ozawa, Samantha Clark, Allison Portnoy, Simrun Grewal, Logan Brenzel, and Damian G. Walker (2016): Return On Investment from Childhood Immunization in Low- And Middle-Income Countries, 2011–20, Health Affairs, 35, No. 2 (2016): 199–207.



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for every child, vaccines

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