

**Scaling Up Integrated  
Community Case  
Management (iCCM) and  
Community-Based  
Primary Health Care in  
Malawi**



**iCCM  
INVESTMENT  
CASE FOR  
MALAWI**

**2021–2026**

Integrated Management of Childhood  
Illness Unit, Ministry of Health

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The Ministry of Health is grateful for all contributions towards the finalisation of the investment case, which it shall use along other strategic documents for child health in Malawi in its effort to further reduce infant and child mortality rates in the country.

## Abbreviations

AIDS	Acquired Immunodeficiency Syndrome
CHIS	Community health information system
CHPCT	Community Health Planning and Costing Tool
DHIS	District health information system
DT	Dispersible tablet
HIV	Human Immunodeficiency Virus
HSA	Health surveillance assistant
iCCM	Integrated community case management
IMNCI	Integrated Management of Neonatal and Childhood Illness
LRI	Lower respiratory infection
MoH	Ministry of Health
NMC	Non-malaria commodity
ORS	Oral rehydration salts
PHC	Primary health care
SDG	Sustainable Development Goal
SHSA	Senior health surveillance assistant
WHO	World Health Organization

## Statement from the Ministry of Health

The 2021–2026 integrated community case management (iCCM) investment case work endeavoured to determine iCCM commodities and other community health inputs required for a full package of iCCM services to complement the Global Fund investment and mobilise resources from other investors, donors, and partners, as well as domestic iCCM and community health resources. The investment case was developed with the understanding that the Malawi Ministry of Health leads a mature iCCM strategy with at least 4,160 functional sites nationwide with health surveillance assistants (HSAs) who are trained to manage common conditions among children ages two to 59 months living in hard-to-reach areas.

The iCCM investment case aims to generate cost estimates for a comprehensive community health package with a focus on iCCM while highlighting iCCM investment priorities within the community health context for the country. Further, it estimates the financial resources required to implement iCCM and deliver other community health services provided by HSAs, as well as to quantify and estimate costs for non-malaria commodity (NMC) needs to complement and leverage the Global Fund investment with other partner and Ministry of Health contributions. Similarly, the investment case assesses financial gaps, particularly for iCCM, including NMC, to inform resource mobilisation efforts and strategies as well as for coordination, advocacy, and equitable distribution. In addition, it identifies the main cost drivers and thus potential areas for optimisation, cost reduction, and saving, while at the same time informing the national and subnational planning and budgeting based on the data generated for development of the Child Health Strategy II 2021–2026.

The investment case costs were estimated with the Government of Malawi and people of Malawi as the users, and were informed from an investor, donor, and partner perspective to optimise investment and leverage Global Fund contributions.

The team used the Community Health and Planning Tool 2.0 data entry module with the following elements: programme data, structure, and scale-up; training; equipment; supportive supervision; service package; coverage targets; recurrent and start-up costs; and financing, with assumptions made on programme scale-up, community health service coverage, and HSA-to-population ratio. The analysed results were generated to assess programme performance, conduct sensitivity analysis, develop investment cases, and plan for future services.

The total cost of the community health programme in 2021 is estimated at approximately \$39.2 million; by 2026, the annual total cost of the community health programme is estimated at \$187.9 million.

The Ministry of Health encourages all partners to support the implementation of this roadmap for improving and sustaining iCCM services in Malawi.

QUEEN DUBE, PhD  
CHIEF OF HEALTH SERVICES

## Section 1. Background and Context

**Background:** This investment case aims to spotlight costs and resource needs for integrated community case management (iCCM) within the broader context of community-based primary health care (CBPHC) in Malawi. The timing and preparations for the investment case were aligned with country dialogues and planning processes as well as funding opportunities. In addition to generating new investments and sustaining existing commitments for CBPHC, the investment case intends to optimise investments, increase efficiencies and value for money, and improve coordination among all stakeholders.

In developing this investment case, the team considered various strategies to ensure strong alignment to ongoing efforts at national and subnational levels. These strategies include the Malawi Vision 2063; Malawi Growth and Development Strategy; Essential Health Package; National Community Health Strategy; Investment Case for Reproductive, Maternal, Newborn, Child, and Adolescent Health; iCCM Roadmap 2017–2021; Malawi Child Health Strategy 2021–2026; and the Health Sector Strategic Plan (HSSP) II and discussion for HSSP III.

Consultations and two validation meetings with national and subnational stakeholders helped to inform bottlenecks, anticipated changes, and updates to service delivery and supply, including training of HSAs, scale-up plans, future costs and financing needs, and resource gaps. The anticipated returns on investments from scaling up equitable access to iCCM, inclusive of community management of acute malnutrition and other community health services,<sup>1</sup> include improvements in health outcomes as well as socioeconomic gains.

**Context:** Over the past two decades, Malawi has made significant progress in reducing child mortality. In fact, Malawi was one of the few countries in sub-Saharan Africa to meet the Millennium Development Goal 4 target of reducing under-five mortality, and achieved this milestone two years before the 2015 target.<sup>2</sup> The country has maintained this momentum and is on track to meet national Sustainable Development Goal (SDG) target 3.2.1 of reducing under-five mortality to 25 or fewer deaths per 1,000 live births by 2030.<sup>3</sup>

While this is remarkable and commendable progress, these achievements have not been equitable. There are still vulnerable populations in hard-to-reach areas that are not served by health surveillance assistants (HSAs). Figure 1 shows neonatal and overall under-five mortality rates by region. In the central and southern regions of Malawi, there is a persistent concentration of districts with under-five mortality rates exceeding 60 deaths per 1,000 live births, and in some districts there are more than 80 deaths per 1,000 live births. More districts in the northern region and several districts in the

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<sup>1</sup> These services include immunizations, family planning, TB screening, contact tracing and referral, and HIV testing and counseling.

<sup>2</sup> Kanyuka, M., Ndawala, J., Mleme, T., Chisesa, L., Makwemba, M., Amouzou, A., Borghi, J., Daire, J., Ferrabee, R., Hazel, E., Heidkamp, R., Hill, K., Martínez Álvarez, M., Mgalula, L., Munthali, S., Nambiar, B., Nsona, H., Park, L., Walker, N., Daelmans, B., and Colbourn, T. (2016). Malawi and Millennium Development Goal 4: A Countdown to 2015 Country Case Study. *The Lancet: Global Health*, 4(3), e201–e214. [https://doi.org/10.1016/S2214-109X\(15\)00294-6](https://doi.org/10.1016/S2214-109X(15)00294-6)

<sup>3</sup> UN Inter-agency Group for Child Mortality Estimation; Levels and Trends in Child Mortality: Report 2021.

southern region have performed better and have mortality rates below 60 deaths per 1,000 live births.

Figure 1. Neonatal and under-five mortality rates by region, 2021

Region	Neonatal mortality	Under-5 mortality
<b>Malawi</b>	<b>26</b>	<b>56</b>
North	23	39
Central	26	57
South	26	59

Source: National Statistical Office. (2021). Malawi Multiple Indicator Cluster Survey 2019-20, Survey Findings Report. Zomba, Malawi: National Statistical Office.

As Figure 2 shows, and according to the National Statistical Office<sup>4</sup>, neonatal and infant mortality account for 46% and 71%, respectively, of under-five deaths. Moreover, levels of mortality reduction are inconsistent throughout the under-five period. Declines in under-five mortality between 2000 and 2016 have been disproportionate. For infants and children ages one to 59 months, the average annual rate of mortality reduction was 8.6%. But in neonates, the rate of mortality reduction was much slower, at 4.2%. Interventions targeting the neonatal and post-neonatal periods in infancy (under one year) need more emphasis<sup>5,6</sup> and commitment to accelerated progress is urgently required for reducing infant mortality, including neonatal mortality, if Malawi is to achieve all of the SDG 3.2 targets. These commitments must be paired with sufficient levels of investment in primary health care, and all stakeholders must remain steadfast to ensuring children survive and thrive and that the health system can deliver high-quality, equitable primary health care services at all points of care.

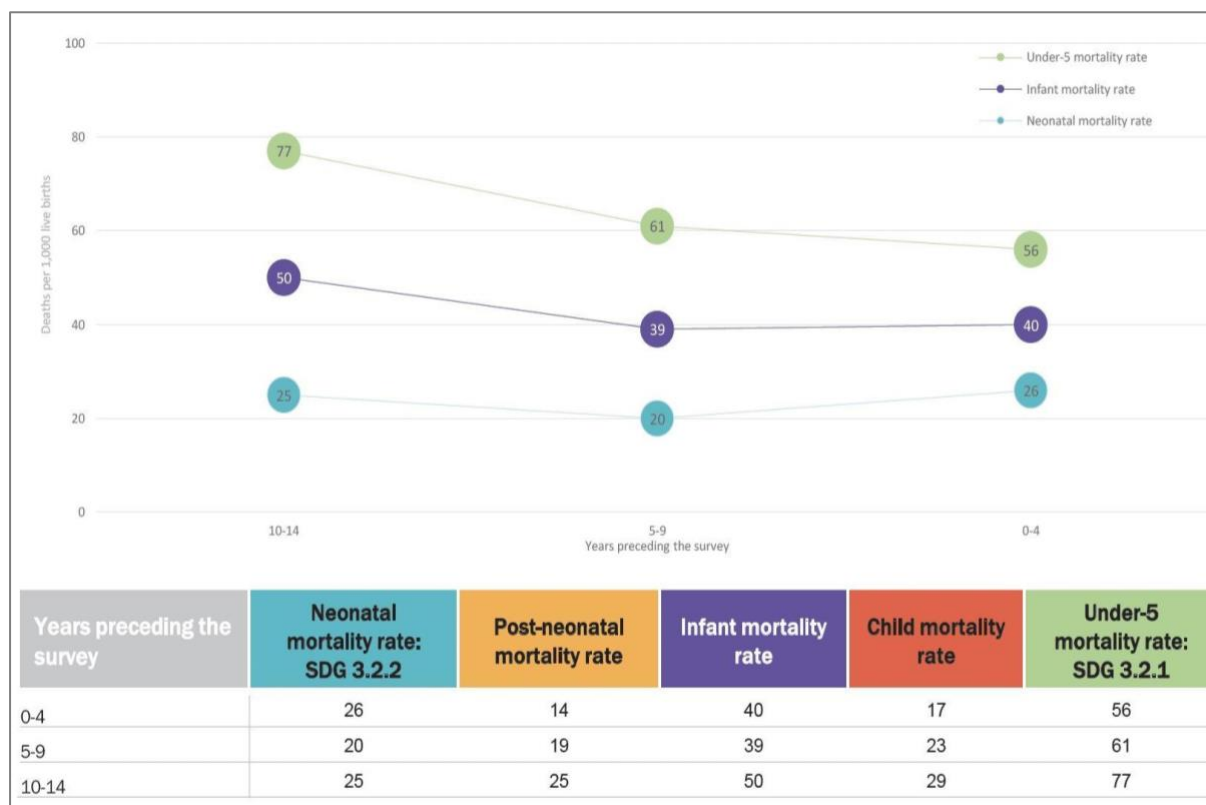
Despite past gains in reducing mortality levels, there is a risk of eroding this progress. The COVID-19 pandemic has led to significant disruptions throughout the health system and further constrained an already limited fiscal space. Malawi is also vulnerable to recurrent climate events that are happening with increased intensity and frequency. These climate shocks increase vulnerability and food insecurity, divert resources, and threaten to erode achievements in improving health outcomes. Enhancing resilience and making deliberate, robust investments in strengthening the health system—particularly at the community level as a first point of care—are critical to improving preparedness, response and mitigation, and rebuilding efforts.

<sup>4</sup> National Statistical Office. (2021). Malawi Multiple Indicator Cluster Survey 2019-20, Survey Findings Report. Zomba, Malawi: National Statistical Office.

<sup>5</sup> Kanyuka et al. 2016.

<sup>6</sup> Malawi Child Health Strategy 2021–2026.

Figure 2: Trends in under-five mortality



\*0–4 years (2016–2020); 5–9 years (2011–2015); 10–14 years (2006–2010)

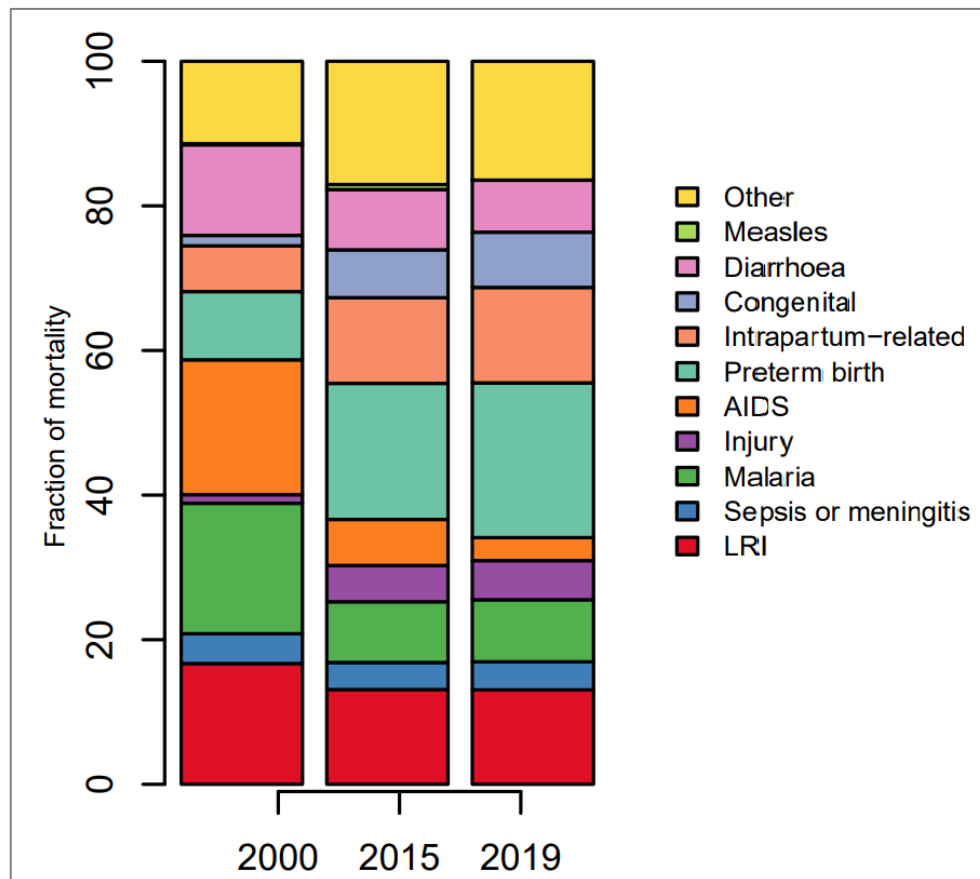
Source: National Statistical Office. (2021). Malawi Multiple Indicator Cluster Survey 2019-20, Survey Findings Report. Zomba, Malawi: National Statistical Office.

**Causes of under-five deaths:** The major causes of deaths of children under age five years in Malawi are preterm birth (20%), other conditions (16%), intrapartum related (13%), pneumonia (13%), malaria (9%), diarrhoea (7%), congenital conditions (7%), injury (6%), sepsis (5%), and HIV/AIDS (4%). Figure 3 shows the estimated evolution of causes of under-five deaths from 2000 to 2019.<sup>7</sup>

<sup>7</sup> Perin, J., Mulick, A., Yeung, D., Villavicencio, F., Lopez, G., Strong, K. L., Prieto-Merino, D., Cousens, S., Black, R. E., and Liu, L. (2022). Global, Regional, and National Causes of Under-5 Mortality in 2000-19: An Updated Systematic Analysis with Implications for the Sustainable Development Goals. *Lancet: Child & Adolescent Health*, 6(2), 106–115. [https://doi.org/10.1016/S2352-4642\(21\)00382-5](https://doi.org/10.1016/S2352-4642(21)00382-5)



**Figure 3:** Causes of under-five deaths, 2000–2019



## Section 2. Community Health System and iCCM-Specific Bottlenecks

Overview of the iCCM policy, iCCM guidelines and service package, and implementation status: iCCM is one component of Malawi’s comprehensive Community Health Strategy, and there has been progress in its implementation since its inception in 2008. iCCM was established to increase access to treatment for malaria, pneumonia, and diarrhoeal disease among children under five years in hard-to-reach communities in the country. HSAs are trained to open and manage community health services in sites called village clinics.

Recognising the importance of further reducing under-five mortality, the Malawi Ministry of Health (MoH), in collaboration with other partners and working under the guidance of the government’s Child Health Strategy, has been scaling up the iCCM package. This strategy was built on the premise of Integrated Management of Childhood Illness (IMCI), which the World Health Organization (WHO) developed to improve diagnosis and treatment of common childhood illnesses at facility and community levels. Due to linkages to the IMCI unit programme, in Malawi, iCCM is synonymous with community IMCI. iCCM falls under the Child Health Strategy, whose mission is to ensure survival, health, child health development, and well-being of all newborns, children, and adolescents in Malawi through effective delivery of quality, evidence-based, high-impact, holistic, and integrated interventions at all levels of the health care system.

Although progress has been made, Malawi has fallen short of its vision for iCCM that by 2021 all children under age five years in hard-to-reach areas receive prompt treatment for pneumonia, diarrhoea, and malaria from an HSA who is well trained, properly resourced, and community supported to attain zero avoidable under-five deaths.

The following are some of the main barriers to providing quality community health services:

- Institutional level
  - Facility in-charges do not provide iCCM HSAs with adequate mentorship.
  - Inconsistent availability of medicines at the facility level affects use at the community level.
  - Funding for refresher trainings is lacking, with most current refresher training from external sources.
- Supply
  - Lack of housing and transport for HSAs in their catchment areas results in a concentration of HSAs in urban/peri-urban centres, which compromises the delivery of essential community health services in hard-to-reach areas.
  - A parallel supply chain for nongovernmental organisation-supported projects exists. Health facilities experience stock-outs of Amoxicil DT (dispersible tablets) and other essential medicines, particularly in areas not receiving external support.
  - Infrastructure is lacking or insufficient to support village clinics.
  - Resources (fleet and fuel) are insufficient to consistently offer comprehensive outreach services.
  - Verticalization of programme funding inhibits comprehensive and integrated service delivery; some programmes are unfunded.
- Demand
  - iCCM sites are open on scheduled days/dates. As these services are not available 24/7, site schedules affect when and where caregivers seek health care.
  - Stock-outs of medicines affect perceptions of effectiveness of iCCM services at close-to-community points of care, which influences where people seek care.
- Service quality
  - Competing priorities for HSAs, e.g., driven by vertically focused funding streams such as the influx of COVID-19 funds, has compromised time available for iCCM.
  - Insufficient time for iCCM has affected data collection and the use of data to improve service quality, as well as other community-level quality improvement interventions.
- Data quality
  - Data on provision of curative health services, especially consumption data for iCCM services, is of poor quality.

## Section 3. Methodology

*Approach:* In September 2020, a small working group was formed to spearhead the process of costing iCCM within the community health context. The group consisted of the IMNCI/iCCM Unit Director, MoH Malawi; child and community health focal points for UNICEF-Malawi; MOMENTUM Country and Global Leadership; and the U.S. Agency for International Development (USAID) Mission in Malawi. The iCCM task team and MOMENTUM Country and Global Leadership provided technical support. Initially, a national consultant was hired to collect information and input data, but in March 2021, the working group assumed responsibility for these tasks. The working group convened via Microsoft Teams and Zoom on an as-needed basis—typically every 14 to 21 days—and towards the conclusion of the work, they touched base about every month. This work was guided by a terms of reference and funded by MOMENTUM Country and Global Leadership.

The working group reviewed options for costing tools and selected the Community Health Planning and Costing Tool (CHPCT) Version 2.0 (May 2020) developed by UNICEF and Management Sciences for Health.<sup>8</sup> This open source, Excel-based tool was used to cost the national package of community health services, produce results to plan and scale up future services over a five-year period (2021–2026), and prepare this investment case. The CHPCT was selected because it is user friendly and allows users to calculate the costs of all elements of a comprehensive community health services package, including start-up, training, and community-level service delivery costs, as well as support, supervision, and management costs at all levels of the health system. The financing element included with the tool was of particular interest to show programme financing sources and gaps in current and future funding.

Additional documents and resources were used to inform the approach, decisions, and data inputted into the tool. Resources included the National Community Health Strategy 2017–2022, Roadmap for Sustainable iCCM Services in Malawi 2017–2021, Costing of Malawi’s Second Health Sector Strategic Plan Using the One Health Tool (2018), and iCCM Gap Analysis (2014). Data from DHIS and CHIS were also considered along with Rapid Access Expansion Program (RAcE) data. Various MoH stakeholders were also consulted and, prior to inputting data in the CHPCT, a three-day visit was arranged in three purposefully selected districts across the three regions: Rumphi-Northern Region, Kasungu - Central Region, and Machinga - Southern Region. In addition to geographical considerations, these districts were selected based on iCCM performance and level of support (financial investment in and saturation of iCCM services) as guided by the MoH, as well as performance (the assessment included a well-, moderate-, and poor-performing district). During the visits, the consultant met with and interviewed the iCCM coordinators, district medical officers/district health officers, district environmental health officers, and representatives from the district councils. The working group interviewed facility in-charges and senior health surveillance assistants (SHSAs) at the facility/health centre level and HSAs at the community level. Throughout the nearly one-year period of collecting, discussing, reflecting, and adjusting data, various other stakeholders and partners were consulted both formally and informally. On two occasions (March 2021 and September 2021), the working group convened a larger

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<sup>8</sup> See <https://www.msh.org/resources/community-health-planning-and-costing-tool-version-20-handbook>.

group of MoH colleagues and other stakeholders to present the results of the tool, share data, and seek input.

The data, graphs, and figures included in the report are from the CHPCT 2.0 model analysis.

***Identification and prioritisation of interventions:*** The community health service package, understood to be any health service delivered by an HSA at the community level and in line with current national policies, strategies, and standard treatment protocols, was modelled using the CHPCT. While all HSAs provide preventive and promotive services and referrals, HSAs in hard-to-reach areas provide additional curative services, including iCCM. Although the primary interest was costing iCCM, this approach heavily depends on other health system inputs and a functional, institutionalised health system at the community level. Therefore, this model included iCCM within the broader community health service package and reflects the costs and needs to deliver high-quality, community health services in a well-performing, institutionalised health system by HSAs in both hard-to-reach and easy-to-reach areas.

A modest scale-up plan was modelled. In the baseline year 2021, approximately 50% of the total population was covered by an HSA. By 2026, it is projected that 79% of the total population in Malawi will be covered by an HSA. Because equitable access to health services remains a critical priority, the model applied a more robust scale-up in rural areas; by 2026, 85% of the population living in rural areas will be covered by an HSA.<sup>9</sup> Service utilisation of community health interventions varies by service.

In 2021, it is estimated that there were 8,778 HSAs, in Malawi of whom approximately 4,160 were providing iCCM services. By 2026, in line with national priorities, the goal is to increase the country's community health workforce to roughly 15,623 HSAs, of whom 6,000 will receive training to provide iCCM services in hard-to-reach areas.<sup>10</sup> Assumptions included in the CHPCT have factored in national priorities in the scale-up plan as well as anticipated changes to HSA training. Increasing the number of HSAs and updates to the national training curriculum are major cost drivers for community health in Malawi.

## Section 4. Costing and Financing of iCCM in Community Health

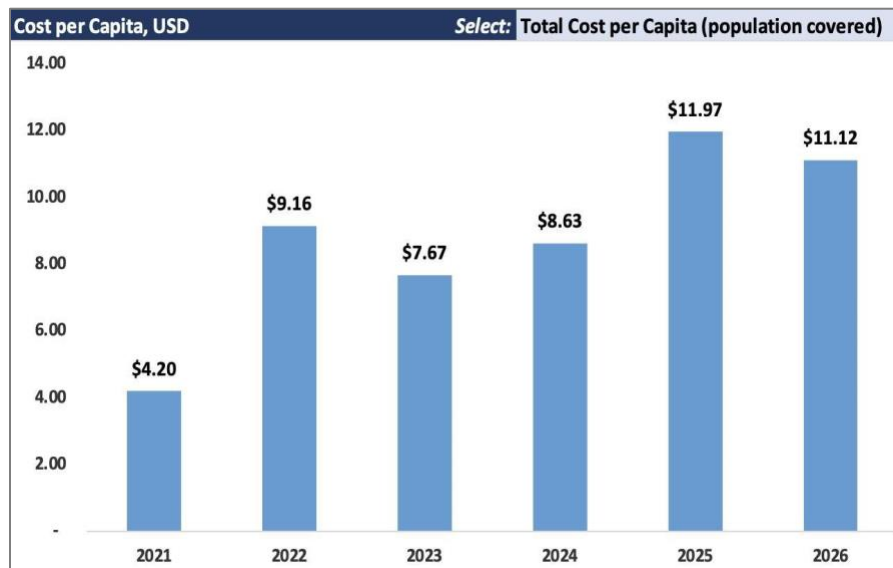
***Cost per capita:*** Over the period 2021–2026, the population covered by HSAs will nearly double based on the scale-up projections. With this increase in service coverage, costs will increase, however, efficiencies are likely to be realised. Between 2025 and 2026, cost per capita begins to stabilise. The total annual cost for the community health programme is relatively similar, despite a 6% increase in the population covered by an HSA. By 2026, with nearly 80% of the total population covered, the cost of the overall community health programme is estimated at \$11.12 per capita for the population covered (Figure 4).

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<sup>9</sup> By 2026, approximately 15.3 million of the 18 million people living in rural areas in Malawi will be covered by an HSA. It is estimated that Malawi's total population will be nearly 21.5 million people by 2026. Costs were estimated based on these population figures.

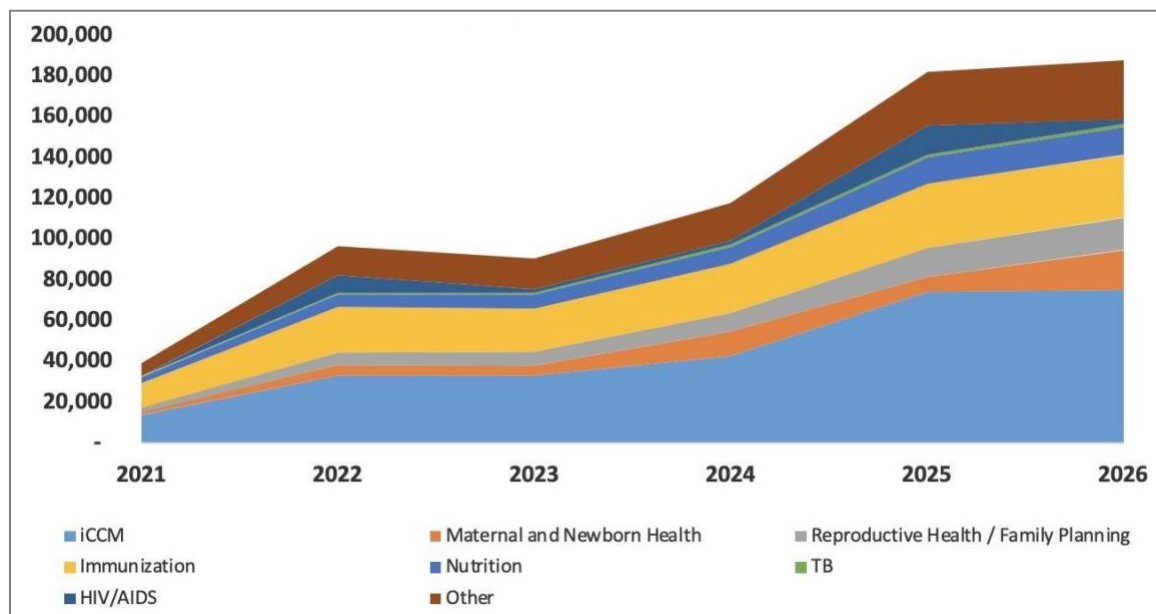
<sup>10</sup> This model did not account for the potential of other community health worker cadres (apart from HSAs and their supervisors, or SHSAs), however, this tool can easily be amended should additional cadres be introduced to the community health workforce.

**Figure 4:** Cost per capita for community health (inclusive of iCCM), 2021–2026



Total cost of the community health programme: The total cost of the community health programme in 2021 is estimated at approximately \$39.2 million.<sup>11</sup> By 2026, the total annual cost of the community health programme is estimated at \$187.9 million (Figure 5).

**Figure 5:** Community health programme costs, by programme (USD '000)



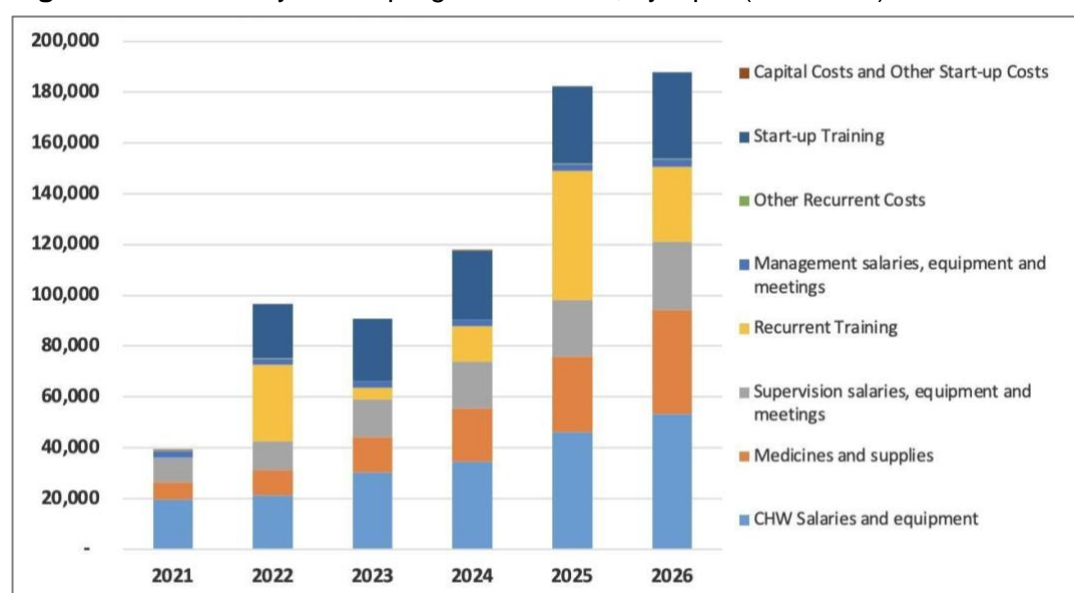
<sup>11</sup> As iCCM was the focus of this investment case, there may be auxiliary costs associated with other community health programmes that have not been fully accounted for. Furthermore, the cost of vaccines was not included in this assessment as accurate costs could not be determined and the budget for vaccines is typically managed at the health facility level and above and not included in the community health budget. Because HSAs are involved with vaccination campaigns and immunizing the population, however, their time and services have been included.

Major cost drivers include the following (Figure 6):

- Salaries (SHSAs, HSAs, and management staff at all levels assigned to community health programmes)
- Equipment
- Medicines and supplies
- Training—both initial and refresher training

Notably, when costing the training package, cost estimates are based on the anticipated training curriculum, which is a 12-month course followed by additional training required for iCCM.

**Figure 6:** Community health programme costs, by input (USD '000)



**Number of services provided:** In 2021, the estimated total annual cost to deliver community health services in Malawi was \$39.2 million. At this level of investment, nearly 18.5 million community health services can be provided (see Table 1), covering half of Malawi’s total population. By 2026, with 80% of the total population covered by an HSA, 67.7 million community health services will be provided at a total annual cost of \$187.9 million. A majority of community health services will be provided in rural areas, where by 2026, 85% of the population will be covered by an HSA.

Over the six-year period (2021–2026), more than 84.3 million iCCM services will be provided to children ages two to 59 months at an estimated total cost of \$272.5 million. To deliver the full package of community health services and scale up service delivery to reach 80% of the population and provide 241 million community health services, the cost is estimated at \$714.6 million over the period 2021–2026.

**Table 1:** Number of community health services by year

	2021	2022	2023	2024	2025	2026	Total by service type
<b>iCCM</b>	<b>6,583,387</b>	<b>8,585,459</b>	<b>10,903,555</b>	<b>14,893,407</b>	<b>19,197,577</b>	<b>24,140,993</b>	<b>84,304,378</b>
Maternal and newborn health	819,025	1,079,438	1,381,895	1,796,827	2,226,984	2,714,951	10,019,120
Reproductive health/family planning	1,212,792	2,047,584	2,854,617	3,947,739	5,126,845	6,449,618	21,639,195
Immunisation	1,378,789	1,669,098	1,994,550	2,449,572	2,893,332	3,206,820	13,592,161
Nutrition	2,890,601	3,594,619	4,395,282	5,506,094	6,617,057	7,860,265	30,863,918
TB	389,538	551,769	743,226	1,003,667	1,280,911	1,598,456	5,567,567
HIV/AIDS	23,473	53,118	89,190	137,404	191,554	254,730	749,469
Other	5,165,826	7,348,476	9,926,279	13,431,508	17,167,363	21,448,112	74,487,564
<b>Total</b>	<b>18,463,431</b>	<b>24,929,561</b>	<b>32,288,594</b>	<b>43,166,218</b>	<b>54,701,623</b>	<b>67,673,945</b>	<b>241,223,372</b>

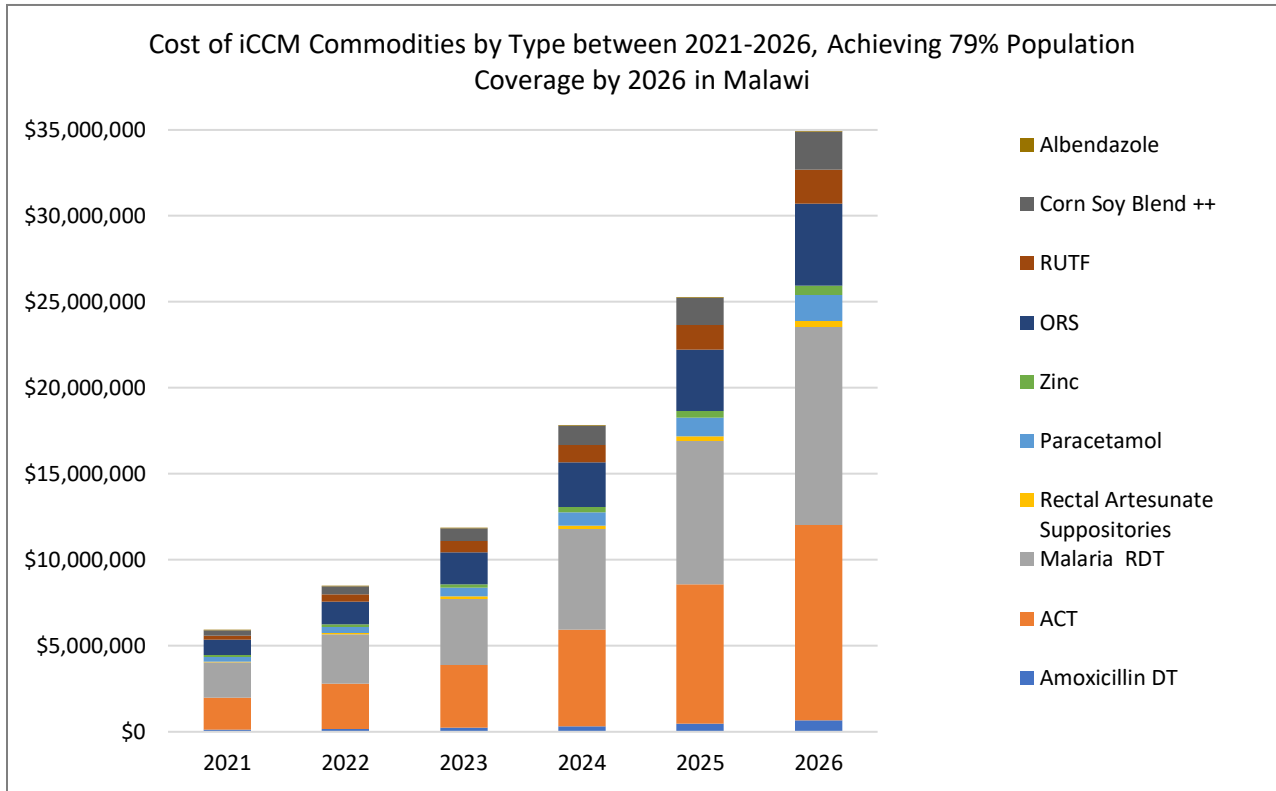
Commodities (medicines and supplies): Commodities earmarked for use at the community level for iCCM are of particular interest because of robust investments made by Global Fund in malaria as well as TB and HIV. Global Fund’s contributions are in addition to contributions from the MoH and other partners towards commodities and strengthening the health system at the community level. Specifically, in Malawi, limited Global Fund monies have been allocated for malaria commodities at the community level as well as related broader community system strengthening requirements. This work aims to optimise these investments by complementing Global Fund’s investment with the needed financing and resources for other critical, lifesaving child and community health commodities, namely commodities to treat pneumonia and diarrhoea required for high-quality iCCM programming.

As the community health programme scales up from 2021 coverage, estimated at nearly 50% of the target population, to 79% in 2026, community-level commodity needs and costs also increase—from \$5.9 million in 2021 to \$34.9 million in 2026 for iCCM (Figure 7). The majority of these costs (66%) are related to malaria diagnostics and treatment. For the period 2021–2026, the total estimated cost to treat suspected pneumonia at the community level<sup>12</sup> with Amoxicillin DT is \$1,958,000, and the total cost to treat diarrhoea with zinc and oral rehydration salts (ORS) is estimated at \$16,635,000 (Table 2). These costs also include a unit cost mark-up of 25% for international freight, transport, storage, management, and distribution, and factor in wastage, which varies by commodity. Because of frequent stock-outs of Amoxicillin at

<sup>12</sup> For this assessment, according to standard treatment protocols in Malawi, use of Amoxicillin at the community level is only indicated for suspected pneumonia in children ages two to 59 months. Therefore, other age cohorts and all other indicated uses for Amoxicillin have not been factored in to this assessment. This figure only represents the Amoxicillin needed to treat suspected pneumonia in children at the community level (estimated at 0.22 episodes/target population/per year. Source: McAllister, D. A., Liu, L., Shi, T., Chu, Y., Reed, C., Burrows, J., Adeyoye, D., Rudan, I., Black, R. E., Campbell, H., and Nair, H. (2018). Local, Regional, and National Estimates of Pneumonia Morbidity and Mortality in Children Younger than 5 years between 2000 and 2015: A Systematic Analysis. *The Lancet* 7: e47–e57. <https://www.thelancet.com/action/showPdf?pii=S2214-109X%2818%2930408-X>

health facilities and a preference for Amoxicillin DT, among other bottlenecks, Amoxicillin DT that is earmarked for community-level consumption is often consumed at the health facility level. A higher wastage figure was therefore included for Amoxicillin DT to anticipate some of these challenges.

**Figure 7:** Cost of iCCM commodities in Malawi, by type, 2021–2026





**Table 2:** Cost of iCCM commodities per year for six years

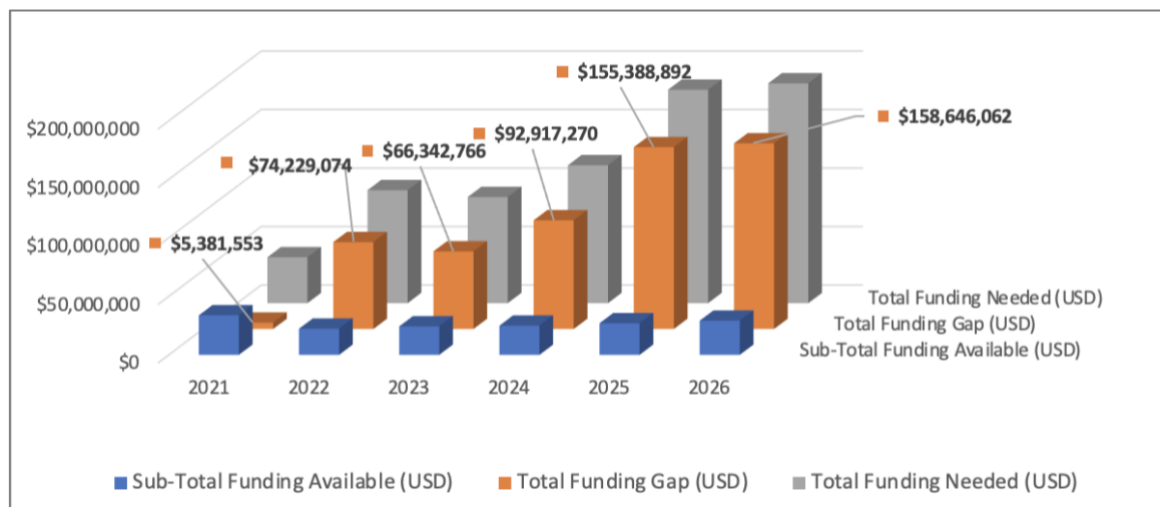
iCCM commodity	2021	2022	2023	2024	2025	2026	Total (2021–2026)
Amoxicillin DT	\$115,980	\$164,527	\$227,543	\$320,426	\$468,274	\$661,267	\$1,958,017
ACT	\$1,877,000	\$2,649,085	\$3,649,248	\$5,634,956	\$8,119,804	\$11,349,867	\$33,279,960
Malaria RDT	\$2,043,496	\$2,839,003	\$3,862,586	\$5,855,940	\$8,330,049	\$11,532,857	\$34,463,931
Rectal artesunate suppositories	\$54,493	\$84,120	\$123,603	\$182,187	\$253,869	\$345,988	\$1,044,260
Paracetamol	\$258,112	\$371,658	\$519,879	\$779,964	\$1,101,914	\$1,517,715	\$4,549,242
Zinc	\$97,530	\$141,950	\$200,152	\$286,143	\$389,457	\$520,944	\$1,636,176
ORS	\$894,029	\$1,301,210	\$1,834,729	\$2,622,974	\$3,570,021	\$4,775,324	\$14,998,287
Ready-to-use therapeutic food	\$261,603	\$430,801	\$659,333	\$999,640	\$1,421,891	\$1,968,621	\$5,741,889
Corn soy blend++	\$295,762	\$486,994	\$745,395	\$1,130,082	\$1,607,599	\$2,225,617	\$6,491,449
Albendazole	\$349	\$574	\$879	\$1,333	\$1,896	\$2,625	\$7,656
<b>Total cost (USD) for iCCM commodities</b>	<b>\$5,898,354</b>	<b>\$8,469,922</b>	<b>\$11,823,347</b>	<b>\$17,813,645</b>	<b>\$25,264,774</b>	<b>\$34,900,825</b>	<b>\$104,170,867</b>

Note: Episodes per child per year (e/c/y) as follows: malaria (3 e/c/y), diarrhoea (2.5 e/c/y), pneumonia (0.22/e/c/y), MAM (0.02 e/c/y), and SAM (0.0167 e/c/y).

## Section 5. Funding Landscape

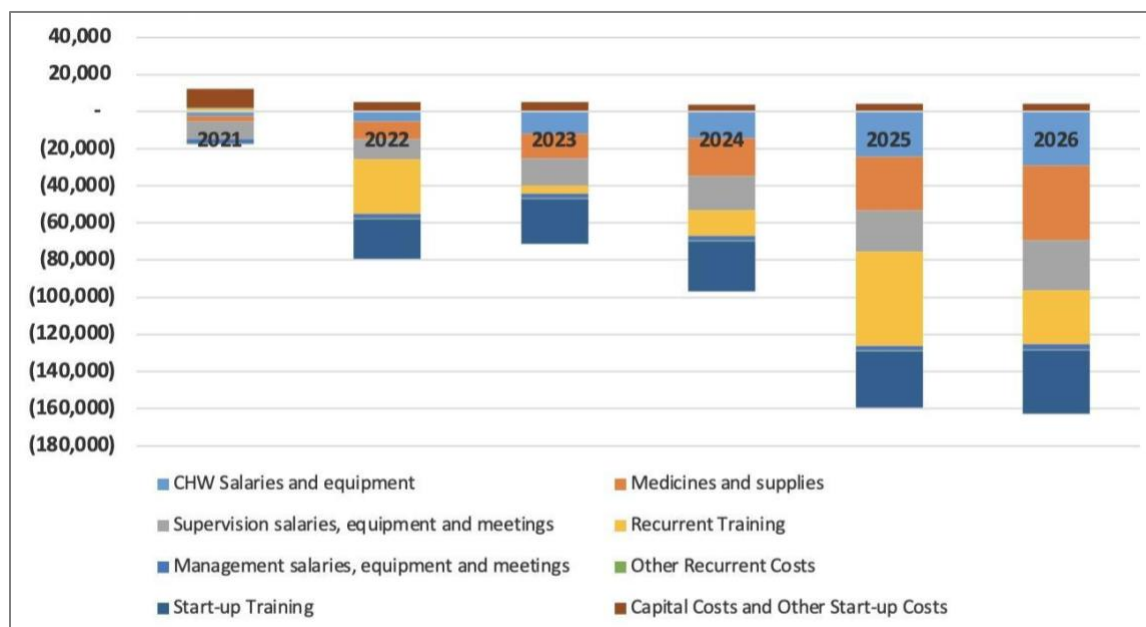
*Funding needs for community health:* The estimated total funding needs are well quantified, as discussed in previous sections, and are presented in Figure 8 (grey bars). Less is known about future funding availability (blue bars) and funding gaps (orange bars). There was limited multi-year data available for funding commitments specific to community health inputs. What is known is that a majority of the funding committed for community health is for HSA salaries, which the MoH provides from domestic sources. Other partners and donors are also making notable contributions to medicines and supplies, training/refresher training, and supervision and management meetings.

**Figure 8:** Estimated funding for community health in Malawi, 2021–2026



**Funding gaps for community health:** In 2021, there was a funding gap of about \$5.4 million. This funding gap rises exponentially over the subsequent five years, partly because costs and needs increase as the community health programme is scaled up, but also because prospective data on funding commitments are not widely available. From 2022 onwards, the funding gap exceeds \$66 million annually and by 2026, the gap is estimated at nearly \$159 million annually. As Figure 9 illustrates, the major gaps in community health funding for Malawi are attributable to training costs (both start-up and recurrent training), supervision, and medicines and supplies. From 2023 onwards, there are also gaps in excess of \$10 million annually, up to \$30 million annually by 2026, related to HSA salaries and equipment.

**Figure 9:** Funding gaps, by input (USD '000)



*Funding availability/committed to community health:* In conducting this assessment, it was difficult to ascertain future funding available for community health as budget cycles vary by partner/stakeholder and may or may not include a multi-year forecast. Also, budget lines do not necessarily specify whether or not a financial commitment is specific to community health and at times it was difficult to harmonise budget categories with the CHPCT to partner/stakeholder budgets. Despite aiming for granular details such as the types of commodities partners were contributing and which geographic locations were being prioritised, it was challenging to obtain this level of information.

Finally, there is a great deal of uncertainty because of the COVID-19 pandemic, as resources have been diverted to the response and recovery. While financing and resources for community health were constrained even before the pandemic, COVID-19 has created an even greater financial burden in a highly limited fiscal space. It is essential to ensure that the large amount of health-related investments channelled for COVID-19 are used to strengthen the health system, inclusive of primary health care and community health, and to avoid further fragmentation and siloed delivery of health services. There is a collective obligation to make smart, prioritised, and strategic investments that strengthen and institutionalise community health and primary health care and enhance the resilience of the health system in order to meet ambitious targets and achieve a vital agenda—the SDGs and universal health coverage.

## **Section 6. Potential Impact of Investing in iCCM and Community Health**

With these additional investments to scale up community health and iCCM in Malawi, it is estimated that an additional 16,849 lives will be saved—16,105 child lives,<sup>13</sup> 557 newborn lives, and 187 maternal lives—through 2031 exclusively by expanding coverage of community health services. These projections were estimated using the Lives Saved Tool (LiST) and consider improvements in coverage of community health interventions, which is dependent on securing the needed financing articulated above.

By investing in and expanding the coverage of community health services, Malawi has the opportunity to reduce the under-five mortality rate by five percentage points in a 10-year period—from 41.6 deaths per 1,000 live births in 2021 to 36.6 deaths per 1,000 live births in 2031—from these community-level interventions alone, as Figure 10 illustrates. The baseline scenario assumes that the service coverage would remain constant with no further investment and further mortality reductions would be minimal. This model does not account for wider investments in the health system to primary health care and facility-level service delivery, which would contribute to further mortality reduction.

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<sup>13</sup> Between the ages of one and 59 months.

**Figure 10:** Projected change in under-five mortality rate in Malawi between 2021 and 2031 with investments to scale-up community health inclusive of iCCM

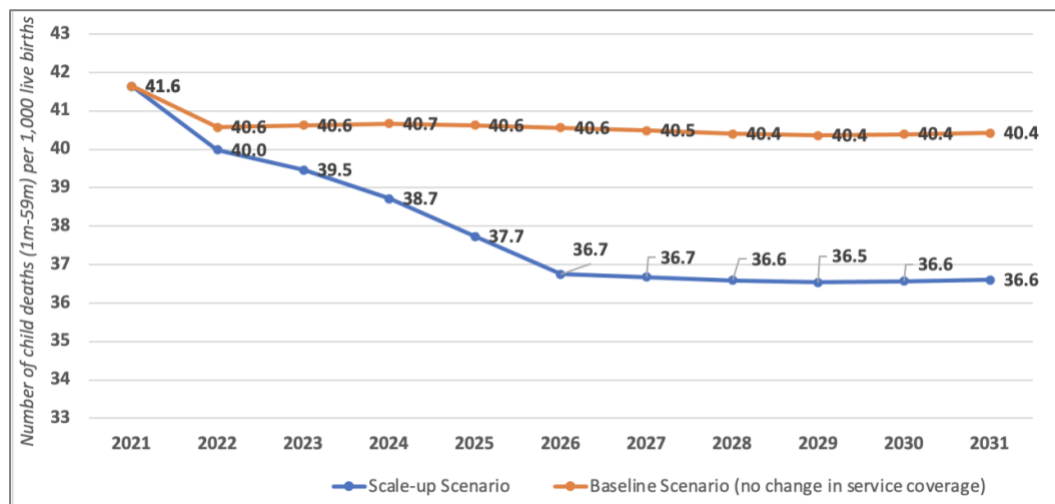
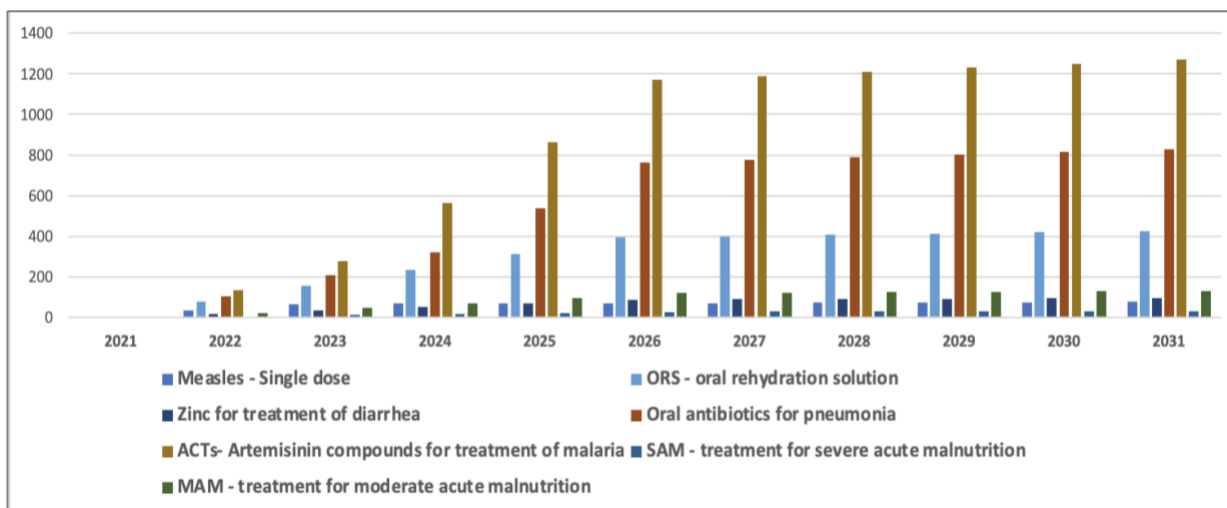


Figure 11 shows community-level interventions<sup>14</sup> with the greatest contributions to averting child deaths.

**Figure 11:** Additional child lives saved by scaling up community health and iCCM interventions in Malawi between 2022 and 2031



There are also gains to be achieved in reducing neonatal and maternal mortality. LiST estimated that scaling up community health interventions, according to the current service package at the community level, could contribute a 2.5 percentage point reduction in maternal mortality between 2021 and 2031 and minimal change in neonatal mortality. For this assessment, the LiST modelling was focused on community interventions and did not account for change in coverage of other facility-based primary health care interventions that may complement increased coverage of community health services that are intended to enhance quality of care at all levels and improve access to

<sup>14</sup> Other immunizations include three doses each of the following: DPT, H. influenzae type b, and pneumococcal. These also contributed to averting child mortality but were not included in Figure 11 as the contribution was much less than those shown. Collectively, these three vaccines are projected to save an additional 127 lives over the 10 years.

and coverage of services at primary, secondary, and tertiary health facilities. Further reductions in mortality will likely be realised given the level of commitment to improving the health system in Malawi.

In addition to improved health outcomes with increased access to high-quality CBPHC, the following are anticipated:

- At least 7,795 jobs will be created through additional HSAs, of which 950 will be supervisor positions.
- An additional 6,610,179 people living in rural areas and 942,268 people living in urban/peri-urban areas will be reached with community health services.
- Out-of-pocket expenditures on health care and auxiliary costs related to seeking health care will be reduced and will benefit nearly 80% of the population (most in need), who will have improved access to CBPHC.

## Section 7. Conclusions

This investment case lays out the specific costs associated with scaling up iCCM services in Malawi as a component of the overall community health programme. This expansion would achieve the national goal of increasing the community health workforce to roughly 15,623 HSAs (of whom 6,000 will receive training to provide iCCM services) and double the percentage of the population served by HSAs to nearly 80% in 2026. iCCM services are estimated to account for approximately one-third of all community health services across the period 2021–2026, so estimating the human resources and commodity costs associated with iCCM is a critically important component of community health programme implementation.

The investment case concluded the following:

- As the iCCM programme matures, cost per capita (of the covered population) stabilises at approximately \$11 in 2026.
- The total cost of the iCCM component in 2026 is estimated at approximately \$70 million, out of a total estimated community health programme cost of \$188 million.
- The main cost drivers of iCCM are medicines and supplies (about half of the total), salaries (both HSAs and their supervision), and training.
- For the medicines and supplies component, approximately two-thirds of the costs are driven by malaria diagnostics and treatment.
- A funding gap of about \$5.4 million in 2021 rises exponentially over the next five years, partly because costs and needs increase as the community health programme is scaled up but also because prospective data on funding commitments are not widely available.
- Investment in iCCM scale-up will save an estimated 16,000 children's lives over the period 2021–2031.