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Malawi's Universal Health Coverage Country Translation Process

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ABSTRACT

Malawi has developed and implemented Essential Health Packages (EHPs) since 2001. EHPs in Malawi have focused on addressing the burden of disease and equity challenges in health care, with the multistakeholder EHP Technical Working Group leading the EHP development and review process. This chapter documents the health sector prioritization process for the development of Malawi's EHPs with a focus on its third EHP (2017–22). Key criteria for that EHP were health maximization, equity, the continuum of care, and complementarities. The EHP review team used local costing data, and effectiveness data came from the second edition of *Disease Control Priorities* (Jamison et al. 2006), the World Health Organization Choosing Interventions That Are Cost-Effective (WHO-Choice), and the Tufts Global Health Registry.[1] The final EHP had a cost-effectiveness threshold of US$61 per disability-adjusted life year averted with 97 health interventions.

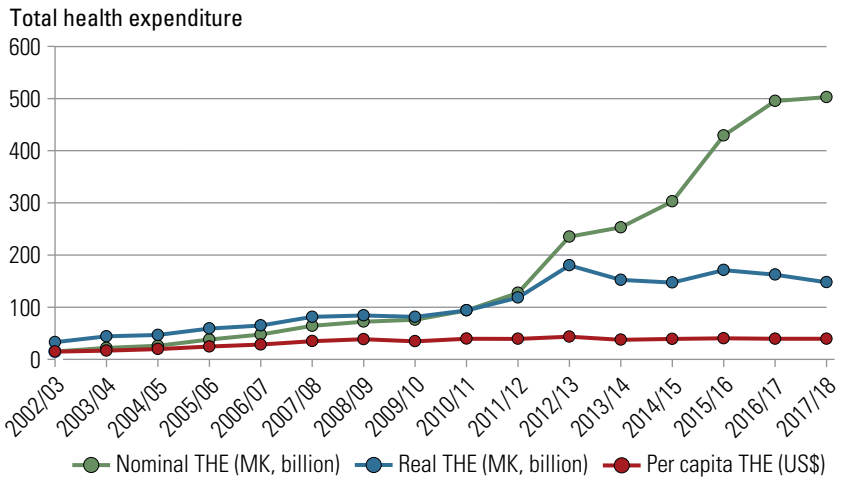
INTRODUCTION

The government of Malawi is committed to meeting its domestic and international commitments to health service delivery. Those commitments are enshrined in the National Health Policy 2018–30 (MoH 2018) and medium-term strategic frameworks such as the five-year Health Sector Strategic Plan (HSSP) III (MoH 2023). Domestically, the law mandates that the government provide adequate health care to the population in accordance with the health needs of the population and international standards of care (Government of Malawi 1994). To deliver on

the universality mandate, government policy is to reduce health care access barriers by providing a health benefits package (known in Malawi as the Essential Health Package or EHP) that residents can access for free at the point of consumption.

Like most countries, Malawi has inadequate financial, human, and material resources available to provide free and quality health care. For instance, its per capita total health expenditure of US$39.60 (MoH 2020b) is insufficient to provide quality essential health services universally (figure 7.1). With fiscal space challenges worsening because of the advent of the COVID-19 pandemic (World Bank 2020), Malawi's aspiration of adequate quality public health care services at the point of access and attainment of universal health coverage by 2030 remains improbable. Access to health care continues to present a challenge, with about 53 percent of women facing financial and geographical barriers (NSO and ICF 2017). The first EHP developed by the government sought to address those and other access barriers by providing a framework for targeting available resources to a prioritized package of health services. In that way, available resources could be rationalized and provided at scale to more people and to increase financial protection.

Figure 7.1 Total Health Expenditure Trends, Malawi, 2002/03–17/18



Source: MoH 2020b.

Note: MK = Malawian kwacha; THE = total health expenditure.

This chapter documents the priority-setting process in Malawi's health sector as it relates to the development, implementation, and review of EHPs over the years. It also discusses the content and lessons learned from implementing the third EHP (2017–22) and future directions. By documenting the implementation process and lessons learned, the chapter can help inform future design and implementation of health benefits packages in Malawi and other developing countries.

EVOLUTION OF THE EHP IN MALAWI

The concept of an EHP for Malawi was first envisaged in the fourth National Health Plan (MoH 1999). However, an EHP was not formally adopted until the successor plan, the Joint Programme of Work, the medium-term health strategy covering the period 2004–10 (MoH 2004). Apart from addressing health access barriers, the first EHP also aimed to contribute to poverty reduction in line with recommendations of the *World Development Report 1993* (World Bank 1993). At the core of the introduction of the EHP in the Joint Programme of Work was the use of burden of disease data to identify diseases and conditions that contributed the most to mortality and morbidity, and to prioritize the interventions that could cost-effectively address those diseases. The objectives of that EHP were "to improve technical and allocative efficiency in the delivery of health care; to ensure universal coverage of health services, and to provide cost-effective interventions that can control the main causes of disease burden in Malawi" (MoH 2004, 17). Limitations of that EHP included not explicitly accounting for equity and resource availability in its design, as evidenced by higher access among the nonpoor than among the poor.

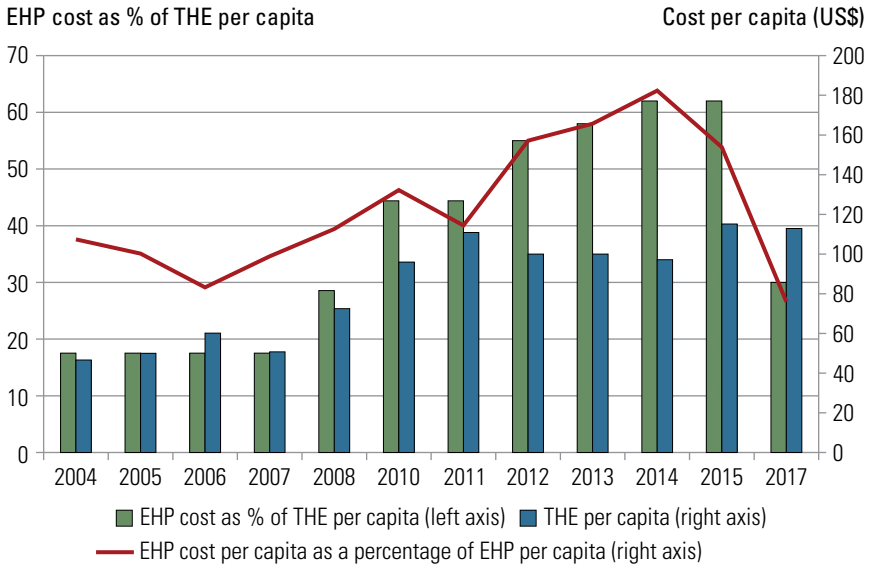
The EHP was first revised in 2011 as part of informing the first HSSP, and the revision maintained the same criteria of disease burden and cost-effectiveness of interventions (MoH 2011). For the burden of disease criterion, The EHP included interventions for diseases/conditions contributing to at least 10,000 disability-adjusted life years (DALYs) per year across Malawi's population and excluded interventions for diseases/conditions that imposed fewer than 10,000 DALYs. It considered cost-effective any interventions with an incremental cost-effectiveness ratio below US$150 per DALY averted per year. Interventions with an incremental cost-effectiveness ratio higher than US$1,050 were automatically excluded as cost-ineffective because they represented more than three times the country's gross domestic product at the time (Phoya et al., n.d.). Unlike its predecessor, the second EHP was designed to be more equitable by including more interventions targeting vulnerable population groups.

The Ministry of Health then developed the third EHP to inform the second HSSP for the period 2017–22. With previous EHPs, a recurrent challenge was that the cost of implementation exceeded the available resources. In the third EHP, the cost-effectiveness threshold (US$61 per DALY averted) takes into account the resource constraints at implementation (MoH 2017). Thus, the third EHP had lower financing gaps compared to its predecessors because it included fewer interventions than if it had used World Health Organization thresholds based on gross domestic product per capita. However, without reforming service delivery, resource allocation, provider payment, and provider organization, among others, the Ministry of Health found it challenging to enforce the package because public health facilities continued to deliver a broader range of services than those included in the EHP.

Figure 7.2 shows the cost and affordability[2] trends of EHPs in Malawi. Notably, except for 2005–07 and 2017, the cost of EHP delivery has exceeded available resources (MoH 2016a, 2020b) as characterized by per capita total health

expenditure—especially for the second EHP, which covered the period 2011–16. Although the first EHP covered the years 2004–10, costs escalated because more and more interventions were added between 2008 and 2010. EHP cost per capita again rose with the introduction of the second EHP in 2011. Costs reduced to within the level of total health expenditure resources only with the introduction of the third EHP in 2017.

Figure 7.2 EHP Cost Trend, Malawi, 2004–17



Sources: Adapted and updated from MoH 2004, 2011, 2017; THE (total health expenditure) per capita data are from MoH 2016a, 2020b.

EHP PRIORITY-SETTING PROCESS

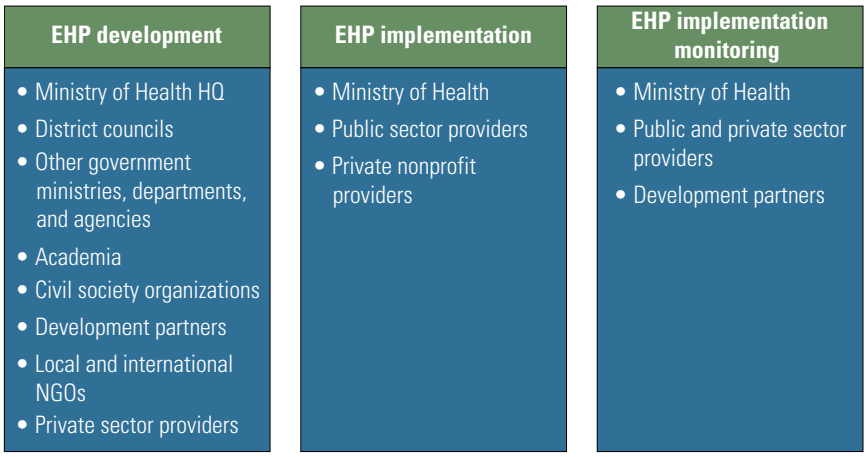
The Ministry of Health leads and coordinates the health sector priority-setting process at the national level. It coordinates the EHP development and review processes and acts as the secretariat to the EHP Technical Working Group (EHP-TWG), which leads those processes. As the secretariat to the EHP-TWG, the Ministry of Health is responsible for developing the EHP road map, terms of reference, and any other required guidance documents. The EHP-TWG is multidisciplinary in its composition and has the leadership role in making the EHP review process as inclusive and transparent as possible.

Among its responsibilities, the EHP-TWG collects and assesses the evidence on health care interventions and provides objective recommendations that inform inclusion and exclusion decisions. Specifically, it provides technical input to inform policy decisions on EHP provision, ensures that the EHP reflects the latest evidence, regularly updates the EHP Cost-Effectiveness Tool, monitors EHP implementation and suggests policies for improvement, and provides evidence to decision-makers to inform EHP decisions (MoH 2016b). Ministry of Health Senior Management makes

the final decisions on the list of interventions to include in the EHP, which is then reviewed and disseminated among key stakeholders for consensus building before approval. Upon finalization and approval, the HSSP and the EHP are then shared with key national- and subnational-level stakeholders.

The composition of the EHP-TWG is based primarily on inclusiveness and on the competencies and expertise of members. The focus on inclusiveness ensures representation of all important stakeholders, including the Ministry of Health at the headquarters and district levels, academia, civil society, private nonprofit health providers, development partners, and nongovernmental organizations. EHP-TWG members are chosen also for their competency and expertise in areas including economic evaluation of health care interventions, evidence synthesis, health economic modeling, and clinical and economic evidence interpretation. Figure 7.3 outlines the stakeholders involved in each stage of the EHP development and implementation process.

Figure 7.3 EHP Review Process Stakeholders



Source: MoH 2016b.

Note: EHP = Essential Health Package; HQ = headquarters; NGOs = nongovernmental organizations.

For the third EHP, the review process consisted of three main phases: setting goals and criteria, operationalizing criteria and defining the appraisal methods, and undertaking appraisal and budget impact analysis. The first phase included review of the previous EHP and identification of implementation challenges. Data collection and development of analytical tools took place during the second phase, along with appraisal of collected data. Finally, the data were analyzed and validated using the agreed-upon criteria.

Criteria Used to Guide the Design of the Third EHP

Several criteria were used to inform the inclusion of interventions in the third EHP. The first criterion was health maximization, considered in the context of cost-effectiveness. The revision process used the EHP Tool, a specially designed

Excel tool for EHP development. The Ministry of Health collected information on the costs and effectiveness of the health interventions considered for EHP inclusion. Because the country had not commissioned any new cost-effectiveness studies to inform the process, most of the data used in the tool were based on cost-effectiveness evidence from other countries, converted to Malawi cost equivalent, and applied to the Malawi context.

A cost-effectiveness threshold of US$61 was applied to determine whether an intervention was cost-effective. That threshold was derived from previous studies by Ochalek, Lomas, and Claxton (2015) and Woods et al. (2016), which estimated Malawi's cost-effectiveness threshold to range from US$24 to US$37 and from US$3 to US$116, respectively. The final threshold of US$61 was calculated as a midpoint of the two estimates converted to 2016 US dollars (Ochalek et al. 2018). Results were presented using a net health benefit measure, calculated as total health gains less health opportunity costs (costs divided by the cost-effectiveness threshold), multiplied by the size of the population in need of each intervention, to show the magnitude of total population health gains expected from implementing an intervention. That measure was also used to show the population health losses as a result of systems weaknesses leading to less than full implementation of most interventions (Ochalek et al. 2018).

The second criterion for the benefits package was equity. Equity considerations were based on geographic area, age, gender, and socioeconomic status. Equity was effectively implemented by reviewing the target populations for each intervention and placing greater weight on the interventions targeting marginalized demographic groups, in this case women and children under five years of age (MoH 2017). Greater weight was also given to cost-effective community-level interventions targeting rural communities with disproportionate barriers to health access. The equity implications of the EHP were subsequently evaluated on the basis of an assessment of which population groups most benefited from EHP implementation using the approach of distributional cost-effectiveness analysis (Arnold, Nkhoma, and Griffin 2020). Table 7.1 presents an example of the evaluation of equity implications of rotavirus vaccines.

A third criterion, the continuum of care, was also used to facilitate links between interventions. For instance, where feasible, considerations were made to include all treatments along a continuum to ensure continuity of services. Considerations were also made to include interventions fully financed by development partners. That approach was designed to optimize the costs of additional interventions and allow the population to access "bundled services" more effectively, thus improving financial risk protection (MoH 2017).

The fourth criterion was complementarities between interventions in line with the organization of services at all levels of service delivery. For instance, in the case of pregnant women, considerations were made for all the services that need to be delivered as part of antenatal care. The fourth criterion accounts for horizontal complementarities in the delivery of health care interventions.

Table 7.1 Sample EHP Equity Calculations with Rotavirus Vaccines, Malawi

Rotavirus vaccination for children under 1						
Total population (A)	**521,300**					
Incremental health benefit (B)	**0.14**					
Incremental cost (C)	**$0.69**					
Total cost (A × C)	**$359,697**					
	Poorest	**Poorer**	**Middle**	**Richer**	**Richest**	**Total**
% survey reported cases of rotavirus (D)	36	16	23	13	12	100
DALYs averted if everyone vaccinated (A × B × D)	26,274	11,677	16,786	9,488	8,758	72,982
Uptake of vaccination (%) (E)	48	39	46	49	43	45
1. DALYs averted at current uptake (A × B × D × E)	12,611	4,554	7,721	4,649	3,766	32,842
Proportion of direct health benefit by subgroup	0.38	0.14	0.23	0.14	0.11	1
Cost by subgroup (A × 0.2 × C × E)	$34,531	$28,056	$33,092	$35,250	$30,934	$161,864
Proportion of opportunity cost by subgroup (F)	0.23	0.22	0.2	0.19	0.16	1
2. Health opportunity cost by subgroup [F × (A × C/61)]	1,356	1,297	1,179	1,120	943	5,897
3. Net health benefit by subgroup (1–2)	11,255	3,257	6,542	3,529	2,822	26,945
Proportion of net health benefit by subgroup	0.42	0.12	0.24	0.13	0.10	

Source: Arnold, Nkhoma, and Griffin 2020, revised 2024.

Note: DALY = disability-adjusted life year; EHP = Essential Health Package.

Analyses and Tools

Implementation of the priority-setting process for the third EHP took place in two parts. The first part consisted of reviewing available evidence on cost-effectiveness and selecting the interventions considered cost-effective in the Malawian setting. The second part applied the criteria described earlier and used a consultative process to finalize the interventions that would become part of the EHP. The second step of the process relied on expert opinion and occurred through consensus building with experts from district health offices and tertiary hospitals. The consultative process included consultations for interventions with and without cost-effectiveness evidence.

For the cost-effectiveness analysis part, the process used an Excel-based tool developed specifically for the EHP design process (Ochalek et al. 2018). With that tool, the team aggregated available information on the costs and effectiveness of interventions. The tool allowed the secretariat to collate and analyze the data in a convenient format for the analyses planned and to extend the analysis beyond what was feasible in previously existing tools. The analysis used other tools, such as the OneHealth Tool,[3] for health system cost analysis and the EHP Tool to analyze the available information on cost-effectiveness and for health service planning and costing. The costing considered the current and targeted levels of service delivery

as well as the implementation levels considered more realistic given the health system's capacity. It conducted additional simulations to ascertain the level of health system expansion required to accommodate higher service delivery levels. Resource Mapping[4] data were used to inform medium-term resource availability and to compare the available resources to the cost of implementing the interventions in the EHP.

Data on per-patient costs and health benefits of interventions came primarily from the Tufts Global Health Cost Effectiveness Analysis Registry—Center for the Evaluation of Value and Risk in Health (CEVR) at Tufts Medical Center—and from *Disease Control Priorities*, second edition;[5] WHO-CHOICE papers; and systematic reviews. Per-unit costs of medicines, vaccines, and commodities for delivering interventions came from the Central Government Procurement Agency and other procurement agencies in the health sector. Because of limited evidence, the first analysis phase did not include cost-effectiveness data for some health interventions, particularly multisectoral interventions. Such interventions were assessed for inclusion during the second consultative phase. The OneHealth Tool was used to ascertain coverage rates in terms of what would be realistic based on the capacity of the health system (Ochalek et al. 2018).

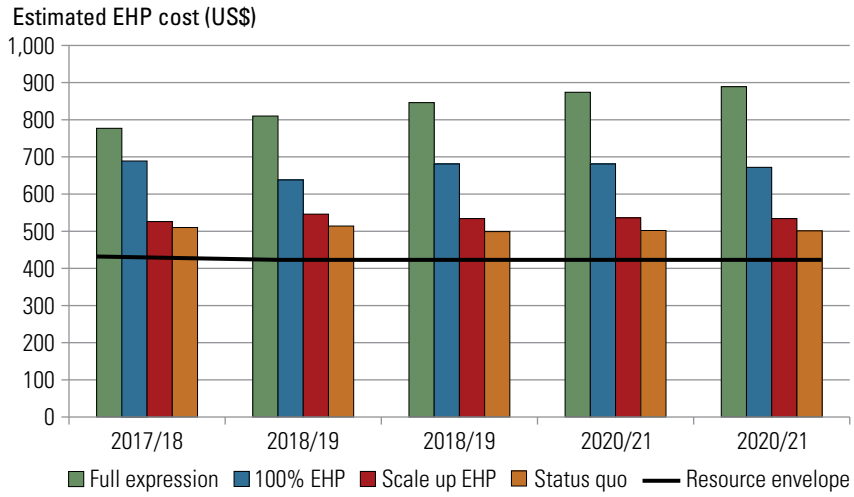
SUMMARY OF INTERVENTIONS, COST-EFFECTIVENESS, AND COST OF THE THIRD EHP

The total number of potential interventions was 258, but complete data were available for only 71 of those interventions. Based on the cost-effectiveness threshold, only 52 EHP interventions were sufficiently cost-effective to be included in the Malawi EHP. However, in the second consultative phase, which considered the criteria outlined in the previous section and broader policy needs, the list of interventions included in the package increased to 97 (refer to table 7A.1 in the annex).

The EHP costing considered four scenarios. The first (total demand) scenario included all interventions that could be delivered, including those eventually excluded from the EHP. In addition to including all interventions, the assumption of complete coverage of the services made the first scenario unaffordable and unattainable within the implementation time frame. The second scenario, 100 percent coverage of all the interventions included in the EHP, was also unattainable because of significant coverage gaps at baseline that could not realistically be addressed during the five-year implementation period. The third (scale-up) scenario allowed for a gradual increase in the coverage rates during the five-year period of implementing the HSSP and had more realistic costs. The third scenario was, therefore, used as a basis for planning. For the fourth (status quo) scenario, costs were calculated using current coverage rates for the duration of the HSSP II. The revised EHP cost 31 percent less than its predecessor package and had a greater potential to generate population health impact (DALYs averted). Implementing the previous package (the second EHP) would have cost

US$7.91 per DALY averted, whereas the third EHP cost US$5.97 per DALY averted (MoH 2017). Figure 7.4 shows the costs of each of these scenarios across the implementation period.

Figure 7.4 Summary of Estimated EHP Costs, Malawi, 2017/18–2020/21



Source: Reprinted from Barker 2018. Used with permission; further permission required for reuse.
Note: EHP = Essential Health Package.

The cost assumptions were based on data collected during the resource mapping exercises. Resource mapping is based on self-reported data on financing projections and informs the collective projections for the health sector. Further assumptions on fiscal space were based on a previous World Bank study that indicated limited possibilities for expanding the fiscal space in the medium term (World Bank Group 2017).

PRACTICAL APPLICATION AND EFFECT OF THE EHP

Implementation of the EHP occurs at the service delivery level, where providers are expected to prioritize the delivery of its interventions. In practice, because Malawi has a policy of free health care at the point of access, providers have found it difficult to restrict access to non-EHP interventions when intervention inputs were centrally procured and, in some cases, fungible across EHP and non-EHP interventions. That practical implementation challenge, among others, prompted subsequent analyses exploring how public financial management mechanisms could better align with EHP prioritization. The following paragraphs highlight some of the EHP analytical and practical applications.

Development of the geographical Resource Allocation Formula (RAF). The health sector geographical RAF was instituted as the primary resource allocation mechanism for drug and recurrent expenditures at the subnational level. Development of the first geographical RAF dates to 2002, just before development

of the first EHP. The Ministry of Health updated the RAF in 2008. Following review and approval of the updated RAF, it was implemented for a few years before the government reverted to the incremental historically based allocation pattern. In 2017, the Ministry of Health started revising the RAF to improve efficiency, equity, and accountability in resource allocation (McGuire et al. 2020; Twea, Manthalu, and Mohan 2020). The updated RAF is based on the estimated cost of EHP implementation for each district and allocates available resources proportional to need. The cost-of-service delivery is calculated using the unit cost of providing the intervention and the expected number of cases based on incidence, prevalence, and utilization rates. That RAF design allowed for an alignment between resource allocation and the expected level of service delivery.

Use of the EHP in national and subnational planning. During the implementation period of the third EHP, the Ministry of Health sought to align national and subnational level planning with the EHP. The district health planning guidelines (2018–22) recommended budget prioritization through the lens of EHP service delivery. More specifically, a bottleneck analysis approach was used to identify health systems gaps for low-performing (in terms of coverage and quality) EHP interventions (Kiwanuka Henriksson et al. 2017). The process was designed to align health planning, resource allocation, implementation, and monitoring and evaluation with EHP delivery. Not only did the process bring about a greater focus on performance in planning and continuous improvement, but it also allowed district managers greater visibility across the spectrum from planning to evaluation and EHP prioritization activities, which would result in improved EHP delivery.

Alignment of resource tracking efforts with the EHP. The Ministry of Health has conducted resource mapping exercises since 2011 as part of its resource tracking efforts. Resource mapping is one way of augmenting other financial tracking instruments used by the Ministry. A key requirement for the Ministry of Health was to track resource availability and expenditure according to the EHP. The reporting of data in this manner allowed for the estimation of health financing gaps and provided evidence for resource allocation at the domestic and international levels.

EHP distribution impact. One of the health sector objectives, as stated in the HSSP II, was to ensure equitable implementation of the EHP. A study by Arnold, Nkhoma, and Griffin (2020) used distributional cost-effectiveness analysis to evaluate Malawi's EHP interventions on the basis of two objectives: increasing population health and reducing health inequality. The study assessed equity by geographical location (urban versus rural residence) and wealth, using the International Wealth Index. Overall, the authors found that incorporating the impact on health inequality alongside impact on overall population health would result in prioritization of a similar set of interventions. When comparing EHP impact by socioeconomic group, the findings showed that use of EHP interventions was higher among the poorest. Such analysis can render support to the usefulness of the EHP design and its implementation as a health policy instrument toward achieving the universal health coverage objectives underlying the EHP.

LIMITATIONS AND FUTURE DIRECTIONS

One of the limitations is that EHP financing gaps still exist, perhaps because of the mismatch between planned budgets and actual expenditures by development partners and the government. As such, the interventions in the EHP have limited linkage to financing and results. Other EHP implementation challenges highlighted in the medium-term implementation strategies include limited awareness of the EHP among stakeholders, lack of policy enforcement, lack of clarity about excluded but otherwise cost-effective interventions, vertical organization of program management, and input-based expenditure tracking under the Integrated Financial Management Information System. Fully implementing the EHP will require aligning the entire policy and implementation machinery with it, including but not limited to consumables and equipment purchase, donor guidance, health systems investments, budgeting, and service delivery and purchasing mechanisms. At present, Malawi has adopted a light-touch approach to prioritizing EHP services across the country; however, it might adopt a firmer approach through a more comprehensive revision of purchasing processes.

Despite those challenges, and as highlighted earlier in the chapter, the EHP has been used adequately at various levels of the health system to guide policy, planning, and budgeting in Malawi's health sector. Further, the monitoring and evaluation system has continued to improve during the EHP implementation period for public health services with reporting links for community health care workers. The revision of the third EHP considered those challenges and best practices.

ANNEX 7A

Table 7A.1 List of EHP Interventions, Malawi

Category	Intervention package	Intervention	Level of care
RMNCH	ANC package	Tetanus toxoid (pregnant women)	Community/Primary/Secondary
		Deworming (pregnant women)	Community/Primary/Secondary
		Daily iron and folic acid supplementation (pregnant women)	Community/Primary/Secondary
		Syphilis detection and treatment (pregnant women)	Community/Primary/Secondary
		IPT (pregnant women)	Community/Primary/Secondary
		ITN distribution to pregnant women	Community/Primary/Secondary
		Urinalysis (four per pregnant woman)	Primary/Secondary
	Modern family planning	Injectable	Community/Primary/Secondary
		IUD	Primary/Secondary
		Implant	Primary/Secondary
		Pill	Community/Primary/Secondary
		Female sterilization	Secondary
		Male condom	Community/Primary/Secondary

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Table 7A.1 List of EHP Interventions, Malawi (continued)

Category	Intervention package	Intervention	Level of care
RMNCH	Delivery package	Clean practices and immediate essential newborn care (in facility)	Primary/Secondary
		Active management of the third stage of labor	Primary/Secondary
		Management of eclampsia/preeclampsia (magnesium sulfate, methyldopa, nifedipine, hydralazine)	Primary/Secondary
		Neonatal resuscitation (institutional)	Primary/Secondary
		Caesarean section with indication	Secondary
		Caesarean section with indication (with complication)	Secondary
		Vaginal delivery, skilled attendance (including complications)	Primary/Secondary
		Management of obstructed labor	Primary/Secondary
		Newborn sepsis—full supportive care	Primary/Secondary
		Newborn sepsis—injectable antibiotics	Primary/Secondary
		Antenatal corticosteroids for preterm labor	Primary/Secondary
		Maternal sepsis case management	Primary/Secondary
		Cord care using chlorhexidine	Primary/Secondary
		Hysterectomy	Primary/Secondary
		Post-abortion case management	Secondary
		Treatment of antepartum hemorrhage	Primary/Secondary
		Treatment of postpartum hemorrhage	Secondary
		Antibiotics for pPRoM	Primary/Secondary
Vaccine-preventable diseases	Essential vaccines package	Rotavirus vaccine	Community/Primary/Secondary
		Measles rubella vaccine	Community/Primary/Secondary
		Pneumococcal vaccine	Community/Primary/Secondary
		BCG vaccine	Community/Primary/Secondary
		Polio vaccine	Community/Primary/Secondary
		DPT-Heb-Hib / Pentavalent vaccine	Community/Primary/Secondary
		HPV vaccine	Community/Primary/Secondary
Malaria	First line uncomplicated malaria treatment	Uncomplicated (adult, <36 kg)	Community/Primary/Secondary
		Uncomplicated (adult, >36 kg)	Community/Primary/Secondary
		Uncomplicated (children, <15 kg)	Community/Primary/Secondary
		Uncomplicated (children, >15 kg)	Community/Primary/Secondary
	Complicated malaria treatment	Complicated (adults, injectable artesunate)	Primary/Secondary
		Complicated (children, injectable artesunate)	Primary/Secondary
	Malaria diagnosis	RDTs	Community/Primary/Secondary
		Microscopy for malaria	Primary/Secondary
Integrated management of childhood illnesses	ARIs	Pneumonia treatment (children)	Community/Primary/Secondary
		Treatment of severe pneumonia (oxygen)	Primary/Secondary
	Diarrheal disease	ORS	Community/Primary/Secondary
		Zinc	Community/Primary/Secondary
		Treatment of severe diarrhea (intravenous fluids)	Primary/Secondary

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Table 7A.1 List of EHP Interventions, Malawi (continued)

Category	Intervention package	Intervention	Level of care
	Nutrition	Community management of nutrition in under-5—Plumpy Peanut	Community/Primary
		Community management of nutrition in under-5—micronutrient powder	Community/Primary
		Community management of nutrition in under-5—vitamin A	Community/Primary
	Malaria diagnosis	RDTs for under-5	Community/Primary
Community health	Community health package	Growth monitoring	Community/Primary
		Vermin and vector control and promotion	Community/Primary
		Disease surveillance	Community/Primary
		Community health promotion and engagement	Community/Primary
		Village inspections	Community/Primary
		Promotion of hygiene (handwashing with soap)	Community/Primary
		Promotion of sanitation (latrine refuse, drop hole covers, solid waste disposal, hygienic disposal of children's stools)	Community/Primary
		Occupational health promotion	Community/Primary
		Household water quality testing and treatment	Community/Primary
		Home-based care of chronically ill patients	Community/Primary
		Child protection	Community/Primary
NTDs	Treatment and MDA	Schistosomiasis mass drug administration	Community/Primary
		Case finding and treatment of trypanosomiasis	Primary
		Trachoma mass drug administration	Community/Primary
HIV/AIDS	HIV Prevention	Cotrimoxazole for children	Community/Primary/Secondary
		PMTCT	Community/Primary/Secondary
	HIV testing	HIV testing services	Community/Primary/Secondary
	HIV treatment	HIV treatment for all ages—ART and viral load	Community/Primary/Secondary
Nutrition		Vitamin A supplementation in pregnant women	Community/Primary/Secondary
		Management of severe malnutrition (children)	Community/Primary/Secondary
		Deworming (children)	Community/Primary/Secondary
		Vitamin A supplementation in infants and children 6–59 months	Community/Primary/Secondary
Tuberculosis (TB)		Isoniazid preventive therapy for children in contact with TB patients	Primary/Secondary
		First-line treatment for new TB cases for adults	Primary/Secondary
		First-line treatment for retreatment TB cases for adults	Primary/Secondary
		First-line treatment for new TB cases for children	Community/Primary/Secondary
		First-line treatment for retreatment TB cases for children	Community/Primary/Secondary
		Case management of MDR cases	Primary/Secondary
	TB testing	LED test	Primary/Secondary
		Xpert test	Primary/Secondary
		MGIT test	Primary/Secondary
		LJ test	Primary/Secondary

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Table 7A.1 List of EHP Interventions, Malawi (continued)

Category	Intervention package	Intervention	Level of care
Noncommunicable diseases		Treatment of injuries	Primary/Secondary
	Mental health treatment	Basic psychosocial support, advice, and follow-up	Community/Primary/Secondary
		Anti-epileptic medication	Community/Primary/Secondary
		Treatment of depression (first line)	Community/Primary/Secondary
		Testing of precancerous cells (vinegar)	Primary/Secondary
	Diabetes treatment	Diabetes type I	Primary/Secondary
		Diabetes type II	Primary/Secondary
		Hypertension	Primary/Secondary
Oral health	Tooth pain treatment	Management of severe tooth pain, tooth extraction	Primary/Secondary
		Management of mild tooth pain, tooth filling	Primary/Secondary

Source: MoH 2011.

Note: ANC = antenatal care; ARIs = acute respiratory infections; ART = antiretroviral therapy; BCG = Bacillus Calmette-Guerin; DPT-Heb-Hib = diphtheria, tetanus, pertussis, polio, hepatitis B, and Haemophilus influenzae type b; EHP = Essential Health Package; IPT = intermittent preventive treatment; ITN = insecticide-treated nets; kg = kilogram; LED = fluorescent light-emitting diode; LJ = Löwenstein-Jensen; MDA = mass drug administration; MDR = multidrug resistance; MGIT = Mycobacteria Growth Indicator Tube; NTD = neglected tropical diseases; ORS = oral rehydration salts; PMTCT = prevention of mother to child transmission; pPRoM = preterm premature rupture of membranes; RDTs = rapid diagnostic tests; RMNCH = reproductive, maternal, newborn, and child health.

NOTES

1. For more on WHO-CHOICE, refer to the World Health Organization's WHO-CHOICE web page, https://www.who.int/news-room/questions-and-answers/item/who-choice-frequently-asked-questions; for more on the Tufts Global Health Registry (now the Global Health Cost Effectiveness Analysis Registry), refer to Tufts Medical Center, Center for the Evaluation of Value and Risk in Health, "GH CEA Registry," https://cevr.tuftsmedicalcenter.org/databases/gh-cea-registry.
2. Affordability refers to the cost of the EHP relative to total health expenditure—that is, the package is considered affordable if the cost of implementation is lower than the EHP.
3. Avenir Health, "OneHealth Tool," https://www.avenirhealth.org/software-onehealth.
4. "Resource Mapping (RM) tracks forward-looking budget data for all organisations in the Malawian health sector, including relevant government ministries, departments, and agencies (MDAs), the Christian Health Association of Malawi (CHAM), bilateral and multilateral partners, as well as nongovernmental organisations (NGOs), though private health facilities are not included" (MoH 2020a, 10).
5. Because of the timing of the EHP development process, it did not consider DCP3 evidence because it was finalized only after the completion of the EHP review process.

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