

# Optimizing the Ethiopian Health Extension Programme:

## Strategies to address workforce challenges

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## Abbreviations

<b>BSc</b>	Bachelor of Science
<b>CHW</b>	community health worker
<b>FHP</b>	family health professional
<b>HDA</b>	Health Development Army
<b>HEP</b>	Health Extension Programme
<b>HEWs</b>	health extension workers
<b>HRH</b>	human resources for health
<b>HSDP-II</b>	Health Sector Development Programme II
<b>HSTP-II</b>	Health Sector Transformation Plan II
<b>iCCM</b>	integrated community case management

<b>IRT</b>	integrated refresher training
<b>MDGs</b>	Millennium Development Goals
<b>MoH</b>	Ministry of Health
<b>PHC</b>	primary health care
<b>PHCU</b>	primary health care unit
<b>SDGs</b>	Sustainable Development Goals
<b>UHC</b>	universal health coverage
<b>US\$</b>	United States dollar
<b>WDG</b>	Women's Development Group
<b>WHO</b>	World Health Organization

**Improving health worker job satisfaction can improve the quality of health care services:** health extension workers in Ethiopia's Health Extension Programme have reported several factors that reduce their motivation, ultimately compromising service quality.

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**Health extension workers are impacted by a range of individual level and systemic factors:** implementation of strategies must carefully consider possible context-specific barriers and enablers, including stakeholder commitment and resource and financial constraints.

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**Research needs to be conducted for the design of tailored solutions:** a complementary mix of new and improved strategies are needed to overcome workforce challenges.

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**Strategies exist to optimise health extension worker performance:** options include increasing salaries and/or introducing a mix of incentives; strengthening training and supervision; and enhancing career opportunities, particularly for rural health extension workers.

The Health Extension Programme (HEP) serves as a flagship programme in the delivery of primary health care (PHC) in Ethiopia. However, its implementation has faced various health system barriers. By laying out transformative strategies, the HEP Optimization Roadmap (2020–2035) presents an opportunity to restructure and standardize the programme’s service delivery approach to ensure long-term sustainability and impact.

The mobilization of approximately 40 000 health extension workers (HEWs) has been critical in supporting the implementation of HEP. While much has been written about the challenges faced by HEWs in Ethiopia, evidence based on evaluations of initiatives to improve the working conditions of this cadre, and ultimately the health outcomes of the communities they serve, is limited.

### **Causes**

While HEP has been lauded by many as a success, there are growing concerns over the challenges faced by HEWs, including their remuneration levels, the absence of clear, functional career paths, and the lack of a supportive and continuous learning environment.

### **Impact**

These obstacles have resulted in a growing lack of motivation and satisfaction, appropriate skills, and core competencies among HEWs, limiting the productivity and efficiency of the programme.

### **Response**

Given the launch of the HEP Optimization Roadmap and the political commitment to HEP, there is an opportunity now to develop new strategies and allocate more resources to improve the working and training conditions of HEWs. We focus on three key areas in need of improvement: (1) payment and incentive structures for HEWs, (2) training programmes for HEWs with a revised focus on the efficient and effective delivery of essential health services, and (3) defining a clear career structure. Evidence of six potential strategies in response to these areas is presented.

### **Conclusions**

HEP has had a positive impact on PHC delivery to communities in Ethiopia, however, implementation challenges remain. Reforms have been pursued, as is seen in the HEP Optimization Roadmap and the second Health Sector Transformation Plan (HSTP-II), but persistent workforce challenges undermine its potential success. Improving HEW incentives; strengthening training and supervision; and improving career progression pathways, particularly for rural HEWs, have been identified as potential strategies for overcoming HEP workforce challenges. Context-specific evidence on the feasibility and impact of any new strategies is needed to support decision-making. Implementing changes will require consideration of the interplay between the different interventions, strong stakeholder commitment, and financial investment in order to optimize HEP and meet the evolving needs of communities.



Originally launched in 2003, HEP is a flagship programme in the health sector in Ethiopia (Ethiopia Federal Ministry of Health, 2005). Integrated within the broader health system, HEP is the core platform for the delivery of PHC services at the community level and has been a major contributor to improved health outcomes (Assefa et al., 2017; Assefa et al., 2019).

The main objective of HEP is to improve equitable access to promotive, preventive, and basic curative essential health interventions through community-based health services (Wang et al., 2016). Through the deployment of specially trained HEWs, HEP targets households with a package of essential health services, designed particularly to benefit women and children.

HEP has contributed significantly to improved coverage as well as the comprehensiveness of PHC services, including: access to and coverage of maternal and child health services (family planning, antenatal care, vaccination); environmental and personal hygiene; disease prevention and control measures; higher utilization of insecticide-treated bednets for malaria protection; increased latrine construction and utilization; enhanced reporting of disease outbreaks; increased community satisfaction; and a significant improvement in health information (Admassie et al., 2009; Teklu et al., 2020; Woldie et al., 2017).

The implementation of HEP is considered to have improved maternal and newborn health care practices at scale and is seen as instrumental in the achievement of child health Millennium Development Goals (MDGs) in Ethiopia (Assefa et al., 2017; Assefa et al., 2019; Karim et al., 2013; Teklu et al., 2020). Considering the social and economic returns, HEP is estimated to have yielded a return of between US\$ 1.54 and US\$ 3.26 for every dollar spent (HRH2030, 2019). Continued delivery will be critically important for the achievement of universal health coverage (UHC) and the Sustainable Development Goals (SDGs), especially in addressing child and maternal health indicators (Ayele et al., 2021).

As well as highlighting the successes, a 2019 National Assessment concluded that implementation challenges and changes in community needs and expectations have hampered the success of the programme (Teklu et al., 2020). The report, along with several other studies, highlights human resources as a key constraint on programme success. Specific challenges include a lack of motivation, knowledge, skills, productivity, and efficiency amongst HEWs. These challenges are further compounded by systemic shortcomings around the working and living conditions of HEWs, limited access to structured career paths, the lack of sustained supervisory support, the high workload and limited capacity of the workforce, and the frequent turnover of leadership and staff, resulting in instability and short termism (Assefa et al., 2019; Bekele et al., 2008; John Snow, 2018; Medhanyie et al., 2015; Shega, 2013; Teklu et al., 2020; Panel 1).

### **Panel 1: HEW job satisfaction, attrition, and burnout**

The 2019 HEP Assessment found that more than half of HEWs were dissatisfied with their job and nearly one third of them reported an intention to leave. Among HEWs, a relatively high level of burnout symptoms was observed with 40% displaying at least a risk of burnout and 5% a severe risk of burnout (MERQ Consultancy PLC, 2020). Even though 86% of surveyed health posts were staffed by two HEWs (the minimum standard), this was found to be inadequate compared to the volume of work and skill sets required for the effective delivery of HEP packages. Job satisfaction varied significantly across regions and livelihoods (agrarian vs pastoralist).

These findings are corroborated by other studies (Bekele et al., 2008; Haile Mariam et al., 2020; Kare et al., 2021; Kitila et al., 2021; Tekle et al., 2022; Teklehaimanot et al., 2007). In a recent study, job satisfaction among HEWs in southern Ethiopia was low, with 37% satisfied with their job (Kare et al., 2021). Another study in southwest Ethiopia showed a very high level (52%) of HEW turnover intention (Kitila et al., 2021). This finding was supported by a study of nearly 600 HEWs, in which 40% reported intention to leave, with the estimate variable across regions being 22–64% (Tekle et al., 2022). HEWs reported considering their roles as temporary, until they could find a better job (Haile Mariam et al., 2020).

Issues identified as contributing to a low level of satisfaction and lack of motivation include:

- Inadequate salary and incentives
- Lack of opportunities for career advancement and unclear career trajectory
- Limited promotion and transfer opportunities
- Limited educational and training opportunities
- Poor management support and supervision
- High workload
- Availability of alternative job opportunities
- Community resistance

These themes have been echoed in the wider literature on community health workers (CHWs) across the continent (Kweku et al., 2020; Muthuri et al., 2020; Olaniran et al., 2022; Pallas et al., 2013; USAID, 2013; Willis-Shattuck et al., 2008).

In an effort to optimize HEP, Ethiopia has developed the 15-year [HEP Optimization Roadmap \(2020-2035\)](#) (Ethiopia Ministry of Health, 2020). Emphasized within HSTP-II, the Optimization Roadmap outlines the major changes required to ensure HEP remains an effective service delivery programme (Ethiopia Ministry of Health, 2021). Guided by the HEP Optimization Roadmap, HEP service packages will be redefined and standardized through a restructured service delivery platform, towards the goal of achieving UHC. The HEP Assessment and Optimization Roadmap indicates a complex web of challenges across the system that call for a system-wide reform to ensure quality health service delivery.

The realization of the HEP Optimization Roadmap will depend on the availability of motivated and appropriately supported health workers who are able to deliver quality and effective health services. Indeed, HEP workforce-related improvements are highlighted in the strategic objectives of the Optimization Roadmap. As the major workhorse of HEP, improving the motivation of HEWs and overcoming HEW workforce challenges, in particular, will likely have the largest positive impact on service delivery. Any response to HEW workforce challenges will require drawing on evidence that attempts to answer the following key questions:

### Key questions

- What can be learnt from previous policy responses to salary levels and incentives?
- What changes to training, support, and supervision have improved competency and productivity?
- What structural changes to education and career progression have improved retention and job satisfaction?

## Methodology

The brief brings together local and global evidence to inform discussions on overcoming workforce challenges to optimally deliver HEP in Ethiopia. A desk review was conducted that involved scanning and reviewing the relevant literature and evidence base. The reviewed literature included journal articles, government reports and plans, as well as other grey literature. Our search was focused on evidence related to initiatives and policies targeted primarily at CHWs. The relevant evidence described the problem, current practice, and possible implementation strategies to address challenges, including the impacts of such strategies. When considering the impact of strategy options, where possible, evidence from existing systematic reviews is relied upon to reduce the risk of bias and strengthen the quality and transparency of the evidence presented.

This policy brief summarizes the evidence on major challenges identified through various HEP assessments as well as possible solutions to address them. It does not claim to be comprehensive in the sense of including all studies in the subject area. Furthermore, the studies reviewed lack homogeneity in their methodologies in addition to the fact that some of them were national in scope while others were region or locality-specific.

Ethiopia is a landlocked country located in the Horn of Africa and the continent's second most populous country with a population of approximately 115 million in 2020.

The population has a young age structure, with over three quarters living in rural areas, where agriculture and pastoralism are the main source of livelihood. Total annual health expenditure in Ethiopia is US\$ 26.7 per capita, one of the lowest in the world, of which 23% is funded by domestic public sources (The World Bank, 2022).

## Introduction of HEP and HEP packages

The practice of deploying paraprofessionals into communities has a long history in Ethiopia's health sector. Auxiliary health workers were first introduced in the mid-1970s in the context of expanding PHC (Wang et al., 2016). By the early 1980s, tens of thousands of community health agents and traditional birth attendants were in service (Mechie et al., 1984). With the Health Sector Development Programme (HSDP II), the Government of Ethiopia formalized the 2003 launch of HEP to address challenges in earlier community health worker (CHW) initiatives and improve PHC at the community level.

HEP was introduced in the context of poor health outcomes, low coverage of maternal and child health services, and disparities in access to and availability of services, particularly between rural and urban populations (Assefa et al., 2019). HEP was first introduced in rural settings (2003) and has since expanded to include two additional HEP types in pastoralist communities (2006) and urban areas (2009). HEP initially delivered 16 packages organized under four programmatic areas: family health, disease prevention and control, hygiene and environmental sanitation, and health education and communication (Assefa et al., 2019; Ethiopia Ministry of Health, 2020; Willis-Shattuck et al., 2008). HEP packages evolved with the introduction of the second generation HEP in 2016. The most notable changes included the addition of services for noncommunicable diseases, neglected tropical diseases, and mental health, as well as adaptations to existing packages, such as the provision of long-lasting family planning methods (Figure 1a and 1b).

**Figure 1a.** Four major programme areas of HEP: rural package

Family health services	Disease prevention and control	Hygiene and environmental sanitation	Health education and communication
Maternal and child health	HIV/AIDS	Proper and safe excreta disposal	Health education and communication
Family planning	TB	Proper and safe solid and liquid waste management	
Immunization	Malaria	Water supply safety measures	
Adolescent reproductive health	First aid	Food hygiene and safety measures	
Nutrition		Healthy home environment	
		Insect and rodent control	
		Personal hygiene	

Source: Assefa et al., 2019.

**Figure 1b.** Four major programme areas of HEP: urban package

Family health services	Disease prevention and control	Hygiene and environmental sanitation	Injury prevention and control, first aid, and referral services
Maternal and child health	HIV/AIDS	Solid and liquid waste disposal	Injury prevention and control, first aid, and referral services
Family planning	Tuberculosis and Leprosy	Personal hygiene and healthy home environment	
Immunization	Malaria	Food and water safety	
Adolescent reproductive health	Non-communicable diseases	Latrine construction and utilization	
Nutrition	Mental health		

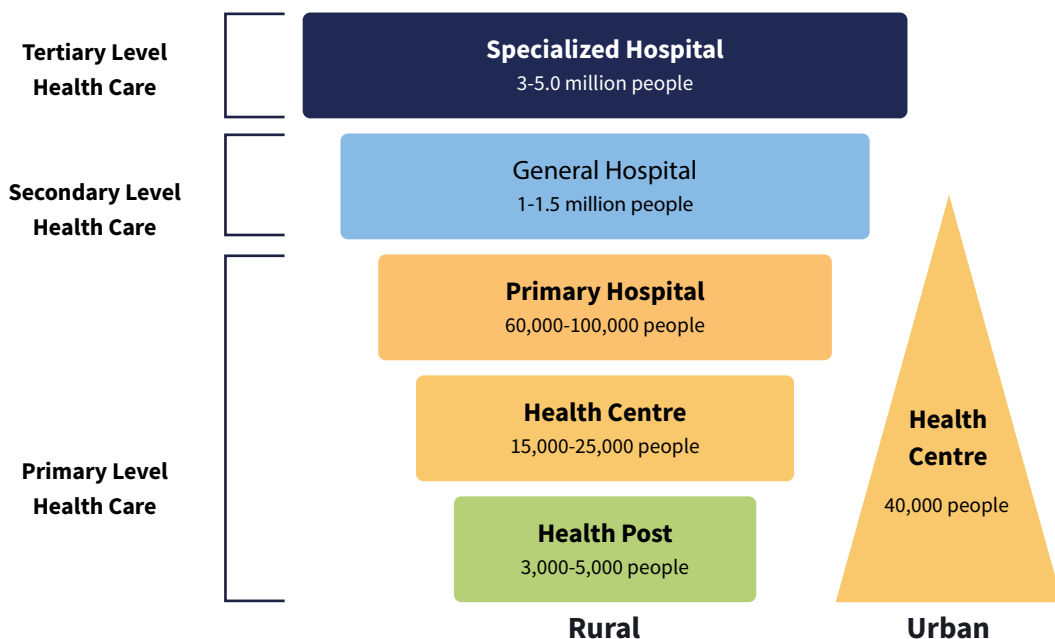
Sources: Kassie et al., 2021.

## Health system and workforce

Ethiopia has a three-tier health care system: primary, secondary, and tertiary levels. HEP is positioned and managed within the primary health care unit (PHCU) level and is designed to serve as the entry point to the health system (Figure 2). A PHCU comprises three service delivery points: health posts (in rural settings), health centres, and primary hospitals. In rural settings, each health post – with at least one per kebele, the lowest administrative unit in Ethiopia – serves an average of 1000 households covering a population of 3000–5000 individuals. Each health post is overseen by a health centre serving about 25 000 people. In urban settings, where populations are in closer proximity to health centres and hospitals, each health centre directly serves about 40 000 people. Each health post (rural) or health centre (urban) is designed to be staffed by two HEWs, the key delivery agents for HEP. HEWs provide services at both facility and community levels, conducting home visits and outreach activities (Ethiopia Federal Ministry of Health, 2005; Ethiopia Ministry of Health, 2021; Teklu et al., 2020).

HEWs are employed as formal salaried government staff, a bold departure from previous CHW programmes in Ethiopia, which were all volunteer-based programmes (Ethiopia Federal Ministry of Health, 2004). Mostly female, HEWs are recruited from surrounding communities based on their knowledge of the language and culture and their commitment to serving their community. They must have a minimum of Grade 10 education (Banteyerga, 2011; Workie & Ramanda, 2013). Pre-service, HEWs receive a rapid 12-month vocational training on essential health promotion and information, disease prevention, and basic curative services. Logistical, managerial, and technical support alongside supervision and mentoring is provided by health centre staff and the kebele administration. To extend the reach of the programme, HEWs work closely with volunteer CHWs, a cadre of nearly one million volunteers called either the Women’s Development Army (WDA) or Health Development Army (HDA) (Community Health Roadmap, 2021).

**Figure 2.** Structure of the Ethiopian health system



Source: Teklu et al., 2020.

## HEP milestones and evolution

Since its introduction, HEP has evolved in several ways, including expanded geographic coverage, infrastructure development, and service delivery. The number of health posts and HEWs has significantly increased over time, with approximately 40 000 HEWs and 17 500 health posts as of 2019. The package, which initially focused on promotive and preventive services, now includes basic curative services and a wider range of diseases.

Other major milestones of HEP include widening the geographic scope to include pastoralist and urban areas, and major shifts in approach to these changes, such as the designation of male HEWs in pastoralist communities and the introduction of the Family Health Team in urban areas (Ethiopia Ministry of Health, 2020; Teklu et al., 2020). Urban family health teams were introduced as part of a 2018 reform of urban health centres. These are multi-professional teams composed of nurses, environmental health experts, midwives, HEWs, and other workers (as required) from the nearest health centre. The teams focus on providing services for complex health issues at the community level, particularly targeting poor and vulnerable populations.

The Optimization Roadmap outlines further development plans for HEP, such as the restructuring of some health posts to provide additional services and higher staffing levels for health posts and HEP units within health centres (Ethiopia Ministry of Health, 2020).

## HEP financing

HEP is financed by the government and donors, with additional non-monetary contributions of time and labour at the community level. The 2019 National Assessment provided a comprehensive analysis of HEP financing (Teklu et al., 2020). It was found that absolute funding for HEP had increased over time, but the share of HEP spending in relation to total health expenditure had declined since 2010 – from 8.9% to 7.1% between 2010/11 and 2016/17. While the government’s share in financing HEP has increased, HEP is still highly donor-dependent (nearly 65% of its funding comes from donors). Human resource-related expenses, including salaries and basic and refresher training, account for approximately 25% of HEP spending.

While writing this brief, it became apparent that much has been written on the challenges faced by HEWs in Ethiopia and CHWs across the continent, especially when compared to the small number of rigorous evaluations aimed at improving the working conditions of this cadre, and ultimately the health outcomes of the communities they serve (Ballard & Montgomery, 2017). As detailed in Panel 1, several issues have been highlighted as contributing to poor motivation and satisfaction among HEWs. A variety of complementary strategies will be required to successfully target workforce motivation and satisfaction. Below are policy insights based on evaluations designed to address some of these HEP workforce challenges, subsequently summarized in Table 1.

### a) Inadequate salaries and incentives

A range of financial and non-financial employment incentives can be used as a means of compensating workers and improving services. Financial incentives include salaries and other employment remuneration, performance-based payments, and other indirect support (such as reimbursement of travel costs, housing and telephone allowances, subsidized food, etc.). Non-financial incentives include preferential access to services such as housing, childcare, health care, education and other training opportunities and recognition (Colvin et al., 2021).

#### Current practice

HEWs are formal, government-salaried workers with a monthly salary ranging from US\$ 90 to US\$ 120 (Haile Mariam et al., 2020; Teklu et al., 2020). Most recent estimates suggest that the gross salary of urban HEWs ranges from 5000 birr to 8500 birr, while their rural counterparts earn between 3000 birr and 6000 birr. The range is based on years of service. HEWs earn well above the national minimum wage (1370 birr) for public servants (personal communication, regional health bureaus personnel) (average exchange rate in 2021: 1 US\$ = 44.32 ETB). As part of the Optimization Roadmap, a revised salary scale for HEWs will be introduced, taking into consideration hardship postings. The package may include performance-based payments (Ethiopia Ministry of Health, 2020). By September 2021, a job evaluation and grading system had been developed to determine HEW monthly salaries but had yet to be implemented (Community Health Roadmap, 2021).

Beyond salaries, explicit financial and non-financial incentives are limited for HEWs (training, education, and career progression incentives are not included here and are discussed in the next sections). The Human Resources for Health (HRH) Strategic Plan (2016–2025) details a package of financial and non-financial incentives for all health workers, but at the time of writing, this had not been implemented (Teklu et al., 2020).

#### Key challenges

The following were identified as important factors influencing the motivation and retention of HEWs in Ethiopia: financial incentives in the form of increased salaries; material incentives in the form of improvement to facility infrastructure and provision of childcare services for HEWs; and non-material factors like HEWs' self-image, acceptance, and recognition by the community and their supervisors (Arora et al., 2020). Despite following best practices in professionalizing and providing a salary for HEWs, the following challenges remain (Teklu et al., 2020):

- The salary is perceived as inadequate by HEWs, particularly when compared with changes in their responsibilities and the expansion of HEP packages.
- The absence of salary increments, incentives, and overtime pay is a key source of dissatisfaction.
- Salary and benefit packages for HEWs are not uniform across regions.
- Non-salary incentive packages within the HRH strategic plan have not yet materialized and it is unclear whether motivational incentives cover HEWs.
- Non-material demotivating factors persist, such as the lack of appreciation and acceptance by communities/supervisors.

## Potential solutions

### Strategy 1: Improved salary commensurate with role

Findings from different countries suggest that improving financial remuneration can improve the motivation and performance of health workers (Colvin, Hodgins, and Perry, 2021; Pallas et al., 2013). In a cross-sectional study conducted in southern Ethiopia, financial incentives were found to be closely associated with HEW job motivation (Mohammed et al., 2015). Similarly, in another study conducted in the Gambella Region, salary increments were identified by rural HEWs as one of the reasons for satisfaction and motivation, while a low salary had a demotivating effect (Demmem et al., 2019). Options for improving HEW salaries to address challenges could encompass uplifting all salaries, incorporating performance-based payments into salaries, including pay reviews (for example, based on roles, performance, etc.), or improving salary scales and increments.

Studies have assessed the evidence regarding the impacts of and potential concerns associated with improved remuneration, but there is limited evidence on experiences and impact of implementing improved remuneration policies at the community workforce level:

- The World Health Organization (WHO) recommends that health workers receive remuneration commensurate with their job demands, complexity, number of hours worked, training, and the roles that they undertake, highlighting the best practice of benchmarking salaries against the local minimum wage (World Health Organization, 2018).
- Evidence for international implementation of specific improved remuneration strategies for community-based health workers appears limited. Evidence from Sierra Leone suggests that a salary uplift led to improved recruitment and reduced absenteeism (Stevenson et al., 2012).
- Setting the amount of the increase is critical, as a wage uplift that is not in line with increased costs and duties performed can demotivate health workers (Wurie et al., 2016).
- Reliance on performance-based incentives alone can be problematic and the sole use of performance-based pay is not recommended. Risks include a reduction of financial security, decreased efforts on non-incentivized responsibilities, and decreased motivation (for perceived unfairness or decreases in overall remuneration) (Gadsden et al., 2021; World Health Organization, 2018).
- Promises of improved remuneration must be handled appropriately as payment failures and delays and unequally distributed incentives have been identified as sources of demotivation (Kok et al., 2015; Ormel et al., 2019).
- Designs for improved remuneration need to carefully consider: (1) the need for commitment from high-level policy makers; (2) limited fiscal resources and fiscal sustainability; (3) spillover effects on wage demands from other sectors; and (4) the ability to incentivize over time/long-term distortions (Colvin et al., 2021; Hasnain, 2020). These factors are particularly important given the limited financial resources available to HEP and in the context of competing priorities and potential opportunity costs.

### Strategy 2: Provide non-salary incentives

Potential incentives could include performance-based bonuses, social incentives (such as transportation allowances, childcare, and housing benefits), and non-material incentives such as awards and improved recognition. Studies have assessed the contribution of non-salary incentives to health worker motivation and retention. There remains, however, a need for additional, sufficiently granular and context-specific evidence on which type of financial and non-financial incentives are most effective (World Health Organization, 2018). The following summarizes the evidence:

- Theoretical and empirical evidence from different settings indicates that non-salary incentives are important motivators and can reduce attrition (Kok et al., 2015; Pallas et al., 2013).
- A package combining predictable financial and non-financial incentives can work better than interventions limited to one single type of incentive and is recommended by WHO (Bertone & Witter, 2015; Willis-Shattuck et al., 2008; World Health Organization, 2018).
- Empirical evidence from discrete choice experiments indicates that CHW decisions (such as job selection and salary level) may be positively affected by various non-salary incentives, including: transportation or transportation allowances

(Uganda: Agarwal et al., 2021), free family health-checks (India: Abdel-All et al., 2019), housing benefits (Zambia: Prust et al., 2019), and paid study leave and education allowances (Ghana: Shiratori et al., 2016).

- In Guinea Bissau, two main sources of low-cost incentives on social status and intrinsic motivation were evaluated: (i) an honorific award for good performance; and (ii) a video treatment centred on perceived task significance. The study found that the inexpensive social status intervention improved CHW performance (Fracchia et al., 2019).

When considering proposed policy measures across strategies 1 and 2, it is important to note that the mix of incentives can influence motivation in different ways across different contexts. Contextual differences have important implications for the way incentives influence motivation, and the mix of incentives needs to be tailored to each context (Ormel et al., 2019). Data and evidence from Ethiopia are required to support advocacy for specific policy measures and to understand what could be achieved through implementation of various measures.

## b) Lack of training, support, and supervision

Pre-service and regular in-service training for health workers is the process by which individuals maintain and improve the quality of health care services. This brief defines training as targeted training for the implementation of HEP; substantive education and professional development activities are discussed in the next section. The objectives of training are broad, including improving the knowledge, skills, attitudes, motivation, and commitment of health professionals (Schleiff et al., 2021). Supportive supervision is the process of helping, mentoring, training, and encouraging health workers to perform their duties to a high standard and deliver quality services.

### Current practice

Pre-service training of HEWs consists of a one-year course of study (level 3) at a technical and vocational training institution or health college (22 colleges in different regions of the country). The training curriculum covers the job description for HEWs, including training on all HEP packages. It also includes theoretical and practical components. HEWs receive a certificate of competency upon successful completion of their training (Community Health Roadmap, 2021). In-service, integrated refresher training (IRT) has been introduced; it is undertaken at least every other year with the aim of updating service delivery protocols, reinforcing skills, and developing new competencies (Schleiff et al., 2021).

The IRT was developed to avoid duplication and improve training quality. In addition, HEWs participate in a number of short training courses covering the modules under HEP. The second generation HEP provides for an additional year of training for HEWs, allowing them to be upgraded from level 3 to level 4 community health nurses (or two years for generic trainees directly from high school). In 2019, additional training opportunities specifically designed for HEWs were made available. For example, a HEW can now earn a Bachelor of Science (BSc) in Family Health.

Supervision and mentoring are provided on a weekly basis by health professionals at the catchment health centre (supervision by facility-based workers). Supervisors use a checklist to guide the process, focusing on implementation of HEP packages and implementation challenges. Supervisors are expected to provide feedback on supervision activities conducted (Teklu et al., 2020). Monthly supervision should be provided by woreda (district) health offices, with the Ministry of Health (MoH) and regional and zonal departments expected to provide quarterly supervision. Both activities are guided by a checklist.

Ethiopia was included in a multi-country qualitative rapid appraisal assessing the approaches and strategies used in the training and supervision of HEWs delivering integrated community case management (iCCM) of childhood illness. The study noted that HEWs received clinical mentoring from health centre staff and structured supervision in the form of review meetings four to six weeks after initial training (Nisbande et al., 2018). Community members and village health committees are also involved in supporting HEWs and evaluating their performance. In turn, HEWs are responsible for providing support and supervision to WDA/HDA volunteers.



## Key challenges

The 2019 Assessment revealed problems with pre-service and in-service training and supervision, which were reported as having a negative impact on the level of midwifery, clinical, and environmental health-related skills. (Teklu et al., 2020):

- Despite attending the high level 3 course, a large number of HEWs remain uncertified, with major knowledge and skills gaps.
- Fewer than half of the HEWs involved in the HEP Assessment had completed IRT training as recommended. On a positive note, those who had attended IRT were satisfied with the training provided and would recommend it to other HEWs.
- Of the short training courses offered, noncommunicable diseases are the least attended (about 30%), despite the recent addition of this package to HEP.
- Key barriers to pre-service and in-service training that comprise quality include: inadequate facilities, insufficient practical sessions, language gaps, insufficient time, and irregularities in in-service training provision.
- The provision of in-service training has not adequately addressed the mismatch between the current skills of HEWs and the skills required for the new HEP packages.
- In practice, supportive supervision does not meet standards for frequency, content, and feedback – supervision provided by higher levels is particularly infrequent.

## Potential solutions

### Strategy 3: Improve attendance at in-service training opportunities

In an Ethiopian stated choice experiment, dedicated training time was found to be one of the most important job attributes among HEWs (Lamba et al., 2021). Similar results were found in other settings (Agarwal et al., 2021). The following describes the evidence for improving attendance at training courses:

- WHO guidance indicates that the kind and extent of CHW training must reflect the roles and tasks they perform, which are becoming more extensive (World Health Organization, 2018).
- Best practice evidence suggests that in-service training should be formally planned and structured at regular intervals in the form of workshops, monthly meetings, and refresher courses, all aimed at integrating new protocols and procedures, as well as changes in the tasks of the health workers (Javanparast et al., 2017).
- CHWs are more likely to attend and feel motivated by training if the content/quality is of intrinsic benefit to their role. This requires investments to build the capacity of training institutions, ensuring the location, content, and duration of programmes are suitable (O'Donovan et al., 2018). Recognition via competency-based formal certification is recommended (World Health Organization, 2018).
- Technology/mobile technologies may play an important role in training delivery and warrants exploration, as demonstrated in settings across Africa (Mc Kenna et al., 2019; O'Donovan et al., 2015). Technology-based training can alleviate barriers associated with infrastructure and trainer workload and can be facilitated by the wide availability of mobile phones. The 2019 Assessment recommends the use of virtual training and learning modalities for HEWs (Teklu et al., 2020).

A note of caution: as the training and education requirements for HEWs increase – requiring more time and travel – different challenges may arise. For example, it may be more difficult to recruit and retain from communities HEWs will service (Schleiff et al., 2021).

### Strategy 4: Improve supervision of HEWs

Despite its acknowledged importance in ensuring that CHWs/HEWs are effective and motivated, supervision is often weak. The evidence surrounding best practices for improving supervision is inadequate (Westgate et al., 2021; World Health Organization, 2018). The following summarizes the available evidence:

- Evidence suggests that improving supervision quality has a greater impact than increasing the frequency of supervision

alone. Supportive supervision packages, community monitoring, and quality improvement/problem-solving approaches show the most promise; however, the evaluation of all strategies was weak (Hill et al., 2014).

- Digital technologies and mobile health interventions to facilitate supervision are being explored in different small- and large-scale settings. However, formal evaluations are required. For example, in Mali, implementing a digital CHW dashboard was shown to significantly increase home visits (Whidden et al., 2018); in Rwanda, supervisors' roles are streamlined by equipping CHWs with mobile phones to submit data via an app (USAID, 2013).
- There is limited evidence of training programmes/support services that have been developed to prepare and support supervisors for this role – especially for facility-based supervisors who already have a heavy workload, suggesting strategies for supporting supervisors need to be prioritized (Schleiff et al., 2021; Westgate et al., 2021).
- Dedicated supervision is a relatively new and promising approach, which utilizes 'dedicated' supervisors whose sole role is CHW supervision without additional workload burdens. This approach is being used in Bangladesh and Liberia and requires formal evaluation (Westgate et al., 2021).

## c) Limited opportunities for career development

Continued educational and career advancement opportunities are key to employment, facilitating ambitions to raise the quality of work and employment prospects.

### Current practice

Opportunities for HEW educational and career advancement were initially not well considered. Recognizing this, the MoH recently designed a career progression pathway. HEWs have the opportunity to upgrade from level 3 (obtained at pre-service training) to level 4 on receiving a certificate of competency after an additional one-year college course (diploma level). The Optimization Roadmap prioritizes increasing the number of level 4 HEWs through this upgrade training (Ethiopia Ministry of Health, 2020). By September 2021, around half of rural HEWs had received training, enabling them to upgrade to level 4 (Community Health Roadmap, 2021).

The pathway also includes an opportunity for level 4 HEWs to undertake a degree programme in family health. Launched in 2019, several universities across Ethiopia have started the programme, enrolling 240 students in the first year (Community Health Roadmap, 2021). HEWs completing the programme may be selected as family health professionals (FHPs), who currently form part of the urban family health teams. By September 2021, approximately 260 HEWs had been trained as FHPs.

The roadmap indicates additional plans for improved career path opportunities. Once implemented, HEWs will be provided opportunities to upgrade their educational status in the fields of midwifery, comprehensive nursing, environmental health, public health, and family health (Ethiopia Ministry of Health, 2020). For HEWs who do not qualify for post-basic training, administrative, clerical, and other positions within the health system will be availed.

### Key challenges

Respondents to a study in Ethiopia mentioned the development of a defined career structure and path for HEWs as an important factor in their job satisfaction and in minimizing staff attrition (Nsibande et al., 2018). The new education and professional pathways are positive towards addressing gaps. However, challenges remain:

- Some HEWs, particularly those working in rural communities, do not have a level 3 qualification and, without a school diploma, cannot enrol in college in order to upgrade to level 3 or 4. The lower education/competency of these HEWs not only impacts health service delivery, but also affects their opportunities for career progression and remuneration.
- There are limited promotion or transfer opportunities, particularly in the path from rural HEW to urban HEW.
- The career path beyond the degree level is not clearly articulated, both for advancement within the HEW profession and to other roles within the health system.

## Potential solutions

### Strategy 5: Create career progression pathways, including to other health system roles

When recruiting CHWs, emphasizing career possibilities has been shown to appeal to potential recruits in Ethiopia (Ashraf et al., 2016). Empirical discrete-choice experiment evidence further afield (India & Lao) also suggests that health workers have a strong preference for jobs incorporating promotion opportunities (Abdel-All et al., 2019; Rockers et al., 2013). While several studies have theoretically and empirically assessed the benefits of career progression to health workers, there is limited evidence on the implementation of new career pathways for CHWs:

- WHO recommends offering a career ladder to CHWs, cognizant of pre-service education, competency-based certification, duration of service, and performance review (World Health Organization, 2018).
- Qualitative evidence from Ethiopia suggests that recent improvements to the HEW career structure (that is, level 3 and level 4 diplomas) have contributed to improved job satisfaction and retention (Nsibande et al., 2018). The HEP Assessment recommends allowing competent HEWs to compete for high cadre positions across health institutions (Teklu et al., 2020).
- “Needs-specific” motivational packages, which include career development opportunities such as a shorter period of work before study leave, have been welcomed as a retention tool for CHWs (Shiratori et al., 2016).
- The 2019 Assessment recommends allowing competent HEWs to compete and occupy positions in other levels of health institutions (Teklu et al., 2020).

### Strategy 6: Improve professional development opportunities for rural and less academically qualified HEWs

Career development opportunities for HEWs remain limited, particularly for HEWs without level 3 qualifications (predominantly rural HEWs), who cannot upgrade to level 3 or 4 or access career pathways. Evidence on strategies to improve educational attainment and development opportunities for rural health workers and the potential impact of such strategies is limited. The following summarizes the literature:

- A long-term solution is to improve the quality of primary and secondary education, with a particular emphasis on rural areas (World Health Organization, 2010).
- In the short-term, academic bridging programmes have been used in some settings (such as China, Thailand, and Vietnam) to improve admissions to medical schools for students from rural backgrounds (World Health Organization, 2010), which could be a consideration to improve level 3 attainment.
- In addition to academic support, other barriers to education completion and access to career paths by rural students may include: training quality and content, language barriers, financial difficulties, and social barriers.
- The quality of rural pre-service training could be enhanced, ensuring equitable quality across locations for example, infrastructure, trainers, content, etc) and reducing language barriers (for example, delivering content in local languages).
- The 2019 Assessment recommends reconsidering recruitment procedures to attract better-qualified candidates, including through the administration of an entrance examination or the revision of the entrance criteria (Teklu et al., 2020).
- Continuing education programmes should be clearly linked to career paths in rural settings, particularly where rural health workers can move up the career ladder without leaving the rural areas. More studies are required on rural career ladders (World Health Organization, 2010).

**Table 1.** Summary of the six strategies to address HEW workforce challenges to optimize HEP

HEW workforce challenges	Six strategies to optimize HEP
<p><b>a) Inadequate salaries and incentives:</b></p> <ul style="list-style-type: none"> <li>Salaries perceived as inadequate.</li> <li>Absence of salary increments, incentives, and overtime pay.</li> <li>Salaries and benefit packages are not uniform across regions.</li> <li>HEP non-salary incentives absent and unclear.</li> <li>Lack of appreciation by community and supervisors.</li> </ul>	<p><b>1. Salary incentives:</b></p> <ul style="list-style-type: none"> <li>Increased, timely, and reliable salaries.</li> <li>Salaries commensurate with job demands, hours, and training.</li> <li>Benchmarking salaries against the local minimum wage.</li> <li>Equally distributed incentives among health workers.</li> <li>Engaging high-level policy makers: resources and priorities.</li> </ul> <p><b>2. Clear and predictable non-salary incentives:</b></p> <ul style="list-style-type: none"> <li>Material incentives: performance bonuses and social incentives.</li> <li>Non-material incentives: recognition, tailored to the context.</li> </ul>
<p><b>b) Lack of training, support, and supervision:</b></p> <ul style="list-style-type: none"> <li>Knowledge gaps: low completion rate of refresher training.</li> <li>Non-communicable disease courses are the least attended.</li> <li>Poor training facilities and insufficient practical sessions.</li> <li>Training irregular and inadequate in duration.</li> <li>Mismatch between HEW training and requisite HEP skills.</li> <li>Inadequate frequency, content, and feedback in supervision.</li> </ul>	<p><b>3. In-service training:</b></p> <ul style="list-style-type: none"> <li>Dedicated and regular training that reflects tasks performed by HEWs.</li> <li>Investing in the capacity of health worker training institutions.</li> <li>Health worker recognition: competency-based formal certification.</li> <li>Technology: alleviate infrastructure barriers and trainer workload.</li> </ul> <p><b>4. HEW supervision:</b></p> <ul style="list-style-type: none"> <li>Improving supervision quality – not just frequency.</li> <li>Supervisor support: community monitoring and supervision packages.</li> <li>Integrating digital technologies and mobile health interventions.</li> <li>Appointing dedicated supervisors with a singular focus on HEW supervision.</li> </ul>
<p><b>c) Limited opportunities for career development:</b></p> <ul style="list-style-type: none"> <li>Many HEWs do not have pre-service training (level 3).</li> <li>Lack of school diploma (required for level 3 or 4 qualification).</li> <li>Limited promotion or transfer opportunities, namely rural to urban.</li> <li>Career path beyond degree level not clearly articulated.</li> </ul>	<p><b>5. Career pathways:</b></p> <ul style="list-style-type: none"> <li>Clear career ladder: improves HEW recruitment, retention, and job satisfaction.</li> <li>Allowing competent HEWs to compete for high cadre positions.</li> <li>Tailored motivational packages with career development opportunities.</li> </ul> <p><b>6. Opportunities for rural and unqualified HEWs:</b></p> <ul style="list-style-type: none"> <li>Academic bridging programmes for rural students and level 3 attainment.</li> <li>Quality and accessible rural pre-service training in multiple languages.</li> <li>Entrance examination and revised entrance criteria: attract better candidates.</li> <li>Link education programmes to rural career paths: retain skilled rural HEWs.</li> </ul>

HEP has demonstrated that an institutionalized community approach can effectively enable progress towards UHC. Through HEP, community mobilization and engagement, combined with strong political commitment and coordination, has contributed to significant improvements in health outcomes, including maternal and child health, communicable diseases, hygiene and sanitation, knowledge, and health care seeking (Assefa et al., 2017; Assefa et al., 2019). The success of the programme has largely been attributed to the readiness and availability of services at health posts staffed with motivated and competent workers, as well as being fully equipped with adequate supplies and functional utilities. Health system governance, leadership, and community engagement have also played a significant role (Assefa et al., 2019; Workie & Ramanda, 2013).

While HEP has made a positive impact on PHC delivery to communities in Ethiopia, implementation challenges remain. Reforms have been pursued (for example, the HEP Optimization Roadmap and HSTP II), but persistent workforce challenges undermine its potential success. This brief focuses on three key HEP workforce challenges that appear consistently throughout the literature: (i) inadequate salaries and incentives, (ii) a lack of training, support, and supervision, and (iii) limited opportunities for career development (Haile Mariam et al., 2020; Tekle et al., 2022; Teklu et al., 2020). Improving incentives (either through improved salaries or a mix of financial and non-financial incentives), strengthening training (particularly in-service) and supervision, and improving career progression pathways, particularly for rural HEWs, have been identified as potential strategies for overcoming HEP workforce challenges.

HEW salaries are perceived as inadequate and are not uniform across regions. There is also an absence of salary increments, incentives, and overtime pay. Granting a mix of predictable financial and non-financial employment incentives while ensuring that salaries are commensurate with HEW roles can further improve service delivery. Improved remuneration policies must acknowledge that the decision will need to come largely from high-level policy makers in the face of competing priorities and limited resources. While properly considered improved salaries are likely to have a beneficial impact, empirical evidence is needed to support advocacy for such measures, considering the impact of proposed policy changes on HEP workforce challenges and considering the associated opportunity costs. Policy makers may consider lower cost and sustainable solutions, such as awards for good performance, or cost-effective non-salary options (such as improved paid leave, housing allowances etc.). Context-specific evidence as to the feasibility and potential impact is required to support decision-making.

Effective training and supervision opportunities for HEWs are key to the successful implementation of HEP, particularly given that no HEP packages have been adequately implemented to a level where the community can sustain adopted behaviours (Teklu et al., 2020). Current pre-service and in-service training opportunities could be improved to ensure the content and time allocated is sufficient to support the HEP curriculum and HEW services offered. The incorporation of technology, such as digital and mobile technologies, could improve training and supervisory offerings – ensuring content is delivered to a high standard, at regular intervals, and easing the workload of current trainers and supervisors (O'Donovan et al., 2015; Schleiff et al., 2021; Westgate et al., 2021). Further, close relationships with the community and regular supervisory support from the higher-level health care hierarchy are crucial to the sustained functioning of HEWs (Kok et al., 2015).

The HEP Optimization Roadmap details improvements to career advancement opportunities for HEWs, including diploma-level and degree-level education and improved career opportunities in other health disciplines (Teklu et al., 2020). Still, improvements could be made to concretize potential career options and allow transitions to other areas of the health sector. The HEP Assessment identified key barriers for individuals coming from rural areas and poorer academic backgrounds, negatively impacting on career progression and associated improvements in remuneration.

Implementing changes will require thorough consideration of the possible barriers and enablers of each proposed strategy and the interplay between the different interventions. Across the strategies, implementation will require strong stakeholder commitment to workforce improvement (including from the government, health workers, and other key stakeholders) and appropriate and sustainable financial investment. Notably, there is a lack of rigorous evaluation of the impact of these strategies, both globally and locally, meaning that the effect of such strategies is uncertain. Before widespread implementation, strategies and strategy mixes should be piloted and costed to ensure the most efficient use of resources in this context. As new strategies are implemented and

rolled out, it is important that they are continually evaluated, including studies on costs and cost-effectiveness, to inform best practices and ensure that the limited resources available to HEP are used most effectively towards the goal of improved health outcomes in Ethiopia.

This brief does not attempt to address HEP challenges beyond HEW workforce challenges – for example, it does not address HEP infrastructure, service packages and how they align with needs, service coverage, other workforce cadres, and financing. In addition to addressing workforce challenges, HEP optimization will require a network of cross-system modifications to meet changing needs and demands. Further, the brief focuses on a few key workforce challenges and does not touch on all issues or address challenges and solutions for other cadres of the workforce in the system. One major omission is the high workload facing HEWs. This barrier is being addressed in the Optimization Roadmap, mainly through a planned increase of staffing levels at health posts and health centres, including a variety of professions (Ethiopia Ministry of Health, 2020). While there may be some overlap in the challenges faced by other cadres, proper consideration of their specific challenges to devise well-informed solutions is warranted.

This brief is intended to support policy makers involved in the implementation and scale up of the HEP Optimization Roadmap to address the evolving community needs for quality health services and fully embrace emerging public health challenges. Based on the policy brief, we suggest the following strategies and considerations:

### **Introduce a complementary mix of strategies to overcome HEP workforce challenges**

- Introduce a mix of new financial and non-financial incentives: focus on potentially low-cost solutions such as awards for good performance.
- Improve training and supervision: consider digital and mobile health technologies to improve the quality and accessibility of offerings, reduce language-barriers, and introduce new supportive supervision models.
- Provide clarity on career progression pathways: include allowing HEWs to occupy other health system roles.
- Implement targeted policies to improve the education and career opportunities of individuals from a rural background: pursue both short-term (for example, bridging programmes) and long-term solutions (for example, improving primary and secondary education).

### **Strategically prioritise resources**

Resource constraints will require trade-offs between the different options, which need to be considered when designing complete strategies.

### **Conduct research on strategies to optimize the productivity of HEWs in Ethiopia**

There is currently limited evidence on the impact of such policies, particularly context-specific evidence and evidence on how policies complement each other.

### **Design policies that can be practically implemented**

Prior to widespread implementation, there is a need for feasibility research and rigorous evaluation of specific policy options, including cost-effectiveness research.

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