IMPROVING EFFECTIVENESS OF HEALTH EXTENSION PROGRAM IN ETHIOPIA

Full Report

Included:
- Description of a health system problem
- Viable options for addressing this problem
- Strategies for implementing these options

Not included: recommendations
This policy brief does not make recommendations regarding which policy option to choose

Who is this policy brief for?
Policymakers, their support staff, and other stakeholders with an interest in the problem addressed by this policy brief

Why was this policy brief prepared?
To inform deliberations about health policies and programmes by summarising the best available evidence about the problem and viable solutions

What is an evidence-based policy brief?
Evidence-based policy briefs bring together global research evidence (from systematic reviews*) and local evidence to inform deliberations about health policies and programmes

*Systematic review: A summary of studies addressing a clearly formulated question that uses systematic and explicit methods to identify, select, and critically appraise the relevant research, and to collect and analyse data from this research

Executive Summary
The evidence presented in this Full Report is summarized in an Executive Summary

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www.evipnet.org/sure

The Evidence-Informed Policy Network (EVIPNet) promotes the use of health research in policymaking. Focusing on low- and middle-income countries, EVIPNet promotes partnerships at the country level between policymakers, researchers and civil society in order to facilitate policy development and implementation through the use of the best scientific evidence available.

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Preface

*The purpose of this report*

The purpose of this report is to inform deliberations among policy makers and stakeholders. It summarises the best available evidence regarding the design and implementation of policies for improving health extension program.

The report was prepared as a background document to be discussed at meetings attended by those engaged in developing policies on health extension program and people with an interest in such policies (stakeholders). In addition, the report is intended to inform other stakeholders and to engage them in deliberations about policies. It is not intended to prescribe or proscribe specific options or implementation strategies. Rather, its purpose is to allow stakeholders to systematically and transparently consider the available evidence about the likely impacts of different options improving the health extension program in Ethiopia.

*How this report is structured*

The executive summary of this report provides key messages and summarises each section of the full report. Although this entails some replication of information, the summary addresses the concern that not everyone for whom the report is intended will have time to read the full report.

*How this report was prepared*

This policy brief brings together global research evidence (from systematic reviews) and local evidence to inform deliberations about health extension program in Ethiopia. We searched for relevant evidence describing the problem, the impacts of options for addressing the problem, barriers to implementing those options, and implementation strategies to address these barriers. We searched particularly for relevant systematic reviews of the effects of policy options and implementation strategies. We supplemented information extracted from the included systematic reviews with information from other relevant studies and documents. The methods used to prepare this report are described in more detail in the Appendix.

*Limitations of this report*

This policy brief is based largely on existing systematic reviews, however summarising evidence requires judgements about what evidence to include, the quality of the evidence, how to interpret it and how to report it. While we have attempted to be transparent about these judgements, this report inevitably includes judgements made by review authors and judgements made by ourselves.
Why we have focused on systematic reviews?

Systematic reviews of research evidence constitute a more appropriate source of evidence for decision-making than relying on the most recent or most publicised research study. We define systematic reviews as reviews of the research literature that have an explicit question, an explicit description of the search strategy, an explicit statement about what types of research studies were included and excluded, a critical examination of the quality of the studies included in the review, and a critical and transparent process for interpreting the findings of the studies included in the review.

Systematic reviews have several advantages. Firstly, they reduce the risk of bias in selecting and interpreting the results of studies. Secondly, they reduce the risk of being misled by the play of chance in identifying studies for inclusion or the risk of focusing on a limited subset of relevant evidence. Thirdly, systematic reviews provide a critical appraisal of the available research and place individual studies or subgroups of studies in the context of all of the relevant evidence. Finally, they allow others to appraise critically the judgements made in selecting studies and the collection, analysis and interpretation of the results.

While practical experience and anecdotal evidence can also help to inform decisions, it is important to bear in mind the limitations of descriptions of success (or failures) in single instances. They may be useful for helping to understand a problem, but they do not provide reliable evidence of the most probable impacts of policy options.

Uncertainty does not imply indecisiveness or inaction

Some of the systematic reviews included in this report conclude that there is “insufficient evidence”. Nonetheless, policymakers must make decisions. Uncertainty about the potential impacts of policy decisions does not mean that decisions and actions can or should not be taken. However, it does suggest the need for carefully planned monitoring and evaluation when policies are implemented.  

“Both politically, in terms of being accountable to those who fund the system, and also ethically, in terms of making sure that you make the best use possible of available resources, evaluation is absolutely critical.”

(Julio Frenk 2005, former Minister of Health, Mexico)
The problem: Low performance in some components of the health extension program

Background

During priority setting process for topics to be addressed by writing policy briefs in Adama in October 2013, the issue of effectiveness of the Health Extension Program (HEP) has come out as one of the important topics. The objective of this policy brief is to summarize the best available evidence describing the problem and potential solutions for addressing the ineffectiveness of the health extension program in achieving some components of its targets.

In 2004, Ethiopia launched the health extension program (HEP): a program with package of basic and essential health promoting, preventive and curative health services targeting households in a community, based on the principle of Primary Health Care to improve the families’ health status with their full participation. The health extension package has sixteen components categorized into four main groups:

- Disease prevention and control (HIV/AIDS and other Sexually Transmitted Infections (STI), Tuberculosis(TB), malaria prevention and control and first aid emergency measures);
- Family health services (maternal and child health, family planning, immunization, adolescent reproductive health and nutrition);
- Hygiene and environmental sanitation (excreta disposal, solid and liquid waste disposal, water supply safety measures, food hygiene and safety measures, healthy home environment, control of insects and rodents and personal hygiene); and
- Health education and communication as a cross cutting issue (FMoH 2005).

The HEP was included in the health sector development program as a primary component (FMoH 2005). The implementation of HEP involves deployment of two salaried Health Extension Workers (HEWs), predominantly females, at each Kebele (the lowest administrative level serving 5000 population), who are trained for a year at a Technical and Vocational Training and Education Centre (TVET). The HEP brings the health system to Kebele level, whereby the HEW represents the health system in the local administration.
The Ministry has designed three types of HEP: agrarian, pastoral and urban. So far, 34,000 HEWs have been trained and deployed, including 3,400 in urban areas and 950 in pastoral areas. The Urban Health Extension Workers (UHEWs) are registered nurses who take three month training on health extension packages. HEWs in pastoral areas are mostly males who are above grade eight and trained for six months. Apart from some additions in the urban HEP (i.e. mental health, non-communicable disease and violent injury prevention), the health extension packages in the three areas are more or less similar in terms of organizational structure and strategy (FMoH 2013).

The premise of health extension program is the belief that access and quality of primary health care for communities can be improved through the transfer of health knowledge and skills to households. Accordingly, its main strategy is building the capacity of families to be “model households”. As per the first health extension implementation guide line model family was defined as ‘a family that implements a minimum of 75% of the 16 packages after taking at least 75% of the 96 hours model family training’. The 2013 revised health extension implementation guide line of the ministry modified the model family training hours to sixty and the definition of “model households” to ‘a family that implemented all health extension packages concerning its family with the support and close supervision of health extension worker’ (FMoH 2013). The expected changes to be a model household include visible changes in behaviour, for example, owning and using a latrine, proper hand washing, completing immunization schedules by eligible mothers and children, and accessing antenatal care by pregnant mothers (FMoH 2003, Nejmudin 2012). The plan of the HEP is to qualify all households as model households within three years of the program based on diffusion of innovation theory (FMoH 2003).

However, the health extension program has faced challenges in meeting some of its targets. Low performance in model family training and qualification is one of the major targets not yet achieved (FMoH 2012). Failure to achieve these targets will adversely affect progress towards achieving the Millennium Development Goals and the growth and Transformation Plan of the country.

Size of the problem

In 2010, six years after the beginning of the HEP; approximately 4 million out of 16 million households (26%) had completed the model household training (FMoH 2010). However, only 4.3% of households were certified as model households (Hailay 2010) which is low compared to the
targeted total coverage. This is due to low achievement in some components of the target. For example, 38% of households did not have any type of latrine. Only 24% of 12-23 month old children were fully immunized (EDHS2011), which is far below the 71% average DPT-3 coverage in sub-Saharan Africa. The contraceptive prevalence rate of 29% is far below the 66% target for 2015. Only 10% of deliveries were conducted by trained personnel, while the FMoH’s target is 60% by 2015 (FMoH2012).

Besides, only 56.8% of the HEWs have a work plan and the involvement of other stakeholders in its preparation is low (CNHDE 2007). According to the health extension program implementation guideline HEWs are expected to identify and prioritize the community’s health problems and develop a plan of action in collaboration with the members of the Kebele council after conducting a baseline survey (FMoH2007).

Causes of the problem

Important barriers to the implementation of the health extension program include: dissatisfaction among health extension workers, poor community uptake of the health extension program, limitations in designing the HEP package and its implementation strategies, inadequate pre-service training of health extension workers and poor supportive supervision and management.

1. Dissatisfaction among Health Extension Workers

Low salaries and high work load are some of the causes of dissatisfaction among HEWs. The majority (79%) of HEWs are not satisfied with their monthly salary (CNHDE2011). Besides the inconsistent remunerations across regions is also found to be source of dissatisfaction (Teklehaimanot2007).

About 75% of HEWs believe that they are overloaded with assigned task (CNHDE2011). The range of activities included in the sixteen health extension packages makes the health extension program too broad to be implemented by two HEWs. The size of villages and distances between sub-villages and households exacerbates this problem (Hailom2008). Though two HEWs are expected to cover 500 households; in reality the number of households covered is higher, ranging from 546 to 1119 (Seleshi2010, FMoH2003). In addition, development partners also use HEWs to execute their
programs, creating heavier workloads for HEWs; although this integration may be desirable (Hailom2011).

The dissatisfaction of HEWs is shown by the high attrition rate. The Urban Health Extension Professionals (UHEPs) who are nurses have experienced approximately a 10% attrition rate. The Urban Health Extension Professionals are trained in clinical nursing and their competency assessment is based on their professional background. However, their duties as UHEPs are disease prevention and control and their career development is related to their clinical background. Their career development is therefore not related to their duties as UHEP. As a result UHEPs leave the program and go to clinical practice seeking career development. Besides the expanding ratio of households to UHEP are among the contributing factors to high attrition rate among UHEP (USAID 2012).

2. Poor community uptake of the health extension program

Geographical, socio cultural and economic factors affect communities’ uptake of the health extension program. Due to travel time between households and competing demands for family members’ time for farming activities, model family training is taking longer than anticipated (Hailom2011). The same problem is observed in the urban health extension program implementation where heads of households and spouses are not interested in model family training (Ababor 2011). According to the recently held Health & Demographic Survey of the country (Central Statistical Agency [Ethiopia] and ICF International. 2012), more than six women in every ten (61 percent) believe that a health facility delivery is not necessary, and three in every ten (30 percent) stated that it was not customary. Level of income is also known to affect the communities uptake of health extension program for example, construction of latrine which is mandatory to be certified as model family is negatively affected by low level of household income (Aweke2013).

Beside these health extension service provisions related factors also affect the community’s uptake of the health extension program. The community pays more attention to curative services and criticize the health extension program for lacking curative services (Zewdie 2011, Habtamu 2007). The low level of assistance during delivery by HEWs has resulted in diminished confidence in HEWs (Hailom2008).
3. Limitations in designing the HEP package and its implementation strategies

The design of the health extension package was based on an analysis of major disease burdens for most of the population (Nejmudin 2012). In urban areas, the intervention package was modified to focus on chronic health problems, environmental issues, etc. (Nejmudin 2012). However, evidence for the effectiveness of the package and its implementation strategy is lacking. For example in the previous health extension implementation guide, households are expected to be trained for 96 hours but the current guide reduced the training hour to 60 without pilot testing. Yet one health extension worker is expected to serve 250 households in addition to other community health and health post services. (Community health services expected from HEWs include: school health service, delivering health education at community gathering while static health post services incorporate immunization, delivery, antenatal care, postnatal care, diagnosis and treatment of communicable diseases (malaria, parasites, and diarrhoea); but the effectiveness of these strategies were also not tested before their implementation.

On the other hand the program has not been well integrated in to facility based primary health care services (USAID 2012). Furthermore the strong cross sectoral linkage the UHEP needs are missing. Sectors such as land administration, youth affairs, women and children, water and sewage and municipal administration do not have a formal role in the implementation of the program although they control resources that contribute for the implementation of the program (USAID2012).

4. Inadequate pre-service training of Health Extension Workers

Almost all health extension workers currently on service provision (more than 30,000) were trained with the old curriculum which was developed in 2003. This curriculum was described as a large curriculum with a short training period (Hailom2008).

Health education and communication occupy a considerable amount of time of HEWs. However, it is only considered as a supportive course in this curriculum and given only 30 hours of training which accounts only 2% of the total training hours (FMoE2003). The curriculum prescribes 70% practical training; however, in almost all cases there were no facilities to give practical lessons. As a result 95% of the courses do not have practical training. In relation to field visits, supervision and responsibilities were not clearly defined and, therefore, the trainees did not have enough exposure to
procedures they were supposed to carry out (CNHDE 2005). Shortage of teaching facilities and on-
job training are still identified as constraints after seven years of the training (Zufan2011).  
More than seventy eight percent of HEWs claimed the type of duties and responsibilities assigned to them requires more training than they had received (CNHDE 2011).

The basic professional preparations of the urban health extension professionals as well as the quality of in service training in terms of balance of theoretical and practical session, the initial number of trainees per class, have affected job satisfaction for the professionals (USAID 2012).

5. Inadequate supportive supervision and management

According to a manual by the ministry (FMoH2012) a monthly Primary Health Care Unit (PHCU) staff meeting that focus on skills, knowledge and supplies related to the HEP is expected to help the program. However, only 56% of the PHCU staffs reported that the PHCU meetings were held every month (SC4CCM 2013). The Ministry of Health has also reported supervision rendered to health extension workers is inadequate (FMoH2013). The short training that supervisors received is also considered inadequate to help the program (USAID2012).

6. Shortage of drug and medical equipment supply

Beside lack of supportive supervision health posts also have shortage of essential drugs and commodities such as vaccines, Oral Rehydration Salt (ORS) and palliative drugs. Some do not have delivery beds and health post equipments essential for maternal, newborn and child health care as per the health extension package requirement (Hilom2008). Only 20% of the health posts are equipped with 80% of the minimum set of medical equipments while one third (34%) of the health posts have 60%. Fifty eight percent of health posts are equipped with 60% of the minimum set of medical equipments necessary for delivery and newborn care services. Only about a quarter (24%) of the health posts are equipped with all the necessary minimum set of medical equipments for provision of immunization services at the health post as well as outreach services (CNHDE2011).

As per the study conducted by USAID on urban health extension program; the program has only received budgetary support in limited settings and amounts. Besides, there is lack of clarity as weather the kebele administration (lowest administration unit) or the health center is responsible for additional budget support (USAID2012).
Policy options

Although the health extension program is considered as the major pillar of the Ethiopian Health Sector Development Plan; the following underlying problems hinder the achievement of some of its targets: limitations in designing the HEP package and its implementation strategies, in-adequate pre-service training of HEWs, in-adequate supportive supervision and management, dissatisfaction among HEWs, poor community uptake of the program and poor drug and medical equipment supply. In line with these; five options addressing underlying causes of the problem are proposed. These are a tailored intervention strategy, continuing education, strengthening managerial supervision, pay-for-performance, and community mobilization. Each of these options is described below. They are complementary options and it may be necessary to employ more than one of these options to adequately improve the effectiveness of the HEP.

Policy option 1:

Tailored intervention strategies

Tailored intervention strategies are strategies that are designed to achieve improvements in health care based on an assessment of determinants of practice (Baker2010). Systematic tailoring entails (at least) three key steps: identification of the determinants of practice, designing implementation interventions appropriate to the determinants, and application and assessment of implementation interventions that are matched to the identified determinants (Wensing2012). A tailored implementation strategy to improve the implementation of HEP would include a systematic approach to clarifying and prioritizing the main determinants of HEW practice (beginning with those identified in the problem section of this policy brief) and identifying and selecting strategies to address those determinants (including the other options identified in this policy brief).

Current practice in Ethiopia
Studies have identified barriers (USAID2012, Hailom2011, CNHDE2011, Zewdie2011, Zufan201, Ababor2011, Hailay2010, and Hailom2008) and provided various recommendations on the health extension program in Ethiopia, but tailored intervention strategies have not been used.

**Impact of tailored intervention strategy**

We could not come across a systematic review on the effect of tailored intervention on performance of community health program in low-income countries. However, a systematic review on impact of tailoring an intervention on changing health care professionals' behaviour in high and middle income countries found that: interventions tailored to address identified barriers are more likely to improve health workers practice than no intervention or the dissemination of guidelines (Table I) (Garcia 2011).

→ *Tailored intervention strategies may improve health extension workers practice.*

**Table I- Should tailored interventions be used for overcoming identified barriers to changing professional practice?**

<table>
<thead>
<tr>
<th>Patients or population:</th>
<th>Health workers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Settings:</strong></td>
<td>Mostly primary care in the U.S. and Europe</td>
</tr>
<tr>
<td><strong>Intervention:</strong></td>
<td>Tailored interventions</td>
</tr>
<tr>
<td><strong>Comparison:</strong></td>
<td>No interventions or non-tailored intervention</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Comparative risks*</th>
<th>Relative effect (95% CI)</th>
<th>Number of participants (studies)</th>
<th>Quality of the evidence (GRADE)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Assumed adherence</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Without tailored intervention</td>
<td>Corresponding adherence</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Desired professional practice (adherence to guideline recommendations)</strong></td>
<td>Moderate adherence¹</td>
<td>70 per 100 (66 to 73)</td>
<td>2189 (12 studies)¹</td>
<td>moderate³</td>
</tr>
<tr>
<td></td>
<td>Low adherence²</td>
<td>20 per 100 (24 to 31)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Applicability, equity, economic consideration, monitoring and evaluation (García2011)

**Applicability**

The barriers and organization of health systems in high-income countries where evaluations of tailored interventions have been conducted is different from low-income countries. This limits the transferability of the findings of individual studies of interventions tailored to address barriers in a specific setting to other settings. However, the overall finding, that tailored interventions are effective compared to no intervention or dissemination of guidelines, is likely to be transferable. The uncertainty about how best to identify barriers and tailor interventions to address them is also transferable.

**Equity**

The systematic review did not address equity issues. Tailored interventions might be more difficult to design and implement for disadvantaged populations due to a lack of resources. In addition, there may be a greater need to address social or organizational barriers due to inadequate infrastructures. Consequently, designing and implementing effective tailored interventions for disadvantaged populations might require additional resources and technical support.

**Economic considerations**

The review did not find evidence for the cost-effectiveness of tailored interventions or of the effectiveness of alternative methods of tailoring interventions. It is reasonable to use low-cost methods to tailor interventions, particularly in low-resource settings like Ethiopia.
**Monitoring & evaluation**

At present, there is no single, standard method for tailoring strategies to identified barriers. It is not possible to decide the most effective approach based on available evidence, and the cost of the approach in comparison with other approaches is not known.

Given uncertainty about the costs and effectiveness of tailored interventions, and of implementation strategies generally, monitoring and evaluation should be done routinely when introducing tailored interventions to improve the performance of health workers, including that of health extension workers.

**Policy option 2:**

**Continuing education**

Continuing education includes courses, conferences, lectures, workshops, seminars, and symposia. The meetings can be highly variable in terms of content, number of participants, the degree and type of interaction, length and frequency. Educational meetings and printed educational materials are the most common types of continuing education for health workers. It is commonly used for continuing health workers education with the aim of improving professional practice and, thereby, patient outcomes (O’Brien 2009). Educational meetings can be highly variable in terms of content, number of participants, the degree and type of interaction, length and frequency (Flottorp2008).

**Current practice in Ethiopia**

One of the five strategic directions for Human Resource Development (HRD) is providing continuing education for all categories of workers in the health sector. Moreover, initiating and strengthening continuing education including in-service training is an essential objective of the HRD component of the fourth Health Sector Development Plan (FMoH2014).

To ensure this, Integrated Refresher Training (IRT) program is under way with the development of five modules prepared based on the sixteen packages of the health extension program. Based on the integrated refresher training schedule; currently the HEWs have received refresher training on four of
the modules (FMoH2014). As reported by colleagues from Ministry of Health during the policy brief dialogue at Adama, June 2014; HEWs will take refresher training annually on all the five modules.

Beside this health extension program career structure is developed based on the technical and vocational training policy of Ethiopia. Those health extension workers who are recognized as competent will be given a chance to pursue a degree, masters and a PhD programs in public health. According to this document health extension workers who served for a minimum of two years and passed the competency assessment at their level will be trained for one year in order to upgrade to the next level. This program is already started in health science colleges since 2013(FMoH2014).

**Impact of continuing education**

We were unable to find a systematic review on impact of continuing education on community health workers. However, a systematic review which mainly incorporates studies involving qualified health professionals has evaluated the impact of continuing educational meetings and workshop on improving professional practice and health care outcomes. It found that educational meetings alone or combined with other interventions can improve professional practice and health care outcome for clients (table II &III) [Flottorp2008, Forsetlund2009].

> Continuing education may improve health extension workers practice.

**Table II-Educational meetings with or without other interventions* compared to no intervention (Flottorp2008, Forsetlund2009).**

<table>
<thead>
<tr>
<th>Patient or population: Healthcare providers</th>
<th>Settings: Primary and secondary care</th>
<th>Intervention: Educational meetings with or without other interventions</th>
<th>Comparison: No intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outcomes</td>
<td>Adjusted absolute improvement (risk difference)†</td>
<td>Number of studies</td>
<td>Quality of the evidence (GRADE)</td>
</tr>
<tr>
<td>Median (Interquartile range)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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17
| Compliance with desired practice | Median 6% (1.8 to 15.9) | 30 studies | |
|--------------------------------|--------------------------|------------|
| Patient outcomes              | Median 3% (0.1% to 4.0%) | 5 studies  | |

GRADE: GRADE Working Group grades of evidence

*Several studies tested multifaceted interventions. The most commonly used co-interventions were reminders, patient education material, supportive services, feedback reports and educational outreach.
†The post intervention risk differences are adjusted for pre-intervention differences between the comparison groups.

### Table III- Educational meetings alone compared to no intervention (Flottorp2008, Forsetlund2009).

**Patient or population:** Healthcare providers  
**Settings:** Primary and secondary care  
**Intervention:** Educational meetings with or without other interventions  
**Comparison:** No intervention

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Adjusted absolute improvement (Risk difference)*</th>
<th>Number of studies</th>
<th>Quality of the evidence (GRADE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compliance with desired practice</td>
<td>Median 6% (2.9% to 15.3%)</td>
<td>19 studies</td>
<td>![Grade Symbol]</td>
</tr>
<tr>
<td>Patient outcomes</td>
<td>Median 3% (-0.9% to 4.0%)</td>
<td>3 studies</td>
<td>![Grade Symbol]</td>
</tr>
</tbody>
</table>

GRADE: GRADE Working Group grades of evidence

*The post intervention risk differences are adjusted for pre-intervention differences between the comparison groups.

**Applicability, equity, economic consideration, monitoring and evaluation (Flottorp2008, Forsetlund2009)**
Applicability
The 81 included studies in the systematic review covered an extensive range of settings, targeted behaviours and interventions. Eleven of the trials were conducted in low and middle-income countries. The findings of this review are likely applicable to low and middle-income settings like Ethiopia.

Equity
The reviewed studies provided little data regarding differential effects of the interventions for disadvantaged populations. Resources needed for educational meetings may be less available in disadvantaged settings. Thus, additional resources may be needed to deliver effective continuing education for health extension workers in Ethiopia to reduce inequities.

Economic Considerations
The cost of educational meetings is likely to be highly variable and must be estimated based on specific local conditions outside research settings.

Monitoring & Evaluation
There is evidence that educational meetings are effective in resource poor settings, but there is little evidence regarding the cost-effectiveness of educational meetings. The impact and cost-effectiveness of educational meetings in Ethiopian health extension program, with or without additional interventions, should be monitored using objective measures of health extension workers practice when they are used as a means of improving the quality services, to ensure that intended improvements in practice are achieved.

Policy option 3:
Strengthening managerial supervision
Supervision includes overall range of measures to ensure that personnel carry out their activities effectively and become more competent at their work. In health system of low and middle income countries, supervision is generally viewed as one of the central tools for providing continuous training to less qualified health-care workers entrusted with clinical and managerial tasks for which they may
or may not have formal training. Hence, the term supportive supervision is often used in this context rather than control-oriented supervision (Flahault1988).

**Current practice in Ethiopia**

The recently revised health extension program implementation guideline (FMoH2013) transferred the supervisory role from district health office supervisors to primary health care unit staffs (health center staffs); accordingly all the health center technical staffs have the responsibility to give supportive supervision to HEWs at least once a month. The health center is also expected to evaluate the HEWs activity monthly. According to this manual the responsibility of the district health office is to render technical and administrative support to health centers.

**Impacts of managerial supervision**

A systematic review evaluated the impact of managerial supervision on improving the quality of primary health care (Herrera 2011, Bosch 2011). They found that *(Table IV)*:

» **Managerial supervision may improve health extension workers practices and knowledge.**

**Table IV- Managerial supervision versus no supervision to improve the quality of primary health care (Herrera 2011, Bosch 2011)**

<table>
<thead>
<tr>
<th>Patients or population: Primary care providers</th>
<th>Settings: Health services in low- and middle-income countries</th>
<th>Intervention: Managerial Supervision (MS)</th>
<th>Comparison: No supervision</th>
</tr>
</thead>
<tbody>
<tr>
<td>Outcomes</td>
<td>Impact</td>
<td>Number of participants (Studies)</td>
<td>Quality of the evidence (GRADE)</td>
</tr>
<tr>
<td>----------</td>
<td>--------</td>
<td>-------------------------------</td>
<td>-------------------------------</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Provider prescribing practices

One study noted that MS improved provider prescribing practice by 13.6% compared with a decline of 6.8% when no MS was given. Improvements (p<0.05) were found for 13 indicators, including the percentage of prescriptions issued according to guidelines. Another study reported an improvement (measured with a provider questionnaire) of 22.8 points in the MS group and 16.1 points in the group with no supervision.

| 134 clinics (2 studies) | 2 cluster RCTs |

### Provider knowledge

One study showed that MS was associated with higher post-intervention prescribing knowledge scores in only three of 19 items. The second study reported higher overall post-intervention family planning knowledge scores (p<0.05).

| 134 clinics (2 studies) | 2 cluster RCTs |

### Drug supply

We are very uncertain whether MS improves drug stock management because the quality of the evidence is very low,

| 21 health facilities (1 study) | Very low 1 CBA |

---

**Applicability, equity, economic consideration, monitoring and evaluation (Herrera 2011, Bosch 2011)**

**Applicability**

All the studies were conducted in low- and middle-income countries. However, the nature of the interventions and the outcomes assessed differed widely. In a more decentralized system, external managerial supervision may be less acceptable to local health workers. In practice, separating managerial, clinical and educational supervision might be difficult and it may be helpful to consider these different types of supervision together.

Understanding the organisational culture of health post team may be important when implementing managerial supervision. Policymakers and managers may need to consider a wider range of options to support connections between peripheral and central health services.
A balance between costs and feasibility will need to be achieved (for example, it may be worth exploring: whether meetings could be held at district or health centre; whether Managerial Supervision could be integrated into the managerial activities of other sectors at a district or kebele level; and whether peer-to-peer support is an option).

**Equity**

No equity related findings were explicitly reported in the included studies. Managerial supervision may improve health extension workers satisfaction and, by so doing, help to retain health extension workers in rural or peripheral health posts and so improve access to health care to underserved areas.

**Economic Considerations**

No economic evaluations were found in the systematic review.

**Monitoring & Evaluation**

The benefits of supervision were not consistent across the studies included in the review, partly because of the differences in the interventions, and the inconsistent quality of the studies. No harms were explicitly reported. More rigorous studies of supervision need to be undertaken. If managerial supervision is implemented, consideration should be given to ways to monitor and evaluate its effects (including cost issues).

**Policy option 4:**

**Pay-for-performance**

A pay-for-performance system is a remuneration arrangement in which a portion of the payment received by health workers is based on performance assessed against a defined measure. The elements common to all pay-for-performance programs are (1) a set of targets or objectives that define what will be evaluated, (2) measures and performance standards for establishing the target criteria, and (3) rewards, typically financial incentives including the amount and the method for allocating the payments among those who meet or exceed the reward threshold (Jim2006).

**Current practice in Ethiopia**

A pay-for-performance system is not used currently in the Ethiopian health extension programme, but other motivational schemes like awarding certificate of recognition to outstanding HEWs is under
implementation. Per annum, best performers in a district also get a chance to upgrade their educational status to higher level.

**Impact of pay-for-performance**

We were not able to find a systematic review on the effect of pay-for-performance on community health programs. However, we came across a systematic review of the impact of pay-for-performance on improving the delivery of health interventions in low-income countries. They found that it is uncertain whether pay-for-performance improves provider performance, the utilization of services, patient outcomes or resource use in low- and middle-income countries (Table V) (Herrera2011, Witter2012).

⇒ The effect of pay-for-performance on health extension program is uncertain.

**Table V- Pay-for-performance compared with no conditional incentives**

<table>
<thead>
<tr>
<th>Pay-for-performance compared with no conditional incentives</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Patients or population:</strong> Providers of health-care services in low- and middle-income countries</td>
</tr>
<tr>
<td><strong>Settings:</strong> Vietnam, China, Uganda, Rwanda, Tanzania, the Democratic Republic of Congo, Burundi, the Philippines</td>
</tr>
<tr>
<td><strong>Intervention:</strong> Pay-for-performance (P4P)</td>
</tr>
<tr>
<td><strong>Comparison:</strong> No-pay-for-performance</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Impact</th>
<th>Number of participants (Studies)</th>
<th>Quality of the evidence (GRADE)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Provider performance (quality of care)</td>
<td>The impact of P4P on service delivery is highly uncertain. Four studies measured the coverage of tetanus vaccinations among pregnant women, and reported mixed findings. Results from one study showed little or no impact on TB-case detection.</td>
<td>(5 studies)</td>
<td>☻☻☻☻ Very low</td>
</tr>
<tr>
<td>Utilisation of services: antenatal care</td>
<td>The impact of P4P on attendance rates for antenatal care is highly uncertain. The study reported both negative and positive impacts on attendance.</td>
<td>(2 studies)</td>
<td>☻☻☻☻ Very low</td>
</tr>
<tr>
<td>Utilisation of services: institutional deliveries</td>
<td>Whether P4P schemes lead to an increase in institutional deliveries is unclear. The range of the reported effect-estimates was wide, including substantially larger increases in areas without P4P schemes, to an almost a two-fold increase in areas with P4P schemes. (4 studies)</td>
<td>Very low</td>
<td></td>
</tr>
<tr>
<td>Utilisation of services: preventive care for children, including vaccination</td>
<td>We are very uncertain whether the use of P4P leads to an increase in the utilisation of preventive care services for children. One study reported that attendance rates for children's preventive services doubled. But the impact on immunisation rates varied across the four studies and negative and positive impacts were reported. (4 studies)</td>
<td>Very low</td>
<td></td>
</tr>
<tr>
<td>Utilisation of services: number of outpatients</td>
<td>The use of P4P schemes may increase the utilisation of services. However, this association has not been rigorously evaluated, and the studies did not yield consistent results. (4 studies)</td>
<td>Very low</td>
<td></td>
</tr>
<tr>
<td>Patient outcomes</td>
<td>The study results were inconsistent across different measures that included general self-reported health, C-reactive protein in blood (a possible measure of acute infection) and anaemia rates. (1 study)</td>
<td>Low</td>
<td></td>
</tr>
<tr>
<td>Unintended effects</td>
<td>It is uncertain whether P4P results in unintended effects. (2 studies)</td>
<td>Very low</td>
<td></td>
</tr>
<tr>
<td>Resource use</td>
<td>P4P schemes tend to increase facility revenues and to increase staff pay. However, their impact on wider resource use indicators, such as other funding sources, patient payments, and efficiency of service provision are uncertain. (8 studies)</td>
<td>Very low</td>
<td></td>
</tr>
</tbody>
</table>


**Applicability**

There are studies from Low and middle income countries where the evidences are likely to be applicable. However, pay-for-performance schemes in low-income countries may be affected by factors such as: the availability and reliability of routine data on quality health extension service
delivery, the availability of resources to finance the incentives, and the feasibility of measures, such as monitoring, to prevent gaming and distortion.

**Equity**

Pay-for-performance may reduce equity. The choice of quality indicators and financial incentives might result in differential effects on disadvantaged populations. Because of uncertainty about the differential effects of financial incentives on high- versus low-performing health extension workers, it is possible that financial incentives may have differential effects on disadvantaged populations served by low-performers. Rewarding improvement compared to previous results (baseline) and not only absolute achievement might reduce the risk of undesirable differential effects on high versus low performers.

**Economic Considerations**

The use of pay-for-performance schemes may lead to increased payments for health extension workers, but the other economic consequences of such schemes (e.g. impacts on cost effectiveness) are uncertain. There is uncertainty about the magnitude, frequency and duration of the financial incentives needed to ensure quality improvements. Similarly, the resource requirements for scaling-up pay-for-performance schemes at different levels are unclear and estimates may be needed for specific schemes in specific settings. Economic evaluations of pay-for-performance schemes are needed.

**Monitoring & Evaluation**

The evidence summarised is inconclusive. There is substantial uncertainty about the beneficial and adverse effects of paying for performance. These schemes should therefore be carefully designed and rigorously evaluated before they are implemented in low-income countries like Ethiopia. Pay-for-performance schemes need to monitor unintended effects, including the adverse selection of health extension services and the adverse effects of pay-for-performance schemes on processes that are not rewarded with financial incentives. Schemes also need to monitor whether reported improvements are a consequence of changes in the documentation of care or due to actual improvements in practice. User opinions should be considered during evaluation.

**Policy option 5:**
Community mobilization

Community mobilization is a process of empowering people to organize themselves, recognize opportunities, identify their collective potential, and utilize available resources to realize a shared goal through unified action. Community mobilization strategies are diverse and may result in differing levels of intensity of engagement and ownership (Howard-Grabman2007; Rosato2008). Community mobilization requires an understanding of the social structure of local contexts (Hounton2009). Different community mobilization strategies have been used in many LICs, mainly in Asia to increase use of maternal and neonatal services (Lee 2009).

Current practice in Ethiopia

One of the strategic objectives of the Ethiopian Health Sector Development Program IV (FMoH2011) is improving community ownership of health service. This community ownership is intended to create awareness and change behaviour of communities to ensure their full participation in health policy formulation, planning, implementation, monitoring and evaluation; as well as regulation of health services and resource mobilization for the health sector. The expected outcome is community empowerment for continuity and sustainability of health programmes. One of the strategies adopted by the Federal Ministry of Health in order to reach this objective of the Health Sector Development Programme (HSDP) IV is to mobilize the community by establishing the ‘Health Development Army’ (HDA). The HDA refers to an organized movement of the community through participatory learning and action meetings concerning the health extension program. Organizing a functional HDA requires the establishment of health development teams (HDA groups) that comprise up to 30 households residing in the same neighbourhood. The health development team is further divided into smaller groups of six members, commonly referred as one-to-five networks. The term one to five is derived from its organizational structure in which one of the neighbouring household being a leader of the team and the rest five household are members of the team; The ‘Health Development Army’ is established in some regions of the country and some improvements in health extension program implementation have been registered (FMoH2013).

Impacts of community mobilization
We have not found a systematic review on the impacts of community mobilization on communities’ uptake of community health programme such as the health extension program. However, a systematic review on the impact of community mobilization on reducing intrapartum-related deaths found that community mobilization probably increases the proportion of institutional deliveries. The effects of community mobilization depend on the intensity of the mobilization efforts (Table VI) (Lee 2009, Steinmann 2010).

→ Community mobilization probably improves communities’ uptake of health extension program.

Table VI: Community mobilization to improve maternal and newborn health

<table>
<thead>
<tr>
<th>Patients or population:</th>
<th>Pregnant women and their newborns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Settings:</td>
<td>Communities in low and middle-income countries (LMIC)</td>
</tr>
<tr>
<td>Intervention:</td>
<td>Community mobilization (essential newborn care package, women’s groups, group education sessions, health committees, birth and newborn care preparedness). Additional interventions in some studies.</td>
</tr>
<tr>
<td>Comparison:</td>
<td>No community mobilization (but sometimes other interventions, e.g. infrastructure improvements in both intervention and control arms of studies)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Outcomes</th>
<th>Impact</th>
<th>Number of participants (studies)</th>
<th>Quality of the evidence (GRADE)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skilled birth attendance</td>
<td>Proportion of institutional births:</td>
<td>(4 studies)</td>
<td>☺☺☺☺ Moderate</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Meta-analysis (all studies meeting inclusion criteria):</td>
<td>RR 1.71; 95% CI 1.10-2.64</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Meta-analysis (Studies describing more intensive and participatory community mobilization):</td>
<td>RR 2.08; 95% CI 1.23-3.49</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*GRADE Working Group grades of evidence:

☺☺☺☺ High: We are confident that the true effect lies close to what was found in the research.

☺☺☺ Moderate: The true effect is likely to be close to what was found, but there is a possibility that it is substantially different.

☺☺ Low: The true effect may be substantially different from what was found.

☺ Very low: We are very uncertain about the effect.

Limitations: The review did not fully report the search strategies that were used, how risk of bias was assessed, or details of the included or excluded studies.
Applicability, equity, Economic considerations, Monitoring and Evaluation

**Applicability**

There are insufficient data that community mobilization could work in all LMICs. The systematic review by Lee et al. (2009) included 5 countries from South Asia and 1 each from Africa and Latin America. The results may therefore be very applicable to South Asia, but may not be directly applicable in other settings, such as in Africa, due to socio-cultural or other differences (Steinmann2010).

**Equity**

There is currently insufficient evidence that community mobilization increases equity. However, since community mobilization interventions often focuses on rural and deprived areas, thus benefiting poor and neglected populations, there is a potential for community mobilization to increase equity (Lee2009; Steinmann2010).

**Economic considerations**

There is a limited data on cost and cost-effectiveness of community mobilization. Community mobilization is a relatively low-cost intervention on a per-capita basis. However, the large populations to be covered mean that it still requires substantial amounts of money. Funds for any programs outside the formal health sector are often unavailable in LMICs. As the effectiveness of community mobilization is related to its intensity, more intensive (and therefore more costly) programs may be needed to achieve good results (Lee2009, Steinmann2010).

**Monitoring and Evaluation**

There is limited data on cost-effectiveness, sustainability, and scalability of community mobilization. The effectiveness of community mobilization in other areas than South Asia needs to be evaluated. The cost-effectiveness and sustainability of community mobilization need to be better evaluated (Lee 2009, Steinmann2010).
Implementation considerations

Tailored intervention strategies, continuing education, strengthening managerial supervision, pay-for-performance and community mobilization are five potential solutions to improve the effectiveness of health extension program in Ethiopia. Implementing these options require other changes, including policy changes. Strategies for implementing the options should take advantage of factors that enable their implementation as well as addressing barriers.

Enablers of improving health extension program in Ethiopia include:

- Strong political commitment from the government
- Availability of sound health policy which give due attention to health promotion and disease prevention
- Well defined Health Sector Development Plan (HSDP)
- The establishment of ‘Health Development Army’ in order to support health extension program implementation in the country.
- Major funding opportunities from Governmental and Non-Governmental Organizations
- A number of global and local partners and civil society organizations working on health extension program.
- The number of health centre staffs and district officers is on the rise in Ethiopia

Evidence regarding barriers to all options and strategies to address them are summarized in the following tables:

### Table VII - Barrier to all options and implementation strategies that address those barriers

<table>
<thead>
<tr>
<th>Barrier</th>
<th>Description</th>
<th>Implementation strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Financial resources</td>
<td>There may be insufficient financial resources to implement these options</td>
<td>Pilot study to evaluate the costs and cost-effectiveness of the options before full-scale implementation. Resource mobilization through coordination of governmental and non-governmental organizations.</td>
</tr>
</tbody>
</table>
### Table VIII - Barriers and implementation strategies for option 1: Tailored intervention strategies

<table>
<thead>
<tr>
<th>Barriers</th>
<th>Descriptions</th>
<th>Implementation strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check list or guidelines</td>
<td>There is no standardized Check list/and or guidelines to tailor the HEP intervention strategies</td>
<td>Design suitable check list and/or guidelines. A checklist, developed based on a systematic review can be used to structure the process (Signe2013).</td>
</tr>
<tr>
<td>Lack of skilled personnel</td>
<td>Tailoring the HEP intervention strategies need qualified human power</td>
<td>involving stakeholders</td>
</tr>
</tbody>
</table>

### Table IX - Barriers and implementation strategies for option 2: Continuing education

<table>
<thead>
<tr>
<th>Barriers</th>
<th>Description</th>
<th>Implementation strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategies and manuals</td>
<td>Absence of need based strategic guidelines and training manuals</td>
<td>Redesigning the national integrated refresher training manual based on formative assessment of the knowledge and skill gap of HEWs in different regions.</td>
</tr>
<tr>
<td>Access to educational materials</td>
<td>There is lack of training materials and reference books translated to local languages which HEWs easily can understand</td>
<td>Availing training materials prepared in local languages</td>
</tr>
<tr>
<td>Practical training</td>
<td>Continuing education may lack practical training which is very important for skill development</td>
<td>Arranging practical training sessions Integrating the training with the primary health care unit</td>
</tr>
<tr>
<td>Inadequate trainers</td>
<td>Getting enough number of trainers at national level may become a challenge</td>
<td>Delivering training of trainers for competent district and primary health care Unit staffs and involving stakeholders</td>
</tr>
<tr>
<td>career development</td>
<td>Continuing education is not related to career development. This might demotivate HEWs</td>
<td>Career development of HEWs based on competency assessment (FMoH2014).</td>
</tr>
<tr>
<td>training quality</td>
<td>Poor quality of refreshment courses (HEPCAS, 2012).</td>
<td>Using continuous quality improvement strategies like audit and feedback, educational outreach and professional development and (Flittorp2008).</td>
</tr>
</tbody>
</table>
### Table X - Barriers and implementation strategies for option 3: Strengthening managerial supervision

<table>
<thead>
<tr>
<th>Barriers</th>
<th>Description</th>
<th>Implementation strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Competency</td>
<td>Health centre staffs may not have the required level of knowledge and skill of health extension components and supervision.</td>
<td>Delivering appropriate training on basics of supervision and the components of the package to all primary health care unit technical staffs and supervisors at all levels of management.</td>
</tr>
<tr>
<td>Motivation</td>
<td>Primary health care unit supervisors may not be motivated to carry their duties since there is no any additional payment for the supervision activities</td>
<td>Designing and implementing motivation scheme for health extension worker supervisors.</td>
</tr>
<tr>
<td>Transportation</td>
<td>There is shortage of transportation for supervisory activities</td>
<td>Strengthening the primary health care unit (health centre) with the necessary transportation facilities.</td>
</tr>
<tr>
<td>Lack of clear chain of command</td>
<td>HEWs are evaluated by kebele cabinet but the technical supervision is conducted by health centre. Due to this performance assessment of HEWs is not done properly.</td>
<td>Chain of command should be clarified</td>
</tr>
</tbody>
</table>

### Table XI - Barriers and implementation strategies for option 4: Pay-for-performance

<table>
<thead>
<tr>
<th>Barriers</th>
<th>Description</th>
<th>Implementation strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategies and/or guidelines</td>
<td>There are no strategies/and or guidelines to implement pay-for-performance strategy</td>
<td>Design suitable strategies and guidelines (ACCESS2010).</td>
</tr>
<tr>
<td>Feasibility</td>
<td>Pay-for-performance may be perceived as impractical or difficult to implement</td>
<td>Pilot testing to assess the feasibility of pay-for-performance</td>
</tr>
<tr>
<td>Fiscal sustainability</td>
<td>Fiscal sustainability could be a challenge (Honda2006).</td>
<td>Carefully designed exit strategies consistent with pay-for-performance programme objectives (Honda2006).</td>
</tr>
<tr>
<td>Implementatio...</td>
<td>Capacities for managing pay-for-performance schemes are weak in LICs. Countries may not be able to meet the additional administrative demands related to pay-for-performance (Herrera 2011, Witter 2012).</td>
<td></td>
</tr>
<tr>
<td>------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
</tr>
</tbody>
</table>
| Preparing pay-... | Preparing pay-for-performance implementation guidelines  
Organizational change and capacity building on pay-for-performance of the relevant bodies within the civil service  
There is growing evidence that pay-for-performance need to link to existing and complementary programmes to be effective (Herrera 2011, Witter 2012). |
| Over reporting... | Abuse of money allotted for HEWs who certified model households would be a possibility by over reporting model families  
Putting an appropriate auditing mechanism in place (Herrera 2011, Witter 2012). |
| Cumb... | Burdensome paperwork to pay-for-performance to HEWs may discourage HEWs  
Minimizing paper work |
| Inadequate... | Process of assessing model household is not adequate  
design a processes and tools to facilitate appropriate and efficient assessment system |
| Unintended... | This may include: adverse selection (for example, excluding high-risk people from care in order to obtain better performance), gaming (i.e. inaccurate or false reporting) and distortion (i.e. ignoring important tasks that are not rewarded with incentives)  
Supportive supervision and management |
### Table XII - Barriers and implementation strategies for option 5 Community Mobilization

<table>
<thead>
<tr>
<th><strong>Barriers</strong></th>
<th><strong>Description</strong></th>
<th><strong>Implementation strategies</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cultural barriers</td>
<td>Presence of a heterogeneous culture might necessitate culturally sensitive community mobilization strategies</td>
<td>Conduct formative research to understand local cultures, beliefs and practices and design suitable strategies and manuals addressing local cultures (ACCESS2010)</td>
</tr>
<tr>
<td>Sustainability</td>
<td>As activists are volunteers, a lack of accountability may mean that the sustainability of this option could be a challenge</td>
<td>Integrate community mobilization into institutional structures (ACCESS2010)</td>
</tr>
<tr>
<td>Burnout of health extension workers (CNHDE2011)</td>
<td>Health extension workers who could be key players in community mobilization are already overworked</td>
<td>Increasing the number of health extension workers and reducing the number of households they are responsible for. Using health development army strategy (FMoH2013)</td>
</tr>
</tbody>
</table>
Next steps

The aim of this policy brief is to foster dialogue and judgements that are informed by the best available evidence. The intention is not to advocate specific options or close off discussion. Further actions will follow from the deliberations that the policy brief is intended to inform. These might include, for example:

- Careful consideration of the need for tailored implementation strategies of health extension program
- Careful consideration of the need for educational meetings and workshop
- Careful consideration of the need for managerial supervision
- Careful consideration of the need for pay-for-performance of health extension workers
- Careful consideration of community mobilization
- Monitoring and evaluation of the suggested policy options and implementation strategies
- Consideration of appropriate implementation strategies for each of the five options
Appendix

How this policy brief was prepared

The methods used to prepare this policy brief are described in detail elsewhere.6,7,8

The problem that the policy brief addresses was clarified iteratively through discussion among the authors, review of relevant documents and research. Research describing the size and causes of the problem was identified by reviewing government documents, routinely collected data, searching Pub Med and Google Scholar, through contact with key informants, and by reviewing the reference lists of relevant documents that were retrieved.

Strategies used to identify potential options to address the problem included considering interventions described in systematic reviews and other relevant documents, considering ways in which other jurisdictions have addressed the problem, consulting key informants and brainstorming.

We searched electronic databases of systematic reviews, including: the Cochrane Library (CENTRAL, Cochrane Database of Systematic Reviews), Support Summaries, PDQ Evidence, Health Systems Evidence and supplemented these searches by checking the reference lists of relevant policy documents and with focused searches using Pub Med, Google Scholar, and personal contacts to identify systematic reviews for specific topics. The final selection of reviews for inclusion was based on a consensus of the authors.

Potential barriers to implementing the policy options were identified by brainstorming using a detailed checklist of potential barriers (SURE guide for Identifying and addressing barriers) to implementing health policies. Implementation strategies that address identified barriers were identified by brainstorming and reviewing relevant documents.

Drafts of each section of the report were discussed with the SURE Project team based at the Norwegian Knowledge Centre for the Health Services. External review of a draft version was managed by the Norwegian Knowledge Centre for the Health Services. Comments provided by the external reviewers and the authors’ responses are available from the authors. A list of the people who provided comments or contributed to this policy brief in other ways is provided in the acknowledgements.


7 Supporting the Use of Research Evidence (SURE) in African Health Systems. SURE guides for preparing and using policy briefs: 5. Deciding on and describing options to address the problem. www.evipnet.org/sure

Glossary, acronyms and abbreviations

ACCESS - access to clinical and community maternal, neonatal and women's health services
AIDS –Acquired Immune Deficiency Syndrome
CNHDE-Center for National Health Development in Ethiopia
DPT- Diphtheria, Pertusis and Tetanus
EDHS- Ethiopian Demographic and Health Survey
EPHI - Ethiopian Public Health Institute
FDRE-Federal Democratic Republic of Ethiopia
FMoH -Federal Ministry of Health of Ethiopia
GTP - Growth and Transformation Plan
HDA - Health development army
HEP -Health Extension Program
HEWs - Health extension workers
HIV - Human Immunodeficiency Virus
HRD-Human Resource Development
HRH-Human Resource for Health
HSDP - Health sector development plan
LMIC - Low and middle-income countries
MDGs- Millennium Development Goals
MOE-Ministry of Education
MS-Managerial Supervisions
NGOs –Non Governmental Organizations
P4P – Pay- for- Performance
STI –Sexually Transmitted Inflammations
SURE - Supporting the use of research evidence (SURE) for policy in African health systems project.
TB – Tuberculosis
TVET-Technical and Vocational Education and Training
WHO - World Health Organization
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