February 2016

An Evidence Brief for Policy

Executive Summary

IMPROVING THE HEALTH WORK FORCE IN REMOTE AND RURAL AREAS OF ETHIOPIA

✚ 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

Ethiopian Public Health Institute

This evidence brief was prepared by the Technology Transfer and Research Translation Directorate of the Ethiopian Public Health

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Who is this evidence brief for?

Policymakers, their support staff, and other stakeholders with an interest in the problem addressed by this evidence brief.

Why was it prepared?

To **inform deliberations** about health policies and programmes by **summarizing the best available evidence** about the problem and viable solutions

What is an evidence brief for policy?

Evidence briefs for policy 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

Full Report

The evidence summarised in this Executive Summary is described in more detail in the Full Report

Key messages

The problem

Poor health work force distribution in remote and rural areas of Ethiopia

The Human Resource for Health(HRH) picture of Ethiopia has remained critical and has been characterized by geographic mal-distribution, skills imbalance, staff shortages, low retention and low productivity (FMoH 2014). As a result the numbers of health professionals in different parts of the country, particularly remote and rural areas remains lower than the standard (FMoH 2010).

Important barriers to improved health work force distribution in remote and rural areas include:
- Poor motivation and retention schemes
- Organizational environment
- Local environment
- Individual factors
- Work-related factor.

Policy options:

Task shifting, educational strategies, strengthening financial and non-financial incentives and provision of continuous professional development for staffs in remote and rural areas of the country are potential strategies to address the poor distribution of HRH.

1. Task shifting is the rational re-distribution of tasks among health workforce teams in which specific tasks are moved, where appropriate, from highly qualified health workers to health workers who have fewer qualifications in order to make more efficient use of the available HRH (WHO 2008). The effect of task shifting may result in little or no difference on quality of care or patient outcomes.

2. Strengthening the medical education system with the objective of producing graduates who are willing to work in rural areas. This involves two strategies - targeted recruitment of students into medical school and clinical rotations in rural areas during their study. Both strategies may influence the subsequent intention of medical students to work in under-served areas but the effects on retention of health professionals in rural areas are uncertain. The effect of retention on health professionals in rural areas is uncertain.

3. Incentives (an explicit or implicit financial or non-financial reward for performing a particular act) are factors and/or conditions within health professionals' work environments that enable, encourage and motivate them to stay in their jobs and in their profession (Nurses et al. 2008). Evidences showed financial incentive programmes may lead to increase number of health workers practicing in under-served areas. However, the effect of non-financial incentives in retaining health workers in rural areas is uncertain.

4. Continuing professional development for health workers is the process by which individual healthcare professionals maintain and improve standards of healthcare practice, through development of knowledge, skills, attitudes and behaviour (Gray 2006).

   o *Given the limitations of the currently available evidence, there is a need for rigorous evaluative research prior to wide spread implementation for all the options.*

Implementation strategies:

A combination of strategies is needed to effectively implement the proposed options

Barriers to implementing the options include: financial constraint, resistance to change from health workers as well as service users, inadequate supportive supervision, weak health human resource information systems and lack of infrastructure. The strategies to implement the proposed options include:
- Resource mobilization
- Formal recognition of new types of health workers through credentialing (licensure, registration, certification or accreditation)
- Introducing new models for supportive supervision, such as those based on mobile technology
- Establishing well functioning system for monitoring and evaluation or indicators to track impact and outcomes
- Comprehensive plan for infrastructure development.

The problem

Ethiopia has undergone rapid expansion of health worker production and staffing in line with the expansion of health facilities in the past years. However, despite this rapid increase in production, recruitment and deployment of health workers, geographical imbalances of the available health workforce is still a challenge to achieve universal health care coverage as fewer health workers are deployed in underserved communities with higher health needs (FMoH 2014). The objective of this evidence brief is therefore to show the size and major causes of the poor health work force distribution in remote and rural areas of Ethiopia and to suggest possible policy options that can improve the health workforce availability in rural parts of the country.

Size of the problem

In Ethiopia the ratio of health workers to the population shows a heavy urban bias particularly of higher level health professionals. Especially the problem is worse in agrarian and pastoralist regions (Feysia et al. 2012; FMoH 2010). For instance the physician to population ratio in Gambella, Oromia and SNNPR regional states was computed to be 1: 27,357, 1: 56,645, and 1: 57,059, respectively. These figures are not only far below the international standard (1:10,000) but also very low compared to the 1: 6,062 ratio for Addis Ababa (FMoH 2013b; FMoH 2013a).

In Afar, Somali and Benishangul Gumz regional states which are under served regions, the health workers density (doctors, nurses and midwives) ratio is 0.5 for 1000 population (FMoH 2013a) which is four fold less than the WHO standard for developing countries to achieve minimum level of key health interventions (2.3 for 1000). This shows extreme gap which needs to be bridged.

The available stock of health work force of the country is also not fairly distributed among regions. For instance of the 2923 physicians (general practitioners and specialists) classified as working in the public sector in 2012/13 fiscal year, about 20% of them were working in the capital, Addis Ababa (FMoH 2013a), home to only less than 4 percent of the population (CSA 2008). The bad scenario is that even the physicians work outside the capital, most of them work in major cities of the regions (FMoH 2008).

Cause of the problem

Factors contributing to the poor health work force distribution in remote and rural areas include: unattractive local environment, poor motivation and retention schemes, work-related factors, individual factors and organizational environment.

Poor motivation and retention schemes:

Insufficient motivation and retention mechanisms are causes for the poor distribution of the health workforce in remote and rural areas (Abraham & Azaje 2013; Getie et al. 2013).

Individual factors:

These include a person's social background, age, gender, education, values, beliefs, etc. For instance growing up in a rural community has been associated with higher probability to practice in rural areas (Araújo & Maeda 2013).

Organizational environment:

According to (Serneels et al. 2010) doctors working in an urban public facility receive more training, frequent formal evaluations, daily checks of presence, and monitoring from clients through complaint offices than their rural public counterparts. Inadequate and incomplete communication and feedback between the Federal Ministry of Health(FMoH) and Regional Health Bureaus (RHBs) is also found to be one problem related to organizational environment. The same holds true for communications between the RHBs and Woreda, and down to health facility level. Within health facilities, there is limited human resources management capacity for performance planning, regular supportive supervision and constructive feedback to improve health workers performance (FMoH 2014; Getie et al. 2013).

Local environment:

General living conditions, including staff accommodation, schools and qualified teachers in remote rural areas frustrates health professionals and forces them to find jobs in urban areas with better infrastructure (Ture 2008).

Work-related factor:

Employee satisfaction surveys conducted at FMoH and selected regional health bureaus as well as staff exit interview analysis identified lack of adequate infrastructure, space and facilities, poor management environment, insufficient budget, equipment and supplies, and high workload as underlying causes for employee dissatisfaction and high attrition rates (Yohannes et al. 2010; FMoH 2014).

Policy options

Options considered in improving the health work force distribution in rural and remote parts of the country include: task shifting, educational strategies, strengthening financial and non-financial incentives and continuous professional development. These four options and their potential impacts on health work force distribution are described below.

Policy Option 1

Task shifting for increasing number of health work force

Task shifting is the rational re-distribution of tasks among health workforce teams in which specific tasks are moved, where appropriate, from highly qualified health workers to health workers who have fewer qualifications in order to make more efficient use of the available HRH (WHO 2008).

Impacts of Task shifting

Different Systematic reviews evaluated the impact of task shifting on quality of care or patient outcomes and usual healthcare service. They found that while substitution of doctors with nurse practitioners may result in little or no difference in quality of care or patient outcomes (Laurant et al. 2004) substitution of doctor with nurse in primary care may lead to similar health outcomes for patients (Horrocks et al. 2002). Furthermore, using lay health workers compared to usual healthcare service may increase health care seeking behaviour for children and reduce under five morbidity (Lewin et al. 2010).

Policy Option 2

Educational strategies:

Strategy 1: Targeted recruitment of students into medical school

Recruiting students from rural areas seems to be effective as health workers with a rural background are more likely to practice in rural areas after completing their studies (Araújo & Maeda 2013).

Impacts of targeted recruitment of students into medical schools

A systematic review (Grobler et al. 2015) on interventions for increasing the proportion of health professionals practicing in rural and other underserved area failed to identify any study meeting the inclusion criteria.

However, primary studies in the review have found that recruiting medical students with rural background might increase number of medical doctors working in rural and underserved areas. The effects on retention of health professionals in rural areas are uncertain.

Strategy 2: Clinical rotations in rural areas during studies

Clinical rotation in rural areas aims at exposing students to rural community experiences in order to increase interest in rural careers after their graduation (Grobler et al. 2009).

Impact of clinical rotations in rural areas during studies

A systematic review (Grobler et al. 2009) evaluated the impact of medical students' rural exposure to improve the distribution of health professionals in rural areas. The SUPPORT summary based on this systematic review found that (Okwundu CI. 2011) exposure to clinical rotations in rural settings may influence the subsequent intention of medical students to work in under-served areas.

Policy Option 3

Strengthening financial and nonfinancial incentives:

Strategy 1: Financial incentives for health workers in remote and rural areas

Financial-incentive programs are one of the few health policy interventions intended to improve the distribution of human resources for health (Bärnighausen & Bloom 2009).

Impact of financial incentives

A systematic review (Grobler et al. 2009) evaluated the impact of financial incentives for return to service in under-served area. A SUPPORT summary (Okwundu CI. 2011), based on this systematic review, found that financial incentive programmes may lead to increases in the number of health workers practising in under-served areas.

Strategy 2: Non-financial incentives for health workers in remote and rural areas

Non-financial incentives are important determinants for the length of stay of health workers in rural and remote areas (Araújo & Maeda 2013).

Impact of non-financial incentives

Although a systematic review on the impact of non-financial incentives in retaining health workers in rural areas is not found, there are experiences from different countries. For example a common strategy in Mozambique, Kenya and Chile is to offer government housing to staffs (Frehywot et al. 2010; Lehmann et al. 2008; Peña et al. 2010). In Zambia the health workers retention scheme includes lower car loan rates and scholarships to send children to better schools in other areas.

The provision of non-financial incentive may attract doctors to rural areas who otherwise would not have gone to the rural posts.

Continuous Professional Development (Support):

Professional and personal support interventions address shortages and mal-distribution of staff, by improving responsiveness to staffing needs and addressing their causes of dissatisfaction and stress. This is being done through addressing a sense of isolation when working in remote areas through outreach support from specialists, addressing the difficulty of combining professional and personal life through the use of refresher programmes and flexible rosters and motivating staff by providing professional development or career opportunities (EU 2015).

Impact of personal and professional support

We could not come across a systematic review on the impact of continuous professional support on retention of health professionals in rural areas.

However, questionnaire-based surveys suggest that professional and personal support might influence health professionals' choice to work in underserved areas (Kotzee TJ 2006)

Implementation considerations

Potential barriers to the implementation of four options and strategies to address those barriers are summarised in tables 1-7.

Table: 1   Barriers to the implementation all options

Barriers	Descriptions	Implementation strategies
Financial constraint	• Implementation of each of the options require a substantial investment of financial resource	• Piloting and costing of incentives, better use of existing resources through coordination of governmental and non-governmental initiatives, and • Resource mobilization • applying for additional funds from donors and reallocating public funds)

Table: 2   Barriers to the implementation clinical rotation and continuous professional development options

Barriers	Descriptions	Implementation strategies
Geographic distance	• Lack of safe, reliable, accessible, and affordable methods of transportation (e.g., limited public transportation options) • Staff working in the rural areas are unable to attend CPD activities because of poor transport links and the absence of staff to fill their posts when away	• Organizing an on job site trainings • Rural infrastructure development

Table: 3   Barriers to the implementation of task shifting

Barriers	Descriptions	Implementation strategies
Resistance to change from health workers as well as service users	• Resistance of accepting task shifting from the health workers and service users may be a problem. • Lack of appropriate recognition and status, even if staffs who assume new tasks are performing the tasks of higher-level workers	• Establishing a system that ensure adequate recognition, equitable allocation of resources, training, compensation and monitoring to ensure quality of care, worker morale and staff retention (Wiedenmayer et al. 2015). • Formal recognition of new types of health workers through credentialing (licensure, registration, certification or accreditation) can help to overcome resistance to change (WHO 2007).
Over burdening of the existing staff	• Patient outcomes may be compromised in settings where staffs are already overworked if the current tasks are not shifted to lower levels of workers.	• A system should be arranged so that if higher level workers' tasks are shifted to lower level workers, these latter groups' tasks should, in turn, shift to other non-professional cadres.
Inadequate supportive supervision	• Adequate knowledge and skills are required for supportive supervision, but health workers capable of providing supportive supervision are also experiencing heavy workloads and high staff turnover.	• Introducing new models for supportive supervision, such as those based on mobile technology, may be used to provide support to staffs who assume new task in resource-limited settings (Crowley & Mayers 2015). • Measures to limit staff turnover and increase mentoring and supervision capacity need to be planned from the outset

Table: 4   Barriers to the implementation of targeted recruitment of students to medical school

Barriers	Descriptions	Implementation strategies
Medical schools do not have a policy or strategy for rural admissions	• Absence of policy that dictates selection of students from rural areas	• Introducing affirmative selection policies that quarantine medical school places for rural students

Table: 5   Barriers to the implementation of clinical rotation in rural areas during studies

Barriers	Descriptions	Implementation strategies
Shortage of mentors in rural areas	• Rural clinical rotation require preceptors or mentors, which may not be available in many rural areas	• The system has to be in place • Regulations should be put in place to enforce clinical rotation in rural areas • Tele-education as a mentorship mechanism
Inadequate support and supervision	• Isolation from consultants and experienced senior medical officers forces students to take on much more responsibility than they were usually comfortable	• Telephone support, onsite supervision • Establishing call response center

Table: 6 Barriers to the implementation of financial and non-monetary incentives

Barriers	Descriptions	Implementation strategies
Risks of nepotism	• Incentives might find their way to those individuals with the right connections and the difference in incentives may foster behaviour conducive to corruption.	• Strengthening transparency and information-sharing about incentives.
Absence of policy for incentives	• There is no policy for incentives in the country. This could lead to conflicts and might adversely affect other programs	• Develop a national policy for the use of incentives or ensure that incentives that are used do not adversely affect other programs or create undesirable inequities across different cadre of health workers
Corruption	• There is no system in place for managing incentives and there is a risk of misuse of incentives and rewarding people without merit	• Transparent systems for managing and awarding incentives and ensuring accountability
Weak health human resource information systems	• There is limited consistent information available on retention and attrition trends to determine how effective incentives are in improving rural health work force retention.	• Establishing well functioning system for monitoring and evaluation or indicators to track impact and outcomes • Review incentive schemes regularly to ensure that they meet needs and achieve their intended purpose
Lack of infrastructure	• Providing some incentives is a challenge as lack of infrastructures like standard houses and schools in remote and rural areas is difficult	• Comprehensive plan for infrastructure development, including housing for health staffs and schools for their children, which should bear fruit in both the short and long term • Increase investment in non-monetary incentives, such as housing and instructional facilities, that are sustainable and build institutional capacity.

Table: 7   Barriers to the implementation of continuous professional development (CPD)

Barriers	Descriptions	Implementation strategies
Under-staffed health facilities	• Facilities may have difficulty in releasing staff for CPD, especially when courses are offered centrally.	• Localization of training • Support local training, which is accessible to rural staff. Develop regional and district training, as well as supporting on-the-job training.
Time	• There is a conflict between service provision and finding time for learning. That is, health workers find it particularly difficult to take time out of / from practice to undertake CPD as this can have a direct impact and consequences for patient care and it can be difficult to find and/or fund locum GPs to fill in.	• Courses need to be well-designed and flexibly delivered.
Lack of opportunity to put new skills into practice	• Training attended needs to be matched with available jobs and equipment to allow well-trained professionals to practice the techniques they have learned	• Developing capacities of rural facilities

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 flow from the deliberations that the policy brief is intended to inform. These might include, for example:

– Careful consideration of the need for task shifting
– Careful consideration of the need for targeted recruitment of students into medical school and clinical rotations in rural areas during study
– Careful consideration of the need for financial and nonfinancial incentives
– Careful consideration of continuous professional development (support)
– Monitoring and evaluation of the suggested policy options and implementation strategies
– Consideration of appropriate implementation strategies for each of the policy options mentioned

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