

# Evaluating the effect of a maternal and newborn health quality improvement strategy on health worker motivation and practice intent in Ethiopia

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## Overview

This protocol describes a study evaluating the effect of a quality improvement (QI) programme on the level and composition of motivation of health workers in Ethiopia. It will also investigate the effect of the intervention on practice intent as assessed through clinical vignettes. It is a standalone piece of research within a larger project, providing evidence for a broader impact and process evaluation whilst generating novel evidence on health worker motivation. This study comprises of two pieces of research: a formative qualitative component to develop meaningful and relevant quantitative tools, which – once developed – will be used to assess the baseline composition and level of health worker motivation, before estimating any changes attributable to the QI programme.

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## Background

### Overview of the Quality Improvement Maternal and Newborn Health

#### Intervention in Ethiopia

The Institute of Healthcare Improvement (IHI) is supporting the Federal Ministry of Health in Ethiopia (FMOH) in a quality improvement (QI) initiative aimed at improving maternal and newborn health. The project is funded by the Bill & Melinda Gates Foundation and the Margaret A. Cargill Foundation and has a project implementation period from April 2016 to November 2018. A three-pronged approach will be used to enable the Ethiopian FMOH to achieve its goals.

1. Develop an Ethiopian National Health Care Quality Strategy that is aligned with the Health Sector Transformation Plan (HSTP) and builds on existing initiatives in the country which focuses on quality and equity.
2. Launch and test a scalable model of health system improvement in health facilities and communities linked by learning collaboratives. The model will support the FMOH priorities to improve the key priority area of maternal and newborn outcomes, initially across four regions, with the ultimate goal of scaling up to all 11 regions and city-regions in Ethiopia.
3. Strengthen and develop a sustainable, self-sufficient Ethiopian health care quality culture and capacity across multiple levels of the health system.

Ethiopia successfully met the target for Millennium Development Goal 4, a two-thirds reduction in under five mortality from 1990 to 2015. During that time period mortality dropped from 205 under-five deaths per 1000 live births in 1990 to 59 under five deaths per 1000 live births in 2015 (UNICEF 2015). During that same time period, neonatal mortality fell from 61 neonatal deaths per 1000 live births to 28 neonatal deaths per 1000 live births (UNICEF 2015). Ethiopia also made significant reductions in maternal mortality. There was a decline from 1250 maternal deaths per 100,000 live births in 1990 to 353 maternal deaths per 100,000 live births in 2015 (WHO 2015). Despite these achievements, maternal and under-five mortality rates are still high in Ethiopia, and making further improvements in maternal and child health care is a national priority.

#### Project Goals

The long-term goal of the project is to achieve a national 30% reduction in facility-based maternal mortality and facility-based neonatal mortality over a thirty-month period due to the impact of the comprehensive program approach described above. In addition, during the course of this 30 month current project, four principle aims are expected to be achieved:

1. Sites engaged in the learning collaboratives will, by the end of the intervention, improve the quality of antenatal care, delivery management, and postnatal care, as represented by core evidence-based collaborative indicators. Included among these, is the goal to achieve high levels of reliability (>90%) in the implementation of clinical care bundles<sup>1</sup> directed at labor and delivery management.
2. Sites engaged in the learning collaboratives will, by the end of the intervention, achieve high levels of reliability (>90%) in the management of complications related to leading causes of

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<sup>1</sup> A clinical bundle is a set of interventions related to a disease process that is expected to result in better outcomes compared to individual component interventions.

maternal and neonatal death, which will contribute to a 30% reduction in the incidence and severity of leading causes of maternal and newborn death within the grant period.

3. Woredas engaged in learning collaboratives will see improvements in the '1<sup>st</sup> and 2<sup>nd</sup>' delays of care, as represented by an increase in 4 visit ANC coverage, increase in skilled birth attendance, and postnatal care within 48 hour coverage. Goals will be set based on Woreda-specific baseline data.
4. Habits that ultimately lead to a sustained culture of continuous QI will be developed in the targeted regions.

## Project Locations

IHI and the FMOH initially selected four of nine regions in Ethiopia to be part of the initial QI intervention. These regions are Amhara, Oromia, Southern Nations, Nationalities and People (SNNPR) and Tigray, and together they account for 86% of the population of Ethiopia (Population and Housing Census 2010). These regions were selected based on population size, magnitude of maternal and neonatal mortality, perceived readiness to engage in the QI work and generally strong functionality. A fifth region, Afar, is included in the project in an effort to test the approach in a largely pastoral population.

After an initial start-up phase there will be two main phases for project implementation of the Woreda-level QI intervention component: the prototype phase and the test of scale-up phase. Immediately following this project period, the implementation team hopes to engage in a national scale-up, but that would be another project.

## Project Implementation

The intervention will integrate QI training and clinical skills training in order to achieve maximum impact on health outcomes. In the first three months of both the proto-type phase and test of scale-up phases, facilities that lack essential minimum supplies will be equipped with the necessary supplies and necessary clinical trainings will be provided.

Prototype Phase: The goal of this phase is to implement and adapt the Woreda-level QI intervention design prior to scale. One Woreda in each region will be part of the prototype phase. These Woredas are Tanqua Abergele, Tigray (largely agrarian), Lima Bilbilu, Oromia (urban/agrarian mix) and Duguna Fango, SNNPR (agrarian). Fogera Woreda in Amhara region will begin shortly after delays due to local conditions. A fifth pastoralist Woreda from Afar will be added after six to nine months of program implementation. These Woredas capture different types of settings, and thus are representative of the diversity found within Ethiopia. We will consider these different types of settings when selecting comparison Woredas.

Each Woreda has several health facilities typically including one primary hospital, five health centres and 25 health posts. Some Woredas may have a referral hospital as well. Each Woreda will have seven to eleven QI teams, depending on the exact number and types of facilities. Health centres and their corresponding health posts will form teams, while hospitals will have their own teams. Each team will send representatives to attend learning sessions, structured workshops where participants learn QI methods, develop QI projects, receive coaching and clinical updates, and share their project implementation experience and challenges. Facility participants include managers, clinical staff

(doctors, midwives, and nurses at hospitals, nurses and midwives from health centres), HMIS officers, and health extension workers. During this phase there will be a total of four learning sessions, and in between the learning sessions, project staff will make intensive coaching visits to the facilities. These visits will provide opportunities for QI coaching and integrated clinical mentorship to improve health care worker skills and quality of care delivered. Over time the tasks of conducting site visits will be turned over from the project staff to the Woreda-level health office and hospital staff. By the end of the 15-month collaborative, a large number of change ideas will have been tested across antenatal, delivery, and postnatal care, allowing for the development of a 'change package' of the most successful QI change concepts that can be shared with future collaboratives.

### *Test of Scale-up Phase*

The goal of this phase is to test the scalability of the Woreda-level QI intervention with integration into the existing system and 'lighter touch' involvement of IHI, and using regionally developed change packages from the prototype phase. During this phase, implementation will expand to an estimated total of 21 additional Woredas. The criteria used for selection of these Woredas will be carefully documented, so that it may be possible to select appropriate comparison Woredas (if needed) for the evaluation of the test of scale-up phase. Each Woreda will have the same composition of health facilities as described above for the prototype phase. QI teams will also send participants to learning sessions. One key difference from the prototype phase is that Woreda health staff will be overseeing the site visits from an early time point, and learning sessions may be integrated into existing Woreda-level review meetings. An extensive set of QI capability building activities will also happen to prepare the Regional and Woreda level leadership for oversight and execution of the test of scale phase.

### *Overview of the evaluation of the QI programme*

This project is a smaller part of broader work seeking to evaluate the QI programme. The broader work is based on the Kirkpatrick model, where four evaluation questions will be addressed:

KP 1: Experience: What are the participants' (patients, providers and managers/leaders) experiences of engaging in the project?

KP2: Learning: How does the project contribute to knowledge and skills of the participants?

KP3: Process Change: What changes in process performance occurred that we believe impacted the outcomes?

KP4: Outcome Change: What changes in outcomes occurred? Can the change package developed be linked to improved maternal and neonatal health outcomes? We note that maternal mortality and neonatal mortality may be difficult to measure, but we will also track key outcomes which are on the causal pathway to mortality reduction.

Within the context of these evaluation activities, this study seeks to contribute to two Kirkpatrick stages:

- 1) KP1 by exploring health worker reasons for choosing health care work; reasons for choosing to work at the given facility; things that are enjoyed about work; things that motivate to do a good job; things that undermine their ability to do a good job; and

## 2) KP3 by exploring how the QI programme affects the level and composition of health worker motivation

We hypothesise that exposure to the QI programme will motivate health workers to exert more effort and perform job roles better, which will ultimately improve health outcomes. To assess the extent to which this is the case, and better understand how QI affects health workers, we will conduct qualitative and quantitative fieldwork to measure the level and composition of motivation before and after exposure to the intervention, in areas exposed to the intervention and those which are not. Motivation will be assessed through a series of questions with Likert scale responses, with exact domains identified through the qualitative research and a literature review. In addition, a discrete choice experiment (DCE) will be carried out to assess if exposure to the QI intervention affects the preferences of health workers towards motivational aspects of the job role. Health worker practice intent will also be assessed through clinical vignettes.

This study will fill three gaps in the literature. First, although there is a growing number of descriptive cross-sectional studies assessing health worker motivation, there is little longitudinal evidence exploring a) changes in motivation over time, or b) the causal impact of an intervention on motivation[1]. Finally, to the best of our knowledge, no study to-date has assessed the impact of a QI programme on the stated preferences of health workers for job attributes associated with intrinsic or extrinsic motivations[2].

### Aim

To assess how the QI programme affects the levels and composition of health worker motivation and practice intent in Ethiopia by exploring the drivers of motivation, how motivation and practice intent varies by extent of program exposure, and how job preferences are affected by intervention exposure.

### Specific Objectives

1. Explore drivers of motivation among health workers in QI intervention and non-intervention areas qualitatively
2. Develop a relevant and contextually meaningful health worker survey to assess health worker motivation, using findings from qualitative work
3. Estimate the effect of the QI intervention on health worker motivation and practice intent quantitatively
4. Estimate the effect of the QI intervention on health worker stated preferences for job attributes quantitatively

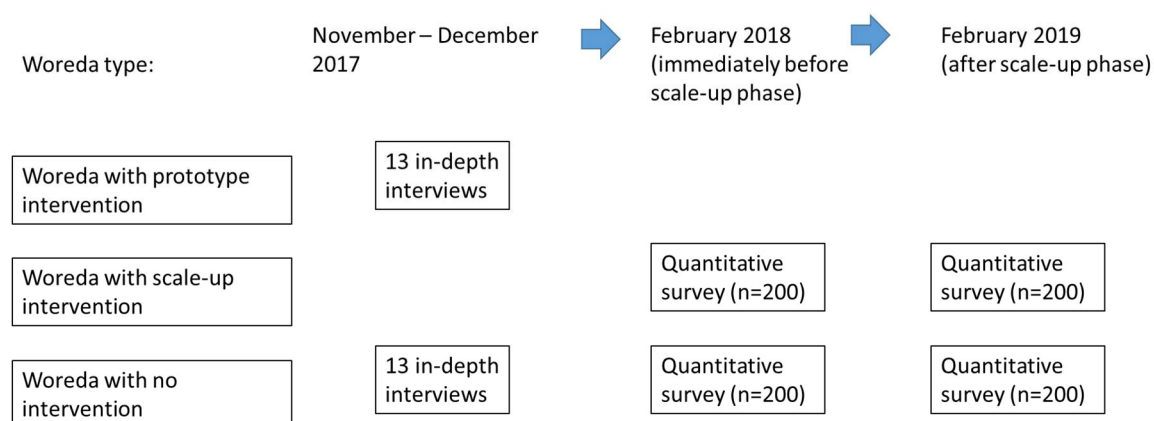
# Methods

## Formative qualitative work

Qualitative work, in the form of in-depth semi-structured interviews, will be undertaken to inform the design of the quantitative health worker survey, specifically to identify the set of items for inclusion in the survey tool, and the wording of questions, in order to assess the impact of the QI programme on motivation when it is scaled-up. The qualitative work is also expected to shed light on the key dimensions of motivation for health workers in Ethiopia and any differences in intervention and comparison areas. This qualitative work will be carried out between October and December 2017. Data collection is expected to take about 3-4 weeks.

Figure 1 demonstrates the research activities over time among health workers involved with the QI programme's prototype and scale-up phases.

**Figure 1: Study schematic**



**Figure 2: Hypothesised framework linking changes in motivation to health outcomes**

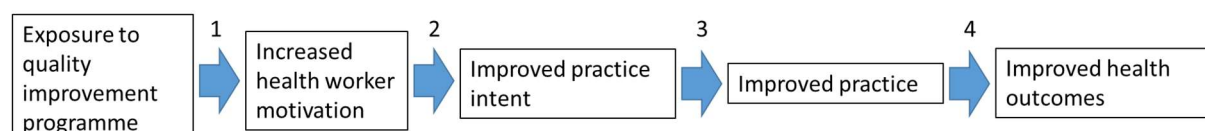


Figure 2 shows the hypothesised mechanism for improved health outcomes attributable to the impact of the QI programme on health worker motivation. In the quantitative element of this study, we estimate relationship #1 and #2. By linking data to the wider evaluation programme, we will be able to evaluate facility/Woreda-level changes to #3 and #4.

## Participant recruitment and data collection

In-depth semi-structured interviews will be carried out among public health centres and health post staff from the implementation Woreda in Oromia, as well as from a neighbouring Woreda currently without program implementation. Staff will be purposively sampled to obtain a range of viewpoints from different levels of seniority. One health centre and one health post will be sampled in each Woreda. Interviews in Oromia will include staff who attended learning sessions; interviews in the comparison Woreda will include staff who have not been part of the QI programme. A total of 30 in-depth interviews will be conducted:

- 2 staff from the Woreda hospital (that are members of the QI team in Oromia)
- 2 staff from 3 health centres from each Woreda
- 1 staff member from 3 health posts from each Woreda (posts are linked to the health centres)
- 2 staff members from a non-governmental facility

Total interviews per Woreda: 13

Total across both Woredas: 26

### Interview Procedures

Permission will be obtained from local management to interview participants at a convenient time so as not to influence day-to-day tasks. Data will be collected by a trained qualitative researcher together with an observer/note taker.

When starting the interview, the moderator will welcome the participant and explain the study in general, introduce the specific topic of discussion, and explain why we are interested in their ideas, input, and views. The informed consent form will be distributed to participants and read out loud by the interviewer, who will then ask if there are any questions. Then the moderator will answer any further questions the participant might have, before reminding them of the confidentiality of the discussions. If the participant is still interested in participating in the interview then the participant will complete the informed consent form on their own or with assistance from the researchers.

Interviews will be tape recorded, subject to respondent consent; transcribed and translated into English. Thematic analysis will be carried out, aimed at identifying key dimensions of motivation, including those which may be particularly impacted by the activities of the quality improvement programme such that the resultant quantitative tool is sensitive to changes in motivation.

### Interview guides

Draft in-depth interview guides (with translations to Amharic and Afan Oromo) are included in Appendices I-III, and explore:

1. Reasons for choosing health care work;
2. Reasons for choosing to work at the given facility and service provision
3. Things that are enjoyed about their work
4. Things that motivate staff to do a good job
5. Relationships at the facility and management
6. Income
7. Changes attributable to intervention (only asked in intervention areas)

The questions will be initially piloted by interviewers during training and familiarisation exercises, before being tested in a health centre and a health post to explore the clarity of questions and health worker comprehension.

### Quantitative survey

To assess the impact of the IHI program on health workers, we will undertake a survey of health workers in Woredas implementing QI before the start of the scale up phase and 12 months later. In addition, we will survey health workers in areas not implementing QI in the prototype or scale-up



phases. The two main outcomes to be considered are: health worker motivation (levels and composition) and health worker practice intent (practice intent measured through vignettes).

The baseline survey is planned to be carried out in February-March 2018 with health workers in intervention and comparison areas. The follow-up survey will be carried out immediately after the implementation of the QI programme, around February-March 2019.

### Sample size considerations

It is not possible to undertake a power calculation for the health worker survey as there is no prior evidence to draw on as to what size of effect to expect from the QI programme on motivation levels, nor is there information about mean motivation levels among the population of interest. The sample size requirement for confirmatory factor analysis are at least 200 respondents per sub-group of interest[3]. In this study, our primary focus will be comparing the motivation levels among health workers exposed to QI and those not exposed from the comparison arm. Hence, we would need a minimum of 400 respondents per survey round.

### Survey content

The quantitative survey tool is presented in Appendix VII. The survey will collect information on health worker characteristics (e.g. age, gender, cadre, years of service, marital status, salary scale). Motivation will be measured through questions on Likert scales developed through analysis of the formative qualitative work, and a review of validated scales from Ethiopia or the region. These will obtain health workers ratings of different elements of the work environment and their own attitudes towards work. The optimal number of levels on the Likert scale will be determined through survey pre-testing, and is expected to be between 4-7. The health workers will also be asked to rate their overall level of motivation. The survey will seek to measure motivation outcomes (intended behaviour) through vignettes, which are being used in the broader evaluation project. Vignettes may relate to clinical scenarios, such as a hypothetical antenatal care or delivery case, or behaviours which may be reactive to changes in motivation such as perseverance in changing structural barriers to service quality. Clinical vignettes will be developed based on Ethiopian clinical care guidelines for antenatal care. In the follow-up survey, questions regarding level and nature of exposure to the QI intervention will also be included. Finally, validated wellbeing scales (e.g. [4]) will be included to explore if health worker wellbeing could mediate the impact of the intervention on motivation.

Clinical practice intent will be assessed by presenting participants with standardised clinical vignettes of commonly encountered conditions or complications. Vignettes have been developed in and subsequently widely applied in the broader QI project; these will be adapted if required for use in this study.

If a clear theory emerges about the relevant dimensions of motivation during the formative qualitative phase, we will use confirmatory factor analysis to confirm that these dimensions are supported by the data collected. If not, we will use exploratory factor analysis to identify the relevant dimensions of motivation. We will then generate composite mean scores for each dimension, and assess validity by examining the relationship between the characteristics of health workers and facilities and these composite scores, and the extent to which they are consistent with theoretical expectations. Reliability will be assessed by examining Cronbach's alpha for each dimension, and using factor analysis. Discrete choice experiment

Discrete choice experiments (DCEs) have been widely applied in human resources for health research to elicit preferences towards working conditions, job characteristics, and location (e.g.[2, 5-8]). DCEs ask participants to choose their most preferred from several hypothetical alternatives, over many choice tasks (usually around 10). By analysing how participants choose over these choice tasks, researchers are able to quantitatively assess which factors are important to different groups of people.

In this project, a DCE will be embedded within the health worker motivation survey and used to elicit health worker preferences for various job characteristics, particularly those which 1) may be affected by the QI programme, and 2) appeal differentially to intrinsic and extrinsically motivated workers.

DCEs will be carried out at baseline and follow-up in intervention and non-intervention areas, and preference data analysed to assess whether exposure to the QI programme changes health worker preferences. The DCE could be used to simulate how health workers might respond to changes in working conditions that are not part of the QI initiative, for example how intrinsically or extrinsically motivated health workers would respond to offers of additional pay to take on extra responsibility.

An example of what the DCE might look like is shown in Figure 1. The attributes and levels used in the final survey will be finalised through thematic analysis of the individual interview data with a view to encouraging participants to trade-off intrinsically (shaded in figure 1) and extrinsically motivating factors. Attributes were chosen to identify factors which may be influenced through exposure to the QI programme. The final design of the DCE tasks, including how attributes are represented using text, images, or a combination of both, will be refined through the piloting and testing work with the rest of the quantitative survey. Figure 2 displays the individual levels of the attributes for the example DCE. Quantitative choice modelling will be carried out using standard and mixed multinomial logit, latent class, and hybrid models. An additional methodological analysis will assess the stability of preferences over time, which has not been thoroughly explored in the choice modelling literature. Internal validity and rationality tests will be included to explore the consistency of participant choices.

**Figure 1: Example DCE task. Final attributes to be refined through piloting and testing. Intrinsic motivators highlighted in grey**

	<i>Please select the post that you would prefer?</i>	
	<b>Post A</b>	<b>Post B</b>
<b>Salary</b>	10% above average earnings	Average earnings
<b>Location</b>	Desirable location	Undesirable location
<b>Opportunities for career progression</b>	Average opportunities	Good opportunities
<b>Opportunities to improve patient outcomes</b>	Good opportunities to improve patient outcomes	Average opportunities to improve patient outcomes
<b>Community need</b>	Community needs additional capacity	Community has capacity at present

	<i>Please select the post that you would prefer?</i>	
	<b>Post A</b>	<b>Post B</b>
<b>Salary</b>	20% above average earnings	Average earnings
<b>Additional benefits</b>	Transport allowance	None above salary
<b>Opportunities to improve patient outcomes</b>	You will have a large impact to improve patient outcomes in the community	You will make a marginal difference to patient outcomes
<b>Management style</b>	Management is supportive, and makes work easier	Management is not supportive, and makes work more difficult
<b>Facility quality</b>	Facility is basic: it has unreliable electricity, whilst equipment, drugs and other supplies are not always available	Facility is good: it has reliable electricity, whilst equipment, drugs and other supplies are always
<b>Training</b>	No training available	5 days per year dedicated training time (improving clinical practice and transferable skills)
<b>Workload</b>	Light: more than enough time to complete duties	Medium: enough time to complete duties

Figure 2: Full range of attributes

	<b>Level 1</b>	<b>Level 2</b>	<b>Level 3</b>
<b>Salary</b>	20% above average earnings	Average earnings	20% below average earnings
<b>Additional benefits</b>	Transport allowance	None above salary	
<b>Opportunities to improve patient outcomes</b>	You will have a large impact to improve patient outcomes in the community	You will make a marginal difference to patient outcomes	
<b>Management style</b>	Management is supportive, and makes work easier	Management is not supportive, and makes work more difficult	
<b>Facility quality</b>	Facility is basic: it has unreliable electricity, whilst equipment, drugs and other supplies are not always available	Facility is good: it has reliable electricity, whilst equipment, drugs and other supplies are always	
<b>Training</b>	No training available	5 days per year dedicated training time (improving clinical practice and transferable skills)	10 days per year dedicated training time (improving clinical practice and

			transferable skills)
<b>Workload</b>	Light: more than enough time to complete duties	Medium: enough time to complete duties	Heavy: barely enough time to complete duties

### Piloting and testing of survey tool

The interview tool will initially be tested and refined during interviewer training, where interviewers will be asked to conduct the survey on each other and identify questions or response which are misleading or unclear. A small pilot survey of around 20 participants will be undertaken. The purpose of the pilot is to review the content and presentation of survey questions, confirm the items and number of Likert response options, as well as familiarise interviewers with the survey tool and procedures. Because of piloting, small changes may be made to the tools.

### Data collection

Face-to-face interviews using a tablet computer will be used. The questionnaire will be administered by a trained interviewer. Data checks will be built in to check for logical inconsistencies and infeasible responses, and the database will be checked in real time by data monitors and the lead researchers. The data will be regularly uploaded to a secure internet server, and completed and clean questionnaires will be deleted from the tablets. The tablets will be kept locked in a storage space at the main offices of the interviewers.

### Quantitative evaluation of programme effect on motivation

We will compare health worker characteristics and outcome scores across study arms at baseline and follow up by using t-tests adjusting for clustering at the facility level. We will use a linear difference-in-differences regression model to identify the effects of QI on outcomes (1):

$$Y_{it} = \beta_0 + \beta_1(QI_i \times \delta_t) + \beta_2\delta_t + \gamma_i + \varepsilon_{it} \quad (1)$$

where  $Y_{it}$  is the outcome of health worker  $i$  at time  $t$ .  $QI_i$  is a dummy variable, taking the value 1 if a health worker is exposed to QI and 0 if not. We will control for time invariant determinants  $\gamma_i$  with facility fixed effects; and  $\delta_t$  year fixed effects. The error term is  $\varepsilon_{it}$ . The effect of QI on the outcome is given by  $\beta_1$ .

In this instance  $Y_{it}$  could be individual Likert scale scores, a composite index of scores, or variables representing other health worker characteristics such as pro-social preferences. Alternative non-linear regression techniques (for example ordered logit models) will be explored as, for example, Likert scale data will be truncated.

Difference-in-differences relies on the trends in outcomes between intervention and comparison areas running parallel in the absence of the intervention. This assumption can never be formally tested, however, a comparison of pre-intervention trends in outcomes can lend support to this assumption. To support this assumption, comparison areas will be selected such that they have similar trends in service utilization outcomes in HMIS before the scale up phase. We will also seek to measure some health worker outcomes retrospectively in the baseline survey to provide trend information (for example, how motivated were you 6 months ago; 12 months ago).

## Dissemination of study results

The results will be disseminated in Ethiopia initially, through discussion or written report to collaborators and the FMoH. Results will also be shared through presentation to stakeholders during dissemination meetings held for the broader project.

Results will be published in peer reviewed international journals and presented at health policy and economics conferences. Policy briefs will also be developed to publicise the work among local stakeholders. The broader project provides ample opportunities to disseminate results across evaluation collaborators as well as to participants and colleagues in the health system.

## Ethical considerations

### Review

For the broader study, an exemption has been obtained from the Ethiopian Public Health Association Ethical Review Board. This protocol will be submitted to the EPHA to assess if this work requires separate approval, or falls within the same exemption.

### Informed consent

All participation in the community survey and its supporting qualitative studies (focus group discussions and individual interviews) will be voluntary and subject to completion of written informed consent. All information provided by respondents will be confidential. English, Afan Oromo and Amharic consent forms are enclosed in Appendices IV-III. Signed informed consent forms will be kept separately from the questionnaires and research outputs to protect the identity of the participants. Participants do not need to use their real names in any of the interview formats. Participants in any of the interview types will be reminded before starting that they can stop at any time if they feel uncomfortable or do not want to continue. Participants will also be told that if specific questions make them uncomfortable it is helpful if they try to answer as best they can, but they are not required to answer at all.

### Risks and benefits

There are no immediate benefits to participants for participating in the study.

### Interviewer training

Interviewers will be recruited by the School of Public Health, Addis Ababa University and undergo intensive 3-day training. Part of this training will be on how to correctly obtain an informed consent and how to maintain confidentiality. Debriefing sessions will be held with the interview team for them to share field experiences in confidence.

### Confidentiality

Interview transcripts and digital recorders will be kept in a locked cabinet; nobody other than the researchers will have access to these materials. In publication of interview data, no names or personal identifiers will be used. Although individual quotes may be used in the publication of data, they will not be attributed to individuals and identification will be obscured, if required. All digitally recorded interviews will be destroyed after the research has been completed. During the survey, interviews will be held in a private space to improve confidentiality of responses.



## Appendices

### Appendix I: In-depth interview guide

#### In-depth interviews for staff regarding motivation: IDEAS

##### Socio-demographic and interview information

- |                           |                                 |
|---------------------------|---------------------------------|
| 1.1 ID:                   | 1.8 Place of work:              |
| 1.2 Interview date:       | 1.9 Job title:                  |
| 1.3 Interview start time: | 1.10 Main roles:                |
| 1.4 Interview end time:   | 1.11 Time in role:              |
| 1.5 Place of residence:   | 1.12 Attends learning sessions: |
| 1.6 Education:            | 1.13 Interviewer code:          |
| 1.7 Age:                  | 1.14 Tape recording number:     |

##### *Theme 1: Reasons for choosing health care work*

- a. Help me understand what you do at work? Can you describe a typical day to me?
- b. How long have you worked at this facility?
  - b. Why did you choose to do the job you do now? What motivates you to work in health care?
- c. What is the best thing about your job? What is the worst?
- d. If you weren't working in health care, what would you be doing?
- e. What would make you stop working here?

##### *Theme 2: Reasons for choosing to work at the given facility and service provision*

- a. Did you choose to work at this facility instead of another one? Why?
- b. What do you think about the quality of services provided to the community by this facility? Can you give examples?
  - a. **Probe:** Which aspects are good and which are less good? Please use examples
- c. How do you think the community feels about the facility and the services it provides?
- d. Are there any aspects of work environment which make it difficult to deliver an effective service? Explain.
- e. What would enable you work more effectively?
- f. Do you have enough control over what you do at work to do a good job?
- g. Do you think that you or your colleagues have the right skills to do a good job?

##### *Theme 3: Things that are enjoyed about work*

- a. What do you enjoy about coming to work?
  - a. **Probe:** How important is:
    - i. Helping your patients?
    - ii. Being part of a team?
    - iii. Helping your community?
    - iv. Earning a living to support yourself and your family?
    - v. Being able to progress in your career?
    - vi. Learning new skills?
    - vii. Being recognised and thanked for doing a good job?



- b. How does it feel when you tell other people what you do for work?

***Theme 4: Things that motivate staff to do a good job***

- a. Can you describe the things that motivate you and your colleagues to do a good job?  
Probe:
- i. (build on answers to section 3 – enjoyment) Which of these things are really motivating?
- b. Does anyone check your work? Does anyone give you encouragement or advice?
- c. Thinking about a colleague in this facility or in your previous work place who has high level of motivation in their work. Can you tell me what factors motivated him/her?
- d. Thinking about a colleague in this facility or in your previous work place who has very low level of motivation in their work. Can you tell me what factors resulted in his/her poor motivation?
- a. Do your managers motivate you and your colleagues? Do you think that they do this in the right way?
- b. Do you think your job challenges you enough, too much, or too little? Why?
- c. Do you think that your job lets you achieve good things for yourself? What about for your patients?
- d. Do you think you are motivated by the money you receive for doing your job?
- e. How confident are you in your skills to do your job well?

***Theme 5: Relationships at the facility and management***

- a. How would you describe your relationship with colleagues at the facility?
- b. How well do you think this facility is managed?
- c. If you could change one thing about how the facility is managed what would it be?
- d. How do you feel about the relationship between health workers and managers at this facility?
- e. Does the management recognise your good performance in any way? How?

***Theme 6: Income***

- a. What sources of income do you receive for your work here?
- b. Do you have to supplement your income from other sources?

***Theme 7: Changes attributable to intervention (only asked in intervention areas)***

- a. Are you aware of the quality improvement intervention that your health facility has been involved in?
- b. Has this changed the way you feel about your work? How?
- c. What has changed at work since the intervention started?
- d. How has this affected you? **Probe:** What about...
- i. The work environment
  - ii. Relationships with peers and managers?
  - iii. How motivated you feel?
  - iv. How well your managers manage you?
  - v. How motivated you think your colleagues are?

- vi. The experiences of patients in your facility?

## Appendix II: In-depth interview guide (Afan Oromo)

### In-depth interviews for staff regarding motivation: IDEAS

#### Kutaa Hawaasummaa fi odeeffannoo haala marii

- 1.1. Adda-baasii (ID):
- 1.2. Guyyaa marii:
- 1.3. Ta'aatii mariin itti jalqabame:
- 1.4. Sa'aatii mariin itti xummuurame:
- 1.5. Eddoo jireenyaa
- 1.6. Sadarkaa barnootaa:
- 1.7. Umrii:
- 1.8. Eddoo hojii:
- 1.9. Gahee hojii:
- 1.10. Itti gaafatamummaa:
- 1.11. Yeroo itti gaafatamummaadhaan ture:
- 1.12. Kutaalee barnootaa irratti hirmaate:
- 1.13. Koodii mariisisaa/gaafataa:
- 1.14. Lakk. Waraabbii sagalee:

#### Maata-duree 1: Sababoota hojii tajaajila fayyaa filataniif

- a. Mee hojiin kee maal akka ta'e naaf ibsi? Guyyuu maal akka hojjattu naaf ibsuu dandeessaa?
- b. Dhaabbata kanarratti waggaa meeqa tajaajilte?
- c. Hojii ammahojjattau kana maalif hojjachuuf filatte? Seektara fayyaa keessatti hojjachuudhaaf maaltu si kakaasse?
- d. Hojii kee ilaalchisee wanti gaariin/mishaan maali? Whanti badaa hoo?
- e. Osoo sektara fayyaa keessatti hojjachuu baate hojiin kee maal ta'a ture/maal hojjatta turte?
- f. Wanti akka ati hojii kee asitti hojjatu dhaabdu sitaasisu maali?

#### Mata-duree 2: Sababoota dhaabbata tokkorratti hojjachuufi tajaajila laachuuf filataniif

- a. Dhaabbata biraa caalaa dhaabbata kanarratti tajaajiluu ni filattaa? Maalif?
- b. Qulqullina tajaajilaa dhaabbata kanarratti hawaasaaf kennamu ilaalchisee maal yaadda? Fakkeenya naaf laachuu dandeessaa?  
**Qori:** isa kamtu mishaadha? Isa kamtu mishaa miti? Maaloo fakkeenyaan naaf ibsi
- c. Hawaasini dhaabbata kanaafi tajaajila dhabbaticharratti kennamu ilaalchisee ilaalcha akkamii qaba jettee yaadda?
- d. Haalli iddoo hojii akka tajaajilli akkaataa barbaadamuun hin kennamne taasisu jiraa? Mee naaf ibsi
- e. Wanti akka ati hojii bu'aa qabeessa hojjattu sidandeessisu maali?
- f. Hojii hojjattu haala gaariidhaan hojjachuudhaaf ga'umsa/dandeettii sidandeessisu qabdaa?
- g. Ati ykn hiriyoonna kee waliin hojjattu hojii keessan haala gaariidhaan hojjachuudhaaf ga'umsa barbaachisu qabna jettee yaaddaa?

#### Mata-duree 3: Adeemsa hojii keessatti wantoota ittiin gammadan/booharan

- a. Hojii seenudhaaf yeroo deemtu wanti sigammachiisu maali?
  - a. **Qori:** hammam tokko barbaachisaadha:
    - I. Dhukkubsataa kee gargaaruu?
    - II. Miseensa garee hojjataa fayyaa ta'uu
    - III. Hawaasa kee gargaaruu
    - IV. Galii ofiikeefi maatii kee ittiin bulfattu argachuu
    - V. Barnoota kee itti fufuu
    - VI. Ogummaa haaraa ittiin barachuu
    - VII. Hojii mishaa/gaarii hojjachuudhaan galateeffamuufi xiyyeeffannaa argachuu?
  - b. Hojiin kee maala akka ta'e yeroo namootatti himtu maaltu sitti dhagahama?

#### **Mata-duree 4: wantoota hojjattoonni hojii mishaa/gaarii akka hojjatan kakaasan**

- a. Wantoota ati ykn hiriyoonna kee hojii mishaa/gaarii hojjachuudhaaf isin kakaasan naaf ibsuu dandeessaa?
 

Qori: i. (deebiiwwan mata-duree 3 ffaa irratti hundaa'ii) wantoota kana keessaa isaan kamtu dhugaatti sigammachiisu?
- b. Namni hojii kee too'atu jiraa? Namni hojii keetirratti jajabina ykn gorsa siif laatu jiraa?
- c. Hooggantoonno keessan siifi hiriyoona kee waliin hojjattu hojiiidhaaf isin kakaasu? Isa kana haala sirrii ta'een niraaw'atu jettee yaaddaa?
- d. Hojiinke beekkumsa keetin wal gitaa? Ga'umsa kee nicaalaa? Ga'umsa keetii gadii? Maalif?
- e. Hojiin kee ofiikeetif wanta barbaaddu akka qabaattu/galmaan geessu nataasisa jettee yaaddaa? Dhukkubfattoota maamiltoota keetif hoo?
- f. Hojii keetif hamma kafaltiin siif kafalamu nakakaasa jettee yaaddaa?
- g. Hojii sirraa eeggamu haala gaariidhaan hojjachuudhaaf ga'umsa qabduun hammam abdii qabda?

#### **Mata-duree 5: Buufataafi hoggansa waliin walitti dhufeenya qabu**

- a. Buufattarratti walitti dhufeenya hojjattootaa waliin qabdu akkamitti ibsita?
- b. Haalli buufanni kun itti hoogganamu maal fakkaata?
- c. Hooggansa buufata kanaa ilaalchisee osoo wanta tokko jijjiirte maal jijjiirte turte?
- d. Walitti dhufeenya hojjattootaatiifi hoggantoota buufata kanaarratti ilaalcha akkamii qabda?
- e. Hooggansi buufata kanaa hojii ati hojjatte/raaw'ii kee haala ta'een ni hubatuu? Akkamitti?

#### **Mata-duree 6: Galii**

- a. Hojii ati asitti hojjatuuf maddi galii kee maali?
- b. Maddi galii kan biroo ati galii kee itti guddiftu qabdaa?

#### **Mata-duree 7: jijjiiramoota hojii jijjiramaatin muul'atan (eddoo hojiin jijjiramaa raaw'ate qofa gaafadhu)**

- a. Jijjiiramoota qulqullina tajaajilaa dhaabbanni fayyaa kee keessatti nibeektaa?
- b. Jijjiiramni kun miira ati hojii keetirratti qabdu jijjiiree jiraa? Akkamitti?
- c. Erga hojiiwwan jijjiiramaa kun jalqabamee jijjiiramni mul'ate maali?
- d. Inni kun haala kaniin tuqa/gaha? Qori
  - i. Eddoo hojii

- ii. walitti dhufeenya hojjattootaafi hoggantoota waliin qabdu?
- iii. miira kaka'umsaa qabdu?
- iv. haala gaarii hoogganaan kee si hoogganu?
- v. Kaka'umsa hojjattoonni ati waliin hojjattu qaban?
- vi. muuxannoo dhukkubfattoonni buufata fayyaa keerratti qaban?

## Appendix III: In-depth interview guide (Amharic)

### የባለሙያዎች ተነሳሽነትን በተመለከተ ጥልቅ ውይይት ማህበራዊና የስነ-ህዝብ እና የውይይት መረጃዎች

- |                       |                         |
|-----------------------|-------------------------|
| 1.1 መለያ               | 1.8 የመኖሪያ ቦታ            |
| 1.2 ውይይቱ የተካሄደበት ቀን   | 1.9 የስራ ማእረግ            |
| 1.3 ውይይቱ የተጀመረበት ሰአት  | 1.10 ዋና ዋና ሃላፊነቶች       |
| 1.4 ውይይቱ የተጠናቀቀበት ሰአት | 1.11 በሃላፊነት የቆዩበት ጊዜ    |
| 1.5 ውይይቱ የተካሄደበት ቦታ   | 1.12 የስልጠና ተሳትፎ         |
| 1.6 የትምህርት ደረጃ        | 1.13 ውይይቱን ያካሄደው ሰው መለያ |
| 1.7 እድሜ               | 1.14 የድምጽ ቀረፃ መለያ ቁጥር   |

**ክፍል አንድ፡ የጤና አገልግሎት ሙያን የመረጡበት ምክንያቶች**

ሀ. እባክዎትን በስራ ቦታዎ የሚሰሩዎቸውን ነገሮች ሊያስረዱኝ ይችላሉ፡ ባብዛኛውን ቀናት ምን እንደሚሰሩ ሊገልጹልኝ ይችላሉ

ለ. በዚህ ተቁዋም ውስጥ ለምን ያህል ጊዜ ሰርተዋል

ሰ. አሁን እየሰሩት ያለውን ሙያ ለምን መረጡት በጤና አገልግሎት ሙያ ላይ ለመሰማራት ምን አነሳሳዎት (አበረታታዎት)

ረ. በስራዎ ጥሩ የሚሉት ነገር ምንድነው በጣም መጥፎ የሚሉትስ

ሰ. በጤናው ዘርፍ ባይሰማሩ ኖሮ ምን ይሰሩ ነበር

ረ. ስራዎን እዚህ እንዳይሰሩ ሊገታዎ ወይም እንዲተዉ ሊያደርግዎ የሚችለው ነገር ምንድነው

ክፍል ሁለት፡ አሁን ባሉበት ተቁዋም ውስጥ ለመስራት እና አገልግሎት ለመስጠት የመረጡባቸው ምክንያቶች

ሀ. ሌላ ተቁዋም ከመስራት ይልቅ እዚህ ተቁዋም ውስጥ ለመስራት መርጠው ነበር ለምን

ለ. በዚህ ተቁዋም ውስጥ ለማህበረሰቡ ስለሚሰጠው አገልግሎት የጥራት ሁኔታ ምን ያስባሉ ምሳሌዎችን ሊሰጡኝ ይችላሉ

**ማውጣጫ፡ የትኛኛ መልካም የትኛኛ ሥነ ምግባር ጥራት አላቸው እባክዎትን ምሳሌዎችን ይስጡኝ**

ሐ. ማህበረሰቡ በዚህ ተቁዋም እና በሌላው አገልግሎት ምን የሚሰማው ይመስሉታል

መ. ውጤታማ የሆነ አገልግሎት ለመስጠት አዳጋች የሚያደርጉ ከስራ ቦታ ጋር የተገናኙ አካባቢያዊ ሁኔታዎች አሉ እባክዎትን ያብራሩልኝ

ሠ. የበለጠ ውጤታማ ስራ እንዲሰሩ የሚያስችልዎት ምንድነው

ረ. በስራዎ ቦታዎ መልካም ስራዎችን ለመስራት በስራዎ በበቂ ሁኔታ መወሰን ይችላሉ

ሰ. እርስዎ ወይም የሥራ ባለደረጃችን በኬታማ ስራ ለመስራት ትክክለኛ ክህሎት ያሉት ይመስለታል ክፍል ሶስት፤ በለስራዎ የሚያስደስትዎ ጉዳዮች

ሀ. ወደ ስራ ሲመጡ የሚያስደስትዎ ነገሮች ምንድናቸው

1. ታካሚዎችን መርዳት
2. የቡድን አባል መሆን
3. ማህበረሰብን መርዳት
4. እራስዎን እና ቤተሰቦችዎን ለመርዳት ገቢ ማግኘት
5. በሞያዎ እመርታ ወይም እድገት ማግኘት
6. አዳዲስ ክህሎቶችን መማር
7. መልካም ስራ በመስራትዎ እውቅና ወይም ምስጋና ማግኘት

ለ. ለሌሎች ሰዎች በለስራዎ ሲናገሩ ምን ይሰማዎታል

ክፍል አራት፤ ባለሞያዎች በኬታማ ስራ እንዲሰሩ የሚያበረታቱ ጉዳዮች

ሀ. እርስዎ ወይም የሥራ ባለደረጃችን በኬታማ ስራ እንዲሰሩ የሚያበረታቱ ጉዳዮችን ሊገልጹልኝ ይችላሉ ማውጣጫ፤

1. (በክፍል ሶስት ምላሾች ላይ ተመርኩዘው ይጠይቁ.....ደስታ) የትኞቹ ጉዳዮች በጣም ያበረታታሉ

ለ. ስራዎን የሚቆጣጠር አካል አለ በስራዎ ላይ ማበረታቻ ወይም ምክር የሚለግበዎት ሰው አለ

ሐ. ከስራ ባለደረጃችን ወይም ከዚህ በፊት በነበሩበት መስሪያ ቤት በስራቸው በጣም ከፍተኛ የስራ ተነሳሽነት ስለነበረው ሰው ያስቡና፤ ተነሳሽነታቸውን ከፍተኛነት ያለባቸውን ምክንያቶች ሊነግሩኝ ይችላሉ

መ. ከስራ ባለደረጃችን ወይም ከዚህ በፊት በነበሩበት መስሪያ ቤት በስራቸው በጣም ዝቅተኛ የስራ ተነሳሽነት ስለነበረው ሰው ያስቡና፤ ተነሳሽነታቸውን ዝቅተኛነት ያለባቸውን ምክንያቶች ሊነግሩኝ ይችላሉ

ሠ. አለቆችዎ እርስዎንም ሆነ የስራ ባለደረጃችን ያበረታቱዎቸዋል ማበረታቻዎቹን በተገቢው ምልክት ይፈጽማሉ ብለው ያስባሉ

ረ. ስራዎ አዳጋች መስሎ ይሰማዎታል፤ በጣም አዳጋች ወይስ ወይስ በትንሹ፤ ለምን

ሰ. ስራዎ ለራስዎ በኬታማ እንዲሆኑ ወይም መልካም ነገሮችን እንዲያገኙ ያስችልዎታል፤ ለህመምተኞችዎስ

ሸ. ስራዎን ለርተው በሚያገኙት ገንዘብ የሚበረታቱ ይመስልዎታል

ቀ. ስራዎን በአግባቡ ለመስራት በራስዎ ክህሎት ምን ያህል ይተማመናሉ

ክፍል አምስት፤ ከስራ ቦታ ጋር እና ከአመራሮች ጋር ስላለ ግንኙነት/ተግባቦት

ሀ. በስራ ቦታዎ ካሉ የስራ ባለደረጃችን ጋር ያለዎት ግንኙነት እንዴት ይገልጹታል

ለ. የሚሰሩበት ተቁዋም ምን ያህል በመልካም መልኩ እየተዳደረ ነው ብለው ያስባሉ

ሐ. የሚሰሩበት ተቁዋም ውስጥ ከሚተዳደርበት ሁኔታ አንድ ነገር መቀየር ቢችሉ ምን ይቀይሩ ነበር

መ. በዚህ ተቁዋም ውስጥ በጤና ባለሙያው እና በአስተዳደሩ መካከል ስላለው ግንኙነት ምን ይሰማዎታል

ሠ. አስተዳደሩ በአስተዳደሩ መልካም ውጤት በማንኛውም መልኩ እውቅና ይሰጣል እንዴት ክፍል ስድስት፡ ገቢ

ሀ. እዚህ ለሚሰሩት ስራ የገቢ ምንጮች ምንድናቸው

ለ. ገቢዎን ከሌላ የገቢ ምንጮች መደገፍ ይጠበቅብዎታል

ክፍል ሰባት፡ በትግበራ ምክንያት የተገኙ ለውጦች (ትግበራ በተከናወነባቸው አካባቢዎች ብቻ የሚጠየቁ)

ሀ. የእርስዎ የጤና ተቁዋም የሚሳተፍበት የጥራት ማሻሻያ መርሃ ግብር ለምተው ያውቃሉ

ለ. መርሃግብሩ በአስተዳደሩ የሚሰማዎትን ስሜት ቀይሮታል እንዴት

ሐ. መርሃግብሩ ከተጀመረ በሁዋላ በስራ ቦታዎ ላይ ምን ለውጦች ተካሄዱ

መ. እነዚህ ለውጦች በእርስዎ ላይ ምን አይነት ተጽእኖ አሳድረዋል፡ ያውጣጡ፡ በእነዚህ ጉዳዮች ዘራያ

2. በስራ ቦታ

3. ከስራ ብልጾችዎ ወይም ከአለቆችዎ ጋር ያለዎት ግንኙነት

4. የተነሳሽነት ሁኔታዎን

5. አለቆችዎ እንዴት እንደሚያስተዳድሩዎት

6. የስራ ባልጾሪዎችዎ ምን ያህል ተነሳሽነት እንዳላቸው ያለዎት ስሜት

7. በእርስዎ ተቁዋም የሚታከሙ ህመምተኞች ልምድ



## Appendix IV: Informed consent form for qualitative interviews

### Information sheet to explain participation in individual interviews to explore attitudes and motivation among workers in the health system

- 1. The Ethiopian Public Health Association and the London School of Hygiene and Tropical Medicine would like to invite you to participate in a research study about the quality improvement initiative being conducted in Oromia and SNNPR. This study is part of the IDEAS study and is funded by the Bill and Melinda Gates Foundation.*
- 2. We would like to learn about what motivates you in your job, and how different things can influence how you feel about the things you do at work. This information will be used to help us develop a bigger survey to explore what motivates people like you. We may also use the information for other studies. We have randomly selected around 30 workers at health post and health centres to participate, and you are one of those selected.*
- 3. If you agree to participate, you will be interviewed by me at a time that is convenient to you. We will find a quiet place for the interview, which will take about an hour. If you agree I will take notes and tape record the interview to help me remember all that was discussed.*
- 4. I will keep everything you say confidential by not writing your name on my notes, storing the notes and recordings under lock and key. If the study team reports your opinions or ideas, your name will not appear and we will make sure that you cannot be identified.*
- 5. Taking part in the study may not benefit you directly, but will help us understand what motivates people working in the health service. Taking part is voluntary. You can refuse to answer any question I ask or stop the interview at any time. You do not have to give a reason to refuse to take part or to stop the interview. Refusing to participate will not cause anything bad to happen. We do not pay people for being interviewed.*



6. *Now I would like to formally ask you to participate. If anything was unclear or you would like more information, please ask me.*
  
7. *I want to be sure you are taking part because you want to, so I am going to ask you to sign a form that says you agree to take part. I will read you the form and then ask you to sign. If you do not want to participate that is OK, just let me know.*

## Informed consent form

**Title of research:** Research study to explore attitudes and motivation among workers in the health system

**Investigators:** Mr Matthew Quaife and XXXX

**For more information contact:** XXXXXX

**Please tick all boxes that apply:**

I have read the information sheet and/or have been given a clear explanation of the study	
I understand that I can leave the study at any time without giving a reason	
I am happy for the interview to be sound recorded	
I am happy for you to write about what I have said during our interview in reports, on the understanding that you will not reveal my identify	
I am happy for you to include quotations from this interview in reports, on the understanding that I will not be able to be identified from these quotes	
I am happy for the information I provide may be used by others for future research	
I am happy for the information collected in our interview to be transferred to London, UK	
Any questions I had concerning this research study have been answered.	
I am willing to be interviewed	

### Interviewee

**Name (in BLOCK CAPITALS)**

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Signature

Date

### Researcher

**Name (in BLOCK CAPITALS)**

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Signature	Date
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## Appendix V: Informed consent form guide (Afan Oromo)

### Guca odeeffannoo hirmaataa marii dhuunfaa fooyya'inni qulqullinaa jijjiirrama ilaalchaafi kaka'umsa irratti fide baruuf qophaa'e

1. Waldaan Eggumsa Fayyaa Hawaasaa Itophiyaa (EPHA) fi dhaabbanni 'London School of Hygiene and Tropical Medicine' jedhamu qo'annaa fooyya'insa qulqullina tajaajilaa naannoo Oromiyaa fi Naannoo Ummattoota Kibbaa irratti adeemsifame ilaalchisee geggeeffamurratti akka hirmaattu si'affeerruu barbaada. Qo'annaan kun kutaa qo'annaa IDEAS deeggarsa maallaqaa dhaabbata Bill and Melinda Gates Foundation jedhamurraa argameen geggeeffama.
2. Muuxannoo ati kaka'umsa fooyya'iinsa qulqullinaa irratti qabdufi adeemsa itti hojjattanifi wantoota fooyya'an hubachuu barbaanna. Odeeffannoo kana qo'annaa biraatiif fayyadamuu dandeenya. Qo'annaa kanaaf Keellaa fayyaa fi Buufata fayyaarraa namoota naannoo namoota 30 carraadhaan filanna atis namoota kana keessaa isa tokko.
3. Hirmaachuudhaaf hayyamamoo yoo taate yeroo sitti mijateetti ana waliin marii taasifna. Mariin kun tilmaamaan sa'aa tokko fudhachuu danda'a kanaafuu eddoo mijataa barbaanna. Odeeffannoo naaf lattu nan barreeffadha akkasumas yoo naaf hayyamte marii taasifne yaadachuuf akka nagargaaru sagalee kee waraabduu sagaleetin nan waraaba.
4. Odeeffannoo naaf lattu hunda icciitiidhaanan egga; maqaa kee yaadannoo koorratti hin barreessu, barreeffamaafi sagalee qo'annaa kanaa hunda icciitiidhaan qabanna. Gareen qo'annaa kanaa yaadakee kan gabaasu yoota'e maqaakeetifi wantoota eenymaa kee ibsuu danda'an kamiyyuu hin fayyadaman.
5. Qo'annaa kanarratti hirmaachuu keetiin faayidaan argattu hin jiru garuu adeemsa fooyya'ina qulqullina tajaajilaa aanaa keessan keessaatti raaw'atamu aanolee birorratti babal'isuuf fayyada. Hirmaannaan fedhiirratti kan hundaa'edha. Qabxiilee marii keessatti ka'an kan ati irratti yaadakennuu hin barbaanne yoo jiraatan irra darbuu dandeessa akkasumas marii taasifnu yeroo babrbaaddetti addaan kutuu dandeessa kanas gochuudhaaf sababakee ibsuun sirraa hin eeggamu. Hirmaachuu dhabuu keetiif rakkoon sirra gahu hin jiru. Kafaltiin hirmaannaa keetiif siif kafalamu hinjiru.
6. Amma qo'annaa kanarratti hirmaachuukeen sigaafadha. Wanti siif ifa hintaane ykn wanti odeeffannoo bal'inaan irratti barbaaddu yoo jiraate maaloo nagaafadhu.
7. Hirmaannaan kee fedhiirratti kan hundaa'e ta'usaa mirkaneeffachuuf guca hirmaannaan kee feedhiirratti hundaa'usaa ibsu kanarratti akka naaf mallatteessitun barbaada. Dursa guca kanan siif dubbisa kana booda mallatteessuuf hayyamaakeetin sigaafadha. Yoo hirmaachuu hin barbaaddu ta'e rakkoo hin qabu; natti himi.

#### Dhunkaa waliigaltee

**Mataduree Qo'anichaa:** "Research study on how quality improvement initiative has changed attitude and motivation"

**Manoota Qo'annaa geggeessan:** Mr. Matthew Quaife fi XXXXXXXXX

Odeeffannoo dabalataatiif: xxxxxxxxxxxx

dubbisuu dandeessu.

Please tick all boxes that apply:

Dhuunkaa odeeffannoo kana dubbiseen jira akkasumas/ykn qo'annicha ilaalchisee haala ifa ta'een naaf ibfamee jira	
Hirmaannaa koo yeroon barbaadetti osoon sababa koo ibsuun na hin barbaachifne addaan kutuu danda'u hubadheen jira	

Marii irratti sagaleen koo akka waraabbamu fedhii kooti	
Marii keenya keessatti yaadan ani laadhu akka barreeffamuufi odeeffannoon ani laadhu icciitiin isaa akka eeggamu hubadheen jira	
Marii keenya keessatti yaada koo addatti xiyyeeffannaa kennuufii barbaadde yoo jiraate eenyummaa koo akka hin ibsine waanan hubadheef qabachuu dandeessa	
Odeeffannoon ani laadhe fuulduraaf qo'annaa biraatiif oluusaatif gammachuun qaba	
Marii keenya keessatti odeeffannoowan argaman dhaabbata 'London, UK tiif dabarfamanii kennamuusaanitin gamachuun natty dhagahama	
Qaafiin ani qo'annaa kanarratti qabu kamiyyuu naaf deebi'ee jira	
Mariirratti hundaa'udhaaf hayyamamoodha	

**Mariisisaa**

**Maqaa** (QUBEE GUDDAADHAAN): \_\_\_\_\_

Mallattoo

Guyyaa

**Qo'ataa**

**Maqaa** (QUBEE GUDDAADHAAN): \_\_\_\_\_

Mallattoo

Guyyaa

## Appendix VI: Informed consent form guide (Amharic)

የተናጠል ውይይት ተሳታፊዎች የጥራት ማሻሻያ መርሃ ግብር እንዴት አመለካከት እና ተነሳሽነታቸውን እንደቀየረው ለመዳበስ ለሚደረገው ጥናት የመረጃ ቅጽ

1. የኢትዮጵያ ጤና አጠባበቅ ማህበር እና የለንደን ስኩል ኦፍ ሃይልን እና ተርፒካል ሚድስን በኦሮሚያ እና በደቡብ ክልሎች በጥራት ማሻሻያ መርሃ ግብር ላይ በመካሄድ ባለው ጥናት ላይ ተሳታፊ እንዴሆኑ በአክብሮት ይጋብዝዎታል፡፡ ይህ ጥናት .....ጥናት አካል ሲሆን ጥናቱ በቢል እና ሚሊንዳ ጌትስ ፋውንዴሽን የገንዘብ ድጋፍ የሚሰራ ነው፡፡
2. በጥራት ማሻሻያ መርሃ ግብር ላይ ያለዎትን ተሞክሮ ማወቅ እንፈልጋለን፡፡ በመሆኑም ምን ምን መልካም ነገሮች እነዳሉ እና መሻሻል ያሟገባቸው ጉዳዮችን ለመረዳት ያስችላናል፡፡ እንዲሁም የሚሰጡን መረጃ ለሌሎች ጥናቶች ልንጠቅምበት እንችላለን፡፡ ወደ ሰላሳ የሚጠጉ ሰራተኞችን ከጤና ኬላዎች እና ጤና ጣቢያዎች በእጣ መርጠናል፡፡ እርስዎም ከነዚህ ከተመረጡ ግለሰቦች አንዱ ነዎት፡፡
3. በጥናቱ ላይ ለመሳተፍ ፍቃደኛ ከሆኑ በተመቸዎት ሰአት ታለመጠይቅ አደርግሎታለው፡፡ ለታለመጠይቁ አመቺ የሆነ ቦታ እንፈልጋለን፡፡ ታለመጠይቁ እስከ አንድ ሰአት ይፈጃል ተብሎ ይገመታል፡፡ ፍቃደኛ ከሆኑ የውይይታችንን ሃሳቦች እጽፋቸዋለው እንሁም ሁሉንም የተወያየናቸውን ሃሳቦች ለማስታወስ እንዲረዳኝ በመቅረጸ ድምጽ እቀዳዋለው፡፡
4. ስምዎን በማስታወሻ ደብተረ ላይ ባለመጻፍ እንዲሁም ማስታወሻውን እና የተቀዳውን ድምጽ በመሳቢያ ውስጥ በመቆለፍ የተወያየንባቸው ጉዳዮች በሙሉ ሚስጢራዊነታቸው የተጠበቁ እንዲሆኑ አደርጋለው፡፡ የጥናቱ ቡድን ሃሳብዎን ወይም አስተያየትዎን ከገለጸ ስምዎ የማየገለጽ ሲሆን እርስዎ ተለይተው እዳይታወቁ ለማድረግ የተቻለልን ጠረት እናደርጋለን
5. በጥናቱ ላይ መሳተፍዎ በቀጥታ እርስዎን ላይጠቅምዎት ይችላል ሆኖም ግን የጥራት ማሻሻያ መርሃ ግብርን ወደሌሎች ወረዳዎች ማስፋፋት ስለሚታስብ እነዴት የተሻለ ማድረግ እንደለብን ለመረዳት ይጠቅመናል፡፡ በጥናቱ ላይ መሳተፍ በበጎ ፍቃደኝነት ላይ የተመሰረተ ነው፡፡ የምጠይቁትን ማንኛውንም ጥያቄ ያለመመለስ ወይም ተስትፎዎን በማንኛውም ሰአት ማቋቋረጥ ይችላሉ፡፡ በጥናቱ ላይ ለምን ለመሳተፍ ፍቃደኛ እንዳልሆኑ ወይም ለምን እንዳቁዋረጡ ምክንያቶችን መናገር አይጠበቅብዎትም
6. አሁን በጥናቱ ላይ ለመሳተፍ ፍቃደኛ መሆንዎን እጠይቅዎታለው፡፡ እስካሁን ግልጽ ያልሆነልዎት ነገር ካለ ወይም ተጨማሪ መረጃ ከፈለጉ እባክዎትን ይጠይቁኝ
7. በጥናቱ ላይ ለመሳተፍ ሙሉ ፍላጎት እንዳሉት እርግጠኛ መሆን እፈልጋለው ስለዚህም በጥናቱ ላይ ለመሳተፍ መስማማትዎን የሚገልጽ ቅጽ እንዲፈርመልኝ እጠይቅዎታለው፡፡ በመጀመሪያ የስምዎንቱን ቅጽ አነብልዎታለው ቀጥሎም በቅጹ ላይ እንዲፈርመው እጠይቅዎታለው፡፡ በጥናቱ ላይ ላለመሳተፍ ከፈለጉ ምንም ችግር ስለሌለው እባክዎትን ያሳውቁኝ

የስምምነት ቅጽ

የጥናቱ ርእስ፡ የጥራት ማሻሻያ መርሃ ግብር እንዴት አመለካካት እና ተነሳሽነታቸውን እንደቀየረው ለመዳሰስ የሚደረግ ጥናት

የጥናቱ ዋነኛ ተመራማሪ፡ ሚስተር ማቲው ቃፊ እና.....

ለበለጠ መረጃ.....ይጠያቁ

እባክዎትን አግባብነት ያላቸውን ጉዳዮች ምልክት ያድርጉባቸው

በቅጹ ላይ የተቀመጡትን መረጃዎች እንብቢያለው ወይም ስለጥናቱ ግልጽ የሆነ ማብራራያ ተሰጥቶኛል	
ምንም ዓይነት ምክንያት መስጠት ሳይጠበቅብኝ ጥናቱን በማንኛውም ሰዓት ማቆረጥ እንደምችል ተረድቻለው	
ቃለመጠይቁ በመቅረጸድምጽ እንዲቀዳ ደስተኛ ነኝ	
እኔነቴን/ማንነቴን የሚገልጽ ነገር እስከሌለ ድረስ የተናገርኩዋቸውን ሃሳቦች በሪፖርት መልክ ቢቀርቡ ደስተኛ ነኝ	
እኔነቴን/ማንነቴን የሚገልጽ ነገር እስከሌለ ድረስ የተናገርኩዋቸውን ንግግሮች በሪፖርት ውስጥ ቢካተቱ ደስተኛ ነኝ	
የሰጠሁት መረጃ ሌሎች ሰዎች ለወደፊቱ በምርምር መልክ ቢጠቀሙበት ደስተኛ ነኝ	
የሰጠሁት መረጃ ወደ ለንደን፣ እንግሊዝ ቢላክ ደስተኛ ነኝ	
በዚህ ጥናት ላይ ያሉኝን ማንኛውንም ጥያቄዎቼ መልስ ተሰጥቶኛል	
ቃለመጠይቅ እንዲደረግልኝ ፈቃደኛ ነኝ	

ተጠያቂው
ስም
ፊርማ
ቀን

ተመራማሪው
ስም
ፊርማ
ቀን

## Appendix VII: Draft survey tool

Enclosed in attached Microsoft excel file (Motivation\_ODK\_v1\_forsubmission.xlsx). This is an ODK programming file and ensures the committee will see the questions as presented to respondents. Questions appear on the *survey* sheet, and potential responses to multiple choice questions appear on the *choices* sheet.



## Appendix VIII: Informed consent form for survey

### Information sheet to explain participation in survey to explore attitudes and motivation among workers in the health system

- 1. The Ethiopian Public Health Association and the London School of Hygiene and Tropical Medicine would like to invite you to participate in a research study about the quality improvement initiative being conducted across Ethiopia. This study is part of the IDEAS study and is funded by the Bill and Melinda Gates Foundation.*
- 2. We would like to learn about what motivates you in your job, and how different things can influence how you feel about the things you do at work. This information will be used to help us develop a bigger survey to explore what motivates people like you. We may also use the information for other studies. We have selected around 400 workers at health posts and health centres to participate this year, and you are one of those selected.*
- 3. If you agree to participate, you will meet with me to complete a survey at a time that is convenient to you. We will find a quiet place for the interview, which will take about 45 minutes. If you agree I will record the information you provide on a tablet computer.*
- 4. I will keep everything you say confidential by not writing your name on my notes, storing the notes and recordings under lock and key or on secure computer systems. If the study team reports your opinions or ideas, your name will not appear and we will make sure that you cannot be identified.*
- 5. Taking part in the study may not benefit you directly, but will help us understand what motivates people working in the health service. Taking part is voluntary. You can refuse to answer any question I ask or stop the interview at any time. You do not have to give a reason to refuse to take part or to stop the interview. Refusing to participate will not cause anything bad to happen. We do not pay people for being interviewed.*
- 6. Now I would like to formally ask you to participate. If anything was unclear or you would like more information, please ask me.*

7. *I want to be sure you are taking part because you want to, so I am going to ask you to sign a form that says you agree to take part. I will read you the form and then ask you to sign. If you do not want to participate that is OK, just let me know.*

## **Informed consent form**

**Title of research:** Research study to explore attitudes and motivation among workers in the health system

**Investigators:** Mr Matthew Quaife and Mr Abiy Seifu Estifanos

**For more information contact:** Abiy Seifu, +251 115 157701, P.O.Box 1709 Code 1110

Addis Ababa, Ethiopia or Matthew Quaife +44 (0)20 7927 2669, LSHTM, 15-17 Tavistock Place, London, WC1H 9SH

**Please tick all boxes that apply:**

I have read the information sheet and/or have been given a clear explanation of the study	
I understand that I can leave the study at any time without giving a reason	
I am happy for the information I give to be recorded onto a tablet computer	
I am happy for you to write about what I have said in reports, on the understanding that you will not reveal my identify	
I am happy for the information I provide may be used by others for future research	
I am happy for the information collected in our interview to be transferred to London, UK	
Any questions I had concerning this research study have been answered.	
I am willing to be interviewed	

### **Interviewee**

**Name (in BLOCK CAPITALS)**

Signature

Date

### **Researcher**

**Name (in BLOCK CAPITALS)**

---

Signature

Date

## References

1. Willis-Shattuck, M., et al., *Motivation and retention of health workers in developing countries: a systematic review*. BMC Health Services Research, 2008. **8**(1): p. 247.
2. Mandeville, K.L., M. Lagarde, and K. Hanson, *The use of discrete choice experiments to inform health workforce policy: a systematic review*. BMC Health Services Research, 2014. **14**(1): p. 367.
3. DeCoster, J. *Overview of Factor Analysis*. 1998 [cited 2016 16/06].
4. Avey, J.B., et al., *Impact of positive psychological capital on employee well-being over time*. Journal of occupational health psychology, 2010. **15**(1): p. 17.
5. Miranda, J.J., et al., *Stated preferences of doctors for choosing a job in rural areas of Peru: a discrete choice experiment*. PloS one, 2012. **7**(12): p. e50567.
6. Mullei, K., et al., *Attracting and retaining health workers in rural areas: investigating nurses' views on rural posts and policy interventions*. BMC health services research, 2010. **10**(1): p. S1.
7. Mangham, L.J., K. Hanson, and B. McPake, *How to do (or not to do)... Designing a discrete choice experiment for application in a low-income country*. Health policy and planning, 2009. **24**(2): p. 151-158.
8. Kolstad, J.R., *How to make rural jobs more attractive to health workers. Findings from a discrete choice experiment in Tanzania*. Health economics, 2011. **20**(2): p. 196-211.