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Federal Ministry of Health

Job Satisfaction and Factors Affecting Health Worker Retention in
Ethiopia's Public Health Sector

June 2014

Technical Report





Ministry of Health



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Jhpiego
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Federal Ministry of Health

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ACRONYMS

CEO	Chief Executive Officer
GHWA	Global Health Workforce Alliance
FMOH	Federal Ministry of Health
HRH	Human Resources for Health
HRM	Human Resource Management
IRB	Institutional Review Board
LMIC	Low and Middle Income Country
MSH	Management Sciences for Health
RHB	Regional Health Bureau

GLOSSARY

Outcomes of Interest	Overall factors that are most frequently cited to support the key questions of the survey. In this study, the outcomes of interest are job satisfaction and intention to leave, as measured by the answers to the following questions: Job satisfaction: "Considering everything, I am satisfied with my job. "Intention to leave: "Are you planning to leave your job in the next one year?"
Job Satisfaction	A combination of factors, both financial and non-financial, which contribute to a person's level of contentment with a job.
Intention to Leave	Health worker's desire to leave his/her position within the defined period of time. In this study, intention to leave was measured based on the response of the health workers to the question "Are you planning to leave your job in the next one year?"
Salary Package	Core salary plus benefits including housing, transportation, risk allowance, pension, health care for self and family, duty allowance, food allowance etc.
Fair Salary Package	The perception that your salary package, even though it may be low, is fair compared to other people who do a similar job in the same sector in the country.
Living Wage	A salary package that enables you to provide for yourself and your family in the place you live
Cost of Living	The actual cost of housing, food, schooling, health coverage, etc. in the place you live
Workplace Climate	The prevailing atmosphere at the workplace, both positive and negative, as perceived by employees.
Supportive supervision	A process that uses dialogue and constructive feedback to help individual staff or teams improve their performance in pursuit of the organization's mission, while also setting goals for their own growth and development.
Working equipment	Tools and resources that enable an employee to do their job, i.e., safety equipment, x-ray, ultrasound, blood pressure cuffs, information and communication technology
Professional opportunity	Any type of education and or experience that adds to an employee's credentials and makes him/her eligible for promotion
Incentive Scheme	Formal (backed by government policy or informal facility practice) set of practices that are implemented for the purpose of increasing motivation, job satisfaction and retention of staff
Fiscal Space	The availability of budgetary room that allows a government to provide resources for a desired purpose without any prejudice to the sustainability of a government's overall financial position in the medium and long term

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We would also like to acknowledge the support and commitment of the senior leaders in the Federal Ministry of Health (FMOH), especially Dr. Wendemagen Enbiale, Director of Human Resource Development and Administration Directorate; senior leaders at the Regional Health Bureaus, as well as the facility management teams at the sample sites. Their willingness to allow their institutions and staff to participate in the study, and their personal involvement in facilitating the data collection process and sharing their insights through interviews - are very much appreciated.

The HRH Project technical team in Ethiopia: Dr. Damtew Woldemariam, Dr. Shelemo Shawula, Firew Ayalew, Dr. Tegbar Yigzaw and Sharon Kibwana provided excellent in-country leadership and technical guidance; developed study protocol, reviewed all the questionnaires; made all contractual arrangements to hire a local research firm and managed the entire study implementation process. The team was also instrumental in recognizing the importance of conducting this level of research, and obtaining the support and commitment of FMOH, USAID Mission in Ethiopia and the Regional Health Bureaus. Dr Young-Mi Kim, of Jhpiego patiently facilitated the process of obtaining IRB approval; reviewed all technical drafts and provided valuable ongoing technical guidance.

Senior HRH technical team at Management Sciences for Health (MSH) in the US (Ummuro Adano and Dr. Mary O’Neil) designed the research instruments and wrote this consolidated technical report of the study, based on the preliminary descriptive report and secondary data analysis. Angela Lee of MSH provided excellent and often time-consuming support with data cleaning, secondary data analysis and presentation, and wrote sections of the report as well. Jacqueline Lemlin and Eden Ketema of MSH also contributed to the technical discussions and review of the various drafts of the report.

Eureka Services Pvt. Limited, a local research firm in Ethiopia deserves a special mention for identifying and training data collectors, conducting the field work data collection with diligence and generating a detailed preliminary descriptive report.

The collegiality and responsiveness of all these individuals, in the face of time and other pressures, was remarkable and deeply appreciated.

It is our collective hope that its findings will inform and champion the realization of appropriate policy options and recommendations to retain health workers in Ethiopia’s public health system so that they can continue to save lives and improve the health and well-being of the populations that they serve. The contents are the responsibility of Jhpiego and its implementing partner MSH and do not necessarily reflect the views of USAID or the United States Government.

EXECUTIVE SUMMARY

Most low and middle income countries (LMICs), including Ethiopia, are constantly looking for strategies to train more health workers, and improve job satisfaction, motivation and retention of the health workforce. While an overwhelming majority of ministries of health and health organizations view job satisfaction and retention as a key strategic imperative, it is not evident in workforce planning or human resource (HR) management operational practice. In other words, although viewed in such a strong light, very few organizations have formal and effectively implemented job satisfaction and retention strategies.

In Ethiopia, only a limited number of studies have been conducted thus far to develop a deeper understanding of factors that influence job satisfaction, motivation and intention to stay or leave amongst different cadres of public sector health workers that can be used to inform policy and practice on workforce job satisfaction and retention. In order to address this gap in the evidence base and expand the body of knowledge, this national study was conducted for the Federal Ministry of Health and the Regional Health Bureaus under the auspices of the Ethiopia Strengthening Human Resources for Health Project funded by the United States Agency for International Development. The five-year project directly supports the Government of Ethiopia's efforts to improve health outcomes by strengthening the human resources management system—in particular by improving and monitoring the quality of education, deployment and continued professional development of health care providers. Jhpiego is leading the consortium partnership of Management Sciences for Health, Ethiopian Midwives Association, Ethiopian Association of Anesthetists and The Open University.

STUDY PURPOSE AND OBJECTIVES

The purpose of the study is to identify the factors and approaches to workforce job satisfaction and retention that will assist the Federal Ministry of Health and Regional Health Bureaus in Ethiopia to make evidence-based policy and management decisions regarding the successful recruitment, job satisfaction and retention of workers in the public health sector. Specifically, the study sought to answer the following questions:

- a. For selected cadres of health workers who are currently providing services in a health facility in the public sector: how satisfied are they with their current positions and what factors would encourage them to stay in or leave their positions?
- b. For health facility and administrative unit managers what are their perceptions of important job satisfaction factors for their employees, and perception about their organization's success in achieving workforce satisfaction? For the managers themselves, what is their level of satisfaction and what factors would encourage them to stay or leave their positions?

METHODS

A cross sectional study employing both qualitative and quantitative data collection methods was conducted from May 28 to June 14, 2014 in the 9 Regional States and 2 City Administrations of Ethiopia. A total of 1,354 health professionals working in 227 health facilities (hospitals and health centres) were included in this study. The study population included: nurses (n = 424), medical doctors (n = 374), anesthetists (n = 252), midwives (n = 177) and health officers (n = 127); health managers (n = 217).

The health professionals and health managers were interviewed using pre-tested, structured questionnaires. In-depth interviews of 63 health managers and senior health workers were also conducted using a separate open-ended interview guide to gather data on existing

promising job satisfaction and retention practices. Quantitative data were analyzed using SPSS 20.0 (IBM Corporation) to generate frequencies, percentages and other descriptive measures. Bivariate analysis was conducted to examine the relationship between the outcomes of interest and several explanatory variables. Recorded qualitative data were transcribed and coded in Atlas ti to generate query reports which were presented thematically.

STUDY CHALLENGES AND LIMITATIONS

All quantitative data collection was based on randomly selected health facilities and health worker cadres per region and facility. In other words, the logistics of the nation-wide data collection process meant that a target was set in advance for the number of sites to be visited and the representative number of health worker cadres to be interviewed. At times, it was impossible to access selected health facilities due to the heavy rains and impassable roads during the data collection period. Hence, those health facilities were replaced by other nearby public health facilities in the same zone.

The other challenge was finding the planned number of health professionals. This was particularly true in the case of midwives and health officers where we managed to interview less than 50% of the intended sample size. Many of the sampled health facilities did not have health officers and/or midwives. In others, the targeted professionals were away on duty travel or on leave during the study period. As a result, the potential influence of the assumptions that were made to estimate the sample sizes on the interpretations and generalizability of the findings that pertain to midwives and health officers should not be under-estimated.

GENERAL FINDINGS

The analysis described in the ‘Methods’ section above, results in two “Outcomes of Interest” or areas of significance in predicting high levels of contentment with current job and retention of staff. These are 1) Job Satisfaction and 2) Intention to leave in one year. In this study, overall motivation and job satisfaction among the target cadres of health workers was low. Fewer than half of respondents said that they were satisfied with their jobs and almost 50% (average for all cadres in the study sample) said that they were planning to leave their jobs in the next one year. Satisfaction with salary and benefits was particularly low amongst all the cadres. Furthermore, working and living conditions such as workload, work-related risks and hazards, equipment and supplies, water and power supplies at work and home, access to children’s school, safe transport from home to work and vice versa were deemed unsatisfactory. The workloads were judged to be unmanageable especially for doctors and anesthetists. Healthcare workers were not concerned about losing their jobs and felt relatively secure in their positions. Perhaps it is important to bear in mind that these results mirror findings in similar public health sector studies from Tanzania¹ and Uganda².

It is also evident from the results of the study that recognition and appreciation by co-workers and community are highly influential in health worker job satisfaction and that access to basic amenities, supportive supervision, training, safe work environment, adequate supplies and equipment and appropriate infrastructure are key drivers of job satisfaction and intention to stay.

¹Munga MA, Mbilinyi DR (2008) ‘Non-financial incentives and retention of health workers in Tanzania: Combined evidence from literature review and a focused cross-sectional study’ EQUINET Discussion Paper Series 61. NIMRI, ECSA-HC, EQUINET:Harare

²Hagopian A, et al (2009) ‘Job Satisfaction and Morale in the Ugandan Health Workforce’, Health Affairs (Web exclusive)

Lack of professional development was also a very important factor that affects healthcare workers' decision to leave their jobs. Access to professional development was measured using the ratings attached to the following survey items: limited opportunities for in-service training; limited opportunities for promotion; and poor supervision and feedback.

KEY SPECIFIC FINDINGS

Quantitative Component

- Considering everything in their work life, the rates of overall job satisfaction of health workers in this study was as follows: 64.4% for midwives; 61.1% for nurses, 48.8% for health officers, 42.5% for anesthetists, and 39.2% for medical doctors.
- 49.4% of all professional health workers (61.4% for health officers) were planning to leave their current positions in the next one year.
- The attrition rate for the surveyed cadres of health workers in 205 different district hospitals, regional/zonal hospitals, and health centres in the past one year is computed as follows: Medical doctors (9%); Nurses (4%); Anaesthetists (11%); Midwife (4%); Health Officers (5%).
- More than 80% of each professional category of health workers in this study were dissatisfied with their current salary while seven out of ten health officers, nurses, anaesthetists and midwives responded that their benefits were also unfair compared to other staff with comparable job responsibilities. Doctors and anaesthetists disagree more that their salary package is fair when compared with professional staff of the other three cadres.
- More than 85.0% of each category of health professionals considered themselves part of the local community that they serve.
- More than 70% of medical doctors, nurses, anesthetists and midwives, and 60% of health officers responded that their job is a good match for their skills.
- Although most of the health managers (more than 80%) appreciated the importance of the 18 items in the questionnaire that queried their perceptions of factors that affected the satisfaction of their employees, only about half (50%) of them reported that their organization performed very well on those items.
- Respondents from all professional categories were broadly not satisfied with most of the items assessing working and living conditions, with disagreement ranging from 20% – 80% with each items including workload, work-related risks and hazards, equipment and supplies, water and power supplies at work and home, access to children's school, safe transport from home to work and vice versa. A similar pattern of dissatisfaction was also observed among the health managers. However, approximately $\frac{3}{4}$ of all health professionals are not worried about losing their current job, one of the questions among working and living conditions.
- Salary, terminal benefits and allowances of different forms were considered to be significantly important by majority of all the professional categories (>80% of each) and the health managers (> 82%).
- The health managers reported that low pay, high cost of living and poor access to higher education were the three most important factors affecting decision to leave the current job among their employees.
- The health workers themselves indicated that poor access to higher education, low salary; limited opportunities for promotion and concern for safety at work were the most important factors in making the decision to leave the current job.

- Doctors and anesthetists are least likely to agree that they have a current work plan developed with their supervisors. They are also the least likely to agree that their annual performance appraisal is based on their work plan.
- Anesthetists and health officers most disagree that they have been given the training they need to succeed in their positions. Overall, the level of satisfaction with training provided is 45% or less of any cadre surveyed.
- Only a third of doctors, anaesthetists and health officers agree that they have access to coaching and mentoring when needed. Approximately 62% of nurses and midwives agree they have access to coaching and mentoring when needed.
- Three-quarters or greater of all healthcare workers said that poor access to utilities at home and work was an important factor affecting decision to leave. Between 47.1% and 53.4% of respondents agreed that they have access to safe, clean water at home.
- Between 36.2% to 53% of all health workers agreed that they have access to safe, clean water at work while 60%-70% of the healthcare workers have access to electricity at home and slightly more healthcare workers report access to electricity at work.
- Internet access at work remains low as less than 17% of any cadre has access to internet at work.

Qualitative Component

In-depth interviews were conducted with leaders and managers of selected health facilities and administrative units that were implementing a range of motivation and retention schemes. These interviews revealed the following observations as perceived and reported by the interviewees:

- The presence of functional private wings (fee for service) in public health facilities was roundly appreciated by staff participating in and benefitting from the extra income generated by these private wings. However, in facilities where the administration and management of the private wing scheme was unsatisfactory, it was a source of significant resentment, and dissatisfaction amongst various categories of staff.
- Need-based and fair access to in-service training and merit-based access to professional development opportunities such as further education were reported by both health workers and managers as one of the most successful ways to improve job satisfaction and retention in public health facilities.
- Establishment of conducive working and living environment through transparent management/good governance practices; paying attention to personal and social problems faced by the employees; effective occupational safety practices; collegial team spirit; good relationship with local community; and provision of housing were also seen as critical prerequisites for increased job satisfaction and retaining health professionals.
- Public recognition and acknowledgement of the contributions of the health workers by the community as well as health facility management through awards and thanksgiving ceremonies were also found to be successful ways of instilling a sense of fair and transparent competition amongst employees.
- Improving access to internet, transportation services, as well as well-planned system of staff orientation and induction, and functional grievance committee were other actions taken by the management of the best performing public health facilities.
- Rapid implementation of incentive packages allowed by the government was also identified as a critical factor in improving health worker retention.

- Occasional verbal acknowledgements, certificates of appreciation and existing financial incentives (such as top ups) that were not reviewed regularly were considered useful in the short term but seen as less effective means of improving health worker job satisfaction and retention in the long-term.

DISCUSSION OF SELECTED FINDINGS AND IMPLICATIONS FOR POLICY AND PLANNING

1. Clearly, study findings indicate that dissatisfaction with salaries and compensation is a key factor undermining the job satisfaction and commitment of health workers to their institutions and careers, and consequently their intent/ decision to leave. This finding is also corroborated by the perceptions of health managers in their response to factors increasing attrition amongst the staff that they supervise. As such, policy makers in Ethiopia's public health sector need to appreciate that while factors associated with motivation, job satisfaction and retention are undoubtedly context specific, financial incentives that include a living wage are core factors that need to be part of the key recommendations emanating from this study. Nevertheless, financial incentives (salary and allowances) alone are not enough to retain or enhance the job satisfaction of health workers.
2. Job satisfaction is relatively higher among older workers with higher educational qualifications, and this is consistent with other studies on worker (and even patient) satisfaction, which suggests a universal aspect to this finding rather than something specific to Ethiopia. However, the average age of a healthcare worker in this random sample was 29 years, suggesting that the Ethiopian health workforce seems to be surprisingly young with demographic profiles that do not reflect similar workforces in other health sectors in the region. While this raises critical workforce resilience and stability questions that may require further policy scrutiny and discussion, it also offers opportunities to embark on creative interventions to develop and retain the "workforce of the future" by investing in professional development programs and expanding promotion opportunities.
3. Some demographics of the health care workforce will be important to be considered by policy makers when developing recommendations to improve retention based on the findings of this study. For example, although the average age of the workforce is young (mean age of 29 for the sampled cadres); 70% are still single and fewer dependents rely on these workers for support. As such, carefully selected, age and cadre appropriate incentives and interventions, especially those that are known to strengthen supportive supervision, mentoring and professional development could be designed and implemented to retain these young health workers.
4. Additionally, some health workers valued the fact that they were employed in the region or geographic area where they were born or where they were trained (suggesting some implications for recruitment and retention), which is consistent with previous research in similar settings. Therefore, these factors need to be embedded in training and recruitment policies and strategies.
5. Given the relative importance that all respondents in the study accorded to supportive supervision, it is imperative that the health sector at all levels (central, regional, zonal, woreda and facility) moves speedily to establish and/or strengthen a supportive supervision system that puts the health worker at the center of the supervisory process. In this regard, policy level attention is crucial to ensure a systematic, structured process that is based on common understandings of the role and purpose of supportive supervision. And supervision needs to be adequately resourced and supported in order to improve performance and retention, especially at facility level.

6. While three-quarters of staff agree that poor access to utilities (water, electricity) is an important factor one's decision to leave his/her job, access remains poor for a significant number of workers. As such, the findings of this study should be used by policy makers in Ethiopia to generate appropriate recommendations to ensure health workers have the resources that they need to perform their job and this should be an intrinsic component of any strategy to increase retention. In other words, improving health facility infrastructure and work climate, and availability of drugs, supplies and equipment should be a principal consideration, as health care delivery cannot be effective without these investments.
7. If all the necessary administrative arrangements to ensure efficiency, equity and transparency are in place, private wings in health facilities offer ample opportunities that can impact positively on staff motivation and retention. However, the performance of these private wings needs to be properly studied and evaluated. A thorough framework with clear guidelines on the planning and administration of these schemes also needs to be developed and staff trained to promote its implementation.

RECOMMENDATIONS

A national framework or strategy for improving health professional job satisfaction and retention should be developed by the FMoH. The same framework could then be contextualized to regional situations as required. The few recommendations outlined below should not be viewed as stand-alone interventions. Rather, the study team strongly suggests, they need to be used in conjunction with data points for various factors for job satisfaction, working and living conditions, and the factors that were identified to have influenced the health workforce decision to leave their last position/facility and their desire to leave their positions in the next one year. Each of the factors was analyzed for each health professional category and health managers and incorporated into the report. Additional data can be found in the tables in the Annex. All these factors need to inform the development of the national framework or strategy for strengthening health worker motivation and retention.

This study has identified three broad priority areas of concern for all health workers: Salary and benefits; opportunities for education, training and career development (promotion); and work environment. In terms of an effective response, it is not a question of picking one or the other, but a combination of measures in these three areas will be required to improve health workforce job satisfaction and intention to stay. Some specific points under each of these areas are outlined below:

Improve Salary and Benefits

- Review and raise the base salary and benefits for all health workers. This will address the major dis-satisfier expressed by all health workers and managers surveyed in this study.
- Ensure timely implementation of all incentive packages provided by the government. It is important to look into better ways of packaging benefit packages and communicating the new package to staff at all levels. The importance of transparent approaches and fair treatment of employees in the process should not be undermined.
- Increase access to health facility-provided housing to priority health cadres with particular focus on Anesthetists.
- Health facilities need to organize suitable transportation for the health workers to and from health facilities.

Increase Opportunities for Professional Development and Promotion

- Design and implement health professional cadre-specific, need-based training and career development opportunities such as in-service training and merit-based access to further education for all health professionals. This may include developing and disseminating policy and procedures manual that guides how all health workers are selected for professional development and promotion opportunities.
- Involve health workers to increase transparency, accountability and fairness at all levels of health system in making decisions like the selection of health professionals for education, training, professional development and promotions
- Implement HR leadership and management development strategies including short- and long-term management and leadership training opportunities for health managers at all levels- but targeting especially facility and Woreda level HR managers.

Improve Work Environment

- Improve availability and distribution of professional HRM staff at all level.
- Building operational capacity of existing HR managers and staff in modern human resources management practices. In this effort, emphasis should be given to HR managers and staff at lower health management structure and health facilities.
- Improve physical settings of health facilities including cleanliness, adequate work space, furniture and office supplies; power and water supplies, and internet connectivity
- Improve work place safety measures to prevent health workers from occupational risks and hazards. Health workers are assets in this effort. Involve them in identifying local safety challenges and occupational risks as well as selection and implementation of locally appropriate (practical) risk reduction and safety measures.
- Improve working conditions in the public health facilities in terms of availing equipment and supplies/drugs required for executing the jobs of the health professionals safely and efficiently.
- Strengthen performance planning, appraisal and reward system including acknowledging the health workers publicly for their contributions in the health facilities.
- Strengthen regular supervision and support system for all categories of health professionals- at all levels of health system.

INTRODUCTION

The global crisis in the health workforce is often expressed in acute shortages and imbalanced distribution of health workers, geographically and professionally. A recent analysis conducted by the Global Health Workforce Alliance (GHWA) estimated a gap of 7.2 million professional health workers in 2012, set to rise to 12.9 million over the next decades. To respond to this crisis at country level, policies and actions are needed to address the dynamics of the health labor market as well as the production, management and retention of the health workforce, and to strengthen the performance of existing health systems.

Most low and middle income countries (LMICs), including Ethiopia, are urgently looking for strategies to not only train more health workers but also improve job satisfaction, motivation and retention of the health workforce, especially in rural or hard to reach areas. Ultimately, improved retention of health workers contributes to the provision of quality health care because it builds up competencies, optimizes team and work group relations, and strengthens the relationship of health workers with local communities.³ On the other hand, poor retention or high staff turnover negatively impacts health care by increasing workload, undermining team morale, creating disruptions and inefficiencies in work processes, and eroding institutional knowledge and expertise needed for resiliency and sustainability of the health system.⁴

Evidence in the literature highlights several factors that influence the job satisfaction and decision of health workers to leave their posts. Among these are low and inequitable pay and benefits, poor career ladder, lack of opportunities for professional development, and unsatisfactory working and living conditions⁵. The challenge of retaining health workers is greatest in rural and remote areas, because health practitioners in these areas often feel isolated, face higher workloads, poor work environments, and limited infrastructure and lack of access to social amenities, causing them to leave the workplace in search of more satisfactory working and living conditions for themselves and their families in urban areas or abroad.

Job satisfaction, a frequently studied outcome in health systems research, has also been identified as a key factor of health worker motivation and retention in LMICs. Due to its relation to performance and retention, it is of concern to researchers, human resource managers and policy makers alike. Job satisfaction depends both on the nature of the job and on the expectations health workers have of what their job should provide.⁶

In Ethiopia, a limited number of studies have been conducted to develop a better understanding of factors that influence job satisfaction, motivation and intention to stay or leave amongst different cadres of public sector health workers that can be used to inform policy and practice on workforce retention. Nearly all these studies, albeit small in scale and narrow in scope, have shown that the extrinsic factors affecting health worker motivation in the country include lack of additional training and opportunities for promotion; limited scope of practice, and low salaries. Lack of management support was also seen as a source of frustration among health workers. In some cases, relationship with co-workers enhanced job satisfaction and in a few other cases weakened the health workers' investment in their work (Nina Jacobi, 2010).

³ Buykx P, Humphreys J, Wakerman J, Pashen D: Systematic review of effective retention incentives for health workers in rural and remote areas: towards evidence-based policy. Aust J Rural Health 2010

⁴ World Health Organization: The World Health Report 2006: Working Together for Health. Geneva: World Health Organization; 2006.

⁵ Lehmann U, Dieleman M, and Martineau T: Staffing remote rural areas in middle- and low-income countries: a literature review of attraction and retention. BMC Health Serv Res 2008.

⁶ Lu H, Barriball KL, Zhang X, While AE: Job satisfaction among hospital nurses revisited: a systematic review. Int J Nurs Stud 2012.

Another study that determined the level and factors affecting job satisfaction and retention of health professionals at Jimma University Specialized Hospital in 2009 showed that 46.2% of the health workers were dissatisfied with their job. The major reasons were inadequate salary and benefits, insufficient training opportunities and heavy workload. Suggestions made by the respondents to improve job satisfaction and increase retention included different incentives such as bonuses, house allowance, salary increment, establishing good administration and management system and improving hospital facilities and infrastructure (Alemshet Y. et al., 2011).

A similar study that looked at factors influencing job satisfaction and anticipated turnover among nurses in Sidama Zone public health facilities found that all job satisfaction factors, except salary and benefits, were significant predictors of overall job satisfaction. Satisfaction with work environment and team cohesion, and working in a clean hospital setting were the final significant predictors of anticipated turnover of nurses (Agezegn A, et al., 2014). A recently published study conducted in three public hospitals in Oromia Regional State of Ethiopia has shown that 61.5% of health workers were dissatisfied with their job due to poor payment schemes and incentives, lack of training opportunities, bureaucratic management style, poor performance evaluation system and poor working conditions (Mulugeta MM & Ayele GB, 2015)⁷.

It was therefore considered important by the Federal Ministry of Health to conduct a more comprehensive national study with rigorous factor analysis that will capture the perceptions of priority cadres of health workers and expand the existing body of knowledge on job satisfaction and retention for health care providers and managers in the country. As such, important facets of job satisfaction that have been identified in previous local and global research such as salary and benefits, career development, in-service training, work and community relationships, management, work environment, recognition and supervision were further examined. The study also examined multiple facets of job satisfaction from the perspectives of both the managers and distinct cadres of health workers. This approach has an added value of deepening policy makers' understanding of the situation on a larger and multifaceted scale, and provides the opportunity to use data-driven evidence to back up strategies and actions that need to be taken to shape and inform policy and practice on improving job satisfaction, motivation and retention of health workers and managers in the public health sector in Ethiopia.

The study also collected basic qualitative data on some of the retention schemes and practices currently implemented in various hospitals and administrative health offices in different parts of the country to determine the usefulness and effectiveness of those practices, as perceived by health facility managers and administrators. Besides, a rigorous evaluation should be conducted to document health workers' perception towards the existing motivation and retention schemes, through a separate research in the future. We believe that better knowledge and evidence regarding all these factors that influence workforce job satisfaction, motivation and retention are necessary to inform and guide basic policy regarding the status of the Ethiopian health workforce now and in the future.

⁷ Muluget MM & Ayele GB (2015): Factors Associated to Job Satisfaction among health care workers at public hospitals of West Shoa Zone, Oromia Regional State, Ethiopia: A cross Sectional Study. Science Journal of Public Health. 3(2).PP161-167. 2015

STUDY PURPOSE AND OBJECTIVES

The purpose of the study is to identify the factors and approaches to workforce job satisfaction and retention that will assist the Federal Ministry of Health and Regional Health Bureaus in Ethiopia to make evidence-based policy and management decisions regarding the successful recruitment and retention of workers in the public health sector. Specifically, the study sought to answer some pertinent questions and accomplish the following objectives:

- a. For selected cadres of health workers who are currently providing services in a health facility in the public sector: how satisfied are they with their positions and what factors would encourage them to stay in or leave their positions?
- b. For health facility and administrative unit managers what are their perceptions of important job satisfaction factors for their employees and perception about their organization's success in achieving workforce satisfaction? For the managers themselves, what is their level of satisfaction and what factors would encourage them to stay or leave their positions?

METHODS

A cross sectional study design with three survey instruments employing both quantitative and qualitative methods was used to carry out this national study. The instruments were in large part developed by the research team, but also drew selectively from other available instruments. The study instruments and protocol were scrutinised and approved by officials and committees from the Directorate of Human Resource Development and Administration, FMOH Ethiopia. Jhpiego is the lead-member of the consortium implementing the project funding the study, hence the submission to the IRB committee of Johns Hopkins University for ethical approval too.

Instruments 1 and 2 were structured questionnaires – one to collect quantitative data on job satisfaction and intent to leave or stay in post amongst five categories of direct health care providers (medical doctors, nurses, anesthetists, midwives, and health officers), and the other one a slightly modified version of the same questionnaire for health managers. In order to measure attrition, health workers were asked whether they were planning to leave their current position in the next one year, for which only dichotomous responses (yes/no) were possible.

The questionnaires were composed of several Likert-scale items, ranging from 1, strongly disagree, to 5, strongly agree, or 1, not important, to 5, extremely important. There were sections on general socio-demographic and job related information, and Likert scales on “job satisfaction”, “working and living conditions”, “compensation and benefits” and “factors affecting decision to leave the current job”. The third questionnaire (Instrument 3) was a semi-structured guide for in-depth qualitative interview of the health managers and senior health workers to elicit their perceptions on the effectiveness of some of the current incentive schemes to improve retention of health workers in the country, and ascertain attributive links, if any, between those practices and the responses of health workers and managers to the items in the quantitative questionnaires. All questionnaires were originally written in English and later translated into Amharic.

The study population included a sample of cadres of health workers (medical doctors, nurses, anesthetists, midwives and health officers) from randomly selected sample of public hospitals and health centres in all regions and city administrations. A sample of health managers at all levels (Federal, Regional, and Zonal and health facility) from sampled public hospitals, health centres and management structures in all regions and city administrations were also interviewed.

Factor analysis was used as a data reduction technique to summarize the variation of several numeric variables by a smaller number of explanatory variables. Key factors related to job satisfaction, working and living conditions, and decision to leave, were identified for each cadre.

Sample Size and Sampling Procedure

Two stage sampling with health facilities as the primary sampling unit and health workers as the secondary sampling unit was employed. This study intended to include only public health facilities in Ethiopia. Sample hospitals were randomly selected using simple random sampling technique (computer generated random numbers were used) from hospital sampling frame for interviewing medical doctors and anesthetists, as these two cadres are serving only in hospitals. Sample health facilities (including hospital and health centres) were also randomly selected using simple random sampling technique from health facility sampling

frame for interviewing nurses, health officers and midwives, as these cadres work in hospitals and health centres.

The following tables present the breakdown of medical facilities (Table 1) and the survey respondents by cadre and region (Table 2).

Table 1: Regional Distribution of Public Health Facilities⁸ Sampled In the Study

	Facilities Sampled			
	Hospitals (for interviewing medical doctors and anaesthetists)		Health facilities (hospitals and health centres) for interviewing health officers, nurses and midwives	
	Expected	Actual	Expected	Actual
Addis Ababa/Federal	9	9	2	2
Afar	3	3	2	2
Amhara	17	17	34	34
Benishangul-Gumuz	2	2	1	1
Dire Dawa	1	1	1	1
Gambella	1	1	1	1
Harari	2	2	1	1
Oromia	37	37	46	46
SNNP	18	18	24	24
Somali	6	5	4	4
Tigray	12	12	9	9
Total	108	107	125	125

Out of the 233 hospitals and health centers that were targeted in the original study sample, 225 were actually covered. Seven hospitals (5 from Oromia and 2 from Amhara regions) were sampled twice for the interviews of the five professional health workers. Hargelle hospital in the Somali region was missed due to its inaccessibility by road transport following a heavy rainstorm.

Table 2: Survey Respondents by Cadre and Region

	Medical Doctor		Nurse		Anesthetist		Midwife		Health officer		Managers		Total Respondents	
	Expected	Actual	Expected	Actual	Expected	Actual	Expected	Actual	Expected	Actual	Expected	Actual	Expected	Actual
Addis Ababa/Federal	36	34	8	7	66	39	8	6	8	5	13	12	139	103
Afar	12	6	8	9	2	2	8	3	8	3	6	6	44	29
Amhara	68	61	136	116	34	53	136	47	136	31	52	50	562	358
Benishangul-Gumuz	8	5	4	3	3	9	4	2	4	1	4	4	27	24

⁸ Public Hospitals and Health Centers

	Medical Doctor		Nurse		Anesthetist		Midwife		Health officer		Managers		Total Respondents	
	Expected	Actual	Expected	Actual	Expected	Actual	Expected	Actual	Expected	Actual	Expected	Actual	Expected	Actual
Dire Dawa	4	3	4	4	2	0	4	2	4	2	3	3	21	14
Gambella	4	4	4	4	2	1	4	1	4	0	3	3	21	13
Harari	8	4	4	3	7	5	4	1	4	2	4	2	31	17
Oromia	148	128	184	145	74	72	184	61	184	40	84	70	858	516
SNNP	72	74	96	88	28	45	96	30	96	28	43	38	431	303
Somali	24	17	16	10	0	8	16	7	16	8	11	8	83	58
Tigray	48	39	36	35	14	19	36	17	36	7	22	21	192	138
Total (n)	432	375	500	424	232	253	500	177	500	127	245	217	2409	1573
Total (%)		87%		85%		109%		35%		25%		89%		65%

Inclusion criteria for selections of health workers - health workers were excluded if they did not meet these criteria:

- Medical doctor, midwife, nurse, health officer, or anesthetists;
- Full-time, permanent employees in the health facility selected;
- Have been employed at the facility for at least 6 months prior to the study;
- Available during the study team's visit and willing to participate in the study

SAMPLING OF MANAGERS

Human resources managers from 233 participating hospitals and health centers in the health workers interview were invited to participate (108 hospital managers and 125 health center managers). 12 managers (one from FMOH and one from each 11 RHBs) were also invited to participate. This makes up a total of 245 health managers.

Inclusion criteria for selection of managers (managers were excluded if they did not meet these criteria):

- Full-time, permanently employed HR managers in selected health facilities and management structures;
- Have been employed at health facility, RHB, or FMOH for at least 6 months prior to the study;
- Available during the study team's visit and willing to participate in the study.

Sampling for the in depth qualitative interview (health managers and senior health workers):

Two health facilities and two management structures that have implemented promising retention practices were selected in each region based on the recommendation of the regional health bureau. A total of 71 in-depth interviews were planned based on the distributions indicated in Table 3, but eventually due to scheduling and logistical challenges only

63 people were actually interviewed. Management structures include FMOH, RHBs, Zonal health departments and Woreda health offices.

Table 3: Regional distribution of sample hospitals, management structures, managers, and senior health workers for in-depth qualitative interviews on promising retention practices

Region	Number of selected health facilities and management structures			Number of expected respondents for in-depth interviews		
	Health facilities	Management structures*	Heads of management structures	Health facility managers	Senior health workers	Total
Addis Ababa	2	2	2	2	2	6
Afar	2	2	2	2	2	6
Amhara	2	2	2	2	2	6
Benishangul-Gumuz	2	2	2	2	2	6
Dire Dawa	2	2	2	2	2	6
FMOH	2	1	1	2	2	5
Gambella	2	2	2	2	2	6
Harari	2	2	2	2	2	6
Oromia	2	2	2	2	2	6
SNNP	2	2	2	2	2	6
Somali	2	2	2	2	2	6
Tigray	2	2	2	2	2	6
Total	24	23	23	24	24	71

Inclusion criteria for selection of health facilities for the in-depth interviews (health facilities were excluded if they did not meet these criteria):

- Public sector health facilities that have provided services for a minimum of three years;
- Nominated by regional HR managers/RHBs for promising practices in workforce retention.

Inclusion criteria for HR managers (HR managers were excluded if they did not meet these criteria):

- Full-time, permanently employed HR managers at FMOH, RHBs, and selected health facilities and management structures;
- Have been employed for at least 6 months prior to the study;
- Available during the study team’s visit and willing to participate in the study.

Inclusion criteria for senior health workers (senior health workers were excluded if they did not meet these criteria):

- Full-time, permanently employees at selected hospitals;
- Have served in hospitals at least three years;
- Available during the study team’s visit and willing to participate in the study.

Data Collection and Data Quality Control

All the data collection instruments were pre-tested on 5% of the planned study population in health facilities and management structures in the Oromia region, focusing particularly on the comprehensibility and relevance of the questions for all types of health workers included in the study. The instruments were reviewed after the pretest, mainly to modify the sequencing of the questions, optimize clarity and localize some of the demographic and work-related questions to the Ethiopian context.

The structured interview of health professionals and health managers was conducted by 26 data collectors with at least a first degree and previous data collection experience. Twelve other data collectors with at least first degree and experience conducting in-depth interviews carried out the qualitative data collection. Eight supervisors who had a second degree in public health and related fields were deployed for supervision. The data collectors and their supervisors were provided with two days training that covered the objectives and scope of the study and the three tools were discussed item by item. Role plays and simulations were used to familiarize the data collectors with the instruments and data collection techniques. The data collectors involved in the in-depth interview received special attention during the training to make sure that they understood the questions and the probes. They were also alerted to precautions that they needed to take during in-depth interviews, for example, to avoid leading questions, not to be judgemental, and to listen carefully without showing agreement or disagreement as the informant speaks.

The structured interviews with the health professionals and health managers were conducted through face-to-face interviews. The identified study participants were requested to suggest a convenient time for the interview, and then the data collector conducted the interview as scheduled in a quiet room. During the in-depth interviews, field notes were taken and digital recording of the interviews was done. Transcription of the interviews was completed within a day or two to make sure that the real expressions and opinions were recorded in the transcripts by the interviewers.

The research team was organized into six teams and each team was led by a trained supervisor. The supervisors closely followed and monitored the data collection process, checking the completed surveys for completeness and consistency every day. Also, each supervisor was in regular communications with the lead consultant, the research assistant and the task managers to report progress; raise any challenges and receive timely feedback and support. Moreover, some of the teams were paid a supervisory visit by the team from the Jhpiego, Addis Ababa office and regional offices.

DATA ANALYSIS

Data from the surveys of healthcare professionals and managers was cleaned, entered into EpiInfo and exported into SPSS 22 for further analysis. The data was screened for outliers and missing data. Discrepancies were crosschecked for errors by reference to the original hard copies of the surveys. Out-of-range values were identified and recoded as necessary. Descriptive analyses were conducted to provide background information on the sample. Cross-tabulations were conducted to determine if the relationship between the socio-demographic variables and each of the outcomes of interest (job satisfaction and intention to leave), was statistically significant.

DATA CODING

The health worker and manager surveys contained Likert scale questions on job satisfaction (20 questions), working and living conditions (15 questions), compensation and benefits (9 questions) and factors affecting decision to leave the current job (20 questions). Responses were measured on two scales – (1) degree of agreement/disagreement and (2) degree of importance. Responses were collapsed into two categories for ease of interpretation, following the guidelines presented in the tables below.

Likert Scale Responses	Coding for Analysis
Strongly disagree	Disagree
Disagree	Disagree
Neutral	Neutral
Agree	Agree
Strongly agree	Agree

Likert Scale Responses	Coding for Analysis
Extremely important	Important
Very important	Important
Important	Important
Somewhat important	Not important
Not important	Not important

ETHICAL CONSIDERATIONS

Official letters of cooperation and commitment to the study were exchanged between the FMOH and the RHBs, and the facility managers and heads of the health offices received similar letters from the RHBs as appropriate. All study participants were requested to sign consent for participating in the study after reading and understanding the information sheet detailing the study objectives and how the interviews are to be carried out. To ensure confidentiality, individual identifiers were not used during data collection and analysis. All data obtained in the course of the study were stored confidentially and access was strictly limited to the research team members. Formal IRB approval for the study was also obtained by Jhpiego from Johns Hopkins University, Baltimore, USA.

STUDY CHALLENGES AND LIMITATIONS

Health facilities included in this study were randomly selected for the quantitative data and qualitative data drawn from a purposive sample of health worker cadres per region and facility. At times, it was impossible to access some selected health facilities as roads were impassable due to the heavy rains during the data collection period. Hence, those health facilities were replaced by other nearby public health facilities in the same zone. One hospital in the Somali region was not covered due to inaccessibility.

The other challenge was finding the planned number of health professionals. This was particularly true in the case of midwives and health officers where we managed to interview less than 50% of the intended sample size. Many of the sampled health facilities did not have health officers and/or midwives and in others the targeted professionals were away on duty travel or on leave during data collection period. As a result, the potential influence of the assumptions that were made to estimate the sample sizes on the interpretations and generalizability of the findings that pertain to midwives and health officers should not be underestimated.

Findings

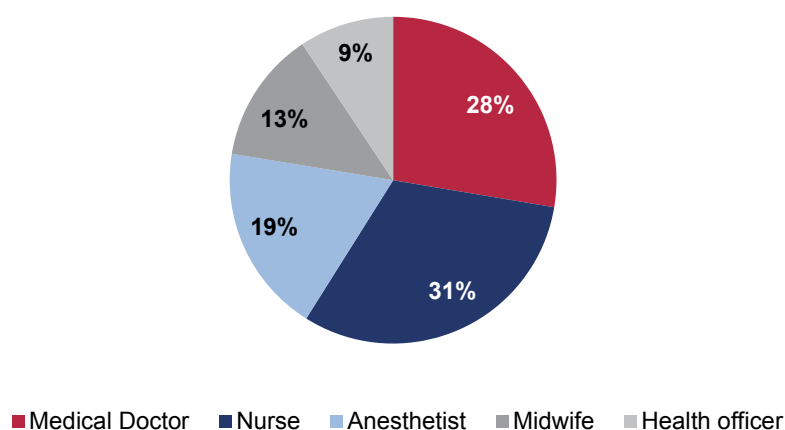
1. QUANTITATIVE COMPONENT

In this section, the results of the surveys are described and presented in easily digestible formats, and in order to ensure clarity and ease of reference, the results that pertain to professional health workers (the five target cadres) are presented first, followed by the findings from the health managers' survey. Additionally, since detailed information on the socio-demographic and job related characteristics of the study population is available in a separate descriptive report that was generated by Eureka, this report will instead focus on the analysis of the perceptions of health workers and managers on the factors that influence job satisfaction and intention to leave.

HEALTH WORKERS (SERVICE PROVIDERS)

Overall, 1354 professional health workers (60% male; 40% female) participated in the study, representing 62.7% of the 2,164 participants originally intended to be included in the sample. See Figures 1 and Table 4 for additional details.

Figure 1. Respondents By Professional Cadre



There were more female respondents among midwives (71.8%) and nurses (52.7%) while male were predominant among medical doctors (79.7%), Anesthetists (75%) and health Officers (61%).

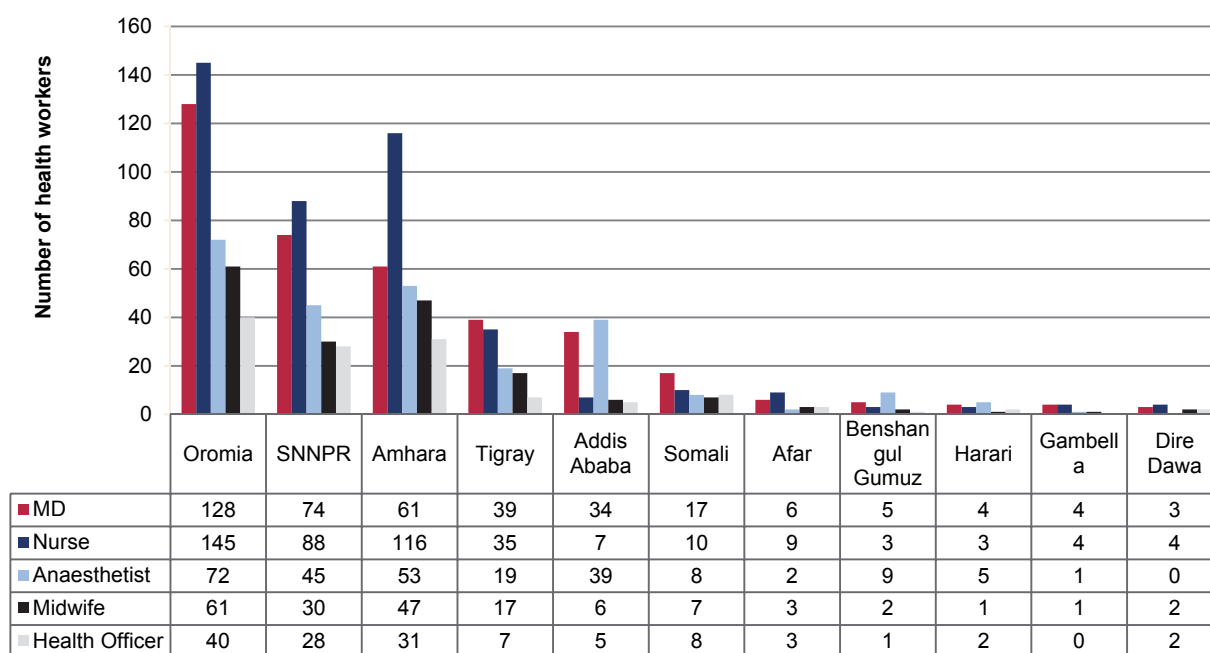
Table 4: Socio-Demographic Information of Health Workers In Ethiopia, June 2014

Variables	Professional Category				
	MD	Nurse	Anesthetist	Midwife	Health Officer
	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)
Gender					
Male	299(79.7)	200(47.3)	189(74.7)	50(28.2)	78(61.4)
Female	76(20.3)	224(52.7)	64(25.3)	127(71.8)	49(38.6)
Total	375(100)	424(100)	253(100)	177(100)	127(100)
Age					
Mean [Range], Years	29.5 [24 to 66]	29.6 [21 to 60]	32.1 [21 to 60]	28.2 [20 to 57]	30.3 [23 to 51]

Variables	Professional Category				
	MD	Nurse	Anesthetist	Midwife	Health Officer
	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)
Total	N=375	N=424	N=252	N=176	N=127
Marital status					
Single	270(72.0)	193(45.5)	137(54.2)	94(53.1)	71(55.9)
Married	103(27.5)	224(52.8)	111(43.9)	79(44.6)	55(43.3)
Divorced	1(0.3)	5(1.2)	3(1.2)	3(1.7)	1(0.8)
Widowed	0	2(0.5)	1(0.4)	1(0.6)	0
Separated	1(0.3)	0	1(0.4)	0	0
Total	375(100)	424(100)	253(100)	177(100)	127(100)
Place of birth					
Urban	248(66.8)	181(42.7)	136(53.8)	84(47.5)	72(56.7)
Rural	127(34.2)	243(57.3)	117(46.2)	93(52.5)	55(43.3)
Total	371(100)	424(100)	253(100)	177(100)	127(100)

About one third of all respondents were from Oromia and 20% from SNNP while 1.1% were from Harari and Gambella and Dire Dawa, each has contributed 0.7% of respondents (See Figure 2 for the details).

Figure 2: Distribution of Respondents by Profession and Workplace/Region in Ethiopia, June 2014



Job Related Characteristics of Respondents

Table 5, below, show several job related characteristics of health workers in this study. Public universities were reported to be the institutions from which 46% (n=615) of the health workers obtained their first professional qualification followed by public health sciences colleges, 35 % (n=477) and private health sciences colleges, 19% (n=251).

Overall, 696(51.4%), of the health workers had served for 1-4 years, and 520 (38.4%), had served for 5-15 years since their first qualification, the average (\pm SD) being 6.7(\pm 6.7) years. Three-hundred and one (80.5%) of the medical doctors, 133(31.4%) of the nurses, 99(39.3%) of the anesthetists, 97(54.8%) of the midwives, and 66(52%) of the health officers had served for 1-4 years since their first qualification. Whereas, 46(12.3%) of the medical doctors, 254(59.9%) of the nurses, 107(42.5%) of the anesthetists, 72(40.7%) of the midwives, and 41(32.3%) of the health officers had served for 5-15 years since their first qualification (Table 5)

Three hundred eighty one (28.2%) of the health workers reported that they had specialized or upgraded since their first qualification. When this broken into professional categories: 56.7% (n=252) of anesthetists, 33.3% of health officers (n=126), 29% of midwives (n=176), 19.5% medical doctors (n=374) and 17% of nurses completed the upgrading/specialization training. Of these, 77.7% had served for 1-5 years since their last qualification, and the rest for 6 years and above. Majority of respondents from each professional category reported that this was the first job since the most recent qualification. Specifically, for 314(84%) of the medical doctors, 282(66.5%) of the nurses, 192(75.9%) of the anesthetists, 144(81.4%) of the midwives, and 96(75.6%) of the health officers this was their first job since the most recent qualification (Table 5).

For those whom this was not the first job since the most recent qualification (n=327), an organization of the last job was reported to be the public sector for 292 out 327 (89.3%) and the private sector for the rest. One hundred forty five (44.3%), of those for whom this was not the first job since the most recent qualification (n=327) had been working in urban areas. By professional categories, these include 73.3% of the medical doctors (n=60); 31% of the nurses (n=142); 65.6% of the anesthetists (n=61); 27.3% of the midwives (n=33); and 25.8% of the health officers (n=31).

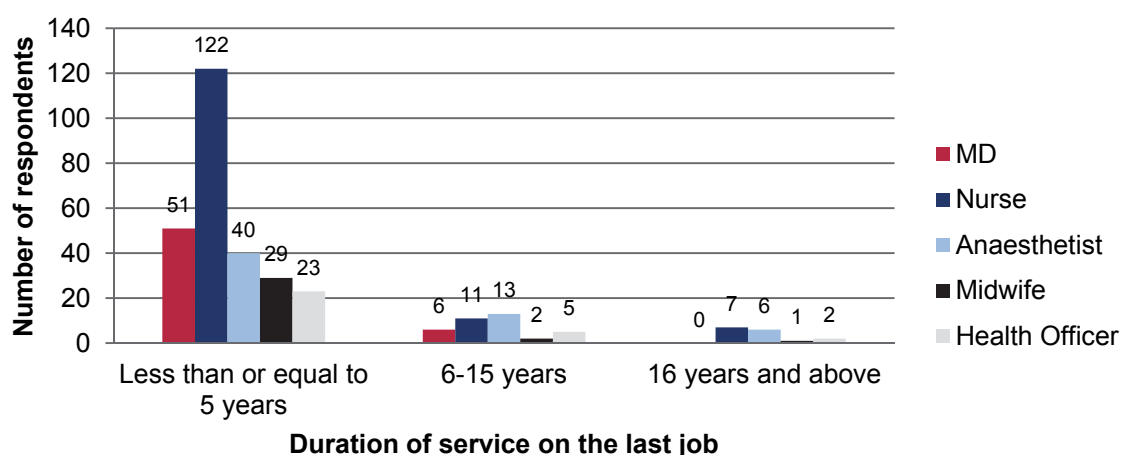
Table 5: Job Related Characteristics of Health Workers in Ethiopia, June 2014

Variables	Professional Category					All professionals
	MD	Nurse	Anesthetist	Midwife	Health Officer	
	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No (%)
Years since first qualification						
1-4 years	301(80.5)	133(31.4)	99(39.3)	97(54.8)	66(52.0)	696 (51.4)
5-15 years	46(12.3)	254(59.9)	107(42.5)	72(40.7)	41(32.3)	520 (38.4)
16-25 years	20(5.3)	23(5.4)	25(9.9)	6(3.4)	15(11.8)	89(6.6)
26 years and above	7(1.9)	14(3.3)	21(8.3)	2(1.1)	5(3.9)	49 (3.6)
Total	374(100)	424(100)	252(100)	177(100)	127(100)	1354 (100)
Specialized/upgraded						
Yes	73(19.5)	72(17.0)	143(56.7)	51(29.0)	42(33.3)	381(28.2)
No	301(80.5)	352(83.0)	109(43.3)	125(71.0)	84(66.7)	971(71.8)
Total	374(100)	424(100)	252(100)	176(100)	126(100)	1352(100)
Years since last qualification						
1- 5 years	67(75.3)	65(72.2)	117(79.1)	48(87.3)	38(77.6)	335(77.7)
6 years and above	22(24.7)	25(27.8)	31(20.9)	7(12.7)	11(22.4)	96(22.3)
Total	89(100)	90(100)	148(100)	55(100)	49(100)	431(100)
First job since the most recent qualification?						
Yes	314(84.0)	282(66.5)	192(75.9)	144(81.4)	96(75.6)	1055(77.9)

Variables	Professional Category					All professionals
	MD	Nurse	Anesthetist	Midwife	Health Officer	
	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No (%)
No	60(16.0)	142(33.5)	61(24.1)	33(18.6)	31(24.4)	300(22.1)
Total	374(100)	424(100)	253(100)	177(100)	127(100)	1355(100)
Organization of last job?						
Public	52(86.7)	123(86.6)	59(96.7)	30(90.9)	28(90.3)	292(89.3)
Private	8(13.3)	19(13.4)	2(3.3)	3(9.1)	3(9.7)	35(10.7)
Total	60(100)	142(100)	61(100)	33(100)	31(100)	327(100)
Place of last job?						
Urban	44(73.3)	44(31.0)	40(65.6)	9(27.3)	8(25.8)	145(53.3)
Rural	16(26.7)	98(69.0)	21(34.4)	24(72.7)	23(74.2)	127 (46.7)
Total	60(100)	142(100)	61(100)	33(100)	31(100)	272(100)

Among those for whom this was not the first job since the most recent qualification, 265 (83.3%) had served for less than or equal to 5 years; 37 (11.6%), for 6-15 years and 16 (5%) for 16 years and above; the average (\pm SD) service year being 3.6 (\pm 5.1). By category, 89.5% of the medical doctors (n=57), 87.1% of the nurses (n=140), 67.8% of the anesthetists (n=59), 90.6% of the midwives (n=32), and 76.7% of the health officers (n=30), had served for 5 or more years (Figure 3).

Figure 3: Duration of Service of Health Workers on Their Most Recent Job in Ethiopia, June 2014



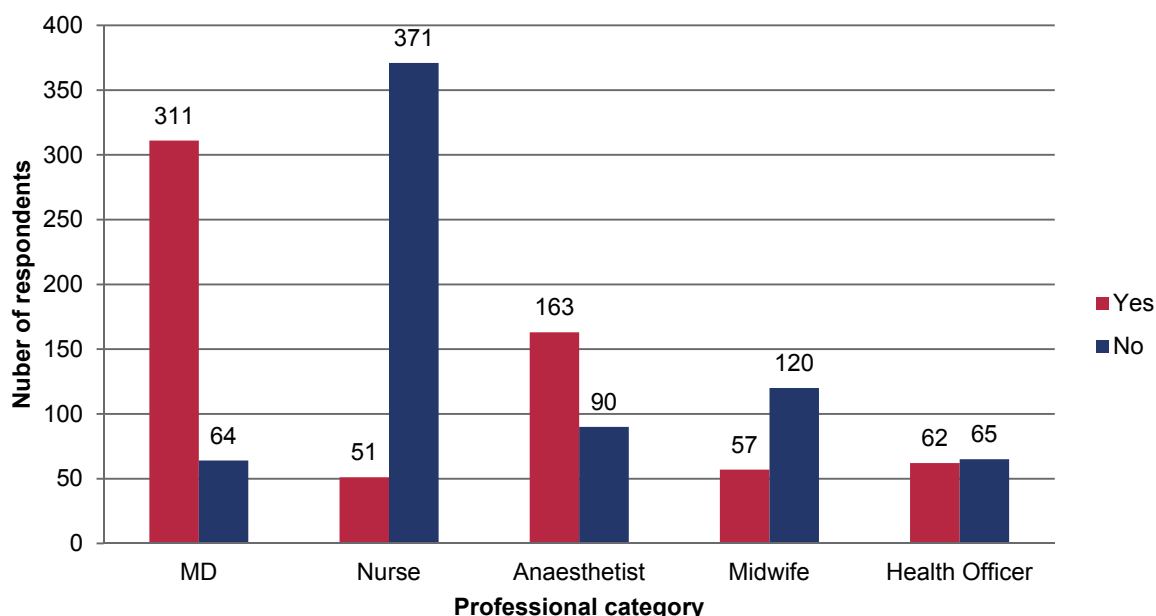
On average, the health workers had served in the public sector for 4.9 (\pm 6.5) years, with more than two-third (74%) having served for 5 years and below. Breaking into professional categories: 86.8% of the medical doctors (n=371), 69.4% of the nurses (n=389), 60% of the anesthetists (n=230), 81.7% of the midwives (n=169), and 66.1% of the health officers (n=124) had served for 5 years or below in the public sector. On the other hand, the average service years in their current health facilities was 3.5 (\pm 5.3) years as the majority (83.4%) have served only for 5 years or less. Three hundred thirty four (89.8%) of the medical doctors (n=372), 83% of the nurses (n=400), 73% of the anesthetists (n=237), 88.3% of the midwives (n=171), and 78.2% of the health officers (n=124) had served for 5 years or less in the current facility (table 6).

Table 6: Duration of Service of Health Workers in the Public Sector and In Their Current Facility in Ethiopia, June 2014

Variables	Professional Category					All professionals
	MD	Nurse	Anaesthetist	Midwife	Health Officer	
	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)	No (%)
Duration of service in the public sector						
5 years and less	322(86.8)	270(69.4)	138(60.0)	138(81.7)	82(66.1)	950(74.1)
6-15 years	30(8.1)	85(21.9)	52(22.6)	24(14.2)	26(21.0)	217(16.9)
16 years and above	19(5.1)	34(8.7)	40(17.4)	7(4.1)	16(12.9)	116 (9)
Total	371(100)	389(100)	230(100)	169(100)	124(100)	1283 (100)
Duration of service in the current health facility						
5 years and less	334(89.8)	332 (83.0)	173(73.0)	151(88.3)	97(78.2)	1087(83.4)
6-15 years	27(7.3)	53(13.3)	37(15.6)	18(10.5)	18(14.5)	153(11.7)
16 years and above	11(3.0)	15(3.8)	27(11.4)	2(1.2)	9(7.3)	64 (4.9)
Total	372(100)	400(100)	237(100)	171(100)	124(100)	1304 (100)

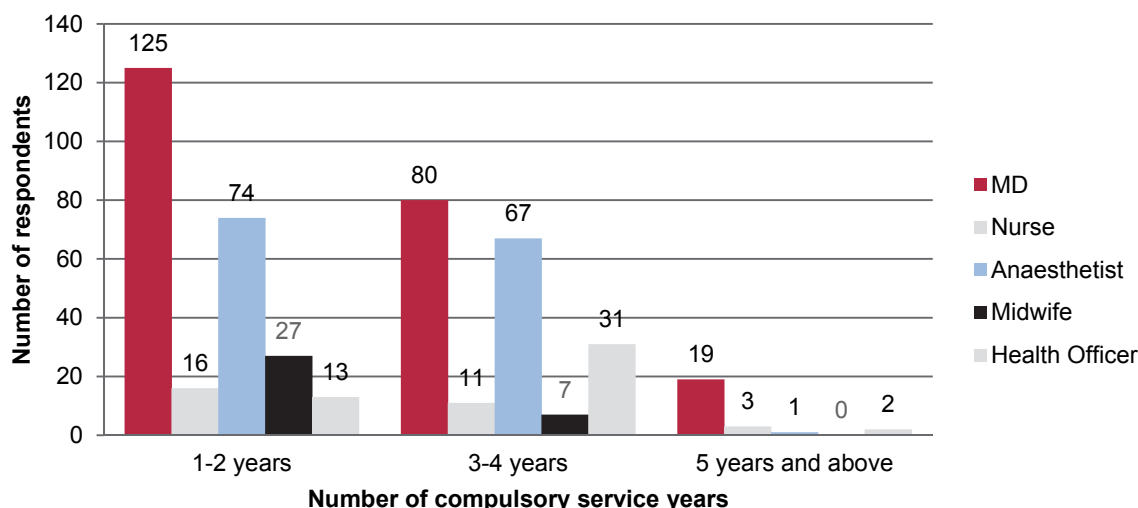
Six hundred forty four (47.6%) health workers reported that they currently had an outstanding obligation (compulsory service scheme) of years to work in the public health system. Three hundred thirty one (82.9%) of the medical doctors (n=375), 12.1% of the nurses (n=422), 64.4% of the anesthetists (n=253), 32.2% of the midwives (n=177), and 48.8% of the health officers (n=127) were obliged for the compulsory service scheme (Figure 4).

Figure 4: Compulsory Service Scheme of Health Workers in the Public Health System in Ethiopia, June 2014



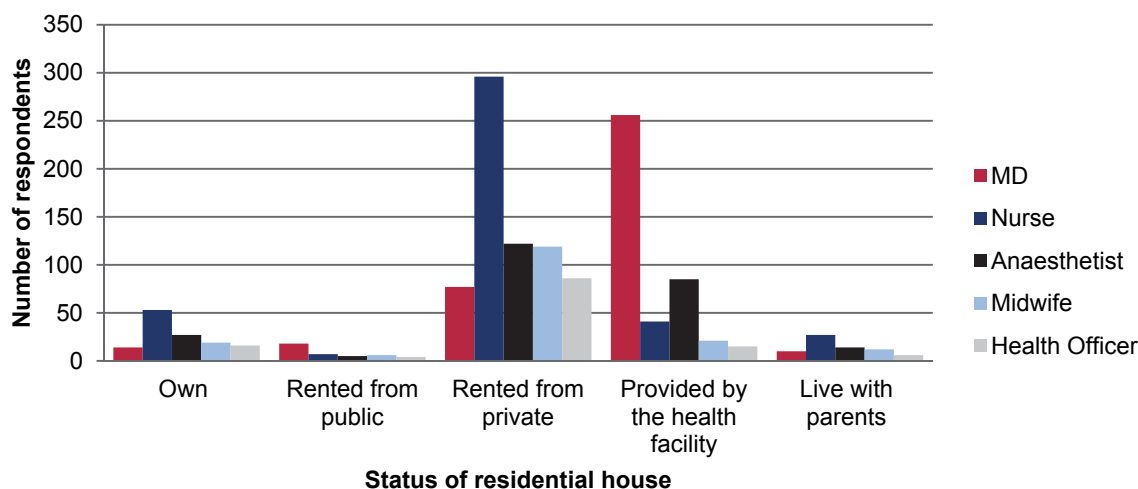
An average outstanding balance for compulsory minimum public service was 2.1 (± 1.5) years for all professionals in this study, and 53.6% of those who had the obligation (n=476) had to work for 1-2 years (Figure 5).

Figure 5: Number of Compulsory Service Years of Health Workers to Serve In the Public Health System in Ethiopia by Professional Category, June 2014



As to the status of the current residential house, 700(51.6%) reported that they rented from private, 418(30.8%) were provided by the health facility; 129(9.5%) owned; 69(5.1%) lived with parents; and 40(2.9%) rented from public. While majority, 256(68.3%) of the medical doctors were provided their current residential house by the health facility while 296(69.8%) of the nurses; 122(48.2%) of the anesthetists; 119(67.2%) of the midwives and 86(67.7%) of the health officers rented from private (Figure 6).

Figure 6: The Status of the Current Residential House of Health Workers in Ethiopia, June 2014



Job Satisfaction and Working and Living Conditions

Table 7 below presents a summary of the responses of health workers to job satisfaction, and living and working conditions, which are fundamental to understanding and interpreting the broad findings of the study. The overall job satisfaction of health workers in this study is 51.3% where the lowest job satisfaction score was for medical doctors (39%) and the highest satisfaction score was for midwives (64%).

Table 7: Job Satisfaction: Responses To “Considering Everything, I Am Satisfied.”

	Satisfied	Neutral	Not satisfied
Doctors (n=299)	39%	20%	41%
Nurses (n=378)	61%	10%	28%
Anesthetists (n=221)	43%	12%	45%
Midwives (n=164)	64%	7%	28%
Health Officers (n=110)	49%	13%	38%
All Professionals (n=1172)	51.3%	12.8%	35.5%

The health workers in this study were also asked to rate their level of job satisfaction with 21 statements related to the living and working conditions with their current job. Among these items “I am not worried about losing my job” received the highest level of satisfaction reported by all the five categories. More than seven out of ten health workers of all categories were satisfied with the fact that they are not worried about losing their job. Workload was rated to be reasonable by 63.7% (medical doctors) to 77.1% (nurses) of health workers. Responses to a complementary question to assess the workload: “I can take time to eat lunch almost every day” was largely positive. Between 55%-70% of all health professionals except anesthetists (only 44.3% of anesthetists agreed with this statement).

In order to simplify and prioritize the responses of the health workers, and better understand the differences in perceptions as well as the relative importance (by cadre) attached to the statements in the survey, the linked table below (Table 12) presents the statements that each cadre most highly agreed with, and most highly disagreed with. Any future strategies that seek to improve job satisfaction as well as living and working conditions need to take into account these statements or associated factors, per cadre. Detailed responses by each cadre of health workers are presented in the (Annex Table 1: Job satisfaction and Table 2: Working and living conditions)

Table 8: Cadre Specific Ratings on Job Satisfaction

Medical Doctor (n=375) - high agreement job satisfaction statements	Percent of medical doctors agree
I have a good relationship with co-workers.	91.5%
I consider myself a part of the local community that I serve as a health worker.	87.5%
I feel that the community values my work.	82.9%
Medical Doctor (n=375)– high disagreement job satisfaction statements	Percent of medical doctors disagree
My salary package is fair.	86.1%
My salary is fair compared to other staff with the same level of responsibility.	63.2%
My benefits (transportation, duty allowance, housing, etc.) are fair compared with other staff at my level.	61.9%
Medical Doctor (n=375)– highest agreement working and living condition statements	Percent of medical doctors agree
I am not worried about losing my job.	78.5%
I can take time to eat lunch almost every day	73.3%
At work, I have good access to electricity.	70.2%
Medical Doctor (n=375)- high disagreement working and living condition statements	Percent of medical doctors disagree
At work, I have good internet connectivity.	78.0%

Medical Doctor (n=375) - high agreement job satisfaction statements	Percent of medical doctors agree
The community where I live has good shopping and entertainment.	71.8%
At work, I have access to safe, clean water	52.3%
Nurse (n=424)- highest agreement job satisfaction statements	Percent of nurses agree
I have a good relationship with co-workers.	97.4%
I consider myself a part of the local community that I serve as a health worker.	96.4%
I feel that the community values my work.	93.6%
Nurse (n=424)- high disagreement job satisfaction statements	Percent of nurses disagree
My salary package is fair.	82.5%
My benefits (transportation, duty allowance, housing, etc.) are fair compared with other staff at my level.	81.5%
My salary is fair compared to other staff with the same level of responsibility.	62.1%
Nurse (n=424)- highest agreement working and living condition statements	Percent of nurses agree
My work load is reasonable.	77.1%
I am not worried about losing my job.	76.8%
I have the supplies I need to do my job well and safely - such as gloves, needles, bandages, sutures, disinfectants.	65.6%
Nurse (n=424)- high disagreement working and living condition statements	Percent of nurses disagree
The community where I live has good shopping and entertainment.	82.0%
At work, I have good internet connectivity.	77.8%
I have safe and efficient transportation to work.	75.7%
Anesthetist (n=253)- high agreement job satisfaction statements	Percent of anesthetists agree
I have a good relationship with co-workers.	95.6%
I consider myself a part of the local community that I serve as a health worker.	92.9%
I feel that the community values my work.	75.8%
Anesthetist (n=253)- high disagreement job satisfaction statements	Percent of anesthetists disagree
My salary package is fair.	88.9%
My benefits (transportation, duty allowance, housing, etc.) are fair compared with other staff at my level.	71.8%
My salary is fair compared to other staff with the same level of responsibility.	71.8%
Anesthetist (n=253)- high agreement working and living condition statements	Percent of anesthetists agree
I am not worried about losing my job.	73.9%
At work, I have good access to electricity.	73.5%
At home, I have good access to electricity.	71.5%
Anesthetist (n=253)- high disagreement working and living condition statements	Percent of anesthetists disagree
At work, I have good internet connectivity.	73.9%
The community where I live has good shopping and entertainment.	60.1%

Medical Doctor (n=375) - high agreement job satisfaction statements	Percent of medical doctors agree
I have safe and efficient transportation to work.	56.5%
Midwives (n=177)- high agreement job satisfaction statements	Percent of midwives agree
I consider myself a part of the local community that I serve as a health worker.	96.6%
1 I have a good relationship with co-workers.	96.0%
I feel that the community values my work.	93.8%
Midwives (n=177)- high disagreement job satisfaction statements	Percent of midwives disagree
My salary package is fair.	79.1%
My benefits (transportation, duty allowance, housing, etc.) are fair compared with other staff at my level.	76.8%
My salary is fair compared to other staff with the same level of responsibility.	62.1%
Midwives (n=177)- high agreement working and living condition statements	Percent of midwives agree
I am not worried about losing my job.	79.1%
My work load is reasonable.	73.4%
At work, I have good access to electricity.	67.8%
Midwives (n=177)- high disagreement working and living condition statements	Percent of midwives disagree
At work, I have good internet connectivity.	80.1%
The community where I live has good shopping and entertainment.	78.0%
I have safe and efficient transportation to work.	74.6%
Health Officers (n=127)- high agreement mean job satisfaction statements	Percent of health officers agree
I have a good relationship with co-workers.	96.1%
I consider myself a part of the local community that I serve as a health worker.	90.6%
I feel that the community values my work.	90.6%
Health Officers (n=127)- high disagreement job satisfaction statements	Percent of health officers disagree
My benefits (transportation, duty allowance, housing, etc.) are fair compared with other staff at my level.	88.2%
My salary package is fair.	78.7%
My salary is fair compared to other staff with the same level of responsibility	62.4%
Health Officers (n=127)- high agreement working and living condition statements	Percent of health officers agree
My work load is reasonable.	71.7%
At work, I have good access to electricity.	71.7%
I am not worried about losing my job.	70.9%
Health Officers (n=127)- high disagreement working and living condition statements	Percent of health officers disagree
The community where I live has good shopping and entertainment.	85.8%
At work, I have good internet connectivity.	83.5%
I have safe and efficient transportation to work.	71.7%

Intention to Stay Two Years in the Health Facility

Apart from overall job satisfaction, health workers were asked about their intention to stay in the current health facility for at least the next two years and the responses are summarized in Table 9.

Table 9: Intention To Stay: Responses To “I Intend To Continue Working Here For At Least 2 Years”

Professional Category	Responses		
	Yes	Neutral	No
Doctors (n=375)	111 (29.7%)	71(21.1%)	184(49.2%)
Nurses (n=424)	132(31.3%)	38(9.0%)	252(59.7%)
Anesthetists (n=252)	92(36.5%)	44(17.5%)	116(46.0%)
Midwives (n=176)	62(35.0%)	21(11.9%)	94(53.1%)
Health Officers (n=127)	30(23.0%)	17(13.4%)	80(63.0%)
All professionals (n=1354)	427(31.5%)	127(9.4%)	726(53.6%)

Importance of Compensation and Benefits for Decision to Stay In the Current Job

The participants were asked to assess level of importance nine items of compensation and benefits in their decision to stay in their current job. These items include: salary, terminal benefits such as retirement and pension, receiving a housing allowance or free housing, assistance with transportation, risk allowance, duty allowance, health care for family, professional risk/hazard allowance and food allowance. For easier comparison, the responses were clustered into:” important” and “not important”. The benefit most greatly rated as important by every single cadre was duty allowance. Though 80% or greater, of respondents in each cadre, rated a food allowance as an important aspect of compensation/benefits, it was also the lowest ranked item of the nine queried compensation/benefit items.

Table 10: Level of Importance of Compensations and Benefits for Decision to Stay In the Current Job among Health Workers in Ethiopia, June 2014*

Compensation /benefit	Medical doctor (n=375)		Nurse (n=423)		Anesthetist(n =252)		Midwife (n=177)		Health officer (n=127)	
	I	NI	I	NI	I	NI	I	NI	I	NI
Salary	349 93.1%	26 6.9%	393 92.7%	31 7.3%	239 94.5%	14 5.5%	154 87.5%	22 12.5%	121 95.3%	6 4.7%
Terminal benefits such as retirement and pension	306 81.6%	69 18.4%	387 91.3%	37 8.7%	227 89.7%	26 10.3%	154 87.5%	22 12.5%	113 89.0%	14 11.0%
Receiving a housing allowance or free housing	359 95.7%	16 4.3%	390 92.0%	34 8.0%	238 94.1%	15 5.9%	166 94.3%	10 5.7%	116 91.3%	11 8.7%
Assistance with transportation	330 88.0%	45 12.0%	388 91.5%	36 8.5%	223 88.1%	30 11.9%	166 94.3%	10 5.7%	115 90.6%	12 9.4%
Risk allowance	353 94.1%	22 5.9%	405 95.5%	19 4.5%	236 93.3%	17 6.7%	160 90.9%	16 9.1%	119 93.7%	8 6.3%
Duty allowance	361 96.3%	14 3.7%	413 97.4%	11 2.6%	244 96.4%	9 3.6%	166 94.3%	10 5.7%	121 95.3%	6 4.7%

Compensation /benefit	Medical doctor (n=375)		Nurse (n=423)		Anesthetist(n =252)		Midwife (n=177)		Health officer (n=127)	
	I	NI	I	NI	I	NI	I	NI	I	NI
Health care for family	346 92.3%	29 7.7%	386 91.0%	38 9.0%	236 93.3%	17 6.7%	158 89.8%	18 10.2%	120 94.5%	7 5.5%
Professional risk/hazard allowance	354 94.4%	21 5.6%	401 94.6%	23 5.4%	238 94.1%	15 5.9%	154 87.5%	22 12.5%	121 95.3%	6 4.7%
Food allowance	300 80.0%	75 20.0%	378 89.2%	46 10.8%	224 88.5%	29 11.5%	157 89.2%	19 10.8%	106 83.5%	21 16.5%

*I=Important; NI=Not important

Decisions to Leave the Last Job

Health professionals were asked to list the three most important factors that influenced their decision to leave their last job. Anesthetists cited: low pay, limited in-service training opportunity, and distance from work place. Nurses and health officers mentioned transportation problems and lack/poor utilities. Medical doctors listed limited opportunities for in-service training and distance between home and the work place as the most important reasons for leaving their last jobs.

Rates of Intention to Leave and Attrition among Health Workers

The rate of intention to leave among the health workers over the coming one year was found to be 49.4%. Similarly, about half of the respondents in each of the professional categories (with the exception of midwives) are planning to leave their current post in the next one year. Disaggregated by professional categories, the highest score of intention to leave was for the health officers (61%) and the lowest was for the midwives (44%). See Figure 7 and Table 11 for more detail.

Figure 7: Proportion of Respondents by Cadre Planning To Leave the Current Post in the Next 12 Months—Public Health Facilities, Ethiopia, June 2014

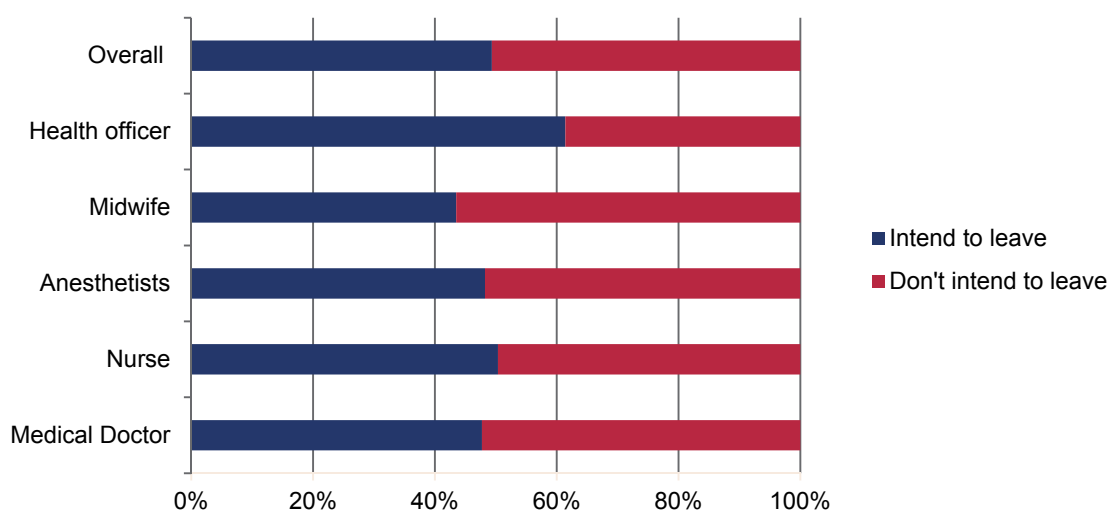


Table 11: Intention To Leave: Responses To “I Plan To Leave In Next One Year.”

	Yes	No
Doctors (n=375)	48%	52%
Nurses (n=424)	50%	50%
Anesthetists (n=252)	48%	52%
Midwives (n=176)	44%	56%
Health Officers (n=127)	61%	39%

When you compare and contrast the data in Figure 7 with staff attrition data (Table 19, page 53), one may get the impression that attrition amongst these health workers is low. However, intention to leave isn't always acted upon due to a broad range of circumstances including access to other job opportunities and labor market dynamics. As intention to leave is the result of low satisfaction with current job/position, it negatively affects motivation and performance of the workforce. In this condition, health workers may frequently abscond from their regular duties or simply present and fail to perform well. In other words, intention to leave is always an important predictor of turnover and the challenge is to put the right policies and practices in place to minimize the number of employees who are planning to leave.

Factors Affect Decisions to Leave Current Position

Health workers were also asked to rate a range of factors affecting their decision to leave the current job. Their responses were categorized as “important” or “not important”. Breakdown of the results, by cadre, are presented below:

For **Medical doctors**: “low pay (97.3%)”, “concerns about safety at work (92.0%)” and “poor access to higher education (89.1%)” were most important to doctors while factors such as “Poor access to telephones to stay in touch with family and friends” (32.8%), “long hours of work” (32.8%), “heavy workload” (30.4%) and “work is far from home” (30.4%), were rated “not important”.

For **Nurses**: “low pay” (91.7%), “poor access to higher education” (90.3%) and “limited opportunities for promotion” (90.1%) were the three most important factors in deciding to leave the current job while the nurses rated “work is far from home” (41.7%), “long hours of work” (37.0%) and “social conflicts in the work place” (36.3%) as ‘not important’ in the decision to leave their current job.

In the case of **Anesthetists**: “poor access to higher education” (93.7%), “low pay” (93.3%) and “limited opportunities for promotion” (92.1%) were rated as the three most important factors in the decision to leave the current job while the three least important factors were “poor access to telephones to stay in touch with family and friends” (45.5%), “work is far from home” (36.9%), “transportation problems” (28.9%)

For **Health Officers and Midwives**: Exactly the same pattern as for the nurses was observed among the midwives and the health officers. Specifically, “low pay” (91.4%), “poor access to higher education” (88.7%) and “limited opportunities for promotion” (88.0%) were the three most important factors among the midwives. The percentages for the health officers were very close to those of the midwives. The role of “work is far from home” (44.6%), “poor access to telephones to stay in touch with family and friends” (35.6%), and “poor access to supplies and equipment at work” (35.4%) was not significantly important among the midwives. Similarly, poor access to telephone and distance of work place were not considered as important in the decision to leave the current job among the health officers.

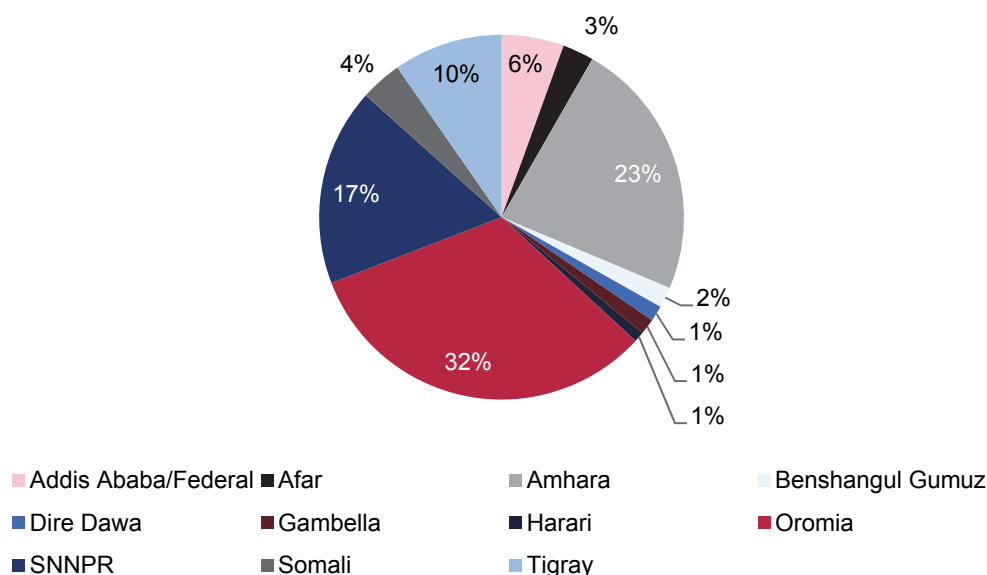
It was quite interesting to note that managers also seem to have a very accurate understanding of what is causing staff to leave, as they came up with the same overall factors that the health worker survey generated, namely: 1) low pay; 2) poor access to higher education; and 3) limited opportunities for promotion. It is also worth pointing out that many more items were rated to be important in the decision to leave the current job by more than 70.0% of the health workers of all categories. These include “unfair treatment by a supervisor”, “limited opportunities for in-service training”, “lack of recognition for good work done”, “poor/lack of utilities (water, electricity) at home”, “poor/lack of utilities (water, electricity, internet) at work” and “lack of housing facilities”. (Annex; Table 5)

HEALTH MANAGERS

Two-hundred seventeen (217) administrators and health facility managers were surveyed on their perceptions of factors affecting the retention of the public sector health care workers in Ethiopia. The response rate of health managers was 86%. The survey included 20 socio-demographic questions, 18 questions related to job satisfaction, 15 questions related to working and living conditions, 2 questions related to salary and promotion, 9 questions about the importance of compensation and benefits, and 20 questions about factors that affect the decision to leave a job.

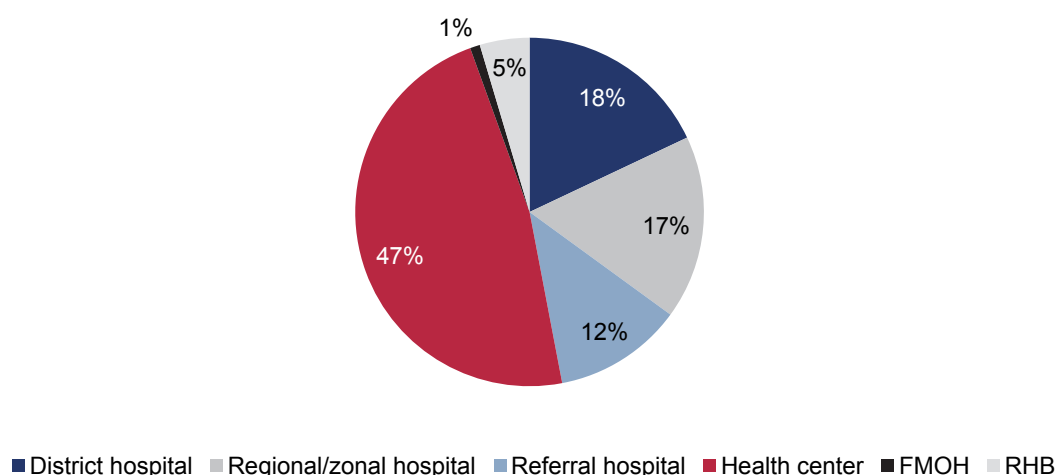
Data was entered into EpiInfo and further analyses were performed with SPSS v22.0. One-third of those surveyed work in Oromia. Twenty-three percent of managers and administrators surveyed work in Amhara, nearly 18% work in SNNPR, and the rest were from the other eight regions of Ethiopia (see Figure 8).

Figure 8: Proportional Distribution of Administrators and Health Facility Managers Surveyed by Region (N=217)



The majority of managers worked at health centers (47.5%), followed by district hospitals (18%), regional/zonal hospitals (17.1%), and referral hospitals (12.0%). Few managers worked at the FMoH and RHB (.9% and 4.6%, respectively) (see Figure 9 below).

Figure 9: Type of Health Facility Or Management Structure From Which Administrators and Facility Managers Were Selected (N=217)



One-hundred and forty six (67.3%) of the 217 managers were Human Resource Managers. Other important socio-demographic characteristics of the sample are presented in the table below. ‘N’ in the far right column indicates sample size.

Table 12: Socio-Demographic Characteristics of Administrators and Facility Managers Interviewed

Socio-demographic characteristics	Respondents (%)	N
Mean age, range (years)	37.1, 21 to 71	214
Gender		217
Male	170 (78.3)	
Female	47 (21.7)	
Marital Status		217
Single	55 (25.3)	
Married	154 (71.0)	
Divorced/Widowed	8 (3.7)	
Dependents		217
Yes	172 (79.3)	
No	4 (20.7)	
Mean years working in public health system, range (years)	9.6, 1 to 41	217
Mean years at this health facility, range (years)	5.6, 1 to 42	217
Type of Manager		217
Director/CTC, FMOH	8 (3.7)	
Head, RHB/Head, HR Support Process	28 (12.9)	
Hospital Administrator/CEO	37 (17.1)	
Health Center Administrator/HR Manager	132 (60.8)	
Other	12 (5.5)	
Mean years in a management/leadership position	4.8, 0 to 36	216

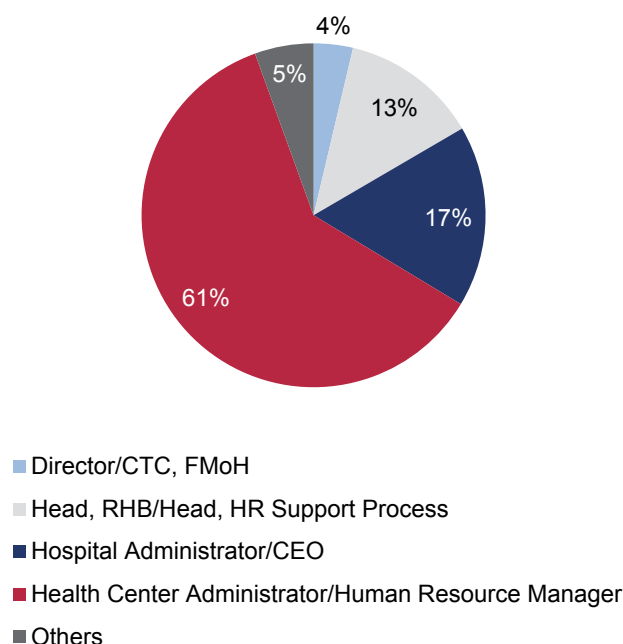
The majority of managers received their degree from a public university (46.8%), while 30.9% were educated at government health science college and 22.3% were educated at a private health college (n=94). About half (50.2%) have worked for the public health system for five years or less and 68.2% of managers reported working in the health facility they were interviewed at for five years or less. Seventy-one percent have been in a management or leadership position in the public health system for five years or less, and 53.7% have served for three years or less.

Job Related Characteristics of Health Managers

Public universities were reported to be the institutions from which 47% (n=94) of the health managers obtained their first professional qualification followed by the public health sciences colleges (31%). Thirty-six percent (n=114) of the health managers reported that they had specialized or upgraded since their first qualification.

Regarding specific designations of the roles, sixty-one percent (61%) of participants were Health Centre Administrator or Human Resource Manager, 17% were Hospital Administrator/CEO, 13% were Head of RHB or Human Resource Support Core Process Owner while the remaining 9% were directors, case team coordinator or related other titles (Figure 10).

Figure 10: Role Designations/Position of the Health Managers Surveyed In Ethiopia, June 2014



Fifty percent (n=38) of the health managers had served for 1-4 years while 47.4% had served for 5-15 years since their last qualification with the mean year of service being 5.2 (+4.2) years. These and other important job-related characteristics are enumerated in the Table 13, below.

Table 13: Work Related Characteristics of Health Managers in Ethiopia, June 2014

Variables	Frequency	Percent
Years since last qualification (n=38)		
1- 4 years	19	50.0
5-15 years	18	47.4
16 years and above	1	2.6

Variables	Frequency	Percent
Mean (\pm SD)	5.2 \pm 4.2	
Years since first qualification (n=92)		
1- 4 years	35	38.0
5-15 years	44	47.8
16-25 years	9	9.8
26 years and above	4	4.3
Average (\pm SD)	8.6 \pm 7.4	
Duration of service in public system (n=195)		
5 years and below	79	40.5
6-15 years	79	40.5
16 years and above	37	19.0
Average (\pm SD)	9.7 \pm 8.4	
Duration of service at current facility (n=213)		
5 years and below	127	59.6
6-15 years	72	33.8
16 years and above	14	6.6
Average (\pm SD)	5.6 \pm 6.3	
Duration of service as a manager (n=214)		
3 years and below	116	54.2
4-6 years	50	23.4
7 years and above	48	22.4
Average (\pm SD)	4.8 \pm 4.8	

Job Satisfaction

Health managers were asked to respond to 18 Likert scale questions about the importance of factors to job satisfaction, for the employees they supervise. Managers could rate importance of the factors on the following scale: 1 – Strongly disagree; 2 – Disagree; 3 – Neutral; 4 – Agree; 5 – Strongly agree

The vast majority of managers (81% or greater) agreed, or strongly agreed, that 17 of the 18 factors are important to job satisfaction for employees they supervise. For one factor, ‘Preventing harassment by peers’, only 53.5% of managers rated strongly agree or agree.

For 9 out of the 18 job satisfaction factors, 90% of managers or greater, agree that each of the following factors are important for their employees’ job satisfaction. These are presented in the table below. See Table 1 (Annex) for full list of job satisfaction factors from the questionnaire.

Table 14: Job Satisfaction Factors That 90% or More of Managers Agree Is Important

Manager's perception of employee job satisfaction factors	Agree it is important	Neutral	Disagree that it is important
	No. (%)	No. (%)	No. (%)
Placing people in jobs for which they are suited	204(94.0)	6(2.8)	7(3.2)
Valuing and respecting each worker	204(94.0)	7(3.2)	6(2.8)
Creating a climate in which people get along and have friendships at work	204(94.0)	10(4.6)	3(1.4)
Connecting staff with the community	203(93.5)	8(3.7)	6(2.8)
Using appropriate methods and standards to measure job performance	202(93.1)	10(4.6)	5(2.3)
Establishing clear job expectations	201(92.6)	11(5.1)	5(2.3)
Taking measures to protect workers against HIV/AIDS and other infections	200(92.2)	4(1.8)	12(5.5)
Supervisors who care about their staff and offer support	197(90.8)	11(5.1)	9(4.1)
Preventing harassment by supervisors	196(90.3)	13(6.0)	8(3.7)

The following socio-demographic factors are associated with greater likelihood of agreeing that a factor is important for job satisfaction. Managers with Bachelor of Science degrees are more likely to think that four of the 18 job satisfaction factors are important than managers with Diploma IV/Vs. These job satisfaction factors are: recognizing and rewarding good work, creating flexibility to balance the demands of work place and personal lives, offering the training needed for staff to succeed at their jobs and providing opportunities for learning and professional development. A greater proportion of managers between the ages of 25 to 35 think it is important to provide opportunities for learning and professional development compared with managers in other age categories.

There is no statistically significant difference in response to the 18 job satisfaction questions for the following socio-demographic characteristics: region, type of facility management structure, gender, marital status, whether or not the manager has dependents, and whether or not manager has a current professional license.

Managers were also asked how well their particular facility performs on each of the job satisfaction factors, on a scale of: 1 - Does not perform well; 2 - Performs adequately; 3 – Performs very well. Responses were categorized in two categories: performing very well/performing adequately and not performing well. The percentage of managers that thought that his/her facility performs adequately or very well on 15 of 18 job satisfaction factors ranges from 75.6% to 94.9%. The following are the factors that Managers report their facilities perform well. See Table 4 (Annex) for full list of job satisfaction statements and responses from the questionnaire.

Table 15: Top Three Factors Ranked by Managers' Self-Report of Facility Performance

Top ranking facility performance on job satisfaction factors	Percentage rating their facility as 'Performing very well' or 'Performs adequately' (n=217)
1. Placing people in jobs for which they're suited	94.9%
2. Establishing clear job expectations	94.5%
3. Creating a climate in which people get along and have friendships at work	94.5%

Managers acknowledged that their facilities do not perform well on the following three factors:

1. 24.4% thought their facilities do not perform well in 'Preventing harassment while traveling to and from work';
2. 21.7% thought their facilities do not perform well in 'Providing opportunities for learning and professional development';
3. 18.7% thought their facilities do not perform well in 'Recognizing and rewarding good work'.

Working and Living Conditions

Health managers were asked to what extent they agreed with 15 statements about working and living conditions, for themselves, and for the staff they supervise.

The scale was as follows: 1 - Strongly disagree; 2 – Disagree; 3 – Neutral; 4 – Agree; 5 – Strongly agree

Responses were coded 'Agree' or 'Disagree' to simplify interpretation. There was a high degree of concordance with what the managers thought for themselves, and for their staff. The following table presents the top five statements about working and living condition factors which administrators and facility managers most strongly agree with for him/herself and their staff. Table 2 of the Annex presents the full list of 15 statements about working and living conditions, and the extent of managers' agreement with the statements for themselves and for their staff.

Table 16: Top Five Statements about Working and Living Conditions That Managers Most Strongly Agree With for Themselves, and for Their Staff

Working and living conditions statements	Percentage of respondents that agree for him/herself	Neutral	Percentage of respondents who disagree for him/herself	Percentage of respondents who agree for their staff	Neutral	Percentage of respondents who disagree for their staff
There is time to eat lunch at work almost every day (n=216)	82%	7%	12%	76%	13%	12%
Workers do not worry about losing their job. They have job security(n=216)	79%	8%	13%	70%	13%	17%

Working and living conditions statements	Percentage of respondents that agree for him/herself	Neutral	Percentage of respondents who disagree for him/herself	Percentage of respondents who agree for their staff	Neutral	Percentage of respondents who disagree for their staff
Access to electricity is good at work((n=216)	77%	7%	16%	76%	9%	15%
The work space is clean (n=215)	76%	9%	15%	69%	16%	15%
Access to electricity is good at home(n=216)	74%	10%	16%	67%	15%	18%

The following table presents the top five statements about working and living condition factors which administrators and facility managers most strongly disagree with for him/herself, and for their staff. Similarly, there was a high degree of concordance between what managers thought for themselves, and what they thought for their staff.

Table 17: Top Five Statements That Managers Most Strongly Disagree With for Themselves, and for Their Staff

Working and living conditions statements	Percentage of respondents that agree for him/herself	Neutral	Percentage of respondents who disagree for him/herself	Percentage of respondents who agree for their staff	Neutral	Percentage of respondents who disagree for their staff
Internet connectivity is good at work (n=216)	25%	6%	69%	21%	7%	72%
There is safe and efficient transport to work(n=216)	26%	7%	66%	19%	8%	73%
Community has good shopping and entertainment(n=216)	29%	16%	55%	26%	19%	56%
The work load is manageable (n=215)	42%	7%	51%	43%	12%	45%
Working equipment (such as X-ray ultrasound, blood pressure cuffs, information and communication tech) is available to do our jobs well and efficiently(n=213)	45%	9%	46%	41%	13%	46%

Salary and Promotion

Figure 11 shows managers' responses to "how strongly they agreed or disagreed about the fairness of their salary package for themselves, and for their staff". Approximately one-quarter of managers thought the salary package was fair for themselves and for their staff. Managers with dependents are statistically more likely to disagree that the salary package is fair for themselves and for the staff that they supervise. Managers that graduated from a private health college are more likely to disagree that the salary package is fair for their staff.

Figure 11: Managers' Perceptions of Fairness of Salary Package for Self, and for Staff

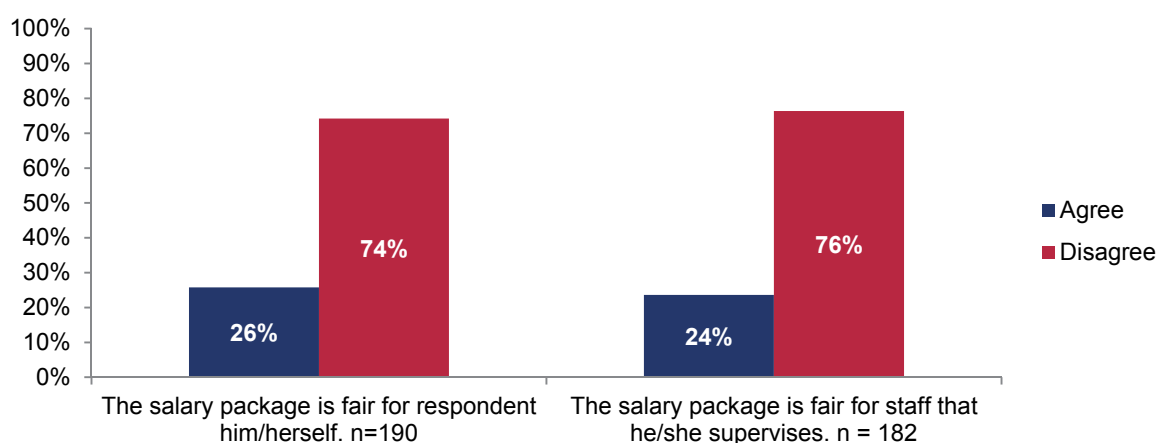
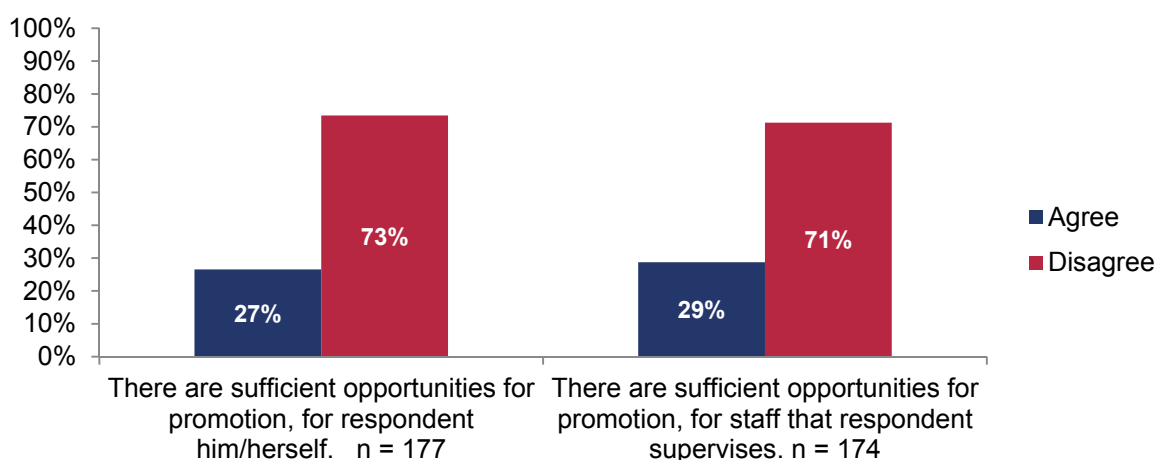


Figure 12 shows the managers' responses to the survey question "how strongly they agreed or disagreed that there are sufficient opportunities for promotion, for themselves and for their staff". Approximately 20% of managers thought there are sufficient opportunities for promotion for themselves and for their staff. There are no statistically significant socio-demographic characteristics that explain differences in response regarding opportunities for promotion.

Figure 12: Managers' Perceptions of Sufficiency of Opportunities for Promotion for Self, and for Staff



The Importance of Compensation and Benefits

Administrators and health facility managers rated the importance of 9 compensation and benefits factors. The Likert scale was as follows: 1 – Not important; 2 – Somewhat important; 3 – Important; 4 – Very important; 5 – Extremely important

Responses were categorized in two categories for simplicity in interpretation:

1. Extremely important/very important/important
2. Somewhat/not important

The following table presents rankings of importance (descending order) for each of the 9 queried compensation factors.

Table 18: Managers' Perceptions of Importance of Compensation Factors for the Employees They Supervise, Presented In Descending Order of Importance

How Important is the Following Compensation Factor to Employees That You Supervise?	Percentage of Respondents That Rated: "Extremely Important", "Very Important", or "Important"	N
Salary (n=216)	99%	216
Risk allowance (n=215)	98%	215
Terminal benefits (retirement and pension) (n=216)	97%	216
Healthcare for family (n=216)	97%	216
Professional risk/hazard allowance (n=215)	97%	215
Duty allowance (n=214)	97%	214
Receiving a housing allowance (n=216)	86%	216
Assistance with transportation (n=216)	82%	216
Food allowance (n=216)	81%	216

Factors Affects Decision to Leave a Job

Administrators and health facility managers were asked to rate the importance of 20 factors that affect their employees' decision to leave a job in the last year. The following table presents managers' perceptions of each of the factors that affect the decision to leave a job, in order of descending importance.

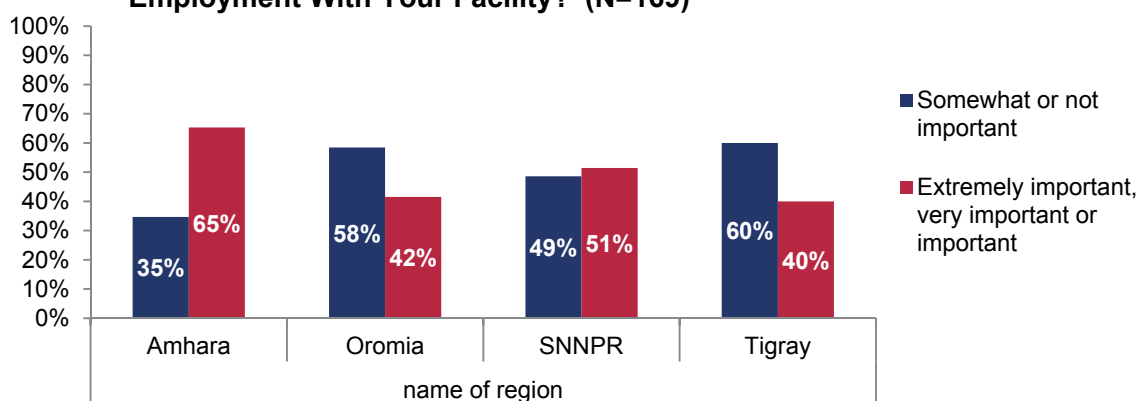
Table 19: Managers' Perceptions of Importance of Factors in Causing Employees to Leave the Job, Presented In Order of Descending Importance

How important is the following factor in making staff leave employment with your facility/management structure in last year	Percentage of respondents that rated: "Extremely important" very important or "important"	N
Low pay	94%	207
High cost of living	82%	203
Poor access to higher education for themselves	81%	199
Limited opportunities for promotion	77%	207
Lack of housing facilities	69%	205
Lack of recognition for good work done	64%	207
Poor/lack of utilities(water/electric/internet) at work	62%	207
Heavy workload	61%	207
Limited opportunities for in-service training	61%	207
Transportation problem	61%	207
Poor educational facilities for children	59%	201
Concerns about safety at work	58%	207
Poor/lack of utilities(water/electric/internet) at home	58%	207
Unfair treatment by a supervisor	53%	207
Long hours of work	52%	207
Poor access to supplies and equipment at work	49%	207
Social conflicts in the work place	48%	207

How important is the following factor in making staff leave employment with your facility/management structure in last year	Percentage of respondents that rated: Extremely important” very important or “important”	N
Work was far from home	47%	191
Poor supervision and management	42%	207
Access to telephones to stay in touch with family and friends	41%	203

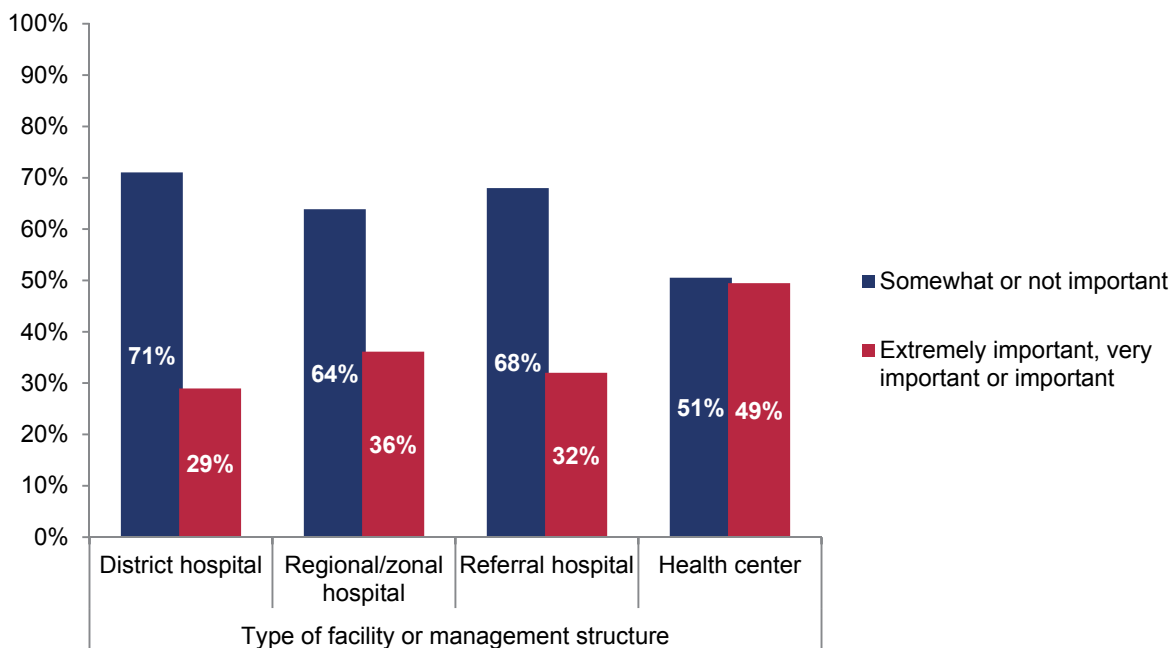
The results above mask some variation that is uncovered by socio-demographic disaggregation. For example, responses vary by region where regions with inadequate sample size (Addis Ababa, Afar, Benishangul-Gumuz, Dire Dawa, and Gambella, Harari, and Somali regions) were excluded from this analysis. Managers in Amhara are more likely to think that poor access to supplies and equipment at work was an important reason why staff left the facility in the last year, compared with managers in Oromia, SNNPR and Tigray.

Figure 13: Managers' Responses to 'How Important is Poor Access to Supplies and Equipment at Work, In Making Staff Leave Employment With Your Facility?' (N=169)



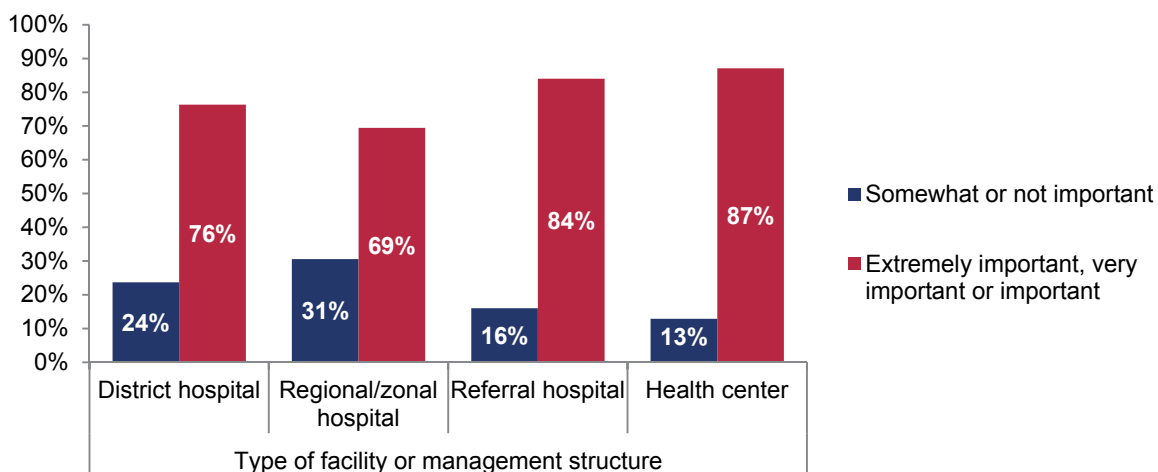
Managers at health centers were more likely than managers at district, regional/zonal, or referral hospitals to think that access to telephones is an important factor causing staff to leave the facility in the last year.

Figure 14: Managers' Responses to 'How Important is Access to Telephones to Stay in Touch With Family and Friends, in Making Staff Leave Employment With Your Facility?' (N=192)



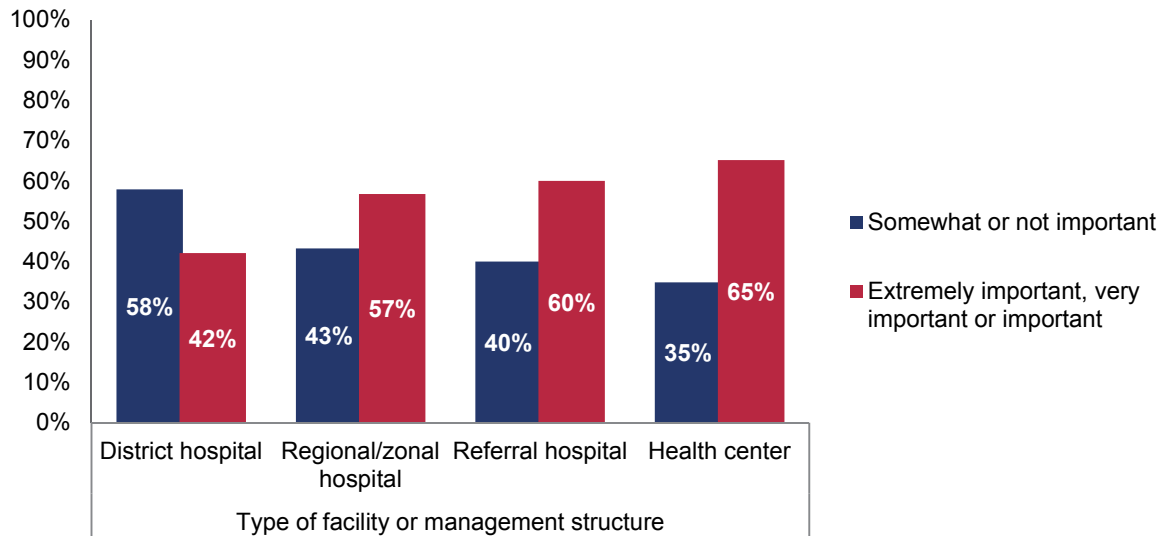
Managers at health centers were more likely than managers at district, regional/zonal, or referral hospitals to think that high cost of living is an important factor causing staff to leave the facility in the last year.

Figure 15: Managers' Responses to 'How Important is High Cost of Living, in Making Staff Leave Employment With Your Facility?' (N=192)



Managers at health centers were more likely than managers at district, regional/zonal, or referral hospitals to think that poor educational facilities for children is an important factor causing staff to leave the facility in the last year.

Figure 16: Managers' Responses to, 'How Important is Poor Educational Facilities for Children, in Making Staff Leave Employment With Your Facility?' (N=189)



There were differences between managers with varying levels of education. Managers whose highest degree was a Diploma 4/5 were more likely than managers with Bachelors of Science to think that unfair treatment by a supervisor), limited opportunities for promotion and access to telephones to call family/friends were important in making people leave employment.

There were also differences between managers who were married or single. Single managers were more likely than married managers to think that poor access to supplies, concerns about safety and high cost of living were important factors causing their employees to leave the job.

Figure 17: Percent of managers ranking 'unfair treatment', 'opportunities for promotion', and 'access to telephones' as important, very important, or extremely important in making the decision to leave (by education qualification)

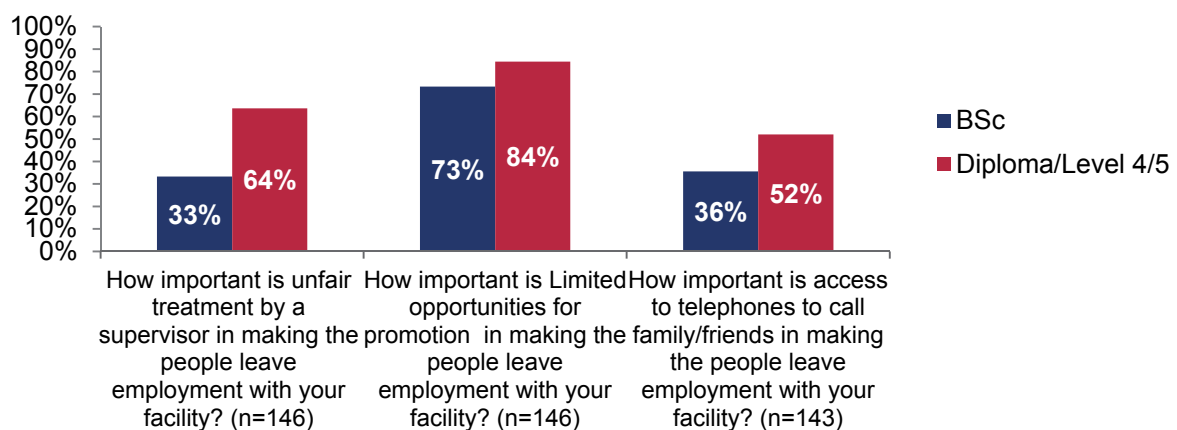
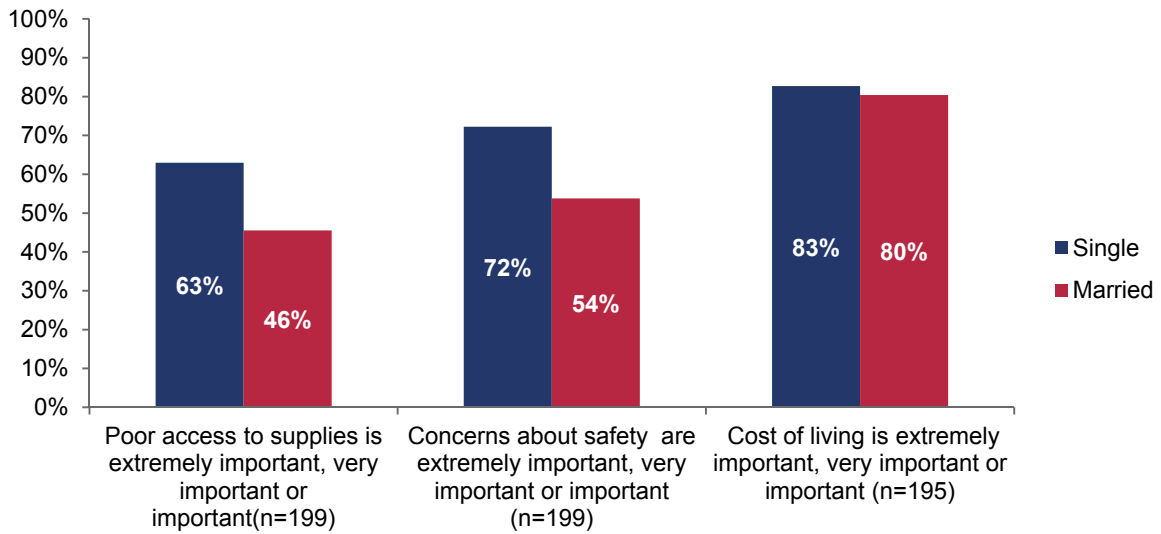
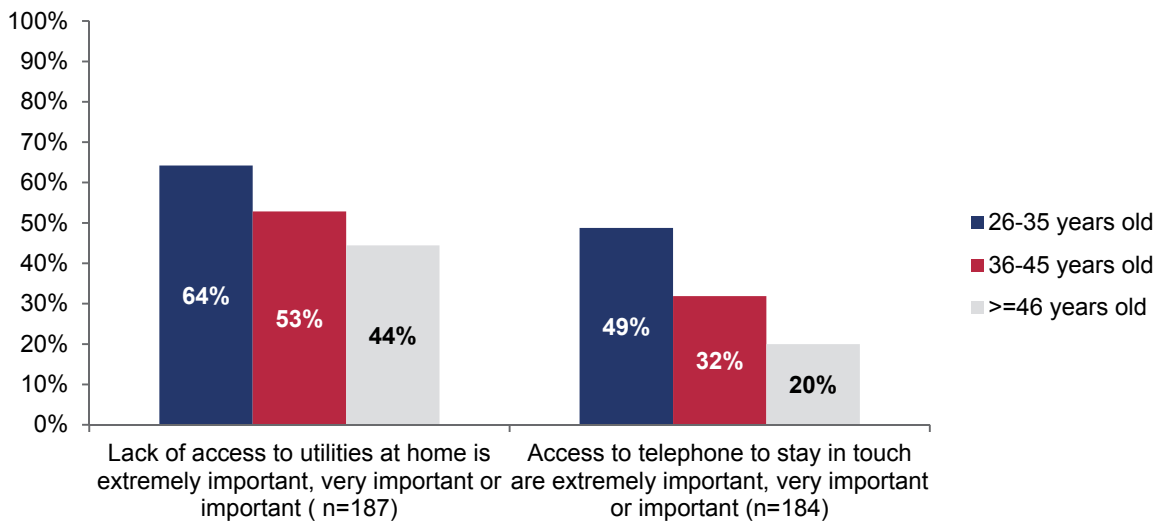


Figure 18: Percent of Managers Ranking 'Poor Access to Supplies', 'Concerns about Safety', and 'Cost of Living' As Important, Very Important, or Extremely Important for Employees Making the Decision to Leave (By Marital Status)



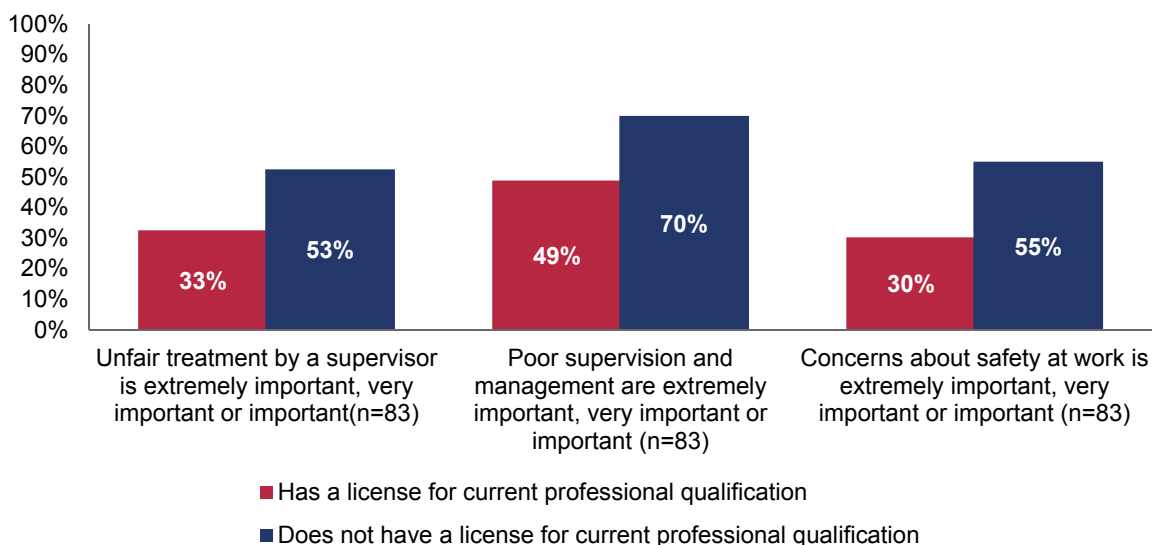
Younger managers are more likely than older managers to think that lack of access to utilities at home and access to telephone to stay in touch with family/friends were important factors causing employees to leave the job.

Figure 19: Percent of Managers Ranking 'Lack of Access to Utilities At Home' and 'Access To Telephone' As Important, Very Important, or Extremely Important In Making The Decision to Leave (By Age)



Managers without a current professional license were more likely than those with a license to think that unfair treatment by a supervisor, poor supervision and management, and concerns about safety at work were important factors causing employees to leave the job.

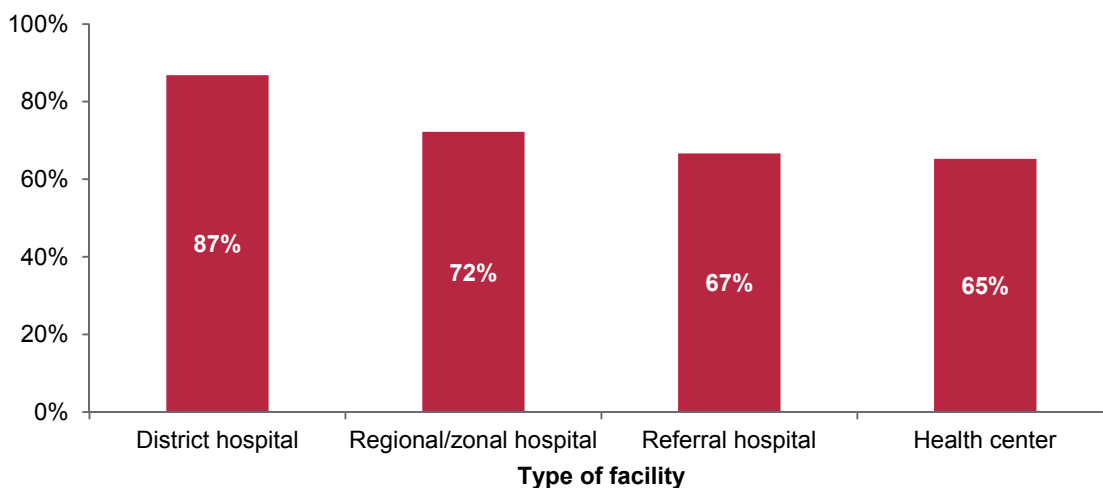
Figure 20: Percent of Managers Ranking 'Unfair Treatment', 'Poor Supervision and Management', and 'Concerns about Safety at Work' as Important, Very Important, or Extremely Important for Employees Making the Decision to Leave (By Level Of Professional Qua



Retention

Sixty-seven percent of managers indicated that retaining healthcare workers was a problem in their facilities. Responses to retention varied depending on the type of facility that managers worked in. Managers in district hospitals have more of a problem retaining health workers than those in regional/zonal hospitals, referral hospitals, and health centers. Retention was not significantly associated with a manager's region.

Figure 21: Managers reporting that retaining health workers is a problem in their facility by type of facility (n=193)



Attrition/Turnover of Health Workers

Managers in district hospitals, regional/zonal hospitals, referral hospitals and health centers were asked how many staff, of each surveyed cadre, left the facility in the last year, and how many staff, of each cadre, are currently working at their facilities. The final number of managers reporting figures for staff that left and currently working was 205, which represented 205 different district hospitals, regional/zonal hospitals, referral hospitals, and health centers. In this sample of 205, the attrition rate for each cadre is presented in the table 20 below.

Table 20: Attrition Rate for Surveyed Cadres of Health Workers (Past One Year)

Health Professionals	Total that left in the past one year	Total currently working	Proportion of attrition
Medical Doctor	271	2,611	9%
Nurse	892	23,155	4%
Anesthetist	73	574	11%
Midwife	181	4,557	4%
Health Center	177	3155	5%

2. QUALITATIVE COMPONENT

PROMISING WORKFORCE MOTIVATION AND RETENTION PRACTICES

The qualitative component of the study focused on identifying and obtaining additional information on some of the ongoing promising workforce motivation and retention practices in selected facilities and management structures in different parts of the country. Out of an original sample of 71 people, a total of 67 in-depth interviews were conducted to capture the perceptions of managers of HRH, health facilities and management structures in regard to increased motivation and the retention of public sector health workers in Ethiopia.

The participants who were selected by the RHBs and equally distributed by region, represented eleven hospitals, three health centers and five management structures including the RHB, Zonal Health Department and Woreda Health Office. These health facilities were selected based on their perceived strong performance in retaining health staff. Twenty five percent of the respondents were nursing professionals, 16% were HRH managers, 14% were Hospital CEOs, 12% Medical Directors; 23% were health managers and administrators of management structure; and 9% were health center head/case team leaders. More than half (57.1%) of the respondents were from hospitals.

A standardized open-ended interview guide with 13 questions was used to conduct the interviews. The questions focused on the types and effectiveness of activities or schemes implemented in the health facilities in order to motivate and retain employees; how the decisions to determine the incentives are made and funding sources; availability of retention policy guidelines; and implications for replication and sustainability.

Types and Effectiveness of Incentive Schemes

As this was a qualitative survey that used a face to face interview methodology with each of the participants, there is no quantitative data to conduct formal statistical analysis on the number or specific package of schemes implemented in health facilities overall. The activities cited in Box 1 are a summary of the types of interventions mentioned by all respondents as contributing to improved motivation and retention of staff:

Box 1: Summary of Schemes Reported As Contributing To Improve Performance and Retention

The following schemes were mentioned by respondents as positively contributing to staff performance and retention. They are listed in no particular order of usefulness or effectiveness.

- Verbal rewards/appreciation
- Duty allowance
- Certificates of appreciation
- Promotion
- Good occupational safety measures incl. Hepatitis B vaccination
- Equal treatment of all staff
- Adequate supplies available
- Social attachment and respect
- Government policy on higher education coupled with compulsory service agreements
- Well planned induction and orientation
- Cash incentives
- Training and educational opportunities
- Top-up for medical doctors and head nurses
- Participatory decision making
- Transparent governance and leadership
- Free internet services
- Housing allowance
- Specialist physicians allowed to practice in private clinics
- Employment of health workers who live locally
- Transportation and/or motor bikes to get to and from work

17.5 % or 11 of the respondents did not agree that some of the schemes listed in Box 1 were effective. One CEO reported that *“verbal rewards were the least effective.....I don’t think the incentives can change patterns of high staff turnover.”* An HRH manager commented: *“Due to the existing high demand for professionals in the market, it is too hard to retain them by offering incentives...as the private sector is emerging and increasing, the demand is getting too high...”*

Improved Staff Motivation and Job Satisfaction

50.8% or 48 of the respondents felt that the activities or incentive schemes that they applied in their respective organizations were effective in motivating and retaining employees. An HRH core process coordinator in a hospital said: *“The achievements at the hospital level can prove how our incentive schemes are effective. The recognitions and rewards have developed the employee’s level of motivation.”*

Most respondents believed that the incentives had changed the workers’ attitudes towards services by improving the workers’ performance. Recognition, encouragement, positive relationships, participatory and engaging managements systems to solve problems with the professionals were reported to be important incentives.

14.3% or 9 of the respondents emphasized that their incentive schemes had created competition among employees. This opinion is also supported by most of the participants who reaffirmed that the introduction of various incentive schemes ranging from verbal appreciation and providing certificates to monetary incentives were very effective in creating healthy competition among staff and motivating them to perform better.

The respondents also mentioned that training is the most popular incentive provided to all categories of professionals throughout the country, but they added that these must be offered fairly. *“Certificates are more preferred over other incentives”*, one participant commented. In addition to educational opportunity, health staff valued those health facilities that invested in improving workplace safety and prevention of professional hazards.

Staff Involvement in Deciding Types of Incentives

In most places, management committees are solely responsible for deciding on the type of incentive schemes to implement. Often, they communicate these decisions down to the staff for agreement and/or input. In other cases, the decision on what type of incentive scheme to implement is made by an ad hoc committee selected by the staff, One CEO reported: *“We have staff satisfaction survey yearly where we have questions which clearly address the incentives. The level of satisfaction is close to 80% this year, so we know we are on the right track.”*

Sources of Funding

In hospitals and health centers, revenues internally generated by the facilities are the leading source of budget to pay for incentives, followed by support from the RHBs and government treasury. Government treasury was described here as a budget coming directly from the government at the beginning of a fiscal year to run the organization’s regular business. Therefore, it did not include monies that the facility has generated from its internal operations, nor the occasional funding from higher bodies like the RHBs or even donors. According to a CEO at a hospital, *“One source of budget to pay for the incentives is our internal income. The internal income is the fee that the hospital collects from the services it provides for the public”*.

Sustainability Challenges

In response to questions about sustainability of the incentive schemes, organizations differ. Some anticipate no problem as they use money from the government or funds generated by their own facility to implement the schemes. Others are less sure, especially those that are providing top-ups that may be funded fully or partially by donors. Nonetheless, the majority of people interviewed reported that they review, adjust and/or update their incentive schemes on an annual basis as a way to prevent financial difficulties.

Reasons to Leave the Organization

Even in the midst of the various retention schemes that are underway, the most frequently mentioned reason to leave the public sector was low salary. A CEO at a hospital explained: “*It is obvious that the government salary is not competitive as compared to the private sector or NGOs. Therefore, they leave for the better salary*” The next important reason cited by the respondents is to change their profession or leave the health sector. A manager explained it thus: “*Professionals shift to another profession because of fear of infections and contamination and lack of risk allowance, but also due to the same reasons that most people change their profession – i.e. family, new opportunity, education, and a better life.*”

Scope for Replication

When asked if their incentive schemes could be replicated elsewhere in the region or across Ethiopia, the answer was an enthusiastic YES, but the respondents stressed the need for commitment and good management and leadership practices to administer the schemes fairly, transparently and efficiently.

“Sure! It is feasible to replicate these incentives in other facilities as far as they implement according to the guidelines.” (CEO of a hospital)

Additionally, most of the respondents mentioned that the replication and sustainability of these and other new incentive schemes will be more effective if there were clear policies and guidelines on workforce retention in the regions, and a mechanism for ensuring widespread and timely dissemination of such formal documents. Presently, even senior staff and managers implementing these activities are unaware of the existence of any formal retention policies or circulars from the Regional Civil Service Bureaus.

3. DISCUSSION OF FINDINGS AND IMPLICATIONS FOR POLICY AND PLANNING

The findings of this study have important implications for health workforce policy makers in Ethiopia. This section of the report discusses the prominent findings of the quantitative as well as the qualitative components of the study and makes reference to relevant past research to support the findings of the current study. The discussion also highlights and explores options and suggestions that senior policy planners can consider to develop recommendations and strategies for a comprehensive retention strategy for these priority cadres of the workforce.

QUANTITATIVE COMPONENT

Findings that are generic to the general study population are discussed first, followed by the factors that are specific to the five cadres (doctors, nurses, midwives, health officers and anesthetists) and health managers. Such cadre-specific discussion of findings is important since some job satisfaction factors are valued differently by different cadres and this needs to be explored further and factored into the process of developing appropriate retention strategies that take into account these slight variations in choices and preferences.

Job Satisfaction and Intention to Leave

Job satisfaction matters to human resource for health policy planners and health system managers because it is an important factor in predicting system stability (reduced turnover) and worker motivation. If *motivation* is defined as the willingness to exert and maintain effort toward attaining organizational goals, then well-functioning health systems should seek to boost factors (such as morale and job satisfaction) that predict motivation and intention to stay.

In this study, overall job satisfaction among Ethiopia public sector health workers was 51.3% while 49.1% of respondents said that they were planning to leave their jobs in the next one year. Satisfaction with salary and benefits was particularly low amongst all the cadres. A recently published⁹ hospital-based study conducted in three hospitals in West Shoa Zone of Oromia Region, Ethiopia showed that 65.1% of health workers were dissatisfied with their jobs. Three major reasons for dissatisfaction were poor payment, lack of incentives and training opportunities. The sample size in West Shoa zone study was 166 health workers from all health professional backgrounds exclusively from hospitals while sample size of this study consisted of 1354 health workers from five professional categories and 227 health facilities, randomly selected health centers and hospitals to generate nationally representative sample. This difference in sample size, facility distribution and inclusion of fewer health professionals may explain a higher level of satisfaction in this study compared to hospital-based study in Oromia. Another hospital-based study from Tanzania¹⁰ shows that 50% of medical doctors and nurses were not satisfied with their jobs while 67% of auxiliary clinical staff were not satisfied. The contributing factors for dissatisfaction were low salary levels, the frequent unavailability of necessary equipment and consumables to ensure proper patient care, inadequate performance evaluation and feedback, lack of participation in decision making. A study from Uganda shows that overall satisfaction of health workforce, '*considering everything, I am satisfied*', in the public sector was 49%¹¹. Ugandan study was

⁹ Muluget MM & Ayel GB (2015): Factors Associated to Job Satisfaction among health care workers at public hospitals of West Shoa Zone, Oromia Regional State, Ethiopia: A cross Sectional Study. Science Journal of Public Health. 3(2).PP161-167. 2015

¹⁰ Melkidezek TL et al (2008): Motivation of Health Workers in Tanzania: A case study of Muhimbili National Hospital. East African Journal of Public Health 5(1), April 2008.

¹¹ Pamela McQuide et al (2008). Uganda Health Workforce Study: Satisfaction and Intention to Stay among Current Health Workers.

comparable with this study in its scale of workforce composition, geographical coverage and methodology applied. However, it includes private for non-profit sector health workforce that this study did not address.

The workforce intention to stay for the next one year was 50.9% in this study while the figure was 60% in the Ugandan study. This study has also identified the '*intention to stay for next two years*' and it was 31% while the comparable figure from the Ugandan study was 33%, and from Tanzania, it was one third of the nurses studied and 29% for medical doctors¹². A study from three districts in Ghana showed that 69% of the respondents reported to have turnover intentions and lower level of job satisfaction was highly associated with intention to leave¹³. Some research especially from middle and higher income countries showed that intention to stay/leave were not associated with the level of job satisfaction. For example, a study from Malaysia¹⁴ showed that medical specialists and assistant medical officers were found to be significantly more satisfied than other designations of health professionals. However, intention to resign was high among medical specialists as it was with less satisfied pharmacists and dentists. The same study found that a high proportion of medical specialists had also received job offers from the private sector, and the study concluded that employee turnover may not necessarily be due to job dissatisfaction, but rather due to demand from the private sector. In this study, medical specialists were relatively more satisfied and had lower level of intention to leave their current posts compared to general medical practitioners.

Medical doctors were least satisfied in this study and the finding was consistent with other sources cited above. However, factors that contribute to dissatisfaction tend to be diverse and vary from profession to profession. They include: 'level of payment' (salaries and benefits), limited opportunities for education and training, inadequate performance support and supervision, limited participation in decision-making were commonly identified by the health professionals in this study and other studies cited here.

Job satisfaction and intent to stay was relatively higher among older workers (>35 years old), with dependents and higher qualifications. This is consistent with other studies on worker satisfaction (and even patient) and suggests a universal aspect to this finding rather than something specific to Ethiopia. However, with the average age of the study population at 29 years, the Ethiopian workforce seems to be surprisingly young with demographic profiles that do not reflect similar workforces in the health sectors in the region (Africa). While this raises critical workforce resilience and stability questions that may require further policy scrutiny and discussion, it also offers opportunities to embark on creative policy interventions to develop and retain the "workforce of the future".

The Role of Socio-Demographic Factors

Some socio-demographic factors of the health care workforce will be important to be considered during any HRH policy planning and retention strategy development process. For example, although the average age profile of the workforce is relatively young (mean age of 29 for the sampled cadres); 56.5% are still single and fewer dependents rely on these workers for support. As such, carefully selected, age appropriate incentives and interventions, especially those that are known to strengthen supportive supervision, mentoring and professional development, could be designed and implemented to retain these young health

¹² Melkidezek TL et al (2008). *ibid*

¹³ Bonenberger et al (2014). [The effects of health worker motivation and job satisfaction on turnover intention in Ghana: a Cross-sectional study](http://www.human-resources-health.com/content/12/1/43). Human Resources for Health 2014, 12:43 Page 2 of 12 <http://www.human-resources-health.com/content/12/1/43>

¹⁴ Roslan JMG et al (2014): [Turnover Intention among Public Sector Health Workforce: Is Job Satisfaction the Issue?](http://www.tandfonline.com/doi/abs/10.1080/17445019.2014.928888) The International Medical Journal Malaysia 13 (1). June 2014

workers. Additionally, most health workers valued the fact that they were employed in the region or geographic area where they were born or where they were trained (suggesting some implications for recruitment and retention), which is consistent with previous research in similar settings. Therefore, these factors need to be embedded in training and recruitment policies and strategies.

Salary and Compensation

In Ethiopia, there is a general feeling that health-sector jobs are considered relatively high status, and reasonably compensated compared with many other alternatives for educated people. Also, health workers in Ethiopia enter the public service job scheme at least two steps above many other public sector employees. However, since base salaries and allowances are uniformly low and not regularly reviewed or adjusted for inflation or cost of living, this factor may not explain some of the observations related to intention to leave and lack of longevity amongst health workers in this study. However, since the international literature on turnover among health workers in low resource settings also cautions us that there is a strong relationship between intent to leave and turnover, and factors related to job satisfaction, salary and compensation are predictive of turnover, any recommendations that will be developed in this area need to take salary and compensation into consideration.

Living and Working Conditions

Access to basic utilities and resource availability at work and home was also a common theme. As such, efforts must be made to ensure health workers are able to perform their job by utilizing their technical knowledge to the fullest and this should be an intrinsic component of any plan to increase retention. Improving health facility infrastructure and work climate, and availability of supplies and equipment should be a principal consideration as health care delivery cannot be effective without these investments.

Health Workers Attrition/Turnover Rates

Attrition and turnover are two terms that describe the loss of workforce in general. While the two terms are applied interchangeably, they have slightly different meanings and implications. Attrition¹⁵ generally describes the situation where workforce loss is permanent (irreplaceable) due to changes in organizational structure and reduction in workforce or changes in focus of the business where some categories of profession or positions are no more useful to the organization. On the other hand, turnover¹⁶ shows temporary/replaceable loss in the workforce. With turnover, an organization starts recruitment process to identify suitable candidates for the position. Both attrition and turnover of workforce are generally voluntary or involuntary in nature. In this study the terms were used interchangeably to describe the situations where health workers left their positions/jobs to seek employment outside the government health system- including the situations where health professionals left for private sector employment, left the country (brain drain) or changed their profession into one of the non-health professions.

The one year attrition rates for health workers in this study ranges from 4% (for midwives and nurses) to 11% (for anesthetist). The second highest rate was for medical doctors (9%) while that of the health officers was 5%. HRH project Baseline Survey¹⁷ has identified the attrition rates for various cadres, and the situation for five health cadres in this study was as follows:

¹⁵ Ruth Mayhew (2015): *Employee Turnover vs. Attrition*. Accessed from [XX](#) on April 8, 2015

¹⁶ Ruth Mayhew (2015): *ibid*

¹⁷ Jhpiego/HRH Project (2013). *Strengthening Human Resources for Health in Ethiopia: Baseline Survey Findings*. Page 12. July 2013. Unpublished

nurses 1%, midwives 2%, health officers 3%, anesthetist 4% and medical doctors 12%. Cadre-specific rates in the Baseline Survey are comparable with the rates in this study except the rate for anesthetists is significantly higher in this study, but also more representative, due to the higher sample size for anesthetists and random sampling applied in this study. Two published studies from Ethiopia were identified on health workers' attrition. One of the studies¹⁸, from Western Ethiopia, showed the attrition rates for general health workers to range from 2.9% to 8.5% in five years period (2000-2005), and the rates were significantly higher in higher level professional cadres than lower level professional cadres. Another study¹⁹ from Bahir Dar, Ethiopia, showed the *(average)*²⁰ attrition rate of Health professionals from public sector, in Bahir Dar city, was 39.6% for all professional categories (cadres) - about three times higher than the highest attrition rate in this study. The rates by professional cadres in the study from Bahir Dar were as follow: 77.9% for medical doctors, 72.1% for Master of Public Health (MPH) holders, 46.2% for Environmental Health Professionals, 44.2% for Pharmacy professionals and health officers, and 22.9% for Nurses. However, these two studies (from Western Ethiopia and Bahir Dar) were based on relatively smaller sample size (727 in Bahir Dar, 926 in Western Ethiopia); collected by reviewing records of health professionals found in the health facilities and management structure while this national study is a cross-sectional, health worker population-based study with randomly selected health workers proportional to their density in the health sector. These differences in research methods may explain differences in the results of the published articles and this study.

Review of international literature shows specific, location and cadre-specific patterns of attrition rates. For example, in a study from Kenya²¹, overall health workers attrition rates were: 4% for provincial hospitals, 3% for district hospitals and 5% for health centers. However, attrition among doctors and registered nurses was much higher at the provincial hospitals than at district hospitals or health centers (*a loss of higher level professionals at higher level facilities*)²², whereas the opposite pattern was observed for laboratory and pharmacy staff. In provincial hospitals, doctors had higher attrition rates than clinical officers (*Ethiopian equivalent of Health Officers*), and registered nurses (*Ethiopian equivalent of BSc Nurses*) had higher attrition rates than enrolled nurses.

Health Profession-Specific Factors

The following section of the report revisits some of the key factors emanating from an analysis of study findings and stresses the need to address them in the recommendations to help motivate and retain each of the cadres in the study population.

Doctors

Since these three factors—(1) Relationship with community and co-workers, (2) Equitable salary and benefits, and (3) Supportive supervision and professional development—significantly predict job satisfaction for doctors, it is essential that any retention policies and strategies for doctors should take these factors into consideration. Positive and productive relationship with community is in keeping with the values and profiles of individuals who choose medicine as a career where healing patients is most satisfying. Other studies on job satisfaction have also identified the need for personal time and relational time with other

¹⁸ Yohannes HM, et al (2010): Health Workforce Deployment, Attrition and Density in East Wollega Zone, Western Ethiopia. Ethiopian Journal of Health Sciences. 20(1). March 2010

¹⁹ Kiros A. et al (2013): Magnitude and associated factors of health professionals' attrition from public health sectors in Bahir Dar City, Ethiopia. Health 5(11). 2013

²⁰ The emphasis in *Italic* added

²¹ Slavea Chankova et al (2009): Health workforce attrition in the public sector in Kenya: a look at the reasons. *Human Resources for Health* 2009, 7 (58). 21 July 2009

²² The emphasis in *italic* added

health colleagues as important ingredients of job satisfaction. Also, the role of supportive supervision and professional development indicates the importance of young physicians' need for guidance and support with clinical decisions which contributes to their satisfaction, and this is true for other cadres of health workers.

Nurses

For nurses, these two factors are positively associated with job satisfaction: (1) Equitable salary and benefits, and (2) Supportive supervision and professional development. Conversely, low pay and poor supervision, lack of training opportunities and limited opportunities for promotion appeared potentially responsible for attrition of this cadre and appropriate strategies need to be developed and implemented to address job satisfaction and retention for nurses.

Midwives

In the case of midwives, the factors that are significantly associated with job satisfaction include: (1) equitable salary and benefits, and (2) access to safe transportation and housing. These factors also seem to constitute the primary reasons behind their decisions to leave, and need to be strengthened and enhanced. On the other hand, internet connectivity and access to social amenities like shopping and entertainment are additional factors that would boost their job satisfaction and intent to stay. Considering a relatively rural settings of health centers where many midwives are assigned, the later factors (shopping and entertainment facilities) will improve with general socio-economic development. However, health center can support these professionals by facilitating transportation to and from health centers.

Health Officers

For health officers, any strategies and interventions to attract and retain them need to take the following factors into consideration: (1) Equitable salary and benefits, and (2) access to opportunities for promotion and professional development. Just like doctors, health officers also value strong and collegial relationship with co-workers and the local community.

Anesthetists

Just like the other cadres, efforts to attract and retain anesthetists should address (1) salary and benefits, (2) access to basic amenities such as transportation, housing and internet connectivity.

Health Managers

In the case of managers (at facility level and management structures), factors related to (1) salary and benefits (2) opportunities for promotion, and (3) manageable workload, need to be addressed in order to attract and retain them within the public health sector.

Apart from salary and benefits that seem to be a commonly shared concern amongst all categories of health workers in the study, there are also other equally important cross cutting factors that seem to have strong motivating effects and capacity to influence job satisfaction and retention. These include access to supportive supervision, opportunities for promotion as well as education and professional development.

Focusing on supportive supervision is particularly important and potentially very beneficial in low resource settings where opportunities for salary increments may not always be

feasible. Also, without functional and supportive supervision, it is unlikely that even incentive schemes aiming to retain health workers will be effective. A focus on supportive supervision creates a mind-set and culture where teams of health workers identify their own challenges and achieve results with support from their supervisors. And success lies in the ability to shift from an “inspection and blame” model to one characterized by “support, respect, shared responsibility and problem solving”.

It is also essential to improve access to professional development programs for health workers to enable them take on more demanding duties and achieve personal goals of professional advancement as well as allow them to cope better with the requirements of their job. This is especially important as a strategy to attract and retain younger health professionals who seem to form the bulk of the workforce in Ethiopia.

QUALITATIVE COMPONENT

In-depth interviews that were conducted with leaders and managers of selected health facilities and administrative units that were implementing a range of small motivation and retention practices, revealed the following observations that have important policy and practice implications. These observations need to be considered by senior health sector policy planners, HRH leaders and facility administrators alike:

1. The presence of functional private wings (fee for service) in health facilities was roundly appreciated by staff participating in and benefitting from the extra income generated by these private wings. It also emerged that in facilities where the administration and management of the private wing scheme was unsatisfactory, it was a source of significant resentment amongst staff. However, when all the necessary administrative arrangements to ensure efficiency, equity and transparency are in place; private wings seem to offer ample opportunities that can impact positively on staff motivation and retention. Nevertheless, the performance of these private wings needs to be properly studied and evaluated, both in terms of staff motivation and retention as well as patient outcomes. Additionally, a thorough framework with clear guidelines on the planning and administration of these schemes also need to be developed and staff trained to promote its implementation.
2. Fair access to professional development opportunities such as in-service training and merit-based access for further education was viewed by both health workers and managers as one of the most successful ways of improving retention in public health facilities.
3. Establishment of a conducive working and living environment through transparent management/good governance; paying attention to personal and social problems faced by the employees; effective occupational safety practices; collegial team spirit; good relationship with local community; and provision of housing were also seen as critical prerequisites for retaining health professionals.
4. Public recognition and acknowledgement of the contributions of the health workers by the community as well as health facility management through awards and thanksgiving ceremonies were also found to be successful ways of instilling a sense of fair and transparent competition amongst employees, while motivating and retaining them.
 - ◆ Improving access to internet, transportation services, as well as well-planned system of staff orientation and induction, and functional grievance committee were other actions taken by the management of the best performing public health facilities.
 - ◆ Rapid implementation of incentive packages allowed by the government was also identified as a critical factor in improving health worker retention.

- ◆ Occasional verbal acknowledgements, certificates of appreciation and existing financial incentives (such as top ups) that are not reviewed regularly were considered useful in the short term but seen as less effective means of improving health worker retention in the long term.

It is also important to keep in mind that the vast majority of the issues that are being addressed in these incentive schemes are actually directly connected to most of the factors that drive job satisfaction and intention to stay amongst staff as evidenced in the findings of the study. As such, going forward, there is need to be more systematic and purposeful about what incentives to invest in; determine the “right” set of bundles of incentives for the different cadres of health workers; and ensure they are all based on evidence of what the workers themselves prefer or value; and make sure they are regularly reviewed and made administratively implementable and fiscally sustainable.

CONCLUSION

In this study, overall job satisfaction among the surveyed cadres of health workers was not high. Fewer than half of respondents said that they were satisfied with their jobs and almost 50% (average for all cadres in the study sample) said that they were planning to leave their jobs in the next one year, notwithstanding the bonding agreement under which most of them serve. Satisfaction with salary and benefits was particularly low amongst all the professional cadres as well as facility managers and administrators. Furthermore, working and living conditions were generally deemed unsatisfactory, and workloads were judged to be unmanageable especially for doctors, anesthetists and health managers. Despite these conditions, however, people were not concerned about losing their jobs and felt relatively secure in their positions.

It is also evident from the results of the study that recognition and appreciation by co-workers and community are highly influential in health worker job satisfaction and that access to basic amenities, supportive supervision, training and professional development, safe work environment, adequate supplies and equipment and appropriate infrastructure are key drivers that all work together to enhance job satisfaction and influence health workers' decision to leave or stay in their current position. This is also corroborated by the perceptions of managers and administrators.

While factors that enhance job satisfaction are undoubtedly cadre specific; a living wage, access to supportive supervision and professional development and basic social amenities are core factors that are roundly appreciated by all the workers. Nevertheless, financial incentives alone are not enough to motivate and retain health workers.

RECOMMENDATIONS

A national framework or strategy for improving health professional job satisfaction and retention should be developed by the FMoH. The same framework could then be contextualized to regional situations as required. The few recommendations outlined below should not be viewed as stand-alone interventions. Rather, the study team strongly suggests, they need to be used in conjunction with data points for various factors for job satisfaction, working and living conditions, and the factors that were identified to have influenced the health workforce decision to leave their last position/facility and their desire to leave their positions in the next one year. Each of the factors was analyzed for each health professional category and health managers and incorporated into the report. Additional data can be found in the tables in the Annex. All these factors need to inform the development of the national framework or strategy for strengthening health worker motivation and retention.

This study has identified three broad areas of concern for all health workers: Salary and benefits; opportunities for education, training and career development (promotion); and work environment. Not one or the other, but a combination of measures in these three areas are required to improve health workforce job satisfaction and intention to stay. Specific points under each of these areas are outlined below:

Broad Areas	Specific Recommendation
Improve salary and benefits	<ul style="list-style-type: none"> • Review and raise the base salary and benefits for all health workers. This will address the major dis-satisfier expressed by all health workers and managers surveyed in this study. • Ensure timely implementation of all incentive packages provided by the government. It is important to look into better ways of packaging benefit packages and communicating the new package to staff at all levels. The importance of transparent approaches and fair treatment of employees in the process should not be undermined. • Increase access to health facility-provided housing to priority health cadres with particular focus on Anesthetists. • Health facilities need to organize suitable transportation for the health workers to and from health facilities
Increase opportunities for professional development and promotion	<ul style="list-style-type: none"> • Design and implement health professional cadre-specific, need-based training and career development opportunities such as in-service training and merit-based access to further education for all health professionals. This may include developing and disseminating policy and procedures manual that guides how all health workers are selected for professional development and promotion opportunities. • Involve health workers to increase transparency, accountability and fairness at all levels of health system in making decisions like the selection of health professionals for education, training, professional development and promotions • Implement HR leadership and management development strategies including short- and long-term management and leadership training opportunities for health managers at all levels- but targeting especially facility and Woreda level HR managers.

Broad Areas	Specific Recommendation
<p>Improve Work Environment</p>	<ul style="list-style-type: none"> • Improve availability and distribution of professional HRM staff at all level. • Building operational capacity of existing HR managers and staff in modern human resources management practices. In this effort, emphasis should be given to HR managers and staff at lower health management structure and health facilities. • Improve physical settings of health facilities including cleanliness, adequate work space, furniture and office supplies; power and water supplies, and internet connectivity • Improve work place safety measures to prevent health workers from occupational risks and hazards. Health workers are assets in this effort. Involve them in identifying local safety challenges and occupational risks as well as selection and implementation of locally appropriate (practical) risk reduction and safety measures. • Improve working conditions in the public health facilities in terms of availing equipment and supplies/drugs required for executing the jobs of the health professionals safely and efficiently, • Strengthen performance planning, appraisal and reward system including acknowledging the health workers publicly for their contributions in the health facilities. • Strengthen regular supervision and support system for all categories of health professionals- at all levels of health system.

ANNEX 1. TABLES

Table A: Level of Job Satisfaction of Health Workers in Ethiopia, June 2014*

Items	Medical doctors		Nurse		Anesthetists		Midwife		Health officer	
	S (%)	NS (%)	S (%)	NS (%)	S (%)	NS (%)	S (%)	NS (%)	S (%)	NS (%)
My salary package is fair	33(8.8)	323(86.1)	49(11.6)	348(82.5)	12(4.8)	224(88.9)	24(13.6)	140(79.1)	17(13.4)	100(78.7)
My supervisor applies personnel policies and practices fairly to me	163(43.5)	119(31.7)	232(54.7)	151(35.6)	115(45.6)	81(32.1)	95(53.7)	60(33.9)	56(44.1)	53(41.7)
My salary is fair compared to other staff with the same level of responsibility	88(23.5)	237(63.2)	121(28.7)	262(62.1)	39(15.5)	181(71.8)	52(29.4)	110(62.1)	39(30.7)	79(62.2)
My benefits are fair compared with other staff at my level	77(20.5)	232(61.9)	52(12.3)	344(81.5)	40(15.9)	181(71.8)	28(15.8)	136(76.8)	9(7.1)	112(88.2)
The head of this health facility is competent and committed	154(41.1)	112(29.9)	280(66.2)	96(22.7)	119(47.2)	70(27.8)	112(63.3)	45(25.4)	64(50.4)	36(28.3)
My job description is clear and up to date	233(62.1)	80(21.3)	301(71)	89(21)	166(65.9)	56(22.2)	143(80.8)	23(13)	77(60.6)	40(31.5)
The job is a good match for my skills and experience	267(71.2)	69(18.4)	297(70)	102(24.1)	189(75)	46(18.3)	144(81.4)	27(15.3)	80(63)	40(31.5)
I have a current work plan developed with my supervisor	149(39.7)	138(36.8)	291(68.6)	102(24.1)	142(56.3)	83(32.9)	125(70.6)	43(24.3)	73(57.5)	39(30.7)
My supervisor is available when I need support	176(46.9)	97(25.9)	250(59)	134(31.6)	147(58.3)	61(24.2)	108(61)	52(29.4)	60(47.2)	42(33.1)
I have been given the training that I need to succeed in my position	138(36.8)	171(45.6)	168(39.6)	221(52.1)	74(29.4)	156(61.9)	79(44.6)	83(46.9)	34(26.8)	68(53.5)
I have access to coaching and mentoring when needed	128(34.1)	150(40)	263(62)	113(26.7)	88(34.9)	119(47.2)	110(62.1)	57(32.2)	47(37)	59(46.5)
My annual performance appraisal is based on my work plan	134(35.7)	126(33.6)	315(74.3)	78(18.4)	121(48)	74(29.4)	134(75.7)	31(17.5)	77(60.6)	33(26)
I receive recognition for doing good work	139(37.1)	140(37.3)	244(57.5)	127(30)	116(46)	97(38.5)	115(65)	44(24.9)	54(42.5)	48(37.8)

Items	Medical doctors		Nurse		Anesthetists		Midwife		Health officer	
	S (%)	NS (%)	S (%)	NS (%)	S (%)	NS (%)	S (%)	NS (%)	S (%)	NS (%)
I feel there are sufficient opportunities for promotion with my employer.	104(27.7)	150(40)	120(28.4)	249(59)	65(25.8)	141(56)	64(36.2)	94(53.1)	31(24.4)	78(61.4)
I feel that the organization values my work	163(43.5)	117(31.2)	211(49.8)	155(36.6)	93(36.9)	106(2.1)	101(57.1)	56(31.6)	60(47.2)	45(35.4)
Safety (the facility takes specific measures to protect me against HIV/AIDS and other occupational hazards)	114(30.4)	185(49.3)	183(43.3)	210(49.6)	85(33.7)	124(49.2)	84(47.5)	76(42.9)	53(41.7)	59(46.5)
I consider myself a part of the local community that I serve as a health worker	328(87.5)	22(5.9)	407(96.4)	10(2.4)	234(92.9)	7(2.8)	171(96.6)	5(2.8)	115(90.6)	9(7.1)
I feel that the community values my work	311(82.9)	31(8.3)	396(93.6)	15(3.5)	191(75.8)	39(15.5)	166(93.8)	4(2.3)	115(90.6)	9(7.1)
I have a good relationship with co-workers	343(91.5)	7(1.9)	412(97.4)	6(1.4)	241(95.6)	4(1.6)	170(96)	4(2.3)	122(96.1)	1(0.8)
Overall, the morale level in my team or work group is good	202(53.9)	98(26.1)	332(78.5)	61(14.4)	169(67.1)	51(20.2)	149(84.2)	16(9)	79(62.2)	25(19.7)
I would encourage my friends and family to seek care here	149(39.7)	140(37.3)	305(71.9)	92(21.7)	129(51.2)	78(31)	130(73.4)	34(19.2)	71(55.9)	39 (30.7)
I intend to continue working here for at least 2 years	111(29.7)	184(49.2)	132(31.3)	252(59.7)	92(36.5)	116(46)	62(35)	94(53.1)	30(23.6)	80(63)

* S=Satisfied, and NS=Not satisfied. Neutral (N) category of responses were removed from this table

Table B: Satisfaction with working and living conditions among health workers in Ethiopia, June 2014*

Items	Medical doctor (n=375)					Nurse (n=423)					Anesthetist (n=252)					Midwife (n=177)					Health officer (n=127)				
	S (%)	N (%)	NS (%)	NA (%)	S (%)	N (%)	NS (%)	NA (%)	S (%)	N (%)	NS (%)	NA (%)	S (%)	N (%)	NS (%)	NA (%)	S (%)	N (%)	NS (%)	NA (%)	S (%)	N (%)	NS (%)	NA (%)	
My work load is reasonable	239 (63.7)	52 (13.9)	84 (22.4)	0	327 (77.1)	24 (5.7)	72 (17.0)	1 (0.2)	177 (70.0)	18 (7.1)	58 (22.9)	0	130 (73.4)	6 (3.4)	40 (22.6)	1 (0.6)	91 (71.7)	13 (10.2)	23 (18.1)	0					
I have the supplies I need to do my job well and safely	177 (47.2)	62 (16.5)	134 (35.7)	2 (0.5)	278 (65.6)	28 (6.6)	116 (27.4)	2 (0.5)	168 (66.4)	29 (11.5)	55 (21.7)	1 (0.4)	115 (65.0)	16 (9.0)	46 (26.0)	0	77 (60.6)	17 (13.4)	33 (26.0)	0					
I have the working equipment I need to do my job well and efficiently	161 (42.9)	60 (16.0)	154 (41.1)	0	77 (18.2)	35 (8.3)	280 (66.0)	32 (7.5)	135 (53.4)	30 (11.9)	86 (34.0)	2 (0.8)	45 (25.4)	19 (10.7)	108 (61.0)	5 (2.8)	15 (11.8)	22 (17.3%)	77 (60.6)	13 (10.2)					
This facility has good access to drugs and medications	113 (30.1)	70 (18.7)	191 (50.9)	1 (0.3)	226 (53.3)	43 (10.1)	153 (36.1)	2 (0.5)	97 (38.3)	42 (16.6)	112 (44.3)	2 (0.8)	97 (54.8)	17 (9.6)	62 (35.0)	1 (0.6)	63 (49.6)	23 (18.1)	41 (32.3)	0					
My work space is clean	151 (40.3)	56 (14.9)	168 (44.8)	0	226 (53.3)	47 (11.1)	151 (35.6)	0	130 (51.4)	40 (15.8)	83 (32.8)	110 (62.1)	0	17 (9.6)	49 (27.7)	1 (0.6)	60 (47.2)	25 (19.7)	42 (33.1)	0					
I can take time to eat lunch almost everyday	275 (73.3)	40 (10.7)	59 (15.7)	1 (0.3)	258 (60.8)	43 (10.1)	123 (29.0)	0	112 (44.3)	29 (11.5)	44.3 (44.3)	0	98 (55.4)	22 (12.4)	57 (32.2)	0	83 (65.4)	12 (9.4)	32 (25.2)	0					
At home, I have access to safe, clean water	176 (46.9)	55 (14.7)	143 (38.1)	1 (0.3)	207 (48.8)	31 (7.3)	186 (43.9)	0	132 (52.2)	28 (11.1)	91 (36.0%)	2 (0.8)	94 (53.1)	13 (7.3)	69 (39.0)	1 (0.6)	64 (50.4)	10 (7.9)	53 (41.7)	0					
At work, I have access to safe, clean water	134 (35.9)	41 (11.0)	195 (52.3)	3 (0.8)	183 (43.3)	25 (5.9)	214 (50.6)	1 (0.2)	134 (53.0)	36 (14.2)	83 (32.8)	0	76 (42.9)	15 (8.5)	85 (48.0)	1 (0.6)	61 (48.0)	7 (5.5)	59 (46.5)	0					
At home, I have good access to electricity	236 (63.3)	49 (13.1)	88 (23.6)	0	272 (64.3)	29 (6.9)	121 (28.6)	1 (0.2)	182 (71.9)	29 (11.5)	42 (16.6)	0	119 (67.2)	13 (7.3)	45 (25.4)	0	87 (68.5)	12 (9.4)	28 (22.0)	0					

Items	Medical doctor (n=375)				Nurse (n=423)				Anesthetist (n=252)				Midwife (n=177)				Health officer (n=127)			
	S (%)	N (%)	NS (%)	NA (%)	S (%)	N (%)	NS (%)	NA (%)	S (%)	N (%)	NS (%)	NA (%)	S (%)	N (%)	NS (%)	NA (%)	S (%)	N (%)	NS (%)	NA (%)
At work, I have good access to electricity	262 (70.2)	47 (12.6)	64 (17.2)	0	269 (63.6)	23 (5.4)	128 (30.3)	3 (0.7)	186 (73.5)	31 (12.3)	36 (14.2)	0	120 (67.8)	12 (6.8)	45 (25.4)	0	91 (71.7)	7 (5.5)	29 (22.8)	0
At work, I have good internet connectivity	45 (12.1)	33 (8.8)	291 (78.0)	4 (1.1)	69 (16.3)	18 (4.3)	329 (77.8)	7 (1.7)	38 (15.0)	26 (10.3)	187 (73.9)	2 (0.8)	21 (11.9)	9 (5.1)	141 (80.1)	5 (2.8)	13 (10.2)	7 (5.5)	106 (83.5)	1 (0.8)
I have access to good schooling for my children	27 (7.2)	40 (10.7)	80 (21.4)	226 (60.6)	68 (16.1)	17 (4.0)	172 (40.7)	166 (39.2)	30 (11.9)	39 (15.4)	73 (28.9)	111 (43.9)	26 (14.7)	17 (9.6)	61 (34.5)	73 (41.2)	14 (11.0)	8 (6.3)	40 (31.5)	65 (51.2)
I have safe and efficient transportation to work	57 (15.3)	30 (8.0)	158 (42.4)	128 (34.3)	37 (8.7)	20 (4.7)	320 (75.7)	46 (10.9)	31 (12.3)	34 (13.4)	143 (56.5)	45 (17.8)	15 (8.5)	14 (7.9)	132 (74.6)	16 (9.0)	12 (9.4)	10 (7.9)	91 (71.7)	14 (11.0)
I am not worried about losing my job	292 (78.5)	39 (10.5)	38 (10.2)	3 (0.8)	325 (76.8)	27 (6.4)	65 (15.4)	6 (1.4)	187 (73.9)	27 (10.7)	36 (14.2)	3 (1.2)	140 (79.1)	7 (4.0)	30 (16.9)	0	90 (70.9)	8 (6.3)	28 (22.0)	1 (0.8)
The community where I live has good shopping and entertainment	60 (16.1)	42 (11.3)	268 (71.8)	3 (0.8)	50 (11.8)	23 (5.4)	347 (82.0)	3 (0.7)	58 (22.9)	39 (15.4)	152 (60.1)	4 (1.6)	21 (11.9)	16 (9.0)	138 (78.0)	2 (1.1)	13 (10.2)	5 (3.9)	109 (85.8)	0

Table C: The extent to which managers agree with Working and Living Conditions statements for themselves, and for their employees.

Working and living conditions statement	n	Percentage of respondents that agree for him/herself	Neutral	Percentage of respondents that disagree for him/herself	n	Percentage of respondents that agree for their staff	Neutral	Percentage of respondents that disagree for him/herself
Internet connectivity is good at work	216	25%	6%	69%	215	21%	7%	72%
There is safe and efficient transport to work	216	26%	7%	66%	216	19%	8%	73%
The community has good shopping and entertainment	216	29%	16%	55%	216	26%	19%	56%
The workload is manageable	216	42%	7%	51%	215	43%	12%	45%
The working equipment (such as x-ray, ultrasound, blood pressure cuffs, information and communication tech) is available to do our jobs well and efficiently	213	45%	9%	46%	212	41%	13%	46%
There is access to good schooling for children	216	45%	13%	42%	216	42%	17%	41%
Safe, clean water is available at work	216	63%	11%	27%	216	60%	13%	27%
Supplies such as gloves, needles, bandages, disinfectants and office consumables are available to do our work well.	215	69%	8%	23%	215	65%	13%	22%
Safe, clean water is available at home	216	67%	10%	23%	216	62%	12%	25%
Access to electricity is good at home	216	74%	10%	16%	216	67%	15%	18%
Access to electricity is good at work	216	77%	7%	16%	216	76%	9%	15%
The work space is clean	216	76%	9%	15%	215	69%	16%	15%
Workers do not worry about losing their jobs. They have job security	216	79%	8%	13%	216	70%	13%	17%
There is time to each lunch at work almost everyday	216	82%	7%	12%	216	76%	13%	12%

*Sig.=Significantly important, NSig.=Not significantly important and MA=Not applicable

Table D: Level of importance of reasons to leave the current job among health workers in Ethiopia, June 2014*

Items	Medical doctor (n=375)				Nurse (n=423)				Anesthetist (n=252)				Midwife (n=177)				Health officer (n=127)			
	S No. %	NS No. %	NA No. %	NS %	NS No. %	NA No. %	S No. %	NSig. No. %	NA No. %	S No. %	NS. No. %	NA No. %	S No. %	NS. No. %	NA No. %	S No. %	NS. No. %	NA No. %		
Low pay	365 97.3%	10 2.7%	0	389 91.7%	35 8.3%	0	236 93.3%	16 6.3%	1 0.4%	160 91.4%	15 8.6%	0	116 91.3%	11 8.7%	0	116 91.3%	11 8.7%	0		
Heavy workload	259 69.1%	114 30.4%	2 0.5%	280 66.0%	143 33.7%	1 0.2%	198 78.3%	53 20.9%	2 0.8%	131 74.9%	44 25.1%	0	92 72.4%	35 27.6%	0	92 72.4%	35 27.6%	0		
Long hours of work	249 66.4%	123 32.8%	3 0.8%	265 62.5%	157 37.0%	2 0.5%	198 78.3%	55 21.7%	0	126 72.0%	49 28.0%	0	86 67.7%	41 32.3%	0	86 67.7%	41 32.3%	0		
Unfair treatment by a supervisor	307 81.9%	64 17.1%	4 1.1%	322 75.9%	97 22.9%	5 1.2%	195 77.1%	57 22.5%	1 0.4%	132 75.4%	42 24.0%	1 0.6%	99 78.0%	27 21.3%	1 0.8%	99 78.0%	27 21.3%	1 0.8%		
Poor access to supplies and equipment at work	321 85.6%	53 14.1%	1 0.3%	281 66.3%	137 32.3%	6 1.4%	202 79.8%	51 20.2%	0	113 64.6%	62 35.4%	0	97 76.4%	30 23.6%	0	97 76.4%	30 23.6%	0		
Limited opportunities for in-service training	324 86.4%	51 13.6%	0	347 81.8%	77 18.2%	0	212 83.8%	41 16.2%	0	144 82.3%	28 16.0%	3 1.7%	110 86.6%	17 13.4%	0	110 86.6%	17 13.4%	0		
Limited opportunities for promotion	333 88.8%	38 10.1%	4 1.1%	382 90.1%	41 9.7%	1 0.2%	233 92.1%	19 7.5%	1 0.4%	154 88.0%	21 12.0%	0	115 90.6%	12 9.4%	0	115 90.6%	12 9.4%	0		
Lack of recognition for good work done	323 86.1%	50 13.3%	2 0.5%	328 77.4%	93 21.9%	3 0.7%	211 83.4%	41 16.2%	1 0.4%	140 79.1%	37 20.9%	0	103 81.1%	24 18.9%	0	103 81.1%	24 18.9%	0		
Social conflicts in the workplace	297 79.2%	74 19.7%	4 1.1%	267 63.0%	154 36.3%	3 0.7%	186 73.5%	65 25.7%	2 0.8%	116 65.5%	60 33.9%	1 0.6%	85 66.9%	38 29.9%	4 3.1%	85 66.9%	38 29.9%	4 3.1%		
Poor supervision and feedback	296 78.9%	78 20.8%	1 0.3%	279 65.8%	143 33.7%	2 0.5%	186 73.5%	65 25.7%	2 0.8%	125 70.6%	51 28.8%	1 0.6%	89 70.1%	35 27.6%	3 2.4%	89 70.1%	35 27.6%	3 2.4%		
Concerns about safety at work	344 92.0%	29 7.8%	1 0.3%	359 84.7%	64 15.1%	1 0.2%	226 89.3%	27 10.7%	0	148 83.6%	29 16.4%	0	105 82.7%	21 16.5%	1 0.8%	105 82.7%	21 16.5%	1 0.8%		
Transportation problems	276 73.6%	84 22.4%	15 4.0%	284 67.0%	131 30.9%	9 2.1%	171 67.6%	73 28.9%	9 3.6%	127 71.8%	48 27.1%	2 1.1%	86 67.7%	40 31.5%	1 0.8%	86 67.7%	40 31.5%	1 0.8%		
Poor/lack of utilities(water, electricity) at home	308 82.1%	63 16.8%	4 1.1%	309 72.9%	112 26.4%	3 0.7%	198 78.3%	53 20.9%	2 0.8%	131 74.0%	45 25.4%	1 0.6%	100 78.7%	25 19.7%	2 1.6%	100 78.7%	25 19.7%	2 1.6%		

Items	Medical doctor (n=375)			Nurse (n=423)			Anesthetist (n=252)			Midwife (n=177)			Health officer (n=127)		
	S No. %	NS No. %	NA No. %	NS %	NS No. %	NA No. %	S No. %	NSig. No. %	NA No. %	S No. %	NS. No. %	NA No. %	S. No. %	NS. No. %	NA No. %
Poor/lack of utilities (water, electricity, Internet) at work	308 82.1%	65 17.3%	2 0.5%	313 73.8%	109 25.7%	2 0.5%	190 75.1%	63 24.9%	0	133 75.1%	43 24.3%	1 0.6%	99 78.0%	28 22.0%	0
Lack of housing facilities	301 80.3%	66 17.6%	8 2.1%	328 77.4%	90 21.2%	6 1.4%	205 81.0%	43 17.0%	5 2.0%	137 77.4%	39 22.0%	1 0.6%	104 81.9%	21 16.5%	2 1.6%
Access to telephones to stay in touch with family and friends	241 64.4%	120 32.1%	13 3.5%	259 61.1%	152 35.8%	13 3.1%	131 51.8%	115 45.5%	7 2.8%	111 62.7%	63 35.6%	3 1.7%	80 63.0%	45 35.4%	2 1.6%
High cost of living	314 83.7%	55 14.7%	6 1.6%	356 84.0%	67 15.8%	1 0.2%	221 87.4%	32 12.6%	0	136 76.8%	39 22.0%	2 1.1%	114 89.8%	13 10.2%	0
Poor educational facilities for children	146 38.9%	27 7.2%	202 53.9%	205 48.3%	75 17.7%	144 34.0%	128 50.6%	36 14.2%	89 35.2%	87 49.2%	30 16.9%	60 33.9%	57 44.9%	17 13.4%	53 41.7%
Poor access to higher education for yourself	334 89.1%	36 9.6%	5 1.3%	383 90.3%	41 9.7%	0	236 93.7%	16 6.3%	0	157 88.7%	20 11.3%	0	118 92.9%	8 6.3%	1 0.8%
Work is far from home	185 49.3%	114 30.4%	76 20.3%	221 52.1%	177 41.7%	26 6.1%	127 50.4%	93 36.9%	32 12.7%	86 48.6%	79 44.6%	12 6.8%	64 50.4%	57 44.9%	6 4.7%

Table E: Performance of healthcare organizations on the factors contributing to job satisfaction of health workers as perceived by health managers in Ethiopia, June 2014

How do you rate the performance of your organization in the following items?	Rating		
	Performs very well	Performs adequately	Does not perform well
	No. (%)	No. (%)	No. (%)
Placing people in jobs for which they are suited (n=217)	131(60.4)	75(34.6)	11(5.1)
Establishing clear job expectations (n=217)	117(53.9)	88(40.6)	12(5.5)
Recognizing and rewarding good work (n=217)	88(40.6)	89(41.0)	40(18.4)
Supervisors who care about their staff and offer support (n=217)	110(50.7)	84(38.7)	23(10.6)
Talking to staff regularly to encourage their development (n=217)	94(43.3)	105(48.4)	18(8.3)
Valuing and respecting each worker (n=217)	134(61.8)	65(30.0)	18(8.3)
Creating acclimate in which people get along and have friendships at work (n=217)	124(57.1)	81(37.3)	12(5.5)
Creating flexibility to balance the demands of the work place and personal lives (n=216)	75(34.6)	112(51.6)	29(13.4)
Making the work place an enjoyable and stimulating place (n=216)	97(44.7)	93(42.9)	26(12.0)
Preventing harassment by supervisors (n=216)	110(50.7)	88(40.6)	18(8.3)
Preventing harassment by peers (n=216)	109(50.2)	84(38.7)	23(10.6)
Preventing harassment by patients or their friends and family (n=215)	108(50.2)	76(35.3)	30(14.0)
Preventing harassment while traveling to and from work (n=216)	79(36.4)	84(38.7)	53(24.4)
Offering the training needed for staff to succeed at their jobs (n=216)	96(44.2)	89(41.0)	31(14.3)
Taking measures to protect workers against HIV/AIDS and other infections (n=216)	119(55.1)	73(33.8)	23(10.6)
Connecting staff with the community (n=216)	121(55.8)	70(32.3)	25(11.5)
Using appropriate methods and standards to measure job performance (n=216)	117(53.9)	79(36.4)	20(9.2)
Providing opportunities for learning and professional development (n=216)	99(45.6)	70(32.3)	47(21.7)

Table F: Reasons for planning to leave the current job by next year among health workers in Ethiopia, June 2014

Reasons	Medical doctors	Nurses	Anesthetists	Midwives	Health officers
	No. (%)	No. (%)	No. (%)	No. (%)	No. (%)
Low pay	74 (40.2)	151 (45.8)	39 (28.9)	33 (28.7)	35 (31.5)
Heavy workload	4 (2.2)	3 (0.9)	8 (5.9)	4 (3.5)	1(0.9)
Long hours of work	0	2 (0.6)	0	0	0
Unfair treatment by a supervisor	4 (2.2)	6 (1.8)	2 (1.5)	1 (0.9)	4 (3.6)
Poor access to supplies/ equipment at work	9 (4.9)	14 (4.2)	7 (5.2)	2 (1.7)	1(0.9)
Limited opportunities for in-service training	74 (40.2)	45 (13.6)	40 (29.6)	30 (26.1)	31 (27.9)
Limited opportunities for promotion	1(0.6)	10 (3.0)	1(0.7)	6 (5.2)	3 (2.7)
Lack of recognition for good work done	4 (2.2)	4 (1.2)	4 (3.0)	2 (1.7)	1 (0.9)
Social conflicts in the workplace	2 (1.1)	5(1.5)	1(0.7)	0	0
Poor supervision and feedback/Admin	35 (19)	28 (8.5)	10 (7.4)	5 (4.4)	13 (11.7)
Concerns about safety at work	2 (1.1)	2 (0.6)	40 (29.6)	5 (4.4)	0
Transportation problems	6 (3.3)	15 (4.6)	1 (0.7)	3 (2.6)	1 (0.9)
Poor/lack of utilities (water, electricity)	7 (3.8)	13 (3.9)	3 (2.2)	4 (3.5)	4 (3.6)
Lack of housing facilities	10 (5.4)	8 (2.4)	1(0.7)	3 (2.6)	2 (1.8)
Limited access to telephones	2 (1.1)	3 (0.9)	1(0.7)	0	2 (1.8)
High cost of living	6 (3.3)	3 (0.9)	5 (3.7)	3 (2.6)	3 (2.7)
Poor educational facilities for children	3 (1.6)	6 (1.8)	2 (1.5)	1 (0.9)	1 (0.9)
Work place is far from home	19 (10.3)	12 (3.6)	17 (12.6)	13 (11.3)	9 (8.1)
Total	184 (100)	330 (100)	135 (100)	115 (100)	111 (100)