



**ADDIS ABABA UNIVERSITY**  
**COLLEGE OF HEALTH SCIENCE**  
**SCHOOL OF PUBLIC HEALTH**

**Magnitude of Turnover Intention and Associated Factors  
Among Health Care Professionals in Public Primary  
Hospitals in North Shewa, Amhara Region, Ethiopia, 2020.**

**By:**

**SirakTeklemariam (Bsc)**

**A Thesis Submitted to Addis Ababa University, School of Public  
Health in Partial Fulfillment of the Requirements of the Degree of  
Masters of Public Health**

**November, 2020**

**Addis Ababa, Ethiopia**

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**Declaration**

I, the undersigned MPH student declare that this thesis is my original work in fulfillment of the requirement for the master of public health in the General Master of public health.

Name of the student: \_\_\_\_\_

Date. \_\_\_\_\_

Signature \_\_\_\_\_

**Approval of the primary Advisor**

This thesis work has been submitted with our approval as the university advisor.

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**Examining committee:**

Name of examiner: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

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## ACRONYMS

<b>CSA-</b>	Central Statistical Agency
<b>H.O-</b>	Health Officer
<b>IERC-</b>	Institutional Ethical Research Committee
<b>MDs -</b>	Medical Doctors
<b>NGO-</b>	<b>Non</b> -Governmental Organization
<b>PHCs-</b>	Public Health Centers
<b>SPH-</b>	School of Public Health
<b>SPSS -</b>	Statistical Package for Social Sciences
<b>SSA-</b>	Sub-Saharan Africa
<b>UHC-</b>	Universal Health Coverage
<b>USAID-</b>	United States AgencyFor InternationalDevelopment
<b>WHO -</b>	World Health Organization

## **Abstract**

**Background:** One of the most critical issues in public rural town primary hospitals is the high turnover intention of skilled manpower. Good workforce retention is vital to ensuring well-functioning health services capable of delivering improved health outcomes. Many factors such as salary, work environment and supervision influence the turnover intention.

**Objective:** To assess the magnitude of turnover intention and associated factors among health care workers in public primary hospitals in North Shewa, Amhara region.

**Method:** A health facility-based cross-sectional study was conducted in public primary hospitals in North Shewa, Amhara region from March 15 to June 15, 2020, on 316 health professionals working in public primary hospitals using a simple random sampling technique. The data were collected using pre-tested self-administered structured questionnaires. The data was entered into Epidata version 3.1 and was analyzed using SPSS version 23 software. Descriptive statistics were conducted to summarize the sample characteristics and to calculate the mean score as a cutoff point so that those below the mean score (mean=2.9) were considered as having a turnover intention.

**Result:** Out of 316 health professionals who responded to the questionnaires, 175 (55.4%) of them reported to have intention to leave their current work place. The result showed that the socio-demographic factors were not significant, where as insufficient salary [AOR=3.03 (95% CI: 1.24, 4.41)], insufficient incentives [AOR=2.19 (95% CI: 1.10, 4.04)], insufficient supply of equipment and supplies [AOR=1.93 (95% CI: 1.04, 3.49)], shortage of transportation access [AOR=1.89 (95% CI: 1.23, 2.81)], workload [AOR=1.76 (95% CI: 1.02, 2.41)], insufficient development and training [AOR=1.74 (95% CI: 1.00, 2.45)], unsatisfied with the management bodies [AOR=1.700 (95% CI: 1.07, 2.97)] and unavailability of clean water [AOR=1.67 (95% CI: 1.08, 2.67)] and  $p < .001$  for all factors were significantly associated with turnover intention of the health care professionals.

**Conclusions and recommendation :** The magnitude of intention to leave among health care professionals working in public primary hospitals of North Shewa Zone Amhara Region was high. So it would be necessary to recommend that the hospital managers, the Zone health department and the region health bureau could be collaborated in order to reverse this intention and retain the health professionals based on these determinants found in this study.

**Key words:** Turn over intention, Health professionals, Primary Hospitals.

# 1. INTRODUCTION

## 1.1. Background

Human resources are the most important assets in the health system. Motivating and retaining capable and experienced health workers is very important for advancing the quality of health care services. Health care workers are one of the most important building blocks of the health system without which global and national attempts to achieve health-related goals cannot be reached(1).

One of the most challenges for health care institutions is high turnover. Turnover intention is a good predictor of the actual turnover and it assumed to be used as a mirror for the actual turnover. Turnover is one of the main causes of the shortfalls and unbalanced distribution of health personnel. Ethiopia has been suffering from the human resources for health. The national estimated density of health workers (0.84 per 1000 population) (1).

In addition to this, the turnover intent from the current health care institution in rural towns is high (59.4%) (2). Such studies were limited to health centers and may not represent the primary hospitals of the health facilities.

## 1.2 .Statement of the problem

Globally the sparsity of health workers is estimated to be approximately 4.3 million health workers. African countries need at least one million additional workers to offer basic services. Turnover is the major problem in developing countries particularly in Africa (2). For instance, a study in Malawi showed that 69% of the health care workers had a turnover intention, the main pushing factors being: lack of recognition for their efforts, low payment, lack of transport, unfair evaluation, and promotion (3). On the other hand, similar studies were done in Ethiopia namely; North Shewa, West Gojam, Sidama, and South West Ethiopia showed that 61.3%, 59.4%, 50%, 59.4% of the health care workers turn over intention (1,2,4,5) respectively. This indicates that more than half of the health workforce were performing their task with half-heart intending to leave for a better job or working condition (1). It is stated that the Primary health care provider's motivation and satisfaction have been affected by several factors.

These studies were conducted in rural health centers settings and no similar study was done in primary hospitals. Therefore, this study was tried to show the intention of health workers to stay or leave their current job in small towns situated hospitals and associated factors, specifically in North Shewa, Amhara Regional State.

### **1.3. Significance of the study**

This study was aimed at examining the current intention of the workers leave their job and forecasting the future needs of the health workforce of the health institutions so that health managers will plan a retention strategy effectively and thereby reversing this intention. Studying turnover intention is vital to , workforce planning, and assumptions on future supply requirements.(6). Most studies have focused on health workers of high-level professionals in large cities hospital settings. In Africa research has concentrated on the retention of health workers in urban areas but not rural settings(7). So, this study would have been contributed a lot to rural health workers' human resource management.

## **2. LITERATURE REVIEW**

### **2.1. Intention to leave**

Health professionals are one of the most mandatory building blocks of the health system. High turnover rates contribute to the shortage and unjust distribution of health personnel in health institutions. Factors include management, supervisor and working relationship with colleagues, financial aspects, career development, continuing education, health facility infrastructure, and others were contributing for turnover intention. Inconsistency to those study findings of high turnover intention in Ethiopia, different studies revealed that manpower in the health service is small (8)

The recent WHO/World Bank/USAID handbook has suggested that the “workforce loss ratio” can be calculated by using several workers who have left in the past year as a numerator, and the total number of health workers as the denominator. This is the standard approach- determining the loss over the year as a proportion of the total workforce(9).

A study conducted in Ethiopia, North Shao Zone, Amara Region to assess the magnitude of turnover intention and associated factors among health professionals, indicated that concerning the intention to leave, more than half (59.4%) of the health professionals had intended to leave for different reasons, 53.9%, 53.9%, and 50.4% were unsatisfied with the work environment, remuneration, and supervision, respectively(1).

Another study held in West Ethiopia, Jimma Zone health institutions, showed that absence of continuous development of health workers' skill and knowledge (51.5%), absence of training continually coordinated, implemented, and monitored (64.6%), and absence of satisfaction assessment (47.4%) were some of the reasons for frustrating the staff retention(4). Retaining and developing the workforce is generally regarded as a major human resource objective for any organization.

In health care, there is a general assumption that staff turnover, will negatively affect both access to care, and the level and quality of healthcare being provided. Turnover may reduce staffing and patient contact time; can add to organizational costs, if temporary cover for staff who leave (e.g. overtime pay) and recruitment of replacements incurs additional costs; and may reduce individual and organizational performance through the loss of experienced staff(9),

A study done in East Gojam, Ethiopia showed that 59.4% of health workers have turnover intent from the current health care institution. According to this study, the five top reasons for leaving a current position were: Poor payment (52.4%), poor training opportunities (49.5%), poor organizational commitment (37.9%), an unfair system in the organization (37.1%), and not enough job satisfaction (36.8%)(2). This study is nearly consistent with the study done in North Shoa Zone, Amhara Region, Ethiopia. On the other hand, a study done in Netherland showed that the turnover rate was 10-12% within seven years(10), which shows a large gap compared to the above study findings.

## **2.2. Factors**

### **2.2.1. Professional commitments**

Professional commitment to one's organization motivated work-related behaviors was found to mediate the relationship between interpersonal relations and turnover intention(11). Research findings suggest that professional commitment can be enhanced by continuous professional training. Health institutions, who possess adequate training, are more likely to induce a high level of motivation in their employees' commitment.(12). A study conducted in Uganda showed that 56.1% of the study participants agreed that the organizational training makes a positive contribution to the overall commitment of the workers on their institutions which in turn enhances employee retention(13). On the other hand, the organizational commitment of individuals can be affected by different conditions like acknowledgement and respect(14). In the work setting, the interpersonal context is said to be autonomy-supportive when managers provide a meaningful rationale for doing the tasks, emphasize choice rather than control (15).

### **2.2.2. Remuneration**

A study done to assess the contribution of remuneration in the retention of the health workforce in a rural district setting in Uganda found that salary ranked highest compared to other factors. The majority in Cameroon (68%), Ghana (89%), and South Africa (78%) affirmed that the most considered factor for stability was pay level. This suggested that the improvement of salaries was a good reason for them to stay(16). Health care for one's family was ranked as the most important compensation factor, 87.5% followed closely by salary at 81.9% then terminal benefits such as retirement and pension; family health care, salary, and terminal benefits are important

compensation factors that are closely linked to motivation and retention. Health care to families is even rated higher than salary among health workers(12).

Attractive remuneration packages are one of the very important factors of retention because it fulfills the financial and material desires as well as provides the means for employee status. Compensation has always been at the heart of any employment relationship; it helps to attract the best job candidates, motivates them to perform to their maximum potential, and retain them for the long term.(12). A study in Kenya done by Kigathi Patrick Ngure for his master's thesis showed that 52.6% of the participants indicated that remuneration given to health workers increased their retention (17)

### **2.2.3. Work environment**

The work environment is important to health workers as they cannot effectively perform their jobs without the essentials; lack of the essentials frustrates workers and they may consider leaving the institution; improving working environment by providing illuminated, well-ventilated office space, office furniture, office equipment, and stationery for all workers should be full filed. (12)

One of the aspects of the work that many stayers referred to attractive is the discretion and flexibility it gave them(18). A study in North Shoa, Ethiopia indicated that 62% of the health workers were satisfied with the work nature, 56.7% were satisfied with autonomy while 70.4% were satisfied with peer group relationships in the health facilities(1). A Similar study in southeast Ethiopia, Arusi Zone indicated that 47.6% of health care workers were unsatisfied with their job because they were working in an unfavorable working environment. Another study in Kenya indicated that 60.1% of the study participants agreed that the work environment is a determinant for health workers retention and 69% of the participants said that failure to improve work environment was one of the reasons why employees would leave the institution for employment elsewhere(8,12).

### **2.2.4. Supervision and Training**

Education, training, and professional development opportunities influenced the retention of health workers.(17). A case study of Kenyatta national hospital done in Kenya showed that a high percentage of respondents (62.1%) of the study participants showed that training offered to the health workers in their institution increases their retention; however 35.0% of study participants agreed that training opportunities outside the country influenced health staff to leave and those who went abroad for further studies especially to the United States of America did not return, on the other hand when health workers are recognized for doing a good job, they stay longer at a

duty station(12). A qualitative study done in Malawi showed that workers had considered leaving their jobs because they were frustrated by the lack of recognition or promotion.(3).

**Research Questions:**

1. What proportion of the health care professionals in Public Primary hospitals will have an intention to leave their current job in North Shewa, Amhara Region?
2. What are the specific factors related to health care professionals leaving their work in public primary hospitals, North Shewa Zone, Amhara region?

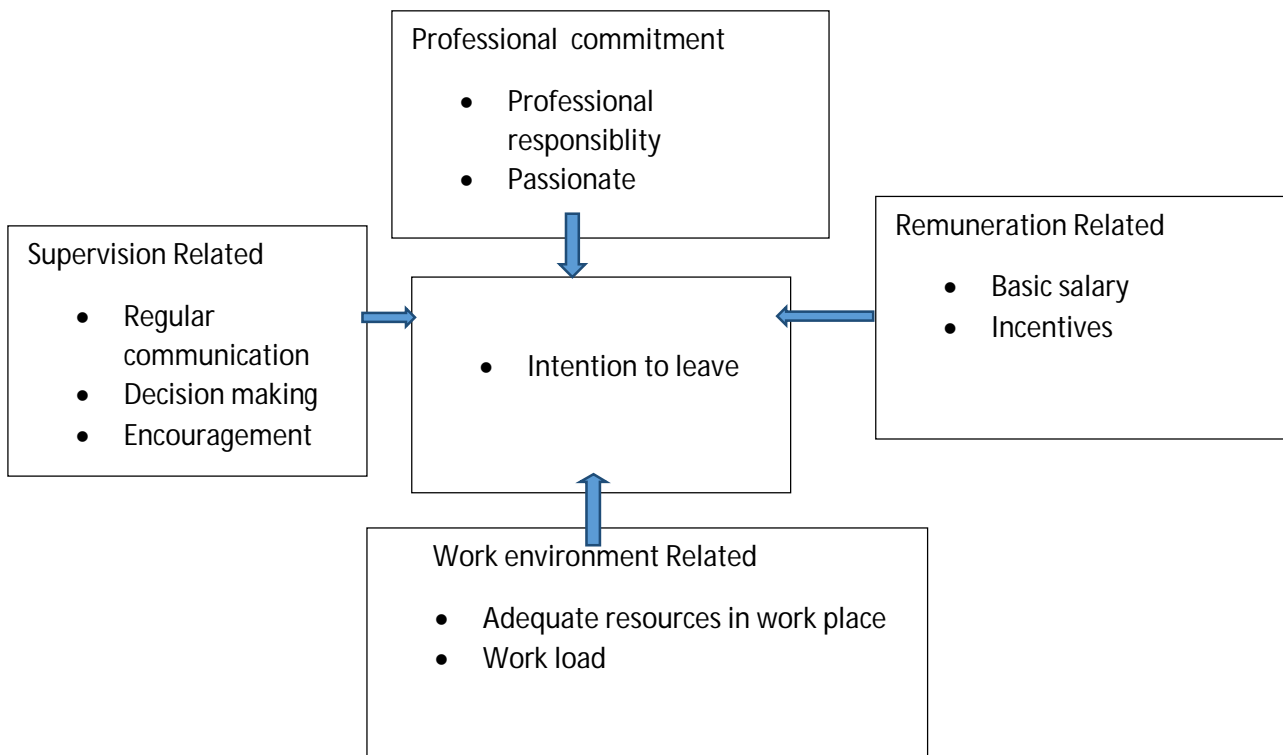


Figure 1: Conceptual framework

**Hypothesis:**

**Null Hypothesis:** There is no significant association between turnover intention and those factors, that is Professional commitments, work environment, remuneration, supervision and sociodemographic-demographic factors.

**Alternative Hypothesis:** There is a significant association between turnover intention and those factors such as Professional commitments, work environment, remuneration, Supervision and socio-demographic factors.

### **3.OBJECTIVES**

#### **3.1.General Objective**

To assess the magnitude of turnover intention and its associated factors among health care professionals in public primary hospitals in North Shewa, Amhara region.

#### **3.2.Specific objectives**

To assess the magnitude of turnover intention among health care professionals in public primary hospitals in North Shewa, Amhara region.

To assess factors associated with turnover intention among health care professionals in public primary hospitals in North Shewa, Amhara region.

## **4. METHODS AND MATERIALS**

### **4.1. Study design**

Institutional based Cross-sectional study design with quantitative methods was implemented to assess the turnover intention and its associated factors that influencing the health care professionals to leave or stay at working institution among health workers in government primary hospitals in North Shewa, Amhara region.

### **4.2. Study area and period**

North Shewa Zone is found in Amhara Region which is bordered in South and Southwest by Oromia Region; in the East by Afar Region; and in the north by South Wollo. This Zone is divided into 23 administrative woredas and one administrative town (Debreberhan). This Zone has a 2012 total estimated population of 2,011,197. The Zone has nine primary hospitals and one referral hospital. The study was conducted in four selected primary Hospitals, namely; Enat primary hospital (Merhabete), Mida Woremo primary hospital (Mida), Deneba Primary Hospital (Deneba), and Debresina primary Hospital (Debresina) in North Shewa Zone, which are found 182Kms, 224Kms, 170Kms, and 190kms North of Addis Ababa. The total catchment population of these four hospitals was about 914,774, which means on average one hospital gives a health service for 228,693 people. This study was focused on the aforementioned four public primary hospitals which give primary health care services. The study was conducted from March 15, 2020, to June 15, 2020.

### **4.3. Population:**

#### **4.3.1. Source population**

All health care professionals in all public primary hospitals in North Shewa, Amhara Region.

#### **4.3.2. Study population**

Selected Primary Health care professionals in Enat hospitals, Mida Woremo primary hospitals, Deneba primary hospital, and Debresina primary hospital. It included nurses, medical doctors, pharmacy personnel, laboratory personnel, midwives, and other health professionals.

#### 4.4. Inclusion and Exclusion criteria

##### 4.4.1. Inclusion criteria

Permanently employed health professionals with more than six months' stay.

##### 4.4.2. Exclusion criteria

Those in the annual and postnatal leave.

#### 4.5. Measurement and data collection

##### 4.5.1. Sample size determination

The sample size for this study objectives was calculated using a single population proportion formula for cross-sectional study, based on the following assumption; 95% confidence level, and 5% margin of error to recruit study participants. 10% none respondent rate was considered. Health institutional-based cross-sectional study was done on turnover intention, North Shewa, Ethiopia, showed that the magnitude of turnover intention is 61.3%(1). This helped to have a better sample size of study participants to be included in the study and increase accuracy. The following formula will be used for calculating the sample size:

$$n = \frac{(Z_{\alpha/2})^2 P (1 - P)}{d^2}$$

d<sup>2</sup>

Where: n = the desired sample size

P = Assuming turnover intention at North Shewa, Ethiopia = 61.3%

Z<sub>α/2</sub> = Critical value at 95% confidence level of certainty (1.96)

d = Assuming the margin of error between the sample and the population = 5%

We use single population proportion formula:  $n = \frac{(1.96)^2 0.613(1-0.613)}{(0.05)^2} = 369.8 \approx 364$

Because the total study population is less than 10,000, which is 1140, the sample size will be determined by using the correction formula as(8):

$n = 364 / (1 + (364 / 1140)) = 287$ . By adding 10% non-response rate, total sample size

becomes  $(287 + (10/100 * 287)) = 287 + 29 = 316 = n'$

#### 4.5.2. Sampling Procedure

After selecting four hospitals out of nine primary hospitals by using a simple random sampling technique, a simple random sampling with equal allocation of samples was used to select samples.

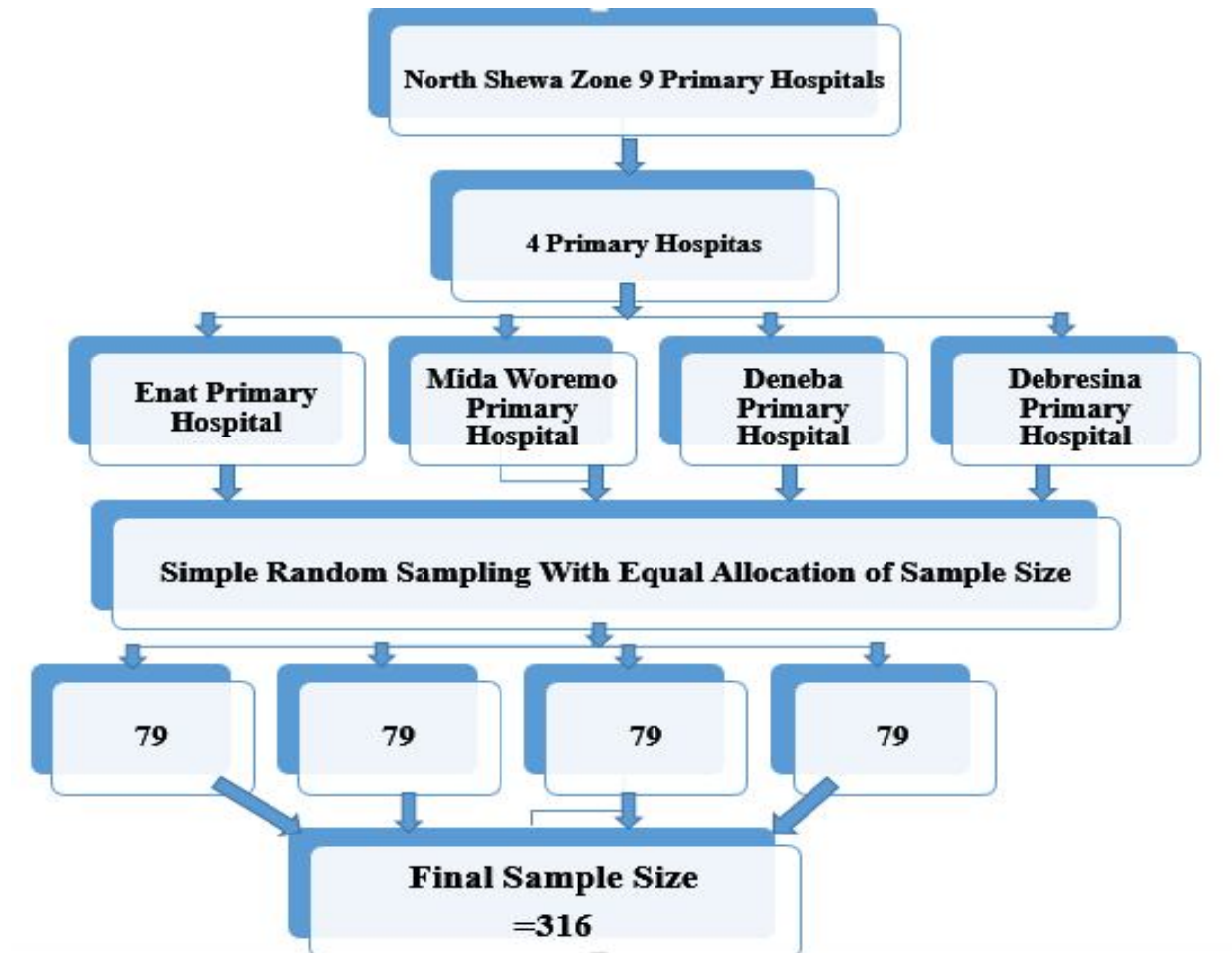


Figure 2: Sampling procedure

#### 4.5.3. Data collection procedure

A structured self-administered Likert scale type questionnaire was used to collect data from participants. It was adapted from different sources that have similar objectives (17).

#### 4.5.4. Data Quality Management

To maintain data quality, four data collectors who have BSc and one supervisor who has an MA in health and social profession respectively were recruited and were given training. The training was focused on the objective of the study, study subjects, and the contents of the tools. The questionnaires were pre-tested on 5% of the total sample size at one of the primary hospitals to see

for the exactness of the responses for the questions asked, language clarity, and appropriateness of the tools before the actual data collection was conducted.

The revised tools were used for the actual data collection at the four selected public primary hospitals. Close supervision was made by the supervisor and by the principal researcher to check the data collectors whether they are distributing the questionnaires exactly for the illegible participants. Confusions and questions were solved by the supervisors and principal researcher during data collection.

#### **4.6. Data Analysis and interpretation**

The completed questionnaires were coded, manually checked, and entered into Epi-data version 3.1 and exported to SPSS version 23 for cleaning and analysis. A 5 point Likert scale rating of strongly disagreed (1-point), disagreed (2-points), neutral (3-points), agreed (4 points), and strongly agreed (5 points) were used. The mean Likert scale score or weighted average was used to categorize the agreement level as negatively agreed(disagreed) when the score is below the mean score. while the value above or equal to the mean score was taken as positively agreed(19). Descriptive statistics including tables and charts were used to characterize the study population using socio-demographic and turnover intention related variables. To identify factors associated with an intention for turnover, binary logistic regression, and multivariate logistic regression analysis was done. By selecting P-values below 0.2 in the binary logistic regression(20), and entering into multiple logistic regression, and adjusted odds ratio with 95% CI was calculated to determine the presence as well as strength of association between dependent and independent variables.

#### **4.7. Variables:**

##### **4.7.1. Dependent variable**

Turnover intention at the public primary hospitals.

##### **4.7.2. Independent variable**

Professional commitments, work environment (access to supply, relationships, available resources, etc), Remuneration(salary, incentives), and supervision. Socio-Demographic factors such as age, sex, educational level, basic salary, etc.

#### **4.8. Ethical Consideration**

Ethical clearance was obtained from the Institutional Review Board (IRB) of the College of Health Sciences of Addis Ababa University. After explaining the purpose of the study, verbal informed consent was taken from the study participants. Information was given for the study participants about voluntary participation and that they can stop participation at any time if they were not comfortable. To ensure the confidentiality of participants, personal identifiers were not recorded on the questionnaire.

#### **4.9. Dissemination of results**

The soft and hard copies of the final thesis report of this study will be submitted to the School of Public Health College of Health Science of Addis Ababa University. A copy of the report will also be given to Amhara Region health Bureau, North Shewa Zone health department, for those four hospitals that were part of the study, and those concerned bodies. Furthermore, the manuscript will be developed and published in local or international journals.

#### **4.10. Operational definitions:**

**Factors:** Things that actively contribute to an accomplishment, result, or process in the public primary hospitals

**Health care workers:** All health care professionals, MD, Health Officers, professional/clinical nurse, Laboratory technologist/technician pharmacist/pharmacy technicians, and others.

**Leavers:** Health workers in the selected study sites who have an intention to change their current workplace.

**Primary Health care:** Health care that is available, accessible, and affordable to individuals and communities at all levels, public primary hospitals.

**Remuneration:** Refers to the total compensation package that an employee receives in their services he/she has rendered for the employer such as salary and incentives.

**Retention:** Ability to keep health workers in Public Primary Hospital facilities.

**Turnover intention:** Futurely thinking to leave the current working place.

## **5.RESULTS**

### **5.1 Socio-Demographic characteristics of study participants**

In this study, 316 respondents were participated out of whom 129(41%) were females and 187(59%) males. The minimum age was 21 years and the maximum age was 45 yearswith the mean age of (27±13).Near to two-third of the participants 190( 61%) were single, 103(32.6%) were married.

Only 64(20.6%) were paid more than 8000ETB as their monthly basic salary whereas 252(79.4%) were paid less than this amount.The majority of the study participants 253(80.1%) were Orthodox Christians followed by protestant Christians 27(8.5%), Muslims 24(7.6%), and 12(3.8%) Catholic Christians.

Regarding their educational level,121(38.3%) were Diploma,193(61%) were first-degree holders, and 2(0.6%) were second degree holders.The majority of the study participants were nurses 138(43.7%) followed by midwives 46(14.6%), Medical doctors(GPs) 43(13.6%),Pharmacy personnel 33(10.4%),laboratory personnel 30(9.5%) and other health professionals like health officers, X-ray, anesthesia, accounts the least 26(8.2%).

Table 1: Socio-Demographic information of study participants.

<b>Variables</b>	<b>Frequency</b>	<b>Percent</b>
<b>Total</b>	316	100
<b>Age of Participants In Years</b>		
<26	88	27.8
26-30	183	57.9
31-35	37	11.7
36-40	7	2.2
>40	1	0.3
<b>Sex of Participant</b>		
Male	187	59.2
Female	129	40.8
<b>Profession of Participants</b>		
Medical Doctors	43	13.6
Nurses	138	43.7
Pharmacy	33	10.4
Laboratory	30	9.5
Midwives	46	14.6
Others	26	8.2
<b>Birth Place of Participant</b>		
Nearby	154	48.7
Far away	162	51.3
<b>Marital Status</b>		
Single	190	60.1
married	103	32.6
separated	19	6.0
divorce	4	1.3
<b>Presence of Children</b>		
Yes	116	36.7
No	200	63.3
<b>Length of Stay In Years</b>		
<3	225	71.2
4-6	73	23.1
7-10	13	4.1
>10	5	1.6
<b>Educational Level</b>		
diploma	121	38.3
BSC degree	150	47.5
MD degree	43	13.6
MSC degree	2	.6
<b>Basic Salary</b>		
2000-5000 ETB	117	37.0
5001-8000 ETB	135	42.7
>8000 ETB	64	20.3

Data Is Presented As Figure And Percentage.

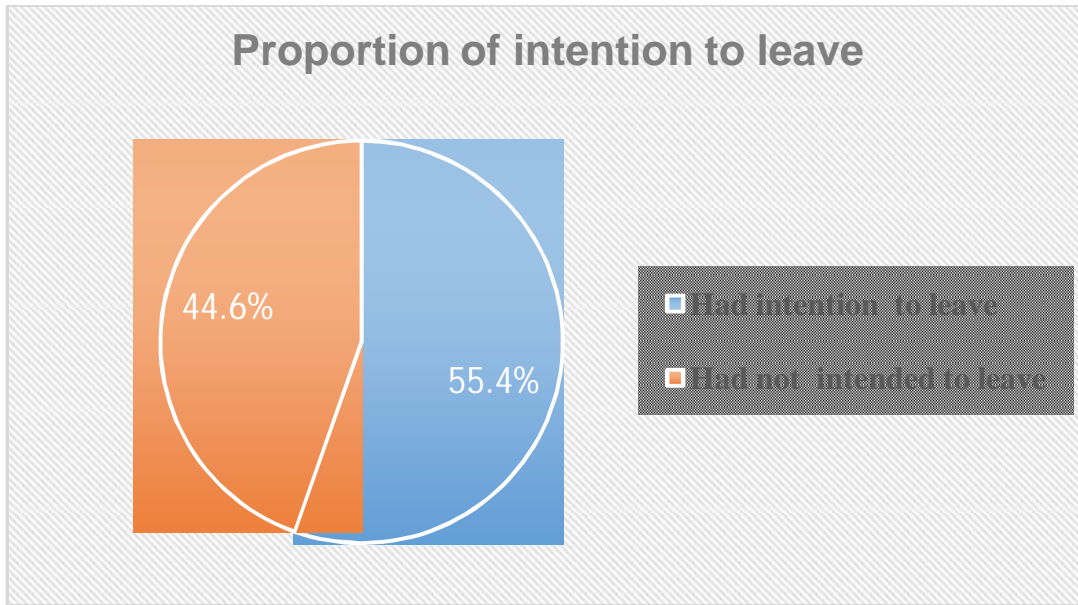


Figure 3: The Overall magnitude of turnover intention among health professionals working in public primary hospitals, North Shewa Zone, Amhara Region.

### 5.2 Proportion of intention to leave concerning socio-demographic characteristics.

Out of 316 total study respondents, more than half of 175(55.6%) had the intention to leave, whereas 141(44.4%) had no intention to leave from the current workplace.

Coming to individual characteristics, the row total and proportion of intention to leave was considered. As was observed in the table-2, out of 43 medical doctors(GPs), 29(67.4%) had the intention to leave, the highest in intention to leave whereas pharmacy personnel 12(36.4%) showed the least for the intention to leave.

Compared to females 70(54.3%), males had a little bit higher in the proportion of intention to leave, 105(56.1%). Respondents with birthplace far away from their workplace had 91(56.2%) while those with nearby had 84(54.5%). Concerning educational background medical doctors 29 out of 43 that is 67.4% had the intention to leave followed by BSC degree 84(56%).

Table 2: Turnover intention of primary hospitals health care workers in North Shewa Zone, Amhara Region, Stratified by Socio-Demographic Characteristics.

Variables	Intention To leave,N(%)	
	Yes	No
Total	175(55.6)	141(44.4)
<b>Age of Participants in Years</b>		
<26	42(47.7)	46(52.3)
26-30	108(59.0)	75(41.0)
31-35	20(54.1)	17(45.9)
36-40	4(57.1)	3(42.9)
<b>Sex of Respondents</b>		
Male	105(56.1)	82(43.9)
Female	70(54.3)	59(45.7)
<b>Profession of Respondents</b>		
Medical Doctor	29(67.4)	14(32.6)
Nurse	77(55.8)	61(44.2)
Pharmacy	12(36.4)	21(63.6)
Laboratory	15(50.0)	15(50.0)
Midwife	27(58.7)	19(41.3)
<b>Marital Status of respondents</b>		
Single	106(55.8)	84(44.2)
married	54(52.4)	49(47.6)
separated	13(68.4)	6(31.6)
divorce	2(50.0)	2(50.0)
<b>Present of children</b>		
Yes	62(53.4)	54(46.6)
No	113(56.5)	87(43.5)
<b>Length of stay</b>		
<3 Yrs	127(56.4)	98(43.6)
4-6Yrs	40(54.8)	33(45.2)
7-10Yrs	5(38.5)	8(61.5)
>10 Yrs	3(60.0)	2(40.0)
<b>Educational Level</b>		
diploma	62(51.2)	59(48.8)
BSC degree	84(56.0)	66(44.0)
MD degree	29(67.4)	14(32.6)
<b>Basic Salary</b>		
2000-5000 ETB	65(55.6)	52(44.4)
5001-8000 ETB	72(53.3)	63(46.7)
>8000 ETB	38(59.4)	26(40.6)

Data Is Presented As Figure With the Corresponding Percentage In Parenthesis.

### 5.3 Frequency and percentage distribution of level of agreements on different subscale factors.

#### 5.3.1 Professional commitment

The loyalty and sense of responsibility of these health care workers towards their professions' particular problems or challenges was evaluated by this five point likert scale.

This table(Table-3) tried to show the proportions of the level of agreements of the respondents on each item in the professional commitments items. As seen in table-3, out of the total 316 respondents, on average 123(39%) responded "Agree",70(22%) responded "Disagree",50(16%) answered with "strongly agree,44(14%) responded "neutral, while 29(9%) answered "strongly disagree.

Table 3: Frequency and percentage distribution of level of agreements on professional commitment factors for turnover intention.

<b>Professional commitment</b>	<b>Total</b>	<b>strongly agree(%)</b>	<b>agree(%)</b>	<b>neutral(%)</b>	<b>disagree(%)</b>	<b>strongly disagree(%)</b>	<b>Total(%)</b>
Whatever it is, I am committed to my job	<b>316</b>	59(19)	161(51)	30(9)	48(15)	18(6)	<b>100</b>
I know what is expected of me	<b>316</b>	117(37)	150(47)	30(9)	15(5)	4(1)	<b>100</b>
I received recognition for doing better work	<b>316</b>	45(14)	112(35)	46(15)	91(29)	22(7)	<b>100</b>
The morale level at my department is good	<b>316</b>	42(13)	165(52)	43(14)	45(14)	21(7)	<b>100</b>
I am respected in my work	<b>316</b>	60(19)	169(53)	48(15)	32(10)	7(2)	<b>100</b>
I have good friends at work	<b>316</b>	98(31)	170(54)	36(11)	7(2)	7(2)	<b>100</b>
I have been abused by a supervisors	<b>316</b>	21(7)	48(15)	51(16)	134(42)	62(20)	<b>100</b>
I have been abused by my peers.	<b>316</b>	9(3)	41(13)	41(13)	143(45)	82(26)	<b>100</b>
I have been abused by patients or their family members	<b>316</b>	22(7)	94(30)	41(13)	97(31)	62(20)	<b>100</b>
The Hospital takes specific measures to protect me against health-related risks	<b>316</b>	18(6)	81(26)	47(15)	121(38)	49(16)	<b>100</b>
I consider myself a part of this community.	<b>316</b>	107(34)	137(43)	47(15)	19(6)	6(2)	<b>100</b>
Fairly evaluated in my work.	<b>316</b>	52(16)	90(28)	42(13)	108(34)	24(8)	<b>100</b>
I am involved in helping to make a great healthcare facility.	<b>316</b>	76(24)	189(60)	35(11)	12(4)	4(1)	<b>100%</b>
<b>Average</b>	<b>316</b>	50(16)	123(39)	44(14)	70(22)	29(9)	<b>100%</b>

### 5.3.2 .Working Conditions

This includes working environment and aspects of an employee's terms and conditions of employment. The questionnaires were tried to show the feelings of workers towards the working conditions of their work place by choosing their agreements positively, negatively or neutral accordingly with the corresponding questions.

As seen in the table below (Table-4), on average 45% of the respondent showed positive agreement, 15% showed neutral, and 40% of them showed negative agreement (disagreement), on the statements that showed "there are good working conditions in their health facility".

Table 4: Frequency and percentage distribution of level of agreements of respondents on working condition determinants for turnover intention.

<b>Working environment</b>	<b>Total</b>	<b>strongly agree(%)</b>	<b>agree(%)</b>	<b>neutral(%)</b>	<b>disagree(%)</b>	<b>strongly disagree(%)</b>	<b>Total(%)</b>
Work load is manageable	<b>316</b>	48(16)	155(52)	23(8)	74(25)	16(5)	<b>100</b>
I have the supplies I need to do my job	<b>316</b>	44(14)	116(37)	33(10)	102(32)	21(7)	<b>100</b>
I have the equipment I need to do my job	<b>316</b>	27(9)	119(38)	49(16)	104(33)	17(5)	<b>100</b>
This Hospital has good access to drugs and medications	<b>316</b>	36(11)	84(27)	47(15)	135(43)	14(4)	<b>100</b>
I have access to clean water at work	<b>316</b>	22(7)	121(38)	48(15)	91(29)	34(11)	<b>100</b>
I have good access to electricity	<b>316</b>	55(17)	106(34)	24(8)	112(35)	19(6)	<b>100</b>
I have good transportation to work	<b>316</b>	15(5)	77(24)	39(12)	123(39)	62(20)	<b>100</b>
I have job security	<b>316</b>	27(9)	173(55)	40(13)	41(13)	35(11)	<b>100</b>
Average	<b>316</b>	32(10)	110(35)	47(15)	98(31)	29(9)	<b>100</b>

### 5.3.3. Remuneration

Out of the total 316 respondents, 250(75%) had negatively agreed,29(9%) had neither agreed nor disagreed rather they responded neutral, and only 16(11%) agree positively that is either “strongly agree” or “Agree” with the statement of salary and incentives are fair and sufficient.

Table 5: Frequency and percentage distribution of level of agreements on remuneration factors for turnover intention.

<b>Remuneration</b>	<b>Total</b>	<b>strongly agree(%)</b>	<b>agree(%)</b>	<b>neutral(%)</b>	<b>disagree(%)</b>	<b>strongly disagree (%)</b>	<b>Total (%)</b>
My salary is satisfactory	<b>316</b>	5(2)	32(10)	16(5)	87(28)	176(56)	<b>100</b>
I feel there are satisfactory incentives for these workers.	<b>316</b>	9(3)	27(9)	38(12)	137(43)	105(33)	<b>100</b>
Average	<b>316</b>	7(2)	29(9)	29(9)	111(35)	139(44)	<b>100</b>

### 5.3.4. Supervision

In this part of the questionnaires, 105(33%) of the study respondents had negative agreement(either disagree or strongly disagree) for the positive questions of supervision whereas 152(48%),positive agreement(either agree or strongly agree) to indicate being happy with their supervisory bodies, and 60(19%) of them had neither, that is to say, they had responded neutral on the supervision part statements.

Table 6: Frequency and percentage distribution of level of agreements on supervisory determinants for turnover intention

<b>Supervision</b>	<b>Total</b>	<b>strongly agree(%)</b>	<b>agree(%)</b>	<b>neutral(%)</b>	<b>disagree (%)</b>	<b>strongly disagree(%)</b>	<b>Total(%)</b>
Senior management gives a clear direction of the hospital	<b>316</b>	47(15)	116(37)	44(14)	79(25)	30(9)	<b>100</b>
I am satisfied with the strategic direction of the hospital.	<b>316</b>	31(10)	93(29)	67(21)	99(31)	26(8)	<b>100</b>
Senior management is interested to accept mistakes made in the process of trying new things.	<b>316</b>	26(8)	125(40)	54(17)	78(25)	33(10)	<b>100</b>
Senior management treats me with respect.	<b>316</b>	29(9)	118(37)	64(20)	70(22)	35(11)	<b>100</b>
My supervisor is knowledgeable about my work	<b>316</b>	33(10)	168(53)	58(18)	11%	7%	<b>100</b>
My supervisor is volunteer to listen to me	<b>316</b>	35(11)	151(48)	69(22)	42(13)	19(6)	<b>100</b>
My supervisor is proud of my work	<b>316</b>	52(16)	157(50)	52(16)	39(12)	16(5)	<b>100</b>
My supervisor has interest to promote me	<b>316</b>	35(11)	116(37)	72(23)	78(25)	15(5)	<b>100</b>
My supervisor tries to train me as necessary	<b>316</b>	30(9)	113(36)	62(20)	76(24)	35(11)	<b>100</b>
Average	<b>316</b>	32(10)	120(38)	60(19)	76(24)	29(9)	<b>100</b>

The Data Is Presented In Figures With the Corresponding Percentage In Parenthesis.

The table below (Table-7) shows that the average estimated internal consistency of all the different items by using a statistic called Cronbach's alpha ( $\alpha$ -coefficient). If the alpha coefficient is greater than 0.7, it is assumed to have good reliability. So as we can see from the table below, all coefficients are greater than the preset figure (0.7) and the correlation between all the different items was found to be more reliable.

Table 7: Reliability analysis of tools for different subscales, North Shewa Zone, Amhara Region public primary hospitals, March-June 2020.

Sub-Scale	Number of Items	Mean $\pm$ SD	$\alpha$ -coefficient
<b>Professional commitment</b>	17	3.31 $\pm$ 1.17	0.766
<b>Working conditions</b>	9	3.06 $\pm$ 1.35	0.755
<b>Remuneration</b>	2	1.90 $\pm$ 1.072	0.717
<b>Supervision</b>	12	3.16 $\pm$ 1.32	0.94

#### 5.4. Logistic Regression Analysis for factors Associated with the intention to leave.

##### 5.4.1. Binary Logistic Regression Analysis.

As we have had seen in the descriptive statistics there were some differences in turnover intention concerning socio-demographic variable, however, when the hypothesis was tested, it was proved that intention to leave was not significantly associated with socio-demographic characteristics as the P-Value of the COR was not significant ( $P > .05$ ).

The p-value for Crude Odds Ratio (COR) ( $P > .05$ ) for the binary logistic regression also supported that there was no significant association between these factors and intention to leave as we can see from the table below. So, since there was no significant association between these factors and turnover intention, during binary logistic regression, it was not necessary to go to multiple regression to calculate Adjusted Odds Ratios (AOR). So here we concluded that we had unable to reject the null hypothesis.

Table 8: Abinary logistic regression model predicting intension to leave their current job with respect to respondent socio-demographic variables, North Shewa Zone Public Primary Hospital, Amhara Region, March-June 2020

Variables	Intention To leave		P-Value	COR	95% CI for EXP(B)	
	Yes	No			Lower	Upper
<b>Age of Participants</b>						
<26	42(47.7)	46(52.3)		1		
26-30	108(59.0)	75(41.0)	0.178	1.577,	0.946	2.631
31-35	20(54.1)	17(45.9)	0.519	1.289	0.597	2.783
36-40	4(57.1)	3(42.9)	0.633	1.46	0.309	6.91
<b>Sex of Respondents</b>						
Male	105(56.1)	82(43.9)	0.74	1.079	0.687	1.694
Female	70(54.3)	59(45.7)		1		
<b>Profession of Respondents</b>						
Medical						
Doctor	29(67.4)	14(32.6)	0.178	0.276	0.296	1.253
Nurse	77(55.8)	61(44.2)	0.008	0.609	0.106	0.716
Pharmacy	12(36.4)	21(63.6)	0.137	0.483	0.185	1.259
Laboratory	15(50.0)	15(50.0)	0.394	0.686	0.288	1.632,
Midwife	4(57.1)	19(41.3)	0.415	0.658	0.241	1.8
<b>Marital Status of respondents</b>						
Single	106(55.8)	84(44.2)	0.818	1.262	0.174	9.147
Married	49(47.6)	54(52.4)	0.924	1.102	0.149	8.125
Separated	13(68.4)	6(31.6)	0.488	2.167	0.244	19.276
Divorce	2(50.0)	2(50.0)		1		
<b>Educational Level</b>						
diploma	62(51.2)	59(48.8)		1		
BSC degree	84(56.0)	66(44.0)	0.435	1.211	0.749	1.959
MD degree	29(67.4)	14(32.6)	0.069	1.971	0.949	4.093
<b>Basic Salary</b>						
2000-5000 ETB	65(55.6)	52(44.4)	0.62	0.855	0.461	1.587
5001-8000 ETB	72(53.3)	63(46.7)	0.424	0.782	0.428	1.429
>8000 ETB	38(59.4)	26(40.6)		1		

Data is presented in figures with the corresponding percentage in parenthesis, P-value, Crude Oddsratio(COR) with corresponding confidence intervals.

#### **5.4.2. Multivariable logistic regression for factor analysis.**

After entering all factors into a binary logistic regression, those with a P-value less than .2 (20) were collected and entered into multivariable logistic regression. Then the ten covariates that were significantly associated ( $P < 0.05$ ) with the intention to leave were fitted into the backward stepwise multivariable logistic regression model to extract potential predictors. Eight variables, workload [(AOR=1.762, 95% CI(1.015,2.411)], access of supply and equipment [(AOR=1.929, 95% CI(1.044,3.493)], access to clean water (AOR=1.672, 95% CI(1.078,2.666)], access to transport (AOR=1.887, 95% CI(1.231,2.810)), satisfaction with salary (AOR=3.032, 95% CI(1.240,4.409)], incentives (AOR=2.192, 95% CI(1.101,4.039)), development and training (AOR=1.236, 95% CI(1.002,2.452)), and satisfaction with management bodies (AOR=1.698, 95% CI(1.072,2.967)), and  $p < 0.05$  appeared in the multivariable model after the stepwise selection process. So they were all found to be the final highly significant predictors of turnover intention (Table-10).

Those significant eight factors mentioned above (Table-9) were grouped into three predictors as shown in the conceptual framework: working environments [(AOR=2.210, 95% CI(1.032,4.512);  $P < 0.001$ ], Remunerations (salary, incentives) [(AOR=3.897, 95% CI(1.862,5.331);  $P < 0.001$ ], and Supervision [(AOR=1.689, 95% CI(1.002,3.593);  $P < 0.001$ ], all of which were highly significant. This is to say that there is a strong association between these three predictors and intention to leave the current job.

In other words, those respondents in a bad working environment had about two times more likely to have the intention to leave their working place [(AOR=2.210, 95% CI(1.032,4.512);  $P < 0.001$ )] as compared to those with good working environments [AOR=1]. Those with unsatisfactory salary had about four times more likely to leave their workplace [(AOR=3.897, 95% CI(1.862,5.331);  $P < 0.001$ )] compared to satisfied salary [AOR=1] and those with bad supervision in their workplace had about two times more likely to leave their current workplace [(AOR=1.689, 95% CI(1.002,3.593);  $P < 0.001$ )] as compared to those with good supervision [AOR=1].

Table 9: Combined factors associated with the turnover intention of health care professionals in north shewa, amhara region, 2020.

Factors	Intention to leave, N(%)		P-Value	AOR	95% CI for EXP(B)		P-value
	Yes	No			Lower	Upper	
<b>Working Environment</b>							
Good	32(22.5)	110(77.5)		1			
Bad	143(82.2)	31(17.8)	.001	2.210	1.032	4.512	<.001
<b>Remuneration</b>							
Fair	39(25)	118(75)		1			
Not fair	136(85.5)	23(14.5)	.001	3.897	1.862	5.331	<0.001
<b>Supervision</b>							
Good	12(16.4)	61(83.6)		1			
Bad	163(67)	80(33)	.001	1.689	1.002	3.593	<0.001

Table 10: Individual factors associated with intention to leave among health workers in public primary hospital in north shewa zone, amhara region, 2020. (N=316)

Variables	Intention to leave, N(%)		P- Value	AOR	95% CI For EXP(B)	
	Yes	No			Lower	Upper
<b>Manageable workload</b>						
Manageable	93(46)	110(54)		1		
Not manageable	82(72.5)	31(27.5)	.001	1.762	1.015	2.411
<b>Good Access to supply and equipment</b>						
Good supply	56(35)	104(65)		1		
No good supply	119(76.3)	37(23.7)	.001	1.929	1.044	3.493
<b>Good Access to clean water</b>						
Good access	51(35.7)	92(64.3)		1		
No good access	124(71.7)	49(28.3)	.002	1.672	1.078	2.666
<b>Good Access to transport</b>						
Enough	44(33.6)	87(66.4)		1		
Lack	131(70.8)	54(29.2)	.001	1.887	1.231	2.810
<b>My salary is fair</b>						
Fair	31(22)	109(78)		1		
Not fair	144(81.8)	32(18.2)	.001	3.032	1.240	4.409
<b>Sufficient incentives</b>						
Sufficient	12(16.2)	62(83.8)		1		
Not sufficient	163(67.3)	79(32.7)	.001	2.192	1.101	4.039
<b>Development and training</b>						
Good	51(33.6)	101(66.4)		1		
Poor	124(75.6)	40(24.4)	.001	1.236	1.002	2.452
<b>Satisfaction with mgt bodies</b>						
Satisfied	64(36.4)	112(63.6)		1		
Not satisfied	111(79.3)	29(20.7)	.002	1.698	1.072	2.967

COR: Crude Odds Ratio, AOR: Adjusted Odds Ratio.

## 6. DISCUSSION

Human resources are the most important assets in the health system. Developing and retaining experienced health care professionals is key to the quality of health care services. This cross-sectional study focused on examining the magnitude of the healthcare worker's turnover intention and the factors associated with it.

This is an important issue because the turnover intention is the strongest predictor of actual turnover(1). Identifying the prevalence of turnover intention with its determinants and taking necessary measures to overcome this intention to reduce the negative consequences of the actual turnover on the health facilities. In this study, more than half of the respondents (55.4%) had the intention to leave their current workplaces. Important determinants (factors) related to intention to leave were also examined. The findings of this study revealed that turnover intention was significantly associated with workload, access to supply and equipment, access to transport, salary, incentives, development and training, and supervision.

The magnitude of turnover intention in this study is somewhat similar to a study done in East Gojam, Amhara Region(59.4%)(2). Whereas a study was done in North Shewa, Amhara Region showed slightly higher(61.3%). On the other hand, a study done in Ethiopia as a national survey of turnover intention(50.2%) (21), was slightly lower than this study found. This variation might be due to differences in the health facilities and differences in the compositions of the health care professionals. This study considered only primary hospitals and included all health professionals whereas the studies aforementioned were considered both primary hospitals and health centers, and included a study participants either nurses only or few disciplines.

Another study done in Jimma, Southwest Ethiopia, at two hospitals and three health centers, showed(59.4%)(4) of turnover intention, which was slightly higher than this study. Another study held in Sidama (South Ethiopia) showed a turnover intention magnitude of (50%) (5) which was lower than our current study. A study conducted in Malawi on the middle-level health workers(nurses, midwives, and laboratory technicians) reveals a higher proportion of turnover intention(69%) (3) compared to our study. A similar study conducted in Uganda showed lower(46%) turnover intention(22) as compared to our study. Another study done in Saudi Arabia showed that the turnover intention among health professionals was 40.4%(23), which was lower than our study; the variation might be due to salary and other working conditions.

Regarding socio-demographic factors, there appeared some differences between the proportion of turn over the intention and each socio-demographic characteristics in the descriptive part of our data analysis (table-2); for example, the proportion of males for intention to leave among males was 56.1% whereas this proportion of females for intention to leave among females was 54.3% which was somewhat lower compared with males, however, they were not significantly associated with intention to leave when we were treating them statistically (table-9), this result was consistent with the studies done in Kenya (17), a study in Uganda (22) and Sidama, Ethiopia (5), but inconsistent with the study done in South-West Ethiopia (4). These variations might be due to geographical, social, and economical differences.

In this study eight determinants that had a strong association with turn over intention when tested statistically (categorized into three factors namely working environment (workload, access to clean water, access of supplies and equipment, access to transport), Remuneration (basic salary and incentives) and supervision (development and training, satisfaction with management bodies) would be discussed accordingly.

Those respondents who had responded the working environment is bad were more likely to leave their current jobs as compared to those satisfied with the work environment. Similarly, those unsatisfied with their salary and incentives had by far more likely to leave their work. Concerning supervision, most respondents were unhappy with their boss's supervisory activities and showed more turnover intention compared to those who were happy with the supervision. This study result is in line with the study done in different countries and regions in Ethiopia like study in , North Shewa, East Gojam, Malawi, North Gondar and Ethiopia as national survey (1,2,4,22,23).

## **7. CONCLUSIONS AND RECOMMENDATIONS**

### **7.1. Conclusions**

Based on our study findings, the overall turnover intention of primary hospital health care workers in North Shewa, Amhara Region was high. The most strong predictors of turn over intention that was identified in this study from highly strong to less strong were: unsatisfactory salary and incentives, absence of good supply of equipment and supplies, absence of good transport, workload, shortage of development and training, Absence of good supervision and insufficient supply of clean water respectively, implies that the concerned government body shall have to give more focus for those factors accordingly with their strength to reverse this turnover intention.

### **7.2. Recommendations**

By considering these study findings of turnover intention as an alarm for the actual turn over, the Hospital managers, Zone health department and the Regional health Bureau officials need to take counter actions to correct the problems that were identified in our study so that creating a comfortable working environment thereby reversing the turnover intention.

## **8. STRENGTHS AND LIMITATIONS OF THE STUDY**

In our study, enough sample size was used and the respondents were professionals so that they could understand the questions and answered properly accordingly.

This study was quantitative, it might be better if it were enriched by the qualitative method.

## 9. REFERENCE

1. Ferede A, Kibret GD, Million Y, Simeneh MM, Belay YA, Hailemariam D. Magnitude of Turnover Intention and Associated Factors among Health Professionals Working in Public Health Institutions of North Shoa Zone, Amhara Region, Ethiopia. *Biomed Res Int.* 2018;2018.
2. Care H, Gojjam E, Region A, Getie GA, Betre ET, Hareri HA. Assessment of Factors Affecting Turnover Intention Among Nurses Working Assessment of Factors Affecting Turnover Intention Among Nurses Working at Governmental Health Care Institutions in East Gojjam , Amhara Region , Ethiopia , 2013. 2015;(January).
3. Chimwaza W, Chipeta E, Ngwira A, Kamwendo F, Taulo F, Bradley S, et al. What makes staff consider leaving the health service in Malawi? *Hum Resour Health.* 2014;12(1):1–9.
4. Gesesew HA, Tebeje B, Alemseged F, Beyene W. Health Workforce Acquisition, Retention and Turnover in Southwest Ethiopian Health Institutions. *Ethiop J Health Sci.* 2016;26(4):331–40.
5. Public Z, Facilities H, Asegid A, Belachew T, Yimam E. Factors Influencing Job Satisfaction and Anticipated Turnover among Nurses Factors Influencing Job Satisfaction and Anticipated Turnover among Nurses in Sidama Zone Public Health Facilities , South Ethiopia. 2014;(February).
6. Lopes SC, Guerra-arias M, Buchan J, Pozo-martin F, Nove A. A rapid review of the rate of attrition from the health workforce. 2017;1–9.
7. . N P. Factors Influencing Retention Of Health Workers In The Public Health Sectors In Kenya. *Int J Sci Res Publ.* 2016;7(5,May 2017):31–48.
8. Haso TK, Seid SS, Amme Ibro S, Abebe F. Factors Affecting Motivation of Primary Health Care Workers in West Arsi Zone, Oromia Region, South East of Ethiopia. *Adv Pract Nurs.* 2018;03(01):1–6.
9. Buchan J. Reviewing The Benefits of Health Workforce Stability. *Hum Resour Health*

- [Internet]. 2010;8(1):29. Available from: <http://www.human-resources-health.com/content/8/1/29>
10. Jelfs E, Knapp M, Giepmans P, Wijga P. Chapter 15 Creating good workplaces : retention strategies in health care organizations. 2020;
  11. Palareti G, Legnani C, Cosmi B, Antonucci E, Erba N, Poli D, et al. Comparison between different D-Dimer cutoff values to assess the individual risk of recurrent venous thromboembolism: Analysis of results obtained in the DULCIS study. *Int J Lab Hematol*. 2016;38(1):42–9.
  12. Mwangi BM. Factors Influencing Adoption of ICT Strategy in the Kenyan Public Health Sector – A Case Study of the Kenyatta National Hospital. 2017;7(5):818–46. Available from: <http://erepo.usiu.ac.ke/handle/11732/3300>
  13. Patrick.N K. '. Vol. 7. Nairobi: International journal of scientific and research publications; 2016. p. 31–48.
  14. Chowdhury RG. The impact of Leadership styles on Employee Motivation and Commitment. 2014;(10):426.
  15. Gillet N, Gagné M, Sauvagère S, Fouquereau E. *European Journal of Work and Organizational Psychology* The role of supervisor autonomy support , organizational support , and autonomous and controlled motivation in predicting employees ' satisfaction and turnover intentions. (August 2013):37–41.
  16. Kajungu TM, Mugisha JF. setting in Uganda Role of remuneration in retention of health workforce in a rural district setting in Uganda. 2015;(January).
  17. Facilities HC, County K, Nema B, Malango C. Factors Influencing Retention of Health Workers in Primary. 2012.
  18. Mittal V, Rosen J, Leana C. A Dual-Driver Model of Retention and Turnover in the Direct Care Workforce. 2009;(July).

19. Zigba.T. COLLEGE OF HEALTH SCIENCES SCHOOL OF ALLIED HEALTH SCIENCES DEPARTMENT OF MEDICAL LABORATORY SCIENCES Assessment of Patient satisfaction towards Clinical laboratory services among Strengthening Laboratory Management towards Accreditation ( SLMTA ) Program. Addis Ababa; 2017. p. 13–22.
20. Worku N, Feleke A, Debie A, Nigusie A. Magnitude of intention to leave and associated factors among health workers working at primary hospitals of North Gondar Zone, Northwest Ethiopia: Mixed methods. Biomed Res Int. 2019;2019.
21. Ayalew F, Ababa A. Factors Affecting Turnover Intention among Nurses in Ethiopia. :62–74.
22. Summary E. Uganda Health Workforce Study : Satisfaction and Intent to Stay Among Current Health Workers Executive Summary. 2007.
23. Almalki MJ, Fitzgerald G, Clark M. The relationship between quality of work life and turnover intention of primary health care nurses in Saudi Arabia. 2012;

## 10. ANNEXES

### **Annex-I: Information Sheet**

I anticipate each questionnaire questions will take about 25 minutes to complete. You may complete the form on your own or I and/my assistants can sit with you and complete the questionnaire as we go through it. When complete, your anonymous questionnaire will be inserted and locked in a box to protect your identity. The purpose of the study is to learn how health workers view their jobs, how satisfied they are with working conditions, and their intentions to continue in the work. This will enable me to describe factors influencing to leave or stay of health workers at primary hospital facilities. I hope to learn what things the North Shewa Health office as well as the Amhara health bureau could do to improve working conditions and other factors that would improve retention and minimize the turnover of health care workers. I do not think that the questions will be difficult to answer, but some may cause you to think about working conditions that are distressing and may cause emotional discomfort. Mind you that there is no compensation for this participation. You may refuse to answer any question and may withdraw from the study at any time without penalty. When you complete the questionnaire and return it to me, you are conveying your consent to participate without giving me your name. Some people are concerned that giving a negative report about their supervisor or employer may put them at risk. But remember that the questionnaire is anonymous; your name is not attached to your responses. If you have any questions, please do not hesitate to ask me:0911473920.

Siraktelemariam.Signature..... Date.....

## Annex- II: Informed Consent

I have read and I understand the provided information and have had the opportunity to ask questions. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving a reason and without cost. I understand that I will be given a copy of this consent form. I voluntarily agree to take part in this study.

Participant's signature \_\_\_\_\_ Date \_\_\_\_\_

Investigator's signature \_\_\_\_\_ Date \_\_\_\_\_

## Annex-III: Questionnaires

### Section- I: General

<p>101 .Facility name_____</p> <p>102.What is your profession?</p> <p style="padding-left: 20px;">1. Medical Doctor</p> <p style="padding-left: 20px;">2.Professional/clinical nurse</p> <p style="padding-left: 20px;">3.Pharmacist/pharmacy technician</p> <p style="padding-left: 20px;">4.Laboratory technologist/technician</p> <p style="padding-left: 20px;">5. Midwife</p> <p style="padding-left: 20px;">6. Other, specify-----</p>

### Section- II: Demographic Information

Enter or circle your answers to the questions below.

N°	Questions	Enter or circle your answers
201	What is your sex?	1.Male            2. Female
202	What is your Age?	( <input type="text"/> <input type="text"/> years
203	Where is your Birthplace?	Nearby Other,specify.....
204	What is your religion?	Orthodox Muslim Protestant Catholic Other, specify-----
205	What is your marital status?	1=Single            2=Married 3=Separated 4. Divorce    5=Widowed

206	Do you have children or dependents	Yes No
207	How long have you been at this facility?	<input type="text"/> <input type="text"/> years
208	What is your Educational level?	1. Diploma 2. BSc Degree 3. MD degree 4. Msc Degree 5.Specialist
209	Your salary income	<2000ETB 2000-5000ETB 5000-8000ETB >8000ETB

Section-III: Organizational commitment.

The following questions refer to your organizational commitments and morale where you are currently working. Please circle the number that best fits your level of agreement with each statement, using a 5 point scale where 5=strongly agree, 4=agree, 3=neutral, 2=disagree, 1=strongly disagree.

N <sup>o</sup>	To what extent do you agree with the following statements?	5 = Strongly Agree	4 = Agree	3 = Neutral	2 = Disagree	1 = Strongly disagree
301	Considering everything, I am committed to my job.	5	4	3	2	1
302	I know what is expected of me	5	4	3	2	1
303	I receive recognition for doing better work.	5	4	3	2	1
304	My immediate supervisor	5	4	3	2	1

	cares about me as a professional.					
305	Overall, the morale level at my department or section is good	5	4	3	2	1
306	My opinion seems to matter at work; I am respected.	5	4	3	2	1
307	I have a good friend at work	5	4	3	2	1
308	This is a fun place to work; the work I am doing is stimulating.	5	4	3	2	1
309	I have been abused (physically, emotionally, verbally) by a supervisor.	5	4	3	2	1
310	I have been abused by my peers.	5	4	3	2	1
311	I have been abused by patients/their friends/family members.	5	4	3	2	1
312	I have been given the training needed to succeed in my position	5	4	3	2	1
313	The organization takes specific measures to protect me against health-related risks.	5	4	3	2	1
314	I consider myself a part of this community.	5	4	3	2	1
315	I am fairly evaluated on my work	5	4	3	2	1

316	I am always passionate on my profession.	5	4	3	2	1
317	I am actively involved in making this health care facility great	5	4	3	2	1

#### Section- IV: Working Conditions

The following questions refer to your working conditions at your current facility. Circle the appropriate response.

N <sup>o</sup>	To what extent do you agree with the following statement?	5=Strongly agree.	4=Agree .	3=Neutr al	2=Disag ree.	1=Strong ly Disagree.
401	The workload is manageable	5	4	3	2	1
402	I have the supplies I need to do my job	5	4	3	2	1
403	I have the equipment I need to do my job well (blood pressure cuffs, testkits, reagents, etc).	5	4	3	2	1
404	This health facility has good access to drugs and medications.	5	4	3	2	1
405	At work, I have access to safe, clean water.	5	4	3	2	1
406	At work, I have good access to electricity.	5	4	3	2	1
407	I have access to good schooling for my children.	5	4	3	2	1
408	I have good access for	5	4	3	2	1

	transportation to work.					
409	I feel job security	5	4	3	2	1

#### Section V: Compensation(Remuneration)

Please indicate your level of agreement with the following questions by marking the appropriate response with a circle.

Nº	To what extent do you agree with the following statements?	5=Strongly Agree.	4=Agree.	3=Neutral	Disagree.	Strongly Disagree.
501	My salary is satisfactory.	5	4	3	2	1
502	I feel there are sufficient incentives to this workers	5	4	3	2	1

#### Section VI-Organizational management

Please rate the following about your senior management

S.Nº	To what extent do you agree with the following statements?	5=Strongly Agree.	4=Agree .	3=Neutral	2=Dissagree	1=strongly disagree
701	Senior management gives a clear direction of the hospital	5	4	3	2	1
702	I am satisfied with the strategic direction of the hospital	5	4	3	2	1
703	Senior management is volunteer to accept mistakes made in the process of	5	4	3	2	1

	trying new things					
704	Senior management understands problems we face with our jobs	5	4	3	2	1
705	Senior management treats me with respect	5	4	3	2	1
706	Senior management have willingness for the development of team members	5	4	3	2	1
707	How satisfied are you with the your senior managers	5	4	3	2	1
Tell us how well the following statements apply to your immediate boss/supervisor						
708	My supervisor is knowledgeable about my work	5	4	3	2	1
709	My supervisor willing to listen to me	5	4	3	2	1
710	My supervisor full confidence in my work	5	4	3	2	1
711	My supervisor has willing to promote me	5	4	3	2	1
712	My supervisor trains me whenever necessary	5	4	3	2	1

Please circle the most appropriate response to the following question below.

N <sup>o</sup>	Question	Circle your answer(s)
901	Which of the following statements is true for you?	1= I would leave this job as soon as possible 2= I plan to stay in this job indefinitely.