

**PREDICTORS OF HEALTH PROFESSIONALS' INTENTION TO LEAVE
AMONG PUBLIC HEALTH FACILITIES OF BENISHANGUL-GUMUZ
REGION, WEST ETHIOPIA**

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Abstract

Background: Recruits intention to leave and turnover continues to be an important challenge facing health care systems and leads to loss of human wealth at national, regional and local levels. Ethiopia is being gravely affected by dearth and migration of health professionals; one cause of this shortage of human resources is turnover. Consequently, this study was meant to make out possible factors affecting intent to leave of health professionals in the region and to pinpoint the way forward that prop up future efforts to annihilate the quandary.

Objective: To assess proportion and predictors of health professionals' intent to leave in public health facilities of Benishangul-Gumuz region, Ethiopia, April 2014.

Methods: A facility based cross sectional study design using quantitative methods of data collection was employed from April 1-30/2014. The data were collected through in-person interview of professional care providers. The sample size for the professional care provider's interview was 303. Stratified random sampling was employed to select health professionals practicing in 10 health centers and the 2 hospitals in the region. Descriptive statistics was used to determine proportions of health professionals' intent to leave. Binary logistic regression was made to determine the association between health professionals' intent to leave and independent variables. The strength of statistical association was measured by adjusted odds ratios with 95% confidence interval. Statistical significance was declared at $P < 0.05$.

Result/Conclusion: This study made known that the proportion of intent to leave was 66%. Independent predictors of intent to leave were eight in numbers and are family related problems, expectation not fulfilled, high salary, promotion opportunity, better education, low salary, high work load and low career opportunity.

Recommendation: Regional health bureau and its stake holders should confer payable attention to workers family related predicament, expectation, promotion, education opportunity, work load and career advancement to hold on longevity of health workforces in the organization.

Key words: Predictors, health professionals, intent to leave and public health facilities.

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Any errors made in this study are the sole responsibility of the principal investigator.

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Acronyms

AOR	Adjusted Odds Ratio
ART	Anti Retro viral Therapy
BGRS	Benishangul-Gumuz Regional State
CEO	Chief Executive Officer
COR	Crude Odds Ratio
FGD	Focus Group Discussion
FMOH	Federal Ministry of Health
HIV/AIDS	Human Immune Deficiency Virus/Acquired Immune Deficiency Syndromes
HRH	Human Resources for Health
ICU	Intensive Care Unit
MDGs	Millennium Development Goals
NGOs	Non-governmental Organizations
PNFP	Private Not for Profit
UN	United Nations
WHO	World Health Organization

CHAPTER ONE

INTRODUCTION

1.1. Background

“At home of human resources milieu, intention to leave and turnover are two diametrically opposed notions. Intention to leave involves individual’s perception towards leaving while turnover involves the act of individual actually leaving the organization or profession. Turnover is an actual act of resignation while intention to leave depicts an intention to resign/quit”. An employee is said to have intention to leave when he or she has serious consideration to leave his or her current job. Intention to leave has a close link with turnover. Thus, the use of turnover intention in predicting the actual turnover seems to be reasonable since some studies on turnover have demonstrated that intention to leave is the best predictor of voluntary turnover (1).

Employees change organizations for several reasons that managers and researchers are trying to find out. Employee’s turnover and intention to leave has been of interest for both managers and researchers across many disciplines. Recently, interest in turnover and intention to leave has intensified; as the pressure for the financial performance among organizations has increased (2).

The labor intensive nature of the health sector cannot be over emphasized. But Studies demonstrated that human resources are the most important of all the resources needed for delivery of services in any sector both in the developing and more developed world. It is reaffirmed that shortage of human Resources for health in developing countries has been identified as one of the limiting factor for HIV/AIDS control and the achievement of the millennium Development Goals (3).

Health worker migration has been mounting worldwide, especially from lower income countries with already fragile health system (4). Most migration of health workers is within countries, rural-urban, public-private, public-NGOs and external brain drain to abroad. Most countries have an urban concentration of professional’s. In general; the gradient is from inferior to superior work and more stable political and economically rewarding situations (5).

The Ethiopian health sector faces a dozens of challenges related to human resource, like geographical imbalances, problems with job satisfaction and a high turnover and willingness to

migrate abroad (4, 6). The causes for intention to leave and turnover among health care personnel were multifaceted and complex. The Neoclassic Wage theory, suggest that the choice is driven largely by financial motives and by the probability of finding better employment (7, 8). In the recent literature on health work force mobility relating both to international and internal migration, factors have commonly been categorized in to **Pull** and **Push** factors (9). Push factors causing workers to move between sectors or cross borders (10). It includes: - Low salary, lack of recognition for good work, inability to advance in one's career and low job satisfaction were the most significant factors (11, 12). Pull factors are identified as those which attract an individual to new destination. It includes; Improved employment opportunities, higher income and better living conditions or more stimulating environment (12). So the importance of this study was to identify factors that affect the health professional's intent to leave in public health centers and hospitals.

1.2. Statement of the Problem

Employee intention to leave and turnover keeps on to be an important challenge facing health care systems and leads to loss of human capitals at national, regional and local levels (13). Hitherto, estimates suggest that there is shortage of 4.2 million health workers worldwide. Africa will need one million more health workers in order to meet the MDGs for health. Out of 57 countries experiencing critical shortage of human resources for health in the world 36 are located in Africa (14).

A key contributor to this shortage is high turnover of the health workforce. Turnover is due to a number of reasons, including retirement, death, dismissal and voluntary resignation by health workers who leave the public health sector to work in the private sector, for more attractive occupations in the home country, or to emigrate to work in health facilities in richer countries, in search of better pay and working conditions (15). The number of health workers employed is an indicative of a country's ability to meet the health care needs of its people, especially the poorest and most vulnerable. Health worker shortages are linked to three factors; low student enrollment in health training institutions, delays or freezing in the hiring of qualified professionals and high turnover among those already employed (16).

Employee turnover is a result of manifold problems associated with the recruitment selection process; orientation and supervision; performance of supervisors and managers, and lack of

competitive compensation (17). Although data on employee turnover is sketchy, the International Office for Migration estimates that 300,000 African professionals live and work in the West (18). According to African health monitor magazine, a total of 18,556 doctors trained in ten Sub-Saharan African countries including Ethiopia migrate and work in eight developed countries. The cost of tertiary education of a single doctor is approximately US\$ 48 169. Similarly, there are 29,597 nurses and midwives trained in 19 Sub-Saharan African countries migrate and working in seven developed countries. The tertiary cost of training one nurse in a school of health sciences is about US\$ 25,352. Since the cost of secondary education is US\$ 6865 and that for primary education is US\$ 10 963, the total cost of educating one nurse is US\$ 43 180 (19).

In many African countries, there is, a continuous out flow of doctors, nurses, midwives, and pharmacists and they left the country directly after receiving their degrees. Similar data from Ghana, Zambia, and Zimbabwe suggest that annual losses from public health sector continue at rates of 15-40% (21). Our country, Ethiopia is part of Sub-Saharan African countries; which is seriously affected by shortage of human resource (health professionals) with highest lead of communicable disease, as literatures identify one cause of those shortages of human resource is turnover. Highest medical doctor's annual attrition rate (20- 54.3%) were found in 1991-1992, 1998, 2002-2006. In general in 20 years period (1987-2006), 73.7% of Ethiopian medical doctors left the public sector mainly due to attractive payment in overseas countries and local NGOs/private sectors (23). The migration of skilled health professionals directly affects the health system and inconsequence also affects population health outcomes and declines the morale of health workers remaining in the public sectors. It incurs additional costs related to human resource management and recruitment. Minimum costs of turnover represent an expenditure of about 5% of the annual operating budget based on the medical center case study. Eventually, it influences organizational continuity. Additional concerns include the ability to care for patients and the quality of care given compromised (24).

Intention to leave of health workers abroad is also major concern in Africa and Ethiopia. More than 50% of the health workers plan to migrate abroad in developing countries. Studies on human resource in seven African countries including Ghana, Malawi and South Africa identified push and pull factors for intention to leave of health work force from the government health system (24). The study on Zimbabwean showed that (68.0%) health professionals are considering leaving the public sectors in the near future. In the case of nurses, the figure is as

high as 71%. More than half of the respondents (54.7%) cited economic factors as a reason for leaving. This included better remuneration in the intended country of destination (55%) or the desire to make money to remit home (54%). The respondents argued that the sector does not offer competitive salaries (87%). Some 68% said they found it difficult to live on their existing salary and 79% said that it was necessary to do two or more jobs to make ends meet. Professional reasons influencing potential emigration decisions include the lack of resources and facilities (42.9%), heavy workloads (39.4%) and insufficient opportunities for promotion and self-improvement (32.2%). Nearly 80% of the respondents indicated that they lack basic equipment at their health institutions (25).

Study in Ethiopia revealed that many doctors and nurses plan to migrate within three years of graduating and it found that 52 percent of nurses and 60 percent of doctors in 2007 were planning to migrate (27). Similar study done in Oromia and Tigray-the administrative regions of Ethiopia also showed intention to leave among health workers were 56% and 58.9% respectively. A complex combination of both 'push' and 'pull' factors lead to a threshold decision to leave and migrate (55).

The review of literature shows deficiencies in these areas especially in the local context. To the best of investigators knowledge, no previous studies conducted in the area on the factors affecting health workers intention to leave in public health institutions. As an investigator, I am one of health workers in Benishangul-Gumuz region and have noticed a titanic load of staff turnover and set out my mind to study this subject. Consequently, this study was meant to make out possible factors affecting intent to leave of health professionals in the region and to pinpoint the way forward that prop up future efforts to annihilate the quandary.

CHAPTER TWO

LITERATURE REVIEW

Up-to-the-minute, studies in different countries indicated a number of push, pull and personal factors for the migration of the health workforce. **Pushes** are those factors that occur within the sector, motivating professionals to leave. **Pull** factors on the other hand are the deliberate and/or unintended actions that attract health professionals. An individual's threshold decision to migrate probably arises from a combination of both push and pulls factors (28). Personal factors such as health problem, family related issues, children education and social status contributes in intentions to leave. However, very little amount of empirical research work is available on personal related factors.

Health employees turnover and high keenness to leave public sectors are global problems, as world health organization documents stated about international health workers migration report shows that in most countries it still on the rises for example, in the United States; the number of overseas-educated doctors has increased by 70% between 2001 and 2008. Over the same period, temporary migration of doctors has increased two-fold in Australia and by 40% in Canada. Inflows of foreign doctors with long-term permits have also increased markedly in Switzerland (+70% between 2001 and 2008), mainly from Germany (31).

What are factors associated with intention to leave?

A cross sectional descriptive study focused on factors affecting job turnover intentions among certified pharmacy Technicians in Mylon School of pharmacy in 2005, revealed that the result was poor salary, lack of advancement opportunity, and insufficient staffing were cited frequently as factors among those indicating intention to leave (32).

An additional study conducted in intensive care unit St. Vincent's hospital on nursing staff turnover in intensive care unit to identify factors which have influenced nurses in their decision to leave ICU. The main factors influencing resignation were frequency of night duty 79%, life events outside work 61%, career opportunities 54%, and attitude of medical staff 53%, peer support 52%, flexibility of holidays 41%, and stress in ICU 42%, ICU physical Environment

39%, availability of educational resources 33% and study leave flexibility 35% (34). Similar study focused on factors influencing turnover intentions of registered nurses in a Singapore hospital showed many leavers mentioned reasons such as inadequacy of staffing 75.7%, poor salary and welfare 73.0%, inadequate resources/equipment's 64.9% and no recognition for good work 70.3% as primary influences on their intention to leave (33).

A study spotlighted on factors related to job turnover in physical therapy was done by Ms. Harakson, Mrs. Unteoreiner and Dr Shaperd through mail to national wide samples of 820 licensed physical therapists which selected from the American Physical Therapy Association Membership list. The results showed that intention to leave job were because of many reasons. Out of these 51.8% for insufficient salary, 48% few opportunity for promotion, 45.2% lack of independence in decision making with regard to direct patient care, 43.5% desire to move to a new location, 39.1% lack of opportunity or financial resources for continuing education, 39.1% little variation in job responsibilities, 38.6% unsatisfactory interaction with supervision in the physical therapy department, 35.1% unsatisfactory interaction with other professionals in the health care organization, 30.8% lack of opportunity for participation in policy making for the health care organization, 29.8% unsatisfactory interaction with peers in the physical therapy department, 28.4% lack of recognition for my work from other professionals in the health care organization and 26.5% lack of flexibility in work schedule (34) .

A study performed in the general hospitals in West Nile region on turnover of health professional, staff records covering a period of five years from 2000/2001 to 2004/2005 were reviewed in order to determine perceived factor affecting intention to leave. The result revealed that annual attrition rate per cadre; medical officers 24%, enrolled midwives 10%, enrolled nurses 8%, registered midwives 5% and lab technologists/technicians 9%. The most frequent factors for PNF (private not for profit) staff attrition were; low salary (89%), poor relationship with managers (57%), high work load (53%), lack of retirement benefit (35%) , fear of job in security (23%), unfriendly hospital rules (21%) , lack of other monetary incentive (20%), lack of career development opportunities (18%), poor accommodation (16%) and join spouse 15% (34).

Studies in South Africa found that the reasons to leave from the public sector include insufficient opportunities for promotion and self-improvement. This indicates that health professionals move out to go private where opportunities for self-development and promotional opportunities (34,

35). However, in Namibia the main reason for moving out from the public sector is for self-development rather than promotion and some health workers considered that better management in their working location was more important than a 15% increase in pay (36).

Another study by Malawi ministry of health in 2004 identified that common reasons for staff to leave from public sector include; poor working conditions, infrequent supervision and support, the lack of essential drugs, supplies and equipment, limited career progression opportunities and unequal access to training and other benefit; an unclear deployment policy, and poor housing (19, 36). Similarly, Mathauer and Imhoff identified that in Kenya and Benin, a significant source of demoralization and frustration for health workers was inadequate or inappropriately applied human resource management tools (36).

A cross-sectional quantitative study done in department of community Medicine Ahameda Bello university of teaching hospital on health worker, job satisfaction, Northern-eastern Nigeria, work place showed that 65.2% of the respondent were happy with their work load and 77.6% were paid appropriately, however, about half (51.5%) of the respondents felt underpaid for the work they did. The study also showed that non-monetary factors such as interpersonal relationships, quality of supervisions, availability of tools and equipment's to work with as well as managerial fairness, support for staff welfare and training appear to play a significant role in affecting health worker's satisfactions with their work and intention to leave (37).

A descriptive case study conducted in Easter part of Ethiopia on magnitude, pattern and determinant factor of health worker migration from public health sector showed that, out of 168 health workers that responded to the questionnaire, 83.9 % said that on average 4-8 health workers from each professional category leave the public health sectors each year. This means more than half of health workers assigned to the zonal public health sector leave the system. About 42.9% of respondents agreed that the highest turnover was for health officers followed by nurses (31%) and pharmacy professionals (17.9%). Approximately 56% of study participants had thought to leave at least once in a month. About three-quarter (76.2%) of respondents were not happy with their management, more than half 51.8 % reported poor management and leadership were the main reason for health workers to leave from public health sectors. While, about 35% of the health workers indicated that insufficient salaries and incentives to cover basic needs are

major factors affect health workers intention to leave. The majorities (63.1%) of study participants were not satisfied by their salaries and incentives (41).

The study also revealed that high work stress, favoritism, shortages of essential equipment's and absence of specific human resource policy were also contributing to the health workforce intention to leave. Among a total of five physicians in the zone, three (60.1%) participated in the study and about two out of three (66.7%) planned to leave. Similarly, data from reviewed human resource documents of zonal health system showed that the turnover rate for medical doctors and health officers were found to be 76.2%, while more than half (54.2%) of newly assigned middle level health professionals left the sector in 1997 E.C. Whereas in 1999 E.C the turnover rate was 66.7% for Physicians (Medical doctors and Health officers) and 36.8% for nurses. The trend over time showed that the number of health institutions is increasing in the last five years and the number of health professionals has been declining. Despite high production of different categories of health workers currently, it could not reverse the problem as needed due to high rate of turnover (43).

A cross-sectional study conducted in Tigray regional state of Ethiopia on factor affecting health worker intention to leave in hospitals showed that the employees intention to leave was related with (1) peer relationship, (2) relationship with manager, (3) participation indecision making, (4) supervisions, (5) capacity building opportunity, (6) new information sharing, (7) performance management,(8) orientation during recruitment,(9) training and education opportunity hospital governance,(10) payment working condition,(11) hospital policy and procedures and satisfaction (44.2%, 41.3%, 60.6, 52.2%, 67.1%, 67.3%, 59.1%, 63.2%, 77.1%, 69.7% 85.9%, 73.9%, 73.8% & 67.1%) respectively (45).

A six year retrospective study conducted in western Ethiopia using a document review analysis a total of 926 personnel documents revealed that during the six years' time (2000-2005), about 387 health professionals were deployed and 178 quit their job. Deployment rates for the six years period (2000-2005) ranged from 8.2% to 15.4 %. However, deployment rate was greater for the period before decentralization (36.9% Vs 30.7%). Meanwhile, attrition rate for the six years was in the range of 2.8 % to 8.5%. Thus, attrition rate before decentralization was 10.2% while 18.8% after decentralization. The main factor affecting intention to leave were inadequate salaries, work interferences from external environment, lack of remuneration, lack of

opportunities for transfer and promotion, heavy workload and additional responsibilities and poor professional development and career (26, 48). Similar study in Jimma zone of Ethiopia, poor motivation schemes was found the most important cause for leave of workforce (39, 49). Studies recognize incentive is the best for health worker retention. There are two types of incentive mechanism. Financial incentives; such as salaries, allowances, top ups, bonuses, rewards, pensions, loans, dual practice, per Diems, insurance and fellowships. Non-financial incentives; supervision, open appraisal systems, recognition, rewards, higher training, scholarships, research opportunities, skill enhancement, housing, electrification, staff transport, childcare facilities and equipment's, general conditions of services and work place security (51).

Most of the studies cited above are conducted in Africa and were supposed to be an important base for this study. Literature review shows that there could be multi-complex sources for intention to leave and these reasons were mentioned in the category of personal, pull and push factors.

Therefore, the health workers migration and intention to leave is the main challenge of health system as Ethiopia is one of the least urbanized countries in the world, with less than 15% of the population living in urban areas. Thus, the major challenges in relation to human resource in the health sector are poor deployment and retention of all health professionals, and poor human resource management; unless solved they make difficult to meet MDGs in 2015 (54). Studies divulged that the magnitude of intention to leave across different setting and circumstances. Generally, factors associated with intention to leave vary among different settings. However, they can be classified in the following categories, socio-demographic, personal, pull and push factors as made known in conceptual framework hereunder.

And if truth be told, there was no mentionable version of efforts made so far to dwindle and possibly thwart the health professionals' turnover peculiarly to local context. In all-purpose, to reduce intention to leave and turnover it is important for health managers to understand the characteristics of workers who are at risk of moving, the patterns of movement in country versus out migration and the reasons why health workers make a decision to leave.

Conceptual Framework

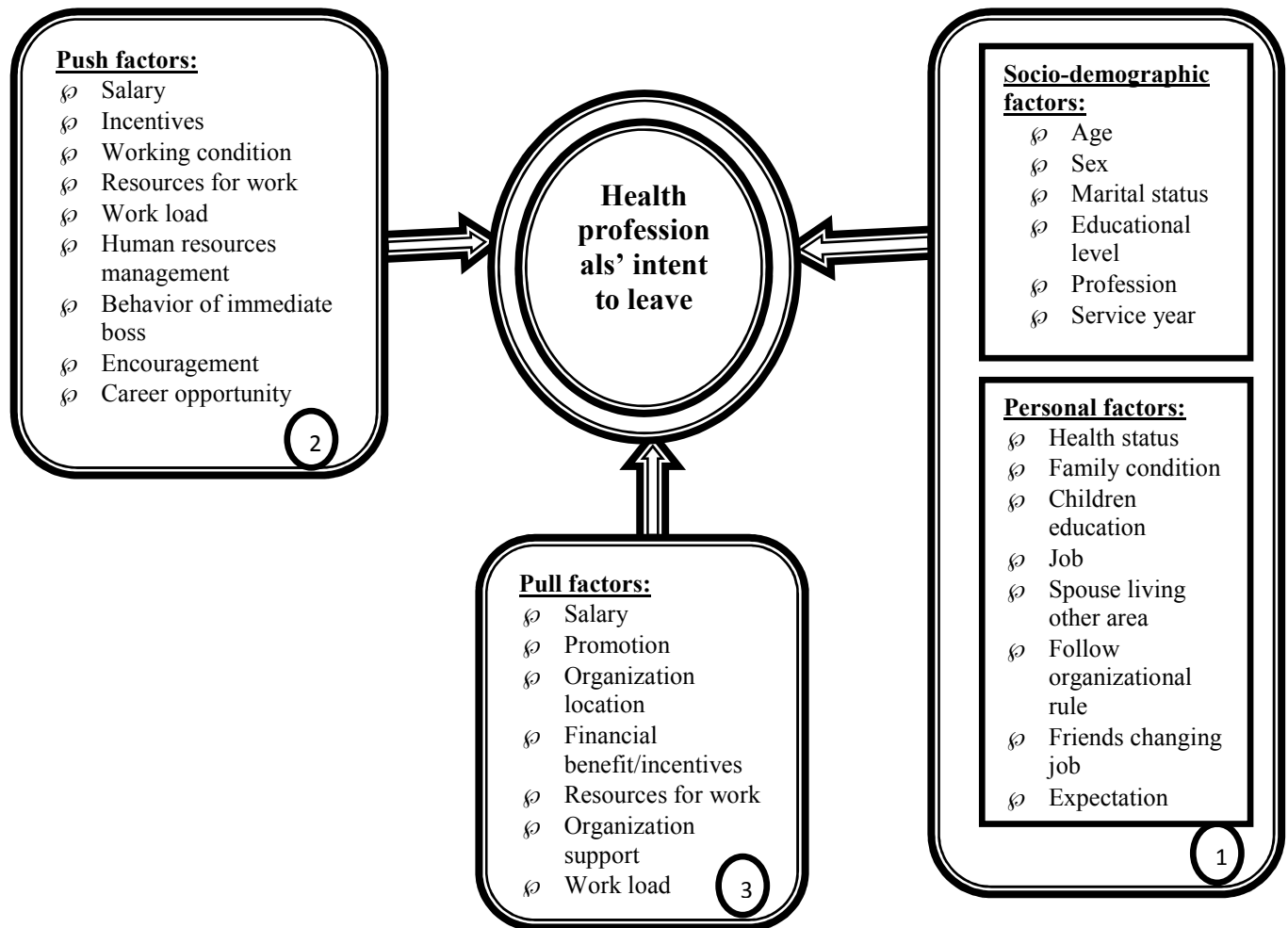


Figure 1: Conceptual framework on assessment of factors affecting health professionals' intent to leave in Benishangul Gumuz region public health facilities, Ethiopia, April 2014.

Sources: "Health sector reform and development, training and motivation of Human Resources towards equity in health care: Issues and concerns in Ghana," Dovlo D (1998), organizational and financing reform of the health sector. Geneva: Kutzin, J. (1995) and others (22)

CHAPTER THREE

SIGNIFICANCE OF THE STUDY

At this point in time, the core challenge of the health system is the migration of the health workforce from the public health sectors. Health workers migration is global problem and very critical issues in Africa in general and Ethiopia in particular. Besides, health administrators, managers, hospital board administrators and stakeholders do not have a clear picture on the factors that influence health professionals' intent to leave.

Here and now, this study made an effort to identify the possible factors affecting intent to leave of health professionals from different dimensions. Carrying out a study on health professionals' intent to leave will have a great importance to come up with the idea that can be added up to the few available literatures on the field. This would come true with the recommendation that were forwarded by this study to assist the health managers as well as the country in developing strategies for improving staff retention in health centers and hospitals setting and for achieving the goals of currently initiated reform activities and thereby improving the health service delivery in nutshell.

Gazed forward, the findings and recommendation of the study would help out policy-makers, programmers, managers, health planners and CEO of national, regional, district and facility levels to devise effectual strategies on human resource deal at all junctures to keep hold of health workers. So more, it would also be viewed as a launch pad for related studies in the study and other area.

CHAPTER FOUR

OBJECTIVE

4.1. General Objective

- ✎ To assess proportion and predictors of health professionals' intent to leave among public health facilities in Benishangul-Gumuz region, Ethiopia, April 2014

4.2. Specific Objectives

- ☞ To determine the proportion of intent to leave among health professionals of public health facilities in Benishangul-Gumuz region.
- ☞ To determine predictors of intent to leave of health employees in public health facilities of Benishangul-Gumuz region.

CHAPTER FIVE

METHODS AND MATERIALS

5.1. Study Area and Period

The study was conducted from 1-30 of April, 2014 in Benishangul-Gumuz Region. The region is delimited with Sudan in west and south west, Oromia region in south east and Amhara region in east and north east track. There were of projected 905,536 total populations with 196,847 households in the region. Climatologically, low land, temperate and highland of the region was 75%, 24% and 1% respectively. There were five indigenous ethnic groups in the region with their own distinct geographic location, language, culture and social identities living in concert. The administrative set up of the region is divided into 3 zones, 1 special woreda and 19 woredas with a total of 480 kebeles. The potential health coverage of the region gets to 80% and there were 2 general hospitals and 29 health centers, where 9 being newly established and 291 health posts. And totally speaking, 322 health facilities were to be had in the region. There were a total of 978 health professionals affianced in the health sector of the region governmentally.

5.2. Study Design

A cross sectional study design was employed.

5.3. Population

5.3.1. Source Population

All health professionals who have been working in the public hospitals and health centers of Benishangul-Gumuz region

5.3.2. Study Subjects

All sampled health professionals who have been working in 2 general public hospitals and 10 health centers in Benishangul-Gumuz region.

5.4. Inclusion and Exclusion Criteria

Inclusion Criteria

All health workers who were available during the data collection period

Exclusion Criteria

Health professionals who were volunteers, contract employees and foreigners

5.5. Sample Size Determination and Sampling Technique

5.5.1. Sample Size Determination

Sample size for the study was settled on by using single population formula and finite population correction formula considering the proportion of health workers that intend to migrate from public health sectors 46 % (26).

$$n = \frac{z \left(\frac{\alpha}{2} \right)^2 * P(1 - p)}{d^2}$$

Where;

n= the desired sample size

Z ($\alpha/2$) =1.96 (95% confidence level)

P = expected prevalence (46 %),

d = degree of accuracy (5%)

$$n = \frac{(1.96)^2 * 0.46(1-0.46)}{(0.05)^2} = \underline{\underline{382}}$$

Given that the total population of health professionals who have been working in the public health facilities of the region and again in the sampled health institutions was less than ten thousand, the finite population correction formula was automated:-

$$n_f = \frac{n}{1+n/N}$$

$$n_f = \frac{n}{1+n/N} = \frac{382}{1+382/978} = \underline{275}$$

This yielded a sample size of 275 and considering 10% non-response rate, $275 \times 10\% = 27.5 \rightarrow 28$ resulting in a total sample size of **303**. The sample size was proportionally allocated to the respective hospitals and health centers like portrayed hereunder.

Table 1: Showing proportionally allocated sample size to respective institutions in Benishangul Gumuz region, Ethiopia, April 2014.

Name of the institutions	Assosa Zone HCs			Metekel Zone HCs			Kamashi Zone HCs			Mao komo special woreda HC	Assosa Hospital	Pawe Hospital	Total
	Homosha	Menge	Bambassi	Mandura	Mambuk	Wembera	Belo	Agalo	Kamashi				
Current health workers	30	28	32	31	27	29	28	28	30	30	111	89	493
Allocated sample	19	17	20	19	16	18	17	17	19	19	68	54	303

5.5.2. Sampling Technique

The region is divided in to three zones and one special woreda. Three health centers from each zone and one health center from the special woreda was selected using simple random sampling

yielding a sample of 10 health centers and two hospitals. The proportional probability to size (PPS) sampling technique was used to allocate proportional sample size to each facility. In that case, health professionals in each facility who were voluntary to participate interviewed at random to boost the representativeness of the study.

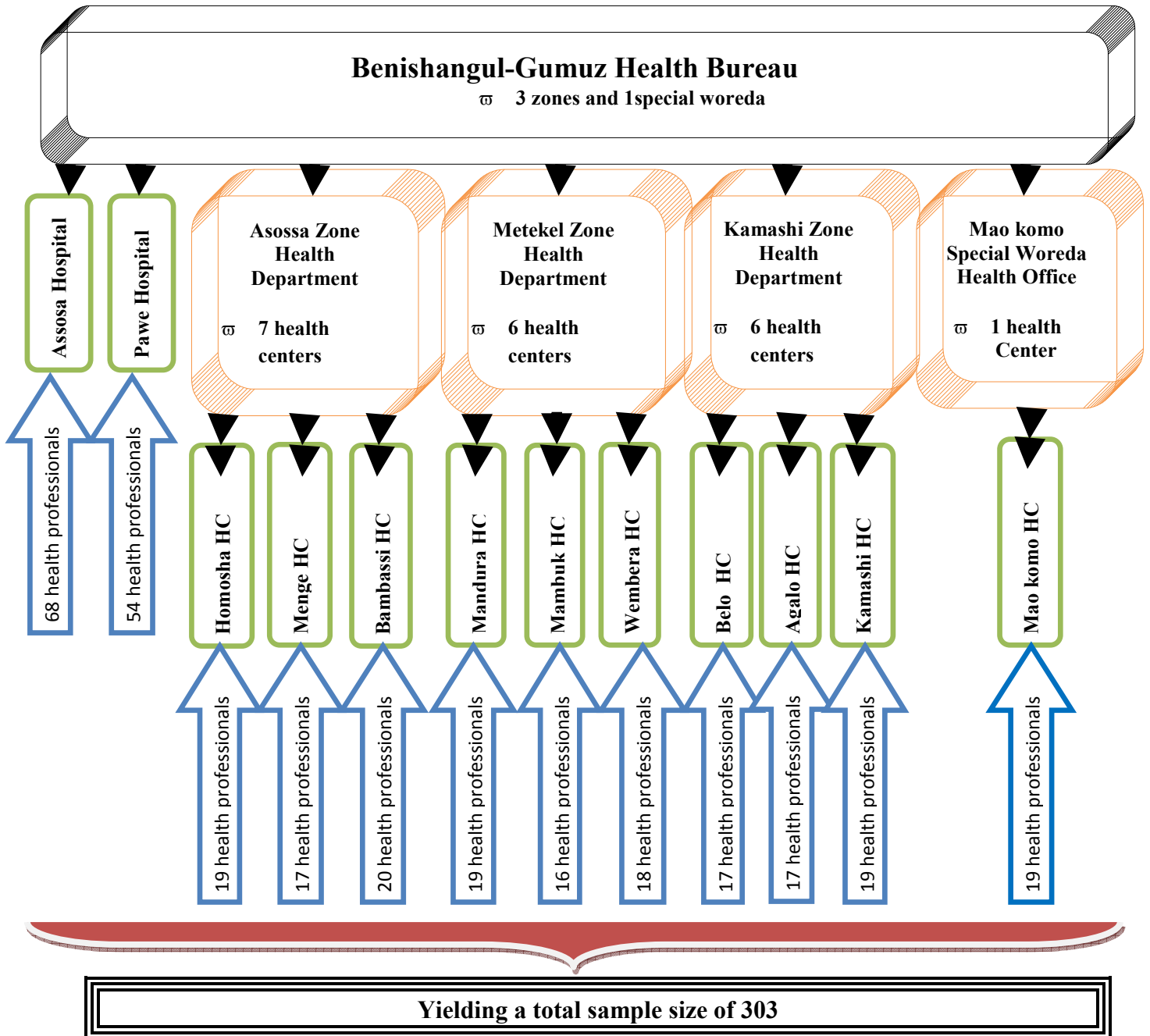


Fig.2. Sampling frame for selecting health professionals in respective institutions of Benishangul Gumuz region, Ethiopia, April 2014

5.6.. Study Variables

5.6.1. Dependent Variable

- ☒ Health professionals' intent to leave

5.6.2. Independent Variables

- ☒ Socio-demographic variables: Age, sex, marital status, educational status, profession and service years.
- ☒ Personal factors: Departure from spouse and children, because of personal health problem, lack of infrastructure for children education, family members' related problem, unable to follow organization rules and regulation, working in hospital is difficult job, friends/relatives changing job, and expectation not fulfilled from present job.
- ☒ Push factors: Low salary, poor incentive, high workload in current organization, limited/no career development opportunity, poor human resources management, poor working condition, inadequate resources for work, lack of motivation and encouragement for good work and bad behavior of boss.
- ☒ Pull factors: Higher income, good career advancement and promotion, organization located in good city, advanced financial benefit/incentives, better resources for work effectively, good organization support, less work load, and higher education opportunity.

5.7.Operational Definition

- ☒ **Intent to leave:** Health professionals have planned to quit the job from the study institutions, which is measured by four statements. The statements in the instrument measure the probability of health professionals' intent to leave the organization: 1) "I plan to leave this organization as soon as possible", 2) "Under no circumstances will I voluntarily leave this organization", 3) "I would be reluctant to stay in this organization", 4) "I plan to stay in this organization as long as possible". Each statement was represented with 3 points Likert scale to indicate their intention of leaving the organization in the near or distant future. Their attitude towards intention to leave was rated as agree and disagree and if the employee response is positive which means agree at least for one of the first and third statements, then I take up as agree for intention to leave.

➤ **Push factor:** The respondents were asked about their opinion on push factors. A total of 9 questions were adapted based on 3 level Likert scales. The respondent's score on the answer to each questions was scored lowest "1" to highest "3" depending on either question was present or absent as agree = 3 score, not sure = 2 score and disagree = 1 score. We claimed there was push factor if the respondents were reporting agreed on at least one statement under push factor. The statements in this factor were:

- ◆ Low salary
- ◆ High workload
- ◆ Limited/no career development opportunity
- ◆ Lack or limited incentives,
- ◆ Poor motivation and encouragement for good work
- ◆ Poor human resources management
- ◆ Poor working condition(risk like HIV/AIDS)
- ◆ Inadequate resources for work effectively
- ◆ Bad behavior of boss

➤ **Pull factor:** Are those factors or reasons that attract health professionals to new places of work. This is beyond organizational control. The respondents were asked about their opinion on pull factors. A total of 8 questions are adapted based on 3 level Likert scales. The respondent's score on the answer to each questions was scored lowest "1" to highest "3" depending on either question was present or absent as agree = 3 score, not sure = 2 score and disagree = 1 score. I alleged there was pull factor if the respondents were reporting agreed on at least one statement under pull factor. The statements in this factor were:

- ◆ High salary
- ◆ promotion
- ◆ Organization is located in good region / city.
- ◆ More financial benefits
- ◆ Better resources for work
- ◆ Good organization support.
- ◆ Less work load
- ◆ Higher education opportunities

✎ **Personal factor:** The respondents were asked about their opinion on personal factors. A total of 8 questions were adapted based on 3 level Likert scales. The respondent's score on the answer to each questions was scored lowest "1" to highest "3" depending on either question was present or absent as agree = 3 score, not sure = 2 score and disagree = 1 score. I asserted there was personal factor if the respondents were reporting agreed on at least one statement under personal factor. The statements in this factor were:

- ◆ Health problem
- ◆ Family related problem
- ◆ Children education
- ◆ Difficult job
- ◆ Spouse and children living other place.
- ◆ Unable to follow organization rule and regulation
- ◆ Friends changing job
- ◆ Expectation not met

✎ **Financial incentives:** Are those incentives that involve transferring of monetary value **i.e.** allowances, top ups, bonuses, rewards, pensions, loans, dual practice, premiums, insurance.

✎ **Non-financial incentives:** Are those incentives that involve no transfers of monetary values to or from individual or group **i.e.** supervision, open appraisal systems, recognition, rewards, higher training, scholarships, research opportunities, skill enhancement, housing, electrification, staff transport, childcare facilities, providing access to ART and medical care, food and improved facilities and equipment's, general conditions of services and work place security.

✎ **Public health facilities:** Are all public hospitals and health centers keeping out public health posts, private and voluntary entities that contribute to the delivery of essential public health services.

5.8.Data Collection Tool And Procedure

5.8.1. Data Collection Tool

The data were collected using pre-tested structured questionnaire adopted from different previous studies of health professionals' intent to leave. The tool was measured by 25 items for internal consistency using Cronbach's alpha and the test index was 0.87 which is of high quality (22). The items swathed key dimensions of intention to leave: personal factors (eight items), pull factors (eight items) and push factors (nine items). Data collection tool was first translated from English to Amharic and retranslated back to English by language experts to check out its consistency.

5.8.2. Data Collectors/Facilitators

Six facilitators who were non health professionals and diploma holders in qualification and Amharic and Arabic languages fluent speakers, good English listener, speaker, reader and writer recruited purposively to maintain the quality of data. Two supervisors BSc in qualification, with the above criteria for facilitators, were appointed. One day training was given to them unto basic notions of questions on the tool and their echelon of understanding was checked out and corrected in accordance with due needs.

5.8.3. Data Collection Procedure

Data were collected through self administered technique using pre-tested structured questionnaire by trained facilitators from the selected health professionals in the facilities.

5.8.4. Data Quality Control Measures

The quality of data was assured by using pre-tested questionnaire. Prior to the actual data collection, pre-testing was done on 5% of the total study eligible subjects at Nedjo and Mendi woredas, Oromia region which was not included in the analysis of the actual study. Based on findings basic amendments were made. Facilitators were trained for one day intensively on the study instrument and data collection procedure that included the relevance of the study, objective of the study, confidentiality of the information, informed consent and facilitation technique. The facilitators worked under close supervision of the supervisors to ensure adherence to procedures. Supervisors (investigator) reviewed the filled questionnaires at the end of data collection every day for completeness. And every break of day the principal investigator and facilitators

conducted morning session to unravel if there was any faced problem as early as possible to take curative measures accordingly. Moreover, the data were watchfully entered and cleaned before the beginning of the analysis.

5.9. Data Processing and Analysis

Data from the questionnaires in each health institution were entered into SPSS 16.0 for cleaning, coding, inspecting completeness and inconsistencies and analysis. Two methods were used for the analysis of three level Likert scale responses. Firstly, the answers were coded on a scale from 1(disagree) to 3(agree). Secondly, calculation of the proportion of respondents agreeing with each statement by picking up those only agreed with each statement executed. In addition to descriptive statistics, Bivariate analysis was used to check out association. And variables having association were entered in to binary logistic regression to obtain odds ratio (adjusted odds ratios). The strength of statistical association was measured by adjusted odds ratios and 95% confidence interval. Statistical significance was declared at $P < 0.05$. Finally the result was presented pictorially.

5.10. Ethical Considerations

The scheme was bearably appraised and endorsed where leadingly ethical clearance letter obtained from Ethical Clearance Committee of JU Health Research and Post Graduate Coordinating Office. In that way, formal letter of co-operation was printed from Benishangul-Gumuz region health bureau to respective hospitals and health centers. The endeavor of the study was verified for a split second to the study subjects and their full right to discontinue or refuse to participate in the study. The information obtained from them was registered on anonymous format which was exactly confidential and was only used for the purpose of this study. To end with, verbal informed consent was got hold of from each health workers to advance with data collection.

5.11. Dissemination Plan

The result of this investigation is of petite use if they are not communicated to others. Therefore, findings of this study will be submitted to JU post graduate studies office and department of health service management. Communication of the results will also be made to concerned bodies in the study site and further efforts will also be made to publish the findings on national and international peer reviewed journal.

CHAPTER SIX

RESULT

6.1. Socio-demographic Characteristics of Respondents

Out of the planned 303 health workers, auspiciously all of them participated in the study making a response rate of 100%. Among the respondents 192(63.4%) were males and 111(36.6%) females. The mean \pm SD of health workers age was 31.1 \pm 6.4 years. As to profession category, 168(55.4%) were nurses of all type, 22(7.3%) laboratory technicians/technologists, 15(5%) physicians of all type, 27(8.9%) pharmacy, 26(8.6%) midwives, 26(8.6%) health officers, 3(1%) imaging and 16 (5.3%) others. Bigger part like 194 (64%) were diploma, 103(34%) 1st degree and 6(2%) 2nd degree by educational level. 164(54.1%) were single and 139(45.9%) married. The median service year of respondents was 3 years.

Table 2: Socio-demographic characteristics among health professionals in public health facilities of Benishangul Gumuz region, Ethiopia, April 2014

Socio-demography	Assosa hosp.	Pawe hosp.	Bambassi hc	Homosha hc	Menge hc	Mandura hc	Mambuk hc	Wembera hc	Belo hc	Agalo hc	Kamashi hc	Maokomo hc	Total	%
Sex														
Male	47	35	12	13	11	12	10	10	10	11	10	11	192	63.4
Female	21	19	8	6	6	7	6	8	7	6	9	8	111	36.6
Age in years														
20-24	3	2	7	1	1	1	1	2	1	0	1	0	20	6.6
25-29	31	21	9	10	7	9	9	9	11	10	8	10	144	47.5
30-34	6	23	2	5	4	7	3	5	4	4	8	6	77	25.4
35-39	24	3	1	1	2	0	2	0	0	1	0	1	35	11.6
>39	4	5	1	2	3	2	1	2	1	2	2	2	27	8.9
Marital status														
Single	39	34	10	8	7	11	9	5	5	10	13	13	164	54.1
Married	29	20	10	11	10	8	7	13	12	7	6	6	139	45.9
Profession														
Physician	8	7	0	0	0	0	0	0	0	0	0	0	15	5
Health officer	3	3	2	3	2	1	1	2	2	2	2	3	26	8.6
Midwife	4	3	3	2	2	2	1	2	2	1	2	2	26	8.6
Nurse	34	27	11	10	10	13	12	10	9	11	11	10	168	55.4

Pharmacy	5	3	2	2	2	2	1	2	2	2	2	2	27	8.9
Laboratory	3	3	2	2	1	1	1	2	2	1	2	2	22	7.2
Imaging	2	1	0	0	0	0	0	0	0	0	0	0	3	1
Others	9	7	0	0	0	0	0	0	0	0	0	0	16	5.3
Educational status														
Diploma	33	27	12	11	11	14	12	15	13	14	16	16	194	64
1 st degree	31	25	8	8	6	5	4	3	4	3	3	3	103	34
2 nd degree	4	2	0	0	0	0	0	0	0	0	0	0	6	2
Total service years														
≤1	7	5	3	4	4	4	3	3	0	3	4	3	43	14.2
1-2	9	15	5	6	6	7	7	5	7	6	6	6	85	28.1
2-5	25	16	9	4	4	4	3	6	7	4	4	5	91	30
5-10	16	13	2	3	2	3	3	2	2	2	3	3	54	17.8
>10	11	5	1	2	1	1	0	2	1	2	2	2	30	9.9

6.2. Result of Personal, Pull, and Push Factors

A total of twenty five question items were used to assess factors affecting intent to leave of health professional in public health facilities of Benishangul Gumuz region. The items were sorted out as personal, pull and push factors.

Found it that, 13(4.3%) of participants have retorted that they intend to leave their current job because of their personal health problems. 183(60.4%) of the study subjects also agreed to quit their job for the reason of their family related problems. On the other window, 55(18%) of study subjects responded that they will quit present job because of lack of basic infrastructure for children education. 186(61.4%) of study subjects also reported to quit current job because of difficulty of job in the hospitals.

57(18.8%) of respondents also responded that they will quit their present job because of spouse and children live in other area. Of 194(64%) the study subject reported that they will switch current job for the reason they are unable to follow rules and regulations of their respective organizations. As of total respondents, 135(44.5%) replied that they will leave current job because of their friends changing job. About 183(60.4%) also replied that they will quit their present work because of their expectation not met.

As well 178(58.7%) of participant replied that they will quit their current job if they get high salary outside. More than bulk, 189(62.4%) of study subject also reported that they will change their current job if they get better promotion. Pertaining to organization location, 169(55.8%) of health worker responded that they will quit current job if they get job in organization located in good city. Study subjects of 185(61%) replied that they will abscond from their current job if they get more financial benefit exteriorly.

More than half of the study subjects, 163 (53.8%), responded that they will quit their current job if they get better resource for work elsewhere. 166(54.8%) of the study subjects also replied that they will quit their present job if they do not get good organizational support for their good work. Whilst 162(53.4%) responded that they will relinquish from their current job in search of less work load in other organization. And 190(62.7%) replied that they intend to leave their current job hunting for higher education opportunities somewhere else.

With reference to the push factors, a good number of the participants responded that they will quit their current job because of this factor. 179(59%) reported that they will change their current job because of low salary they get a hold. Over three-fourth of study subjects, 194(64%) replied that they will suspend their current job because of poor incentives from their current organization.

171(56.4%) of study subject also reported that they will quit their present job because of poor working condition in current organization. 160(52.8%) reported that they will leave their present job because of inadequate resources for effective work. 155(51.1%) of participant also articulated that they will change their current job because of high work load. Vis-à-vis to the poor human resource management, more than mid, 168(55.4%) reported that they will quit their present job because of poor human resource management scheme in the organization.

176(58%) of health worker in the study reported that they will run off from their current job as reason of poor motivation and encouragement for good work they performed in their organization. As to bad behavior of boss, 162(53.4%) respondents agreed to quit their current job to its upshot. 195(64.3%) of study subjects reported that they will walk out from their current job because of limited access to career advancement and better education (Table 3).

Table 3: Reasons for intention to leave the current job among health professionals in public health facilities of Benishangul Gumuz region, Ethiopia, April 2014

Variables	Agree to leave current job	
	Number	Percent
Personal factors		
Heath problem	13	4.3%
Family related problem	183	60.4%
Children education	55	18.1%
Working in hospital/health center is difficult job	186	61.4%
Spouse and children live another place.	57	18.8%
Unable to follow organization timing, rules and regulation.	194	64%
Friends are changing jobs	135	44.5%
Expected from my present job, are not available	183	60.4%
Pull factors		
High salary	178	58.7%
Career advancement / promotion	189	62.4%
Organization is located in good city	169	55.8%
More financial benefits	185	61%
Better resources for work	163	53.8%
Good organization support	166	54.8%
Less work load	162	53.4%
Higher education opportunities	190	62.7%
Push factors		
Low salary	179	59%
Poor incentives from my organization.	194	64%
Poor working condition(risk like HIV/AIDS)	171	56.4%
Inadequate resources to work effectively	160	52.8%
High work load	155	51.1%
Poor human resources management	168	55.4%
Lack of motivation and encouragement for Good work	176	58%
Bad behavior of my boss	162	53.4%
Limited career opportunities	195	64.3%

This study brought into play that 200(66%) of health professionals currently working in Benishangul gumuz public health centers and hospitals reported that they have intent to leave their current job. The proportion of intent to leave differs as to institutions. The intent to leave in Assosa and Pawe hospital, Bambasi, Homosha, Menge, Mandura, Mambuk, Wembera, Belo, Agalo, Kamashi and Mao komo, was 64.7%, 63%, 30%, 63%, 70.6%, 73.7%, **75%**, 72%, **76%**, **76%**, 68% and 73.7% respectively(figure3).

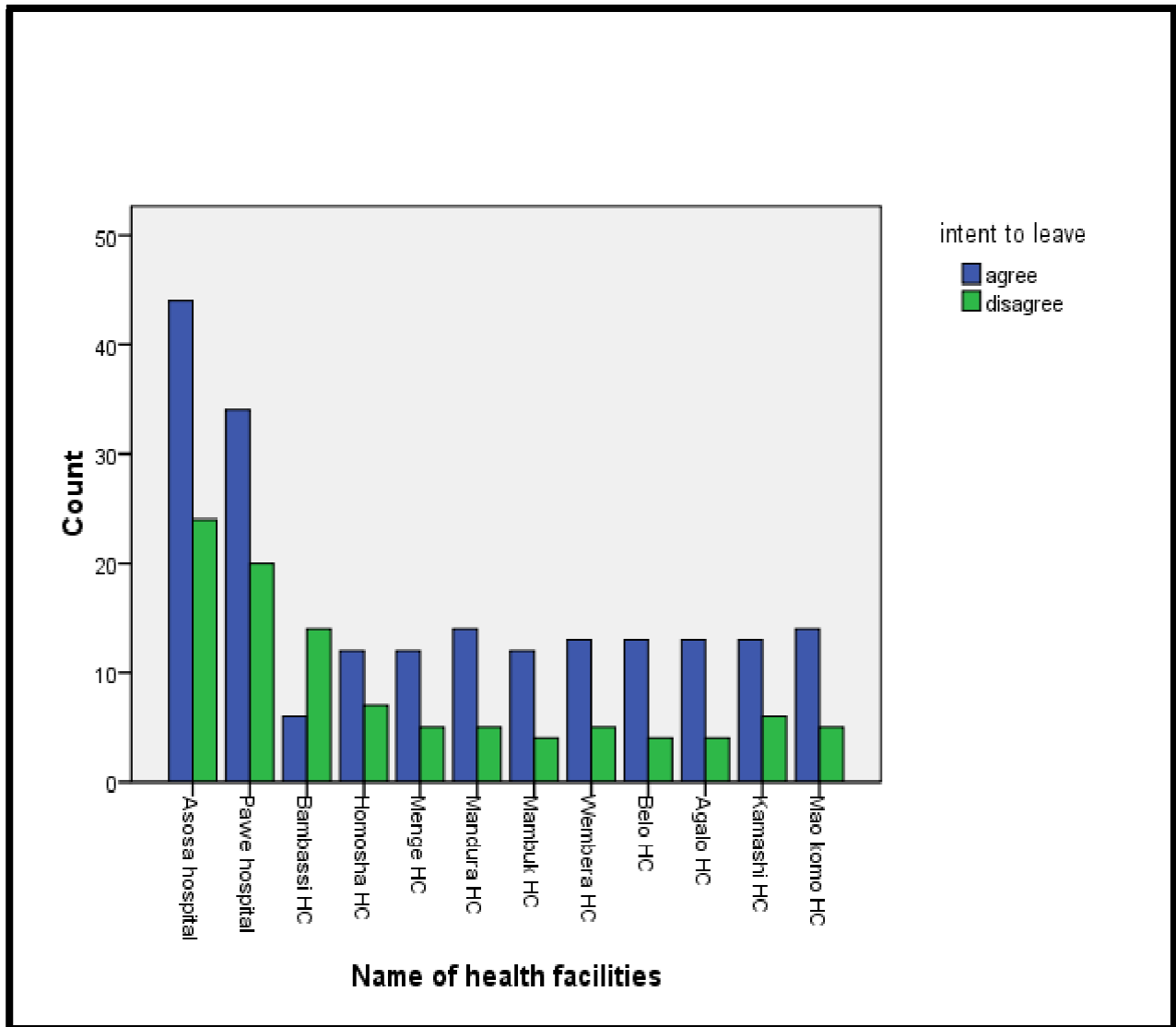


Figure 2: Level of health professional intent to leave among health professionals in public health facilities of Benishangul Gumuz region, Ethiopia, April 2014

This study showed, among 15 physicians, 9(60%) reported that they have intent to leave. Of 26 health officers, 14(53.8%) reported to leave their organization. Amongst 26 midwives, **17(65.4%)** of them have intent to leave their current job. In excess of two-third, **114(67.8%)**, of

nurses have intent to leave of the total 168. **19(70.3%)** out of 27 pharmacy professionals also have reported to leave their current institution. 13(59%) laboratories reported that they have intent to leave out of 22 (figure4).

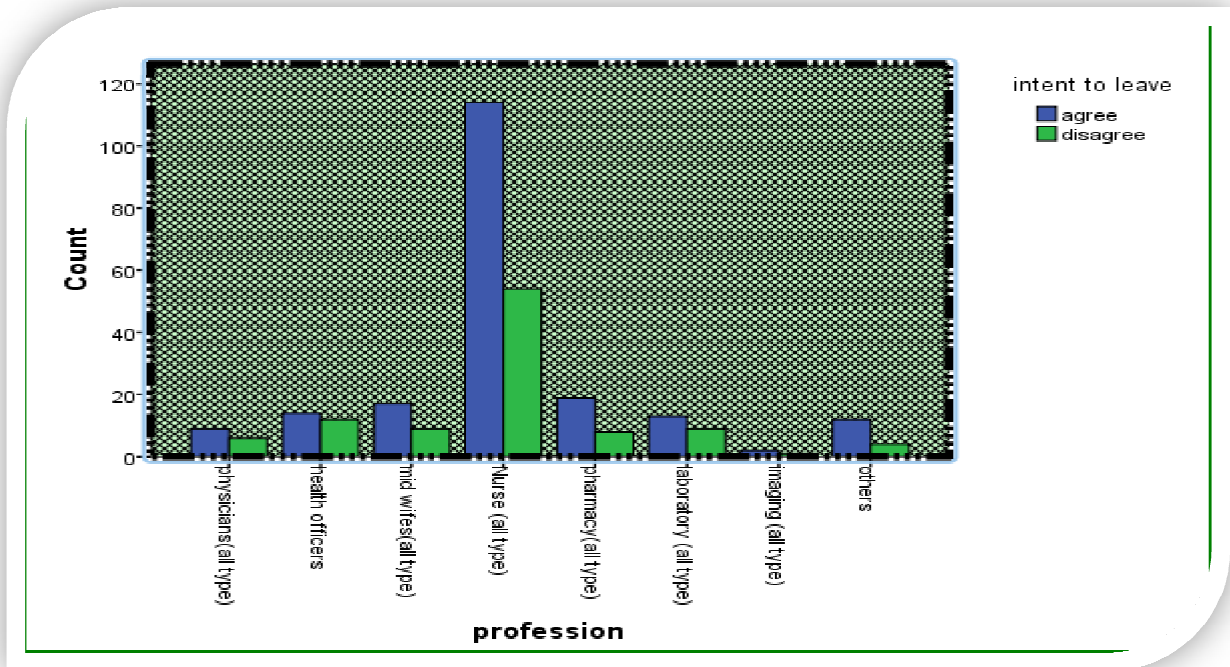


Figure 3: Level of intent to leave among different health professional categories in public health facilities of Benishangul Gumuz region, Ethiopia, April 2014

6.3. Bivariate Analysis

6.3.1. Socio-demographic Factors

In the midst of the study subjects, participants with age < 35 have reported higher proportion of intention to leave.

On the subject of marital status, singles have shown more number of intent to leave their current job than married.

Talking with educational status, lowers (diploma) have shown more interest to leave their position.

Personages who have been serving less than 5 years have higher intent to leave than their counterpart.

In Bivariate logistic regression, four socio-demographic attributes showed association with intent to leave of health professional in Benishangul Gumuz region public health facilities. These are age, marital status, educational level and service year (Table 4).

Table 4: Socio-demographic factors associated with intent to leave among health workers in public health facilities of Benishangul Gumuz region, Ethiopia, April 2014

Variables	Intent to leave		COR	P-value
	Agree	Disagree		
Age				
< 35	177(72.8%)	66(17.2%)	1.900	.000
≥35*	23(38.3%)	37(61.7%)		
Sex			1.523	.35
Male	125(65%)	67(35%)		
Female*	75(67.5%)	36(32.5%)		
Profession			**	
Physicians	9(60%)	6(40%)		.68
Health officers	14(53.8%)	12(52.8%)		.54
Midwives	17(65.4%)	9(34.6%)		.74
Nurse	114(67.8%)	54(32.2%)		.62
Pharmacy	19(73%)	8(27%)		.78
Laboratory*	13(59%)	9(41%)	.71	
Marital status			1.853	.001
Single	120(73%)	44(27%)		
Married*	80(57.5%)	59(42.5%)		
Educational status			1.521	.006
Lower	122(91%)	12(9%)		
Higher*	78(71.5%)	31(28.5%)		
Service year			1.611	.000
< 5.	160(73%)	59(27%)		
≥5*	40(45.4%)	44(54.6%)		

*References group, significant at $p < 0.05$

Bivariate logistic regression divulged that there were five personal variables associated with intent to leave. These are family related problems, difficulty job, unable to follow organization rules, friends changing job and expectation not met (Table 5). Of the study subjects, 200 (66%) reported that they have personal factor(s), at least one, to quit their current job.

Table 5: Personal factors associated with intent to leave among health workers in public health facilities of Benishangul Gumuz region, Ethiopia, April 2014

Variables	Intent to leave		P-value
	Agree	Disagree	
Health problem			
Agree	13(81.2%)	3(28.8%)	.853
Disagree*	187(65%)	100(35%)	
Family related problem			
Agree	183(88%)	25(12%)	.005
Disagree*	17(17.8%)	78(82.2%)	
Children education			
Agree	55(83.3%)	11(16.7%)	.792
Disagree*	145(53%)	92(47%)	
Difficult job			
Agree	186(85.7%)	31(14.3%)	.006
Disagree*	14(16.3%)	72(87.7%)	
Family living in other area			
Agree	57(83.8%)	11(16.2%)	.784
Disagree*	143(60%)	92(40%)	
Organization rules			
Agree	194(85.7%)	33(14.3%)	.000
Disagree*	6(8%)	70(92%)	
Friends are changing job			
Agree	135(90%)	15(10%)	.042
Disagree*	65(42.5%)	88(57.5%)	
Expectation not fulfilled			
Agree	183(86%)	30(14%)	.000
Disagree*	17(19%)	73(81%)	

6.3.3. Pull Factors

Of the partakers, 200(66%) accounted that they have pulling factor(s), at least one, to renounce their current job. Virtually all pull factors have manifested association with intent to leave in Bivariate analysis. These are high salary, career advancement, organization located in good city, financial benefits, good organizational support and higher education opportunity. Conversely speaking, better resources for work and less work load were not significantly associated with intent to leave (Table 6).

Table 6: Pull factors associated with intent to leave among health workers in public health facilities of Benishangul Gumuz region, Ethiopia, April 2014

Variables	Intent to leave		P-value
	Agree	Disagree	
High salary			
Agree	178(90%)	20(10%)	.000
Disagree*	22(21%)	83(79%)	
Promotion			
Agree	189(85.5%)	32(84.5%)	.000
Disagree*	11(13.4%)	71(86.6%)	
Organization located in good city			
Agree	169(87.5%)	24(12.5%)	.041
Disagree*	31(28%)	79(32%)	
More financial benefit			
Agree	185(86.8%)	28(13.2%)	.003
Disagree*	15(16.7%)	75(83.3%)	
Better resources for work			
Agree	163(88.5%)	21(11.5%)	.064
Disagree*	37(31%)	82(69%)	
Good organizational support			
Agree	166(86%)	27(14%)	.050
Disagree*	34(31%)	76*69%)	
Less work load			
Agree	162(91%)	16(9%)	.230
Disagree*	38(30%)	87(70%)	
Higher educational opportunities			
Agree	190(86%)	31(14%)	.000
Disagree*	10(12%)	72(88%)	

6.3.4. Push Factors

The entire push factors akin to low salary, poor incentives, poor working condition, inadequate resources for work, high work load, poor human resources management, lack of motivation, bad boss behavior and limited career opportunity are brought into being significantly associated with intent to leave of health professionals in Bivariate analysis. In the midst of study subjects, 200(66%) were primed to leave their current job owing to, at any rate one, pushing factor(s) (Table 7).

Table 7: Push factors associated with intent to leave among health workers in public health facilities of Benishangul Gumuz region, Ethiopia, April 2014

Variables	Intent to leave		P-value
	Agree	Disagree	
Low salary			
Agree	179(88.6%)	23(11.4%)	.000
Disagree *	21(20.8%)	80(79.2%)	
Poor incentives from org.			
Agree	194(87%)	29(13%)	.000
Disagree*	6(7.5%)	74(92.5%)	
Poor working condition			
Agree	171(88%)	23(12%)	.046
Disagree*	29(26.5%)	80(73.5%)	
Inadequate resources to work			
Agree	160(88.4%)	21(11.6%)	.047
Disagree*	40(32.8%)	82(67.2%)	
High work load			
Agree	179(88.6%)	23(11.4%)	.052
Disagree*	21(20.8%)	80(79.2%)	
Poor human resources mg't.			
Agree	168(85.7%)	28(14.3%)	.038
Disagree*	32(29.6%)	75(70.4%)	
No motivation and encouragement			
Agree	176(89%)	22(11%)	.035
Disagree*	24(23%)	81(77%)	
Bad behavior of my boss			

Agree	162(87.5%)	23(12.5%)	.053
Disagree*	38(32.2%)	80(67.8%)	
Lack of career opportunities			.000
Agree	195(86.7%)	30(13.3%)	
Disagree*	5(6%)	73(94%)	

**Reference group, significant at $p < 0.05$*

6.4. Multivariate Analysis

The definitive model was constructed using backward binary logistic regression. Altogether, twenty variables which have shown statistically significant association at Bivariate analysis were roped in. To this ending, out of these went in variables only eight variables were found to be independent predictors of intent to leave among health workers in public health facilities of Benishangul Gumuz region.

Health professional who directed agrees on family related problem were about five times more likely to quit their position than those disagreed (AOR 95% CI: 4.917 (3.187, 7.58)).

A good majority of the study subjects claimed that they intend to leave their organization for the reason that their expectations were not fulfilled. Those agreed on this are of four times at possibility of leaving their current position (AOR 95% CI: 4.548 (2.954, 7.003)).

High salary was one of the significant predictors of intent to leave job. Health workers in fond of this were four times more likely to quit their current institution as compared to disagreed (AOR 95% CI: 4.291 (2.951, 6.239)).

Agreed on search for promotion were six times more liable to resign their current job than disagreed (AOR 95% CI: 6.375 (3.669, 11.078))

With rummage around of education opportunity were seven times more apt to leave their current position as talked with those with no needs (AOR 95% CI: 7.050 (3.935, 12.632)). The propensity of leaving job amplifies when health professionals feel that they would get better education opportunity somewhere else.

Low salary was significantly principal factor for majority of health workers to quit their current job. Agreed on the fact that they were making low salary have almost four times a frontage chair of leaning their job than disagreed (AOR 95% CI: 4.262 (2.903, 6.256)).

Most workers have averred that they were charging out high work load as a result of which their intent to quit their job aroused. With consent on this are three times at menace of leaving their job than disagreed (AOR 95% CI: 2.768 (2.172, 3.528)).

Last of all, significantly important predictor of workers intent to leave was limited career opportunity apparent in their current organization. Agreed on this fact are nearly fourteen times more likely to give up their job than disagreed (AOR 95% CI: 13.520 (5.781, 31.617)).

Table 8: Final independent predictors of intent to leave among health workers in public health facilities of Benishangul Gumuz region, Ethiopia, April 2014

Variables	Intent to leave		AOR (95% CI)	P-value
	Agree	Disagree		
Family related problem Agree Disagree*	183(88%) 17(17.8%)	25(12%) 78(82.2%)	4.917 (3.187, 7.58)	0.002
Expectation not fulfilled Agree Disagree*	183(86%) 17(19%)	30(14%) 73(81%)	4.548 (2.954, 7.003)	0.003
High salary Agree Disagree*	178(90%) 22(21%)	20(10%) 83(79%)	4.291 (2.951, 6.239)	0.003
Promotion Agree Disagree*	189(85.5%) 11(13.4%)	32(84.5%) 71(86.6%)	6.375 (3.669, 11.078)	0.001
Education opportunity Agree Disagree*	190(86%) 10(12%)	31(14%) 72(88%)	7.050 (3.935, 12.632)	0.000
Low salary Agree Disagree*	179(88.6%) 21(20.8%)	23(11.4%) 80(79.2%)	4.262 (2.903, 6.256)	0.001
High work load Agree Disagree*	179(88.6%) 21(20.8%)	23(11.4%) 80(79.2%)	2.768 (2.172, 3.528)	0.023
Limited career Agree Disagree*	195(86.7%) 5(6%)	30(13.3%) 73(94%)	13.520 (5.781, 31.617)	0.000

* *References group, significant at p<0.05*

CHAPTER SEVEN

DISCUSSION

This study established that 66% of health professionals have intent to leave from the Benishangul Gumuz public health facilities. This finding was roughly speaking lower than findings in Zimbabwe which is 68% and higher than that of Tigray region being 58.9% (5, 25 and 55). This disparity might be attributable to an authentic difference in methodology, occasion and geographical location of the studies.

The study made public that intent to leave among health professionals was higher for Nurses of all type than that of Physicians, Pharmacy workers, Laboratory technicians/technologists, Health officers, and Midwives. This result despairs with a descriptive case study conducted in Eastern part of Ethiopia on magnitude, pattern and determinant factor of health worker intent to migrate from public health sector which showed that 42.9% of respondents agreed that the highest intent to leave was for health officers followed by nurses (31%) and pharmacy professionals (17.9%) disclosing that more than 50% of health professionals had intention to leave public sectors (26). But the result appears to be a morsel analogous with finding of the study from Tigray region which showed Nurses, Pharmacy technician/pharmacist and laboratory technician/technologist have higher intent to leave than other professions (55). Nurses of all type are more apt to leave the public health sector than other health professional rooted in this study. This might be down to a highly increased demand in private sectors and lack of equipments and good setting in most of health facilities.

The current study also divulged that intent to leave among health workers in Belo and Agalo health centers was higher than that of Assosa and Pawe hospitals, Bambasi, Homosha Menge, Mandura, Mambuk, Wembera, Kamashi and Mao health centers. Similar study conducted in Tigray regional state showed that health professional that works at district level and remote area have higher intent to leave than at zonal level (55). Another similar study on health workers' career choices and early work experience in Ethiopia revealed urban locations are preferred by health professional due to a number of factors, including better promotion opportunities, access to education and good healthcare, closeness to families and friends, providing health care were needed, and opportunities to find another job (43).

Predictors of Intent to Leave

Family related problem was one of personal factors which independently predict the intent to leave of health workers in Benishangul Gumuz region public health facilities (AOR 95% CI: 4.917 (3.187, 7.58)). This attests that workers with family related problems are more apt to leave their current job than those not. Most of health workers in the region were from the neighboring regions and they have a very limited chance of contacting families as readily as needed, in which case their intent to leave turns out. This finding is in line with the study named Employee hand book stating the matching piece of information (56).

Another personal factor imperatively significant predictor of intent to leave of health worker was expectation not fulfilled (AOR 95% CI: 4.548 (2.954, 7.003)). If workers feel that the expectations are not realized, they become disappointed and it is highly probable that their intent to leave job comes about. Most of newly deployed workers were told to gain a lot of benefits like financial and educational opportunities before recruitment. But after a while all those promises would not happen as of expected there by rendering intent to leave job to come about. Studies on ending the employ relationship states that majority of workers particularly newly recruited are in position to terminate their position if their expectations are not met in any way (57).

Ought to have high salary was one of important predictors of intent to leave for health professionals in public health facilities (AOR 95% CI: 4.291 (2.951, 6.239)).The predisposition to leave swells in those health professionals who hunt for better salary. In the region there were as of 25 NGOs, most of which are international and they shell out exceedingly high salary to their workers than in the home of government. This existing fact drives intent to leave of health workers in government loggia. The finding is consistent with the study focused on why health workers leave public sectors in Zimbabwe (25). The result revealed that more than half of the respondents (54.7%) cited economic factors as a main reason for leaving. These included better remuneration in the intended country of destination (55%) or the desire to make money to remit home (54%).Other similar study in Oromia revealed that about 35% of the health workers indicated that insufficient salaries and incentives to cover basic needs are a major reason for health workers intent to leave. The majorities (63.1%) of study participants were not satisfied by their salaries and incentives (26).

Search for better promotion was independent predictor of intent to leave. Promotion craving astonishingly increases intent to leave of health workers. Workers intend to leave if they make

out that they may get better promotion opportunity somewhere else than their current organization (AOR 95% CI: 6.375 (3.669, 11.078)). Promotional practice in the region was based on unreasonably long listed criteria which were not copiously based on longevity and work performance. Equivalent fact was shown in a cross sectional descriptive study focused on factors affecting job turnover intentions among certified pharmacy Technicians in Mylon School of pharmacy in 2005 and the result was poor salary, lack of promotion opportunity, and insufficient staffing which were cited frequently as factors among those indicating intent to leave (32). Similar study spotlighted on factors related to job intent to leave in physical therapy was done by Ms. Harakson, Mrs. Unteoreiner and Dr Shaperd through mail to national wide samples of 820 licensed physical therapists which were selected from the American Physical Therapy Association Membership list. The results showed that intent to leave job was because of many reasons. Out of these are 51.8% for insufficient salary, 48% few opportunity for promotion, 45.2% lack of independence in decision making with regard to direct patient care, 43.5% desire to move to a new location, 39.1% lack of opportunity or financial resources for continuing education, 39.1% little variation in job responsibilities, 38.6% unsatisfactory interaction with supervision in the physical therapy department, 35.1% unsatisfactory interaction with other professionals in the health care organization, 30.8% lack of opportunity for participation in policy making for the health care organization, 29.8% unsatisfactory interaction with peers in the physical therapy department, 28.4% lack of recognition for my work from other professionals in the health care organization and 26.5% lack of flexibility in work schedule (34). Another similar study carried out in South Africa found that the reasons to leave from the public sector include insufficient opportunities for promotion and self-improvement. This signifies that health professionals move out to go private where opportunities for self-development and promotional opportunities (40).

Education opportunity is one of significantly predicting factors of health workers intent to leave. Bulk of health workers had intent to leave their current organization looking for better education advancement opportunity anywhere else (AOR 95% CI: 7.050 (3.935, 12.632)). Workers in the region have had a dreadfully slender chance to pursue in education for the reason that there were no higher education institutions in the environs. Annual education advancement plan for workers by the government is so skimpy. This is as well true in the findings of study lime lighted on perceived factors related to intent to leave in physical therapy which was done by Ms. Harakson,

Mrs. Unteoreiner and Dr Shaperd. The study alluded to lack of opportunity or financial resources for continuing education as one of leading predictors of intent to leave (34).

It was found that low salary has shown significant and independent association with intent to leave of health professional among public hospitals and health centers (AOR 95% CI: 4.262 (2.903, 6.256)). Frankly speaking, the apparent life expenses and income of workers in the region is by far mismatching. Life is so expensive in the region because of the fact that tons of people are flowing to the region because of the Ethiopian Renaissance Dam and International Refugee Camps, roughly talking. Studies conducted in west Nile region, Tigray and Oromia regional states are evidence for similar finding, where health professionals complaining on the subject of low salary (11, 26, 55).

Shoving factor for health workers to have intent to leave was high work load in their current organization. The factor was significant predictor of intent to leave (AOR 95% CI: 2.768 (2.172, 3.528)). High work load noticeably increases health workers intent to leave in effect leading to high turnover. The fact that health workers in the region were petite as weighed against served population, it's evident that there would be elevated work load on the existing workers. This finding goes up against a cross-sectional quantitative study done in department of community Medicine Ahameda Bello university of teaching hospital on health worker job satisfaction, Northern-eastern Nigeria, work place which showed that 65.2% of the respondent were happy with their work load and 77.6% were paid appropriately, however, about half (51.5%) of the respondents felt underpaid for the work they did. On the other hand, finding of current study is in line with a study performed in the general hospitals in West Nile region to determine perceived factor affecting intention to leave. The most frequent factors were; low salary (89%), poor relationship with managers (57%), high work load (53%), lack of retirement benefit (35%) , fear of job insecurity (23%), unfriendly hospital rules (21%) , lack of other monetary incentive (20%), lack of career development opportunities (18%), poor accommodation (16%) and join spouse 15% (11, 37).

The very last predictor for intent to leave of health professional was limited career opportunity (AOR 95% CI: 13.520 (5.781, 31.617)). As is pointed out earlier there was no or limited (if any) openings for professional advancement and career scaling up in the region. This comes into views to be of similar with study conducted in intensive care unit St. Vincent's hospital on nursing staff intent to leave to identify factors which have influenced nurses in their decision to leave ICU.

The main factors influencing resignation were frequency of night duty 79%, life events outside work 61%, career opportunities 54%, and attitude of medical staff 53%, peer support 52%, flexibility of holy days 41%, and stress in ICU 42%, ICU physical Environment 39%, availability of educational resources 33% and study leave flexibility 35% (35). Lack of career opportunity was also talked about as one of chief predictors for intent to leave in a study performed in the general hospitals in West Nile region (33).

Limitation of the Study

- ∅ The investigator could not prove the causality of relationships because the finding of the study used co relational data.
- ∅ Maneuvering of quantitatively cross-sectional study design.

Concerns for Advanced Research

The investigator has also recognized a few related areas for further research:

- ⊕ Examining the antecedents of intent to leave using a longitudinal study design.
- ⊕ Taking in larger samples and be more representative in terms of gender and cultural diversity and geography.
- ⊕ Weighing up the impact of different health policies on intent to leave.
- ⊕ Reviewing the intent to leave and morale of the health professionals before and after the implementation of various interventions to determine their impact on the workforce.
- ⊕ Costing, in pecuniary terms, the loss of human resources from the public sector.
- ⊕ Exploring the health system structure and organization in the view of health workers affability.
- ⊕ Looking at the association flanked by good management & leadership with intent to leave.
- ⊕ Destination against the current organization of workers.

CHAPTER EIGHT

CONCLUSION AND RECOMMENDATION

8.1. Conclusion

By and large, the findings of this study let slipped that:

- More than half of health professionals currently working in Benishangul Gumuz public health facilities alleged that they have had intent to leave and the percentages of intent to leave are higher in Belo and Agalo health centers than other health centers and hospitals in the study.
- Intent to leave was higher for Nurses of all type, Pharmacy technician/pharmacists and Midwives than that of Laboratory technician/technologists, Physicians, Health officers, and others.
- The significant and independent predictors of intent to leave from personal factors were family related problems and expectation not fulfilled.
- The most significant and independent predictors of intent to leave from pull factors were high salary, promotion opportunity, and better education advancement.
- The significantly independent predictors of intent to leave from push factors were low salary, high work load and limited career opportunity.

Conflict of Interest and Funding

☒ *The investigator has no relationship backgrounds and not received funding or benefits from any source to conduct this study and no conflicts of interest to report.*

Commitment

📖 *Any error made in this study is sole responsibility of the principal investigator.*

8.2. Recommendation

Standing on this study findings, the forwarded redolent ideas are hereunder:

1. To Benishangul Gumuz region health bureau and its stake holders

- 🔗** Confer payable attention to workers family related predicament, expectation, income, promotion, education opportunity, work load and career advancement to hold on longevity of health staffs in the organization:-
- ⊖** Revise the existing health policy on structure and organization of health system and formulate a new portfolios with the eyes to make it not only community but also health workers friendly.
- ⊖** Deploy workers in the way amenable and acquiescent to their family related situation and promptly resolving when the problem arises later than deployment.
- ⊖** Review the deployment salary sufficiency for workers and reconcile it with evident life expenditure of workers. There as well should be some financial compensation mechanisms in the vein of incentives, bonus, prizes, and gifts and so on.
- ⊖** Regular practice of promotion and career advancement of workers position based on their performance and curiosity.
- ⊖** Facilitate resources and opportunities for education improvement of workers.
- ⊖** Optimize work load to workers and endow hospitals and health centers with sufficient equipments and materials there by simplifying work load and boosting organizational performance.
- ⊖** Operate regular monitoring on intent of workers to quit their job and take in prompt and holistic approach based pro and counter acting.

2. To respective public hospitals managers and health centers heads:-

- To ameliorate intent to quit and in turn reduce turnover, managers and heads need to actively monitor socio-economic and work related conditions of their workers and the relationships between supervisors and subordinates. Managers also need to monitor both the extrinsic and intrinsic sources of job contentment available to employees. These activities could assist in maintaining and increasing job interest and commitment to the organization.
- Organizations should make intent to leave as front and first coming agenda with the grand goal to keep hold of their health workers and accordingly introducing interventions to create accommodating climates that are encouraging as to:
 - Different categories of health workers.
 - Family related and expectation oriented set-up of workers.
 - Income/salary, promotion and educational advancement of workers.
 - Plus tolerable work load and career opportunities.
- Taking up of performance oriented management to gear up the workers motivation to work harder and encouraging the staff for their marvelous and high-quality work performance as employees and teams through different mechanisms (e.g. rewarding, recognizing and prizing best performed team and individuals).

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**Annex: Questionnaire
Jimma University**

Collage of Public Health and Medical Sciences

Department of Health Service Management Masters Program

General information about the study

Good morning /afternoon. My name_____ I am from _____ and we are conducting study on assessing the trend, intention for migration of health workers from public health centres and hospitals. The purpose of the study is to gather information about the factors affecting intention to leave of health workers in public health centres and hospitals and to estimate the extent of these factors on intention to leave in public health centres and hospitals in Benishangul-Gumuz Regional State. When we select you as one of our respondent, we hope that you will be cooperative and give us genuine information. We like you to understand that each and every answer has got a big value for the study and will be kept confidential for which reason. We want to assure you that your participation in the study will not affect you and your institution. If you have any questions you can ask us any time. You do not need to write your name on this questionnaire.

If you are willing to respond to, please sign here._____

Part I. Socio-demographic Factors		
001	Name of health centre or hospital	
002	Age in year	
003	Sex	1) Male 2) Female
004	Marital status	1) Single 2) Married 3) Divorced 4) Others state.....
005	Your highest level of academic Qualification	1) Diploma 2) 1 st degree 3) 2 nd degree 4) Certificate
006	Profession	1) Physicians(all type) 2) Health officers 3) Midwives(all type) 4) Nurse (all type) 5) Pharmacy(all type) 6) Laboratory(all type) 7) Imaging(all type) 8) Others
007	Services years	1) <1 2) 1-2 3) 2-5 4) 5-10 5) >10

Part II: Personal Factors: What are the main personal factors that intend you to resign or switch to new job? (Please tick which is more appropriate to you)				
	Questions	Agree	Not sure	Disagree
008	Because of my health problem			
009	Because of my family related problem			
010	Because of my children education as good schools are not available in the city where my Origination is located.			
011	Because working in hospital/HC is difficult job			

012	Because my spouse and children live another place.			
013	I am unable to follow organization timing, rules and regulation.			
014	Because some of my friends are changing jobs			
015	What I expected from my present job, are not available			
Part III: Pull Factors: What are the main factors that attract (pull) you to switch to new job? (Please tick which is more appropriate to you)				
	Questions	Agree	Not sure	Disagree
016	High salary			
017	Career advancement / promotion			
018	Organization is located in good region / city			
019	More financial benefits			
020	Better resources for work			
021	Good organization support			
022	Less work load			
023	Higher education opportunities			
Part IV: Push Factors: What are the main factors which push you to leave your present jobs? (Please tick which is more appropriate to you)				
	Questions	Agree	Not sure	Disagree
024	Because I have low salary			
025	Because I have Poor incentives from my organization.			
026	Because of poor working condition(risk like HIV/AIDS)			
027	There is inadequate resources to work effectively			
028	High work load			
029	Poor human resources management			
030	Lack of motivation and encouragement for good work			
031	Bad behaviour of my boss			
032	Lack of/limited career opportunities			
Part V: Intent to leave: The following questions are related to your intention to quit from present organization. Please tick as appropriate.				
	Questions	Agree	Not sure	Disagree
033	I plan to leave this organization as soon as possible			
034	Under no circumstances will I voluntarily leave this organization			
035	I would be reluctant to stay in this organization			
036	I plan to stay in this organization as long as possible			

We would love to cordially appreciate your collaboration!!!!

መጠይቅ

በጅማ ዩኒቨርሲቲ የህብረተሰብ ጤና ት/ቤት ድህረ ምረቃ ክፍል በጤና አመራር የማስትሬት ዲግሪ

የጥናቱ አጠቃላይ መረጃ

ጤና ይስጥልኝ እንደምን አደሩ/ዋሉ? ስሜ..... ይባላል፡፡ በጅማ ዩኒቨርሲቲ የህብረተሰብ ጤና ት/ቤት ድህረ ምረቃ ክፍል በጤና አመራር የማስትሬት ድግሪ የመጨረሻ ዓመት ተማሪ ነኝ፡፡ በአሁን ጊዜ ከመንግስት የጤና ድርጅቶች የጤና ባለሙያ ፍልስጥ መጠን መንስኤ የሚዳስስ ጥናት በማካሄድ ላይ ነኝ፡፡ እንደሚታወቀው ለህብረተሰቡ ጤና መሻሻል የጤና ባለሙያዎች ዋናውን ሚና ይጫወታሉ፡፡ የጤና ባለሙያ ፍልስጥ ከፍተኛ የሴክተሩ ችግር ከመሆኑ አልፎ በህብረተሰቡ የጤና አገልግሎት ላይ ይህ ነው የማይባል ከፍተኛ ጫና እያሳደረ ነው፡፡

ስለዚህ የችግሩን መሰረታዊ መፍትሄ ለማፈለግ በጥናት የተደገፈ መረጃ አስፈላጊ ነው፡፡ ስለሆነም ይህ ጥናት ለጤና ሴክተር አመራሮች እና ፖሊሲ አውጪዎች እንዲሁም በዚህ ዙሪያ ለሚሰሩ አካላት ጠቃሚ መረጃ እንዲያገኙ ከማስቻል ሌላ የህብረተሰቡ በጤና አገልግሎት ለማሻሻል ከፍተኛ ጠቀሜታ ይኖረዋል፡፡

ስለ ጥናቱ ዓላማ የተሰጠኝን መረጃ መሠረት በማድረግ ቃለ-መጠይቁን ለመደረግ ተስማምቻለሁ፡፡

ፊርማ: _____

ክፍል 1: ማህበራዊና ሥነ ሕዝባዊ ኩነቶች		
001	የጤና ጣቢያ ወ.ወ.ይም የሆስፒታሉ ስም	
002	ዕድሜ	
003	ጾታ	1. ወንድ 2. ሴት
004	የጋብቻ ሁኔታ	1. ያገባ 2. ያላገባ 3. የፈታ/ች (የተለያዩ)
005	የትምህርት ደረጃ	1. ዲፕሎማ 2. የመጀመሪያ ዲግሪ 3. ሁለተኛ ዲግሪ 4. ሌላ
006	ሞያዎ ምን ድን ነው	1. ሐኪም 2. ጤና መኮንን 3. አዋጋኛ ነርስ 4. ነርስ 5. የመድሐኒት ባለሞያ 6. የላቦራቶሪ ቴክኒሻን 7. የጠረጴዛ ህክምና 8. ሌላ
007	በዚህ ሞያ ለምን ያህል ጊዜ አገልግለዋል	1. 1 2. 1-2 3. 2-5 4. 5-10 5. 10

ክፍል 2: የግል ችግር

ከዚህ በታች ከተዘረዘሩት ውስጥ /አሁን ካሉበት ሥራ እንዲለቁ የሚያደርግዎት የግል ችግር የትኛው ነው፡፡

	ጥያቄ	እስ መላክ ሁሉ	ለውጥ	የሌሎች	አልስ መላክም
008	የራሱ የጤና ችግር				
009	የቤተሰብ የጤና ችግር				
010	ለልጆቹ በቂ የትምህርት አቅርቦት ስለሌለ				
011	በሆስፒታል ውስጥ መስራት አድካሚ ስለሆነ				
012	ባለቤቱና ልጆቹ ሌላ ቦታ ስለሚኖሩ				
013	የጤና ድርጅቱን ሥርዐት ማክበር ስላልቻልኩ				
014	የሥራ ባልደረቦቼ ሥራ ስለቀየሩ				
015	አሁን ካለሁበት በቂ የትምህርት አቅርቦት ስለሌለ				

ክፍል 3: ለመልቀቅ የሚያበረታቱ					
<p>ከዚህ በታች ለጤና ባለሙያ ፍልስጥ መንስኤ ምክንያት ሊሆኑ የሚችሉ ማለትም ለመልቀቅ የሚያበረታቱ) ተዘርዝረዋል፡፡ ስለዚህ ጥያቄውን በደንብ እንብብው በትዕዛዙ መሰረት ምላሽ ይስጡ</p>					
	ጥያቄ	እስ መላክ ሁሉ	ለውጥ	የሌሎች	አልስ መላክም
016	የተሻለ ደመወዝ				
017	የተሻለ ጥቅማ ጥቅም /ዕድገት				
018	የጤና ድርጅቱ በጥሩ ከተማ መሆን				
019	የተሻለ የገንዘብ ጥቅም				
020	ለሥራ የተሻለ የዕቃ አቅርቦት				
021	ጥሩ የሆነ የተቋም ድጋፍ				
022	ተመጣጣኝ ሥራ				
023	የተሻለ የትምህርት ዕድል				

ክፍል 4: ለመልቀቅ የሚገፋፋ					
<p>ከዚህ በታች ለጤና ባለሙያ ፍልስጥ መንስኤ ምክንያቶች ሊሆኑ የሚችሉ ማለትም ለመልቀቅ የሚገፋፋ ተዘርዝረዋል፡፡ ስለዚህ ጥያቄውን በደንብ እንብብው በትዕዛዙ መሰረት ምላሽ ይስጡ</p>					

	ጥያቄ	እስ መሟላት	ለውጥ የሌለው	አልስ መሟላት
024	የደመወዝ ማነስ			
025	የጥቅ ማጥቅም ማነስ			
026	የሥራ ቦታ አለመመቻት			
027	የሥራ ዕቃ ማነስ			
028	ከፍተኛ የሥራ ጫና			
029	ደካማ አመራርና የሰው ሃይል አስተዳደር			
030	ለጥሩ ስራ ተገቢ ማበረታቻ አለመኖር			
031	የአለቃ መጥፎ መሆን			
032	ዕድገት አለመኖር			

ክፍል 5: የመልቀቅ ፍላጎት

ከዚህ በታች ስለመልቀቅ ያለዎት ሃሳብ የሚገልጹ ሀሳቦች ተዘርዝረዋል፡፡ ስለዚህ ጥያቄውን በደንብ እንብብው በትዕዛዙ መሠረት ምላሽ ይስጡ

	ጥያቄ	እስ መሟላት	ለውጥ የሌለው	አልስ መሟላት
033	በተቻለኝ ፍጥነት ይህን ድርጅት መልቀቅ እፈልጋለሁ			
034	የፈለገዉ ቢፈጠር ይህን ድርጅት መልቀቅ አልፈልግም			
035	በዚህ ድርጅት ዉስጥ ብዙም የመቆየት ፍላጎት የለኝም			
036	ያለምንም ቅድመ ሁኔታ በዚህ ድርጅት ዉስጥ ረጅም ጊዜ መቆየት እፈልጋለሁ			

ጊዜዎን ሰውተው ላደረጉልን ትብብር ከልብ አናመሰግናለን !