

# **Health Professionals' Intention to Leave from Public Health Facilities and Its Determinants in Gambella Region, Southwest Ethiopia**

**By**  
**Augna Endale**



**A Thesis Submitted to Department of Health Services Management of Jimma University, College of Public Health and Medical Sciences in partial fulfillment of the Requirements for Degree of Masters of Public Health in Health Services Management.**

**October, 2012**

**Jimma, Ethiopia**

**Health Professionals' Intention to Leave from Public  
Health Facilities and Its Determinants in Gambella  
Region, Southwest Ethiopia**

**By  
Adugna Endale**

**Advisers:**

**Shimeles Ololo (BSc.PH, MPH)**

**Fikru Tafesse (BSc.PH, MPH)**

**October, 2012**

**Jimma, Ethioia**

## Abstract

**Background:** Although the number of health facilities in Gambella region has been increasing dramatically, most of the facilities are suffering from shortage of skilled health work force. High numbers of health professionals are leaving the public health facilities of the region. In spite of the existence of such problem, its magnitude & determinants were not well known.

**Objective:** The general objective of this study was to determine the magnitude & determinants of health professionals' intention to leave from public health facilities of Gambella Region, Southwest Ethiopia, 2012.

**Methodology:** Facility based cross-sectional study using quantitative method was employed from April 12 to 27, 2012. Eleven health centers using simple random sampling technique & Gambella hospital purposefully were selected. All (256) health professionals working in the selected facilities were included in the survey. Self administered structured questionnaire was used to collect the information. The data was entered and analyzed using SPSS version 16.0. Descriptive statistics was used; median and standard deviation for continuous variables and frequency for categorical variables. Variables which showed association in multivariate analysis was considered as final predictors of intention to leave and strength of association was measured through adjusted odd ratio.

**Result:** From the total of 252 health professionals responded to the questionnaire, 122(48.4%) had indicated intention to leave their workplace within one year. The magnitude of intention to leave was higher for those who were dissatisfied with their work (86.2%), staff (84.8%), salary (78.8%), management system (75.8%), incentive (75.8%), educational opportunity (76.0%), working environment (76.3%) and those who were not participated in decision making process (76.0%). Final predictors of intention to leave were: educational level, satisfaction with salary, satisfaction with work and involvement in decision making (adjusted odd ratio = 2.08, 5.64, 4.51 and 2.44 respectively) at 5% level of significance.

**Conclusion:** The findings of this study indicated that there is high level of health professionals' intention to leave from public health facilities which can enormously affect the coverage and quality health services in the region. Health care policy makers and managers should develop and institutionalize evidence based health professionals recruitment and retention strategies by taking into consideration the predictors of health professionals' intention to leave.

## **Acknowledgements**

I wish to give glory and praise to the Almighty who gave me a good health, strength, courage and commitment to complete this thesis. Next I would like to thank my advisors Mr. Shimeles Ololo and Mr. Fikiru Tafesse for their valuable advice, comments and follow up right from start to the completion of this thesis.

I would also like to extend my thanks to Jimma University, College of public health and medical sciences for providing me the opportunity to carry out this research.

My thanks also goes to Gambella Regional health bureau, Abobo health center, Basel health center, Dunchi health center, Gambella health center, Itang health center, Korkangi health center, Kormechar health center, Mender 8/9 health center, Metti health center, Puchalla health center, Pugnido health center & Gambella hospital for allowing me to conduct the study in the health facilities.

Last but not least my sincere gratitude goes to my dear friends Mr. Mamo Nigatu, Mr. Jango Bati and Ms. Yomitu Etefa for their moral support and engagement in the study, without them it would have been difficult to complete my work.

## Table of Contents

Abstract .....	i
Acknowledgements .....	ii
Table of Contents .....	iii
List of Tables and Figures .....	v
List of Abbreviations .....	vii
Chapter One: Introduction.....	1
1.1. Background .....	1
1.2. Statement of the Problem .....	3
Chapter Two: Literature Review .....	5
2.1. Migration of Health Professionals .....	5
2.2. Job Satisfaction and Intent to Leave.....	6
2.3. Reasons for Health Professionals Intent to Leave Public Health Facilities .....	6
2.4. Health Human Resources of Ethiopia.....	7
2.5. Conceptual Framework .....	9
Chapter Three: Significance of the Study .....	10
Chapter Four: Objectives .....	11
4.1 General Objective .....	11
4.2 Specific Objectives .....	11
Chapter Five: Methods and Materials .....	12
5.1. Study Area & Period.....	12
5.2. Study Design .....	12
5.3 Population:.....	12
5.3.1. Source Population:.....	12
5.3.2. Study Population: .....	12
5.3.3. Eligibility Criteria.....	13
5.3.3.1. <i>Inclusion Criteria:</i> .....	13
5.3.3.2. <i>Exclusion Criteria:</i> .....	13

5.4. Sample Size & Sampling Technique .....	13
5.5. Data Collection and Measurement.....	14
5.5.1 Data Collection Tools and Procedure.....	14
5.5.2. Personnel Recruitment and Training .....	15
5.5.3 Study Variables: .....	15
5.6. Operational Definitions: .....	15
5.7. Data Entry and Analysis:.....	17
5.8. Data Quality Control .....	17
5.9. Ethical Considerations.....	17
5.10 Dissemination of the Study Findings .....	18
Chapter Six: Result.....	19
6.1. Socio Demographic Characteristics of Respondents.....	19
6.2. Magnitude of Intention to Leave .....	22
6.3. Health Professionals' Perception on the Strength of Pushes and Pulls Factors .....	26
6.4. Health Professionals' Perception on the Strength of Retention Strategies .....	28
6.5.Determinant Factors of Intention to Leave.....	29
Chapter Seven: Discussion.....	33
References .....	40
Annexes.....	46

\

## **List of Tables and Figures**

Table 1: Push and pull factors for the movement of health professionals from rural to urban areas, by category of potential policy intervention, WHO 2009.....	7
Table 2: Socio-demographic Characteristics of Respondents in Health Professionals’ Intention to Leave Public Health Facilities in Gambella Region, Southwest Ethiopia, 2012 .....	19
Table 3: Overall Magnitude of Health Professionals Intention to Leave from Public Health Facilities in Gambella Region, 2012 .....	22
Table 4: Magnitude of Health Professionals’ Intention to Leave (in-terms of Socio-demographic Factors) from Public Health Facilities in Gambella Region, 2012.....	23
Table 5: Magnitude of Health Professionals’ Intention to Leave (in-terms of Push and Pull Factors) from Public Health Facilities in Gambella Region, Southwest Ethiopia, 2012.....	25
Table 6: Health Professionals’ Perception on the Strength of Push Factors of Health Professionals from Public Health Facilities in Gambella Region, Southwest Ethiopia, 2012 .....	27
Table 7: Health Professionals’ Perception on the Strength of Pull Factors of Health Professionals’ from Public Health Facilities in Gambella Region, Southwest Ethiopia, 2012.....	27
Table 8: Health Professionals’ Perception on the Strength of Retention Strategies of Health Professionals’ in Public Health Facilities in Gambella Region, Southwest Ethiopia, 2012 .....	28
Table 9: Socio-demographic, push and pull factors showing association with health professionals’ intention to leave from public health facilities in Gambella Region, Southwest Ethiopia, 2012 .....	30
Table 10: Socio-demographic, Push and Pull Factors Determining Health Professionals’ Intention to Leave Public Health Facilities in Gambella Region, Southwest Ethiopia, 2012 .....	32
Fig. 1: Worldwide distribution of physicians & nurses in rural & urban residence, WHO report 2009. ....	5

Fig. 2: Conceptual framework of health professionals intention to leave from public health facilities and its determinants in Gambella region Southwest Ethiopia, 2012 .....9

Fig. 3: Schematic presentation of sampling procedure of health professionals intention to leave from public health facilities and its determinants in Gambella region Southwest Ethiopia, 2012 .....14



## **List of Abbreviations**

AIDS	Acquired Immune Deficiency Syndrome
ART	Anti Retro viral Treatment
DHO	District Health Office
FMOH	Federal Ministry of Health
GOs	Governmental Organizations
HC	Health Center
HEWs	Health Extension Workers
HIV	Human Immuno-deficiency Virus
HRH	Human Resource for Health
HRM	Human Resource Management
HSDP	Health Sector Development Program
IOM	International Organization for Migration
MD	Medical Doctor
MDGs	Millennium Development Goals
NGOs	Non Governmental Organization
PPE	Positive Practice Environment
SNNPR	Southern Nation Nationality & People Region
SSA	Sub Saharan African
USAID	United States Aid for International Development
WB	World Bank
WHO	World Health Organization
ZHD	Zonal Health Desk

# Chapter One: Introduction

## 1.1. Background

Intention to leave is an employee's plan of intention or predisposition to leave the organization where one is presently employed [1] and look forward to find other in the near future [2]. Although intention to leave does not necessarily mean actual employee turnover, it has been found to be a strong predictor of actual turnover [3, 4]. There is a wide range of reasons why health professionals leave public health facilities, and financial reasons are often not the only reasons. Factors are likely to be interrelated and their influence on health providers broadly depends on the political, socioeconomic and cultural environment [5].

Shortage of health professionals, geographical imbalances in the number of health work-force and increasing attrition are among the most pressing problems of the health system of developing countries [6]. Health professionals' shortage can be a symptom of low job satisfaction, poor management and lack of organizational support [7]. Job dissatisfaction resulting in turn over intention exacerbates the current shortage and results in serious under staffing of health care facilities. This has the potential to have a negative impact on the delivery of patient care [8].

Reasons for dissatisfaction include lack of involvement in decision-making, poor relationship with management, low salaries & poor benefits, lack of job security and poor recognition [9, 10]. Job dissatisfaction is a primary predictor of health professionals' intent to leave [11, 12]. A study conducted in the United States presented evidence showing that dissatisfied nurses were 65% more likely to have intent to leave compared to their satisfied counterparts [11]. Other predictors of intent to leave vary from low salaries and fringe benefits [1, 13], career advancement prospects, in addition to poor management [12, 14].

In Africa, public health sector is arguably the most seriously affected by the migration of health professionals. The 2006 WHO report on world health indicators shows Africa has 2.3 health workers per 1000 population, compared with the Americas, where there are 24.8 healthcare workers per 1000 population [15, 16]. Due to low budgetary allocations, public health institutions have not been able to offer their staff competitive salaries [17].

The shortage of health professionals is most severe in Sub Saharan African countries. 1.3% of the world's health workers care for people who experience 25% of the global disease burden [15, 16]. WHO recommends a minimum of 2 physicians per 10,000 population; 29 of the 46 sub-

Saharan countries (including Ethiopia) are below this level. The rate of loss of doctors, nurses, and other health professionals by migration has exacerbated the critical shortage [18] & internally there is a high rural-urban mobility [19]. For public health institutions to function effectively and efficiently; a well trained, motivated and well functioning health workforce must be produced, deployed, maintained and appropriately utilized towards the goal of improving the health of the population [20].

Ethiopia as any other sub Saharan African countries suffers from a shortage of health professionals at every level, and rural areas, in which 85% of the population lives have been particularly chronically under-served. 60-80% of the country's annual mortality rate is due to preventable communicable diseases such as malaria, pneumonia and TB. HIV/AIDS are also growing concerns [19, 20]. During 2009 nationally the total number of health workers significantly increased to 66 314; however, what has been gained over the last five years has also been lost due to migration. The national health worker ratio per 1000 population is only 0.84 (in 2009). This result is far less than the standard set by the World Health Organization of 2.3 per 1000 population [20]. The shortage has been accelerated by a variety of factors, of which health professionals' turnover from the public facilities is the most important cause [21]

## **1.2. Statement of the Problem**

Migration of health professionals from public health facilities threatens the functioning of the health system [22]. The depletion of health care professionals not only deprives of immediate skills, services, and functional referral systems, but also creates an economic loss in returns from investment; thereby further stagnating development [23]. Thus migration of health professionals from public health facilities affects the capacity of the health system to maintain adequate coverage, access and utilization of services [24].

Many African health professionals often migrate to seek better work arrangements [25, 26]. There should be optimum number and professional mix of human resource for the effective coverage and quality of the intended services [15]. High attrition of skilled employees can generate under-staffing in the public health care systems [27]. In countries like Ethiopia having many people affected with HIV/AIDS; attrition of health workers places a ‘double burden’ [28].

In Ethiopia, internal migration of health workers, from rural/poor areas to urban/rich areas is a serious problem [29, 21]. As a result Ethiopia’s health system faces a variety of human resource problems, primarily an overall lack of personnel in key areas, which is worsened by high numbers of trained personnel leaving public health facilities. Furthermore, those personnel who remain are inequitably distributed between urban and rural areas. This intern kept the health outcomes and health service indicators of the country among the worst in the world [21]. Despite the efforts of the Ethiopian government to train and deploy more than 30 000 health extension workers in rural villages and to train more than 5000 health officers between 2005 and 2010, the shortage and migration of high-level health workers has significantly compromised the health care delivery system, especially at higher delivery points [26, 30, 31]. Looking at the number of staff left health care institutions between 1995 and 2000; rural hospitals were affected most with 33.3% of the staffs left, followed by regional hospital, health centers and central hospital each suffered 20% loss [32]. Thus an inadequate health workforce contributes to the general deterioration of health indicators [26, 30].

Although available data from Gambella regional health bureau showed that the number of health facilities in the region has been increasing dramatically, most of the facilities are suffering from shortage of skilled health work force. There is also systematic disparity in the distribution of health workers between rural & urban areas in the region. Many health professionals are leaving the public health facilities for different reasons especially from rural to urban areas [33]. In spite

of the existence of such problem its magnitude & determinants are not well known. Therefore the aim of this study was to determine the magnitude and determinants of health professionals' intention to leave from public health facilities in Gambella region.

## Chapter Two: Literature Review

### 2.1. Migration of Health Professionals

Nowadays there is a growing concern about shortage of health professionals worldwide [34]. Poor job satisfaction and low morale are endemic among health professionals in Africa. Consequently, health professionals are leaving the continent in search of better opportunities elsewhere [35]. The number of overseas trained nurses and midwives registering with the United Kingdom Cooperative Council from Sub Saharan African increased from 905 in 1998/99 to 2133 in 2000/01 [36]. It has been estimated that 15,000 foreign nurses were recruited in the U.K. in 2001 and that 35,000 more are needed by 2008 [37]. The United Nation Commission for Trade and Development estimated that each migrating African professional represents a loss of US\$184,000 to Africa. Africa spends US\$4 billion a year on the salaries of 100,000 foreign experts [38]. The permanent departure of skilled human capital from one country to the other in search of better returns to one's knowledge, skills, qualifications, and competencies" is depleting human capital in many developing countries and further reducing the possibility for strong economic growth [34]. The World Health Report 2006 estimated that the world lacks about 4 million health workers, if a minimum level of health outcomes is to be achieved. The report identified 57 'crisis' countries predominantly in Sub-Saharan Africa and Asia [15].

In the majority of African countries, rural and remote areas are usually lacking sufficient numbers of health workers. Approximately half of the global population lives in rural areas, but these areas are served by only 38% of the total nursing workforce and by less than a quarter of the total physicians' workforce [20]. On average, African countries had about 20 times fewer physicians and 10 times fewer nurses than developed countries. Out of 48 African countries, thirteen had fewer than five physicians per 100,000 people and fewer than 20 nurses per 100,000 people [20].



*Fig. 1: Worldwide distribution of physicians & nurses in rural & urban residence, WHO report 2009. (Source: WHO 2010. Human Resources for Health Country Profile Ethiopia)*

## **2.2. Job Satisfaction and Intent to Leave**

Health professionals' job satisfaction is an elusive concept, which is defined within its extrinsic and intrinsic values. Extrinsic values encompass the tangible aspects of the job including wages, benefits and bonuses, whereas intrinsic values include status, recognition, personal and professional development opportunities and other similar factors [39]. Health professionals' intent to leave linked to situational factors such as family obligations, early retirement [14], and length of service [40], low levels of motivation, and to the poor social image of the health professionals [12]. Job satisfaction has been found to be a better predictor of intention to leave [11, 12].

El-Jardali & his colleagues in 2007 found a negative correlation between job satisfaction and intention to leave in Lebanese nurses [41]. The finding of the study reveals that the main cause of the dissatisfaction and hence intention to leave was negatively associated with hospital's compensation and incentives (extrinsic rewards). Employees with long stay at workplace had higher level of job satisfaction and would not incline to quit [2]. Similarly Tzeng in 2002 examined the impact of working motivational factors as well as job satisfaction factors as independent variables on nurse's intention to leave in cross-sectional study in Taiwan. He found that low levels of motivation, emotional exhaustion & burnout and to the poor social image of the nursing profession influenced nurse's intention to leave in Taiwan's hospitals [12]. It is clear that qualified & motivated human resources are essential for adequate health service provision, but also that human resource shortages have now reached critical levels in certain areas [42, 43, 44].

## **2.3. Reasons for Health Professionals Intent to Leave Public Health Facilities**

A wide range of factors are at work, affecting staff retention and limit staff intention to leave as shown in table 1 [43, 44, 45]. The factors affecting movements of health workers need to be analyzed and understood in the larger context of the global health labor market [46, 44]. Recently, these factors have become to be known as 'push' and 'pull' factors [47]. "Pull" factors are identified as those which attract an individual to a new destination. These might include improved employment opportunities, career prospects, higher income, better living conditions or a more stimulating environment. 'Push' factors are those which act to repel the individual from a location. They often mirror "pull" factors and might include loss of employment opportunity, low wages, poor living conditions, lack of schooling for children, etc [49].

**Table 1: Push and pull factors for the movement of health professionals from rural to urban areas, by category of potential policy intervention, WHO 2009.**

<b>Category of Retention Intervention</b>	<b>Push Factors</b>	<b>Pull Factors</b>
Education and regulatory Interventions	<ul style="list-style-type: none"> <li>▪ desire for further training</li> <li>▪ lack of appropriate skills</li> <li>▪ desire to get international experience</li> </ul>	<ul style="list-style-type: none"> <li>▪ access to continuing medical education and professional development</li> </ul>
Monetary compensation (direct & indirect financial incentives)	<ul style="list-style-type: none"> <li>▪ poor remuneration</li> <li>▪ Lack of private sector or opportunities for moonlighting</li> </ul>	<ul style="list-style-type: none"> <li>▪ better remuneration</li> <li>▪ allowances</li> </ul>
Management, environment and social support	<ul style="list-style-type: none"> <li>▪ poor working &amp; living conditions</li> <li>▪ lack of clear career profiles</li> <li>▪ work overload</li> <li>▪ lack of management support</li> <li>▪ decline of health services</li> <li>▪ political conflicts and wars</li> <li>▪ social unrest</li> </ul>	<ul style="list-style-type: none"> <li>▪ improved standards of living</li> <li>▪ improved working conditions</li> <li>▪ opportunities for education of children</li> <li>▪ better supervision</li> </ul>

**Source:** WHO, (2009). Increasing access to health workers in remote and rural areas

#### **2.4. Health Human Resources of Ethiopia**

**Policy, Strategy and Human Resources Management:** The health policy of Ethiopia emphasizes training of community based task-oriented frontline and mid level health workers. As a mechanism to retain health workers the policy supports developing an attractive career structure, remuneration and incentives for all categories of workers within their respective systems of employment. Besides there will be a focus on developing appropriate continuing education for all categories of workers in the health sector. Strengthening administration and management of health systems is one of the areas given priority by the policy [48]. However, most policy and strategy documents are dated (early 1990s) and there are no specific policy and strategy documents on human resources for health (HRH) [48, 49].

**Available Human Resource:** Shortage of staff in Ethiopia has always been critical. Studies have shown that the shortage of HRH is a factor that is crippling health systems and health care.

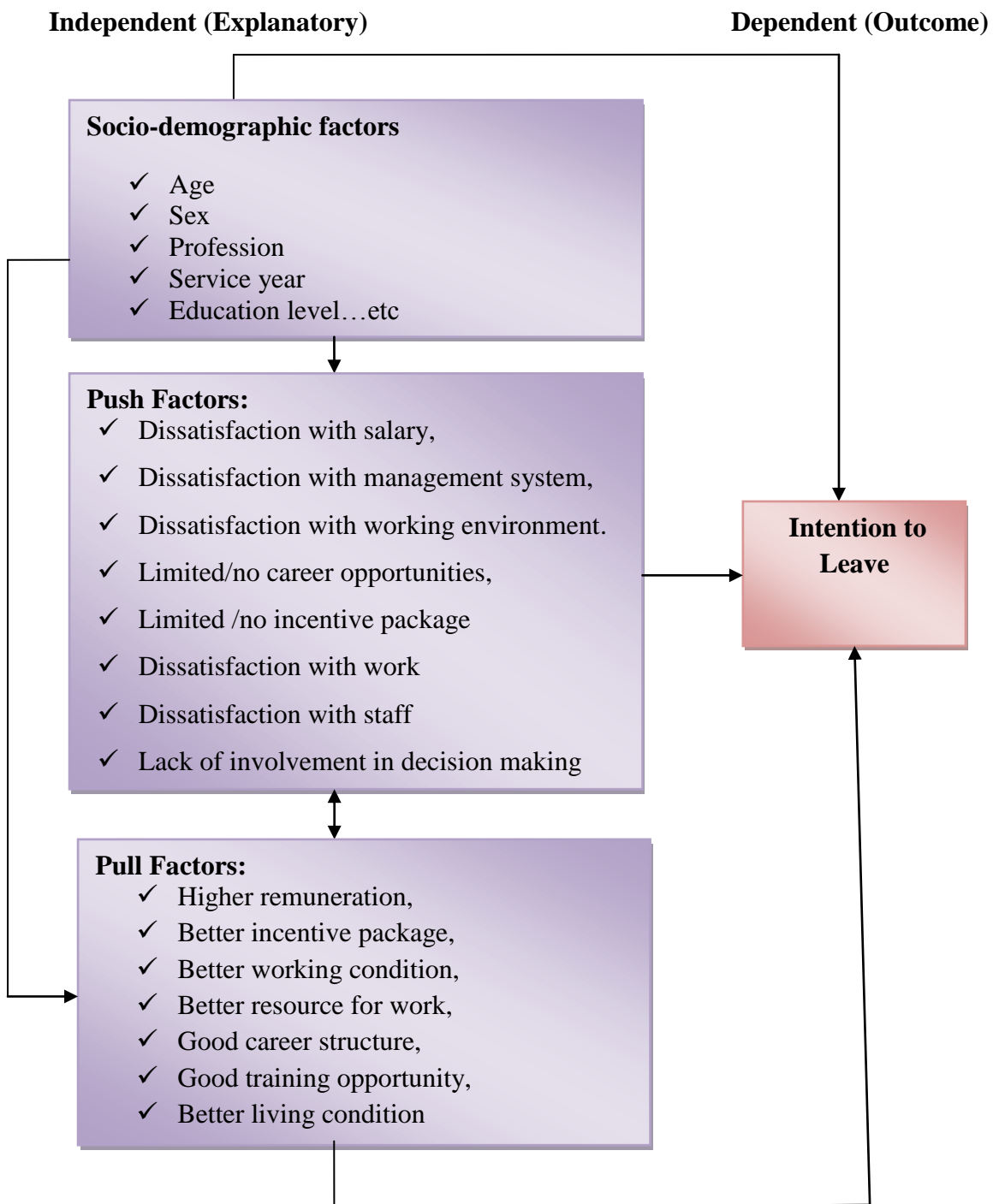


Ethiopia has been suffering from high attrition rates, low health manpower production, geographical imbalance and an uneven skill mix of health workers at various levels [20].

The total health workforce during 2009 in service in the country is 66 314 persons (including HEWs). This means there are health workforce densities of about 0.027, 0.018 and 0.26 per 1000 population for physicians, midwives and nurses respectively. Furthermore, the study also shows that there are only about eight physicians, nurses and midwives per 10 000 population, which is fewer than the recommended 23 per 10 000 population – the estimated average density of health workers to population that is needed to achieve adequate coverage rates for selected primary health care interventions, as prioritized by the Millennium Development Goals [20].

**Urban/rural distribution by occupation/cadre:** Most mid- and high-level health professionals are located in urban areas, the health workforce density (i.e. the number of health Human Resources for Health - Country Profile Template workers per 1000 population) is higher in urban areas than in rural areas. The majority of the physicians serve the urban population which is only 16% of the total population. People in urban areas thus have more benefit compared to those in rural areas in terms of access to mid- and high-level health professionals [20].

## 2.5. Conceptual Framework



*Fig. 2: Conceptual framework of health professionals intention to leave from public health facilities and its determinants in Gambella region Southwest Ethiopia, 2012 (Partly adapted from Zurn et al., 2002 & Anderson, 1995)*

### **Chapter Three: Significance of the Study**

There were no previous studies done to determine the magnitude & possible determinant factors of health professionals' intention to leave from public health facilities in Gambella regional state. This study was inspired on the magnitude & determinants health professionals' intention to leave from public health facilities in the study area. Therefore the information obtained from the study findings are envisaged to assist in:

- Establishing planning tool, policy making and development of effective human resource management for health at all levels of the region as well as in the country.
- Establishing evidence based recruitment and retention strategies of health professionals, and minimizing the negative impact of migration of health professionals from public health facilities in the region.
- Ascertaining the best use of the existing health workforce by improving retention strategies particularly through better workforce organization and management policies; enhancing integration in the health workforce; and improving productivity.
- Providing a clue for further studies on health professionals' intention to leave from public health facilities.

## **Chapter Four: Objectives**

### **4.1 General Objective**

- To determine the magnitude & determinants of health professionals' intention to leave from public health facilities in Gambella Region, Southwest Ethiopia, 2012.

### **4.2 Specific Objectives**

- To determine the magnitude of health professionals' intention to leave public health facilities in Gambella region
- To identify determinant factors of health professionals' intention to leave public health facilities in the region

## **Chapter Five: Methods and Materials**

### **5.1. Study Area & Period**

The study was carried out in Public Health Facilities of Gambella Region from April 12/2012 to May 26/2012. Gambella which is the capital city of the region is located 777 km in the southwest of Addis Ababa. The region is characterized by hot and humid climate. The main ethnicities of the region are Nuer (46.65%), Agnuak (21.17%), Amhara (8.42%), Kafficho (5%), Oromo (4.83%), Mezhenger (4%), Shakacho (2.27%), Kambata (1.44%), Tigre (1.32%) and other ethnic groups predominantly from southern Ethiopia. Based on the 2007 Ethiopian National Population and Housing Census, the population of the region is projected to be about 306,000, with rural 229,000 and urban 77,000 [50]. Administratively the region is divided into three zones, one special woreda & thirteen Woredas. The total number of health professionals currently (in 2012) in the region is about 995 including 364 health extension workers. Available data shows more than 25% of health professionals (excluding health extension workers) resides in Gambella town. The region has 76 health posts, 25 health centers (21 governmental & 4 NGOs) & 1 hospital. The three top public health importance diseases were malaria, respiratory tract infection, and trauma respectively [33].

### **5.2. Study Design**

Facility based cross-sectional study using quantitative method was employed to determine the magnitude & determinants of health professionals' intention to leave from public health facilities in the region.

### **5.3 Population:**

#### **5.3.1. Source Population:**

The source population of the study was all health professionals working in public health facilities of Gambella region during the survey period.

#### **5.3.2. Study Population:**

The study population of the survey was all health professionals providing health care services in the selected public health facilities during the survey period.

### **5.3.3. Eligibility Criteria**

#### **5.3.3.1. Inclusion Criteria:**

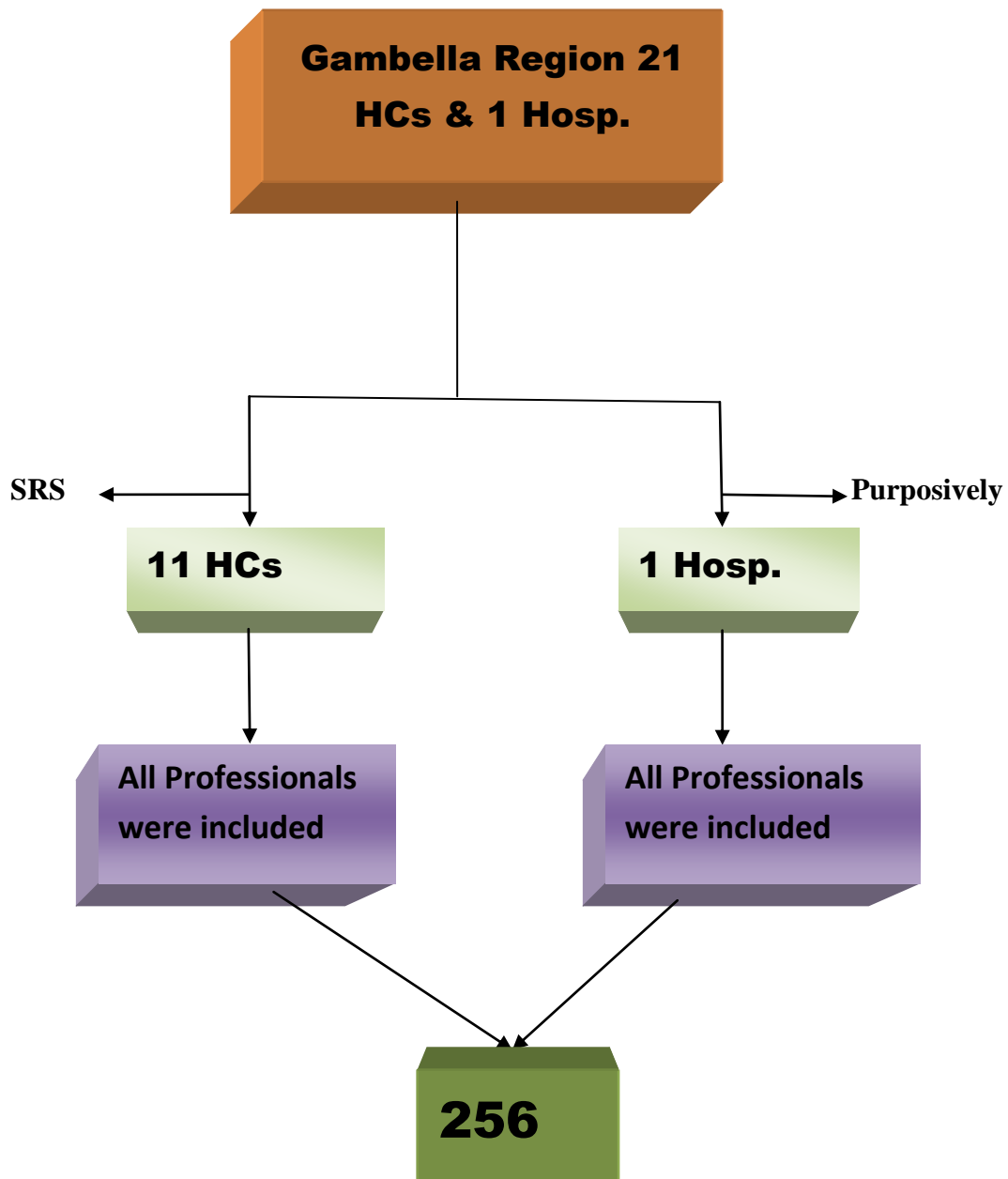
- Those of health professionals stayed for more than or equal to 6 months in the study area.

#### **5.3.3.2. Exclusion Criteria:**

- Those of health professionals in public health facilities but recruited by NGOs.
- Health professionals who were on any kind of leave

### **5.4. Sample Size & Sampling Technique**

Gambella region has 21 functional governmental health centers & one hospital which provide a service for more than one year. Out of these facilities 11 health centers randomly & the only hospital (Gambella Hospital) purposefully were selected and included in the study. Accordingly, Abobo health center, Basel health center, Dunchi health center, Gambella health center, Itang health center, Korkangi health center, Kormechar health center, Mender 8/9 health center, Metti health center, Puchalla health center, Pugnido health center & Gambella hospital were included in the study. Then all health professionals' (256) working in the selected facilities were included in the study.



*Fig. 3: Schematic presentation of sampling procedure of health professionals intention to leave from public health facilities and its determinants in Gambella region Southwest Ethiopia, 2012*

## **5.5. Data Collection and Measurement**

### **5.5.1 Data Collection Tools and Procedure**

A structured, pre-tested and self-administrated questionnaire was used for data collection. The questionnaires was adopted from similar study conducted previously [22]. It has four major components: socio-demography, perception and feeling on working condition, push & pull factors and retention strategies of health workers. Pretest was conducted on 5% of the main

sample size in Abol health center that was not randomly selected for the main study to ensure clarity and consistence of the questions.

### **5.5.2. Personnel Recruitment and Training**

Five data collectors with diploma holders working in Gambella teachers education & health science college having health background was recruited for distributing & collecting self administered questionnaires. Two day training was given for data collectors and supervisor, both before and after the pretest, on the objectives of the study, the contents of the questionnaire, issues related to the confidentiality of the responses and the rights of respondents.

### **5.5.3 Study Variables:**

#### ***Dependent Variable:***

- Intention to leave from public health facilities.

#### ***Independent variable:***

- **Socio demographic factors:** age, sex, educational status, religion, profession, residence, marital status, type of institution.
- **Push factors:** Low salary, poor incentives, poor working condition (risks like HIV/AIDS), inadequate resources to work effectively, high work load, poor human resource management, limited/no career opportunities, limited /no training and educational opportunities, poor living condition, hot weather condition, dissatisfaction with the work and lack of involvement in decision making.
- **Pull factors:** Higher remuneration, better incentive package, better working condition, better resource for work, good career structure, good education and training opportunities, conducive weather condition, better living condition.

### **5.6. Operational Definitions:**

- **Health Professional:** This include specialists, medical doctors, health officers, nurses, pharmacists/druggists, laboratory technologists/technicians, midwives, x- ray technicians, environmental health professionals/sanitarians, health education and promotion professionals, anesthetics, physiotherapy and dentist working in Gambella region who are qualified to provide preventive, curative &/or rehabilitative health care services to those of communities living in the region.



- **Intention to leave:** is health professionals' plan of intention or predisposition to leave the organization (public health facilities) where one is presently employed in the coming one year and looking for other posts.
- **Push factors:** are those factors within the original place of employment that are responsible for inducing the health professionals to leave its original post in the region. Study subjects were asked about their perception to rate the degree of possibilities of the given push factors (low salary, poor incentives, poor working condition ( risks like HIV/AIDS), inadequate resources to work effectively, high work load, poor human resource management, limited/no career opportunities, limited /no training and educational opportunities, bad weather condition, distant from the capital city, poor living condition) as 3-strong cause, 2- medium cause, 1- weak cause and they were also asked to mention additional push factors when they assumed that additional factors exist and give the degree of possibilities as a push factor (s) in a similar fashion (3-strong cause, 2- medium cause, 1- weak cause).
- **Pull factors:** are factors related to policies, actions & conditions in the recipient institution that attract health professionals from its original post in the region. Subjects were asked about their perception to rate the degree of possibilities of the given pull factors (higher payment , higher incentives, better working condition, better resource for work, good career structure, good education and training opportunities, better living condition) as 3-strong cause, 2- medium cause, 1- weak cause and they were also asked to mention additional pull factors when they assumed that additional factors exist and give the degree of possibilities as a pull factor (s) in a similar fashion (3-strong cause, 2- medium cause, 1- weak cause).
- **Incentive:** Any available means including housing allowance, hardship allowance & top up that encourage health professionals to retain in the region. If the facilities have any of the above mentioned means we can say there is incentive.
- **Financial Incentives:** Are those incentives in the form of money provided to influence the willingness of health professionals to stay in the current work place. The weight of the financial incentive is depending on the governmental scale & regional context; for example, for Gambella region hardship allowance 30%, minimum housing allowance 500 birr & the minimum top up for certificate holder 180 birr, for diploma holders 240 birr, BSc holders 300 birr & masters & above 500 birr.

- **Non-financial incentives:** Incentives other than money with the intention to influence the willingness of health professionals in the region. These include housing, short term training, educational opportunity (career development), promotion, transfer...etc.

### **5.7. Data Entry and Analysis:**

After the completion of data collection; cleaning, editing and coding was done; then the data was entered and analyzed using SPSS version 16.0. Descriptive statistics was used, mean and standard deviation for continuous variables and frequency for categorical variables. Bivariate and multivariate logistic regression was used to observe the effects of independent variables on the outcome variable while simultaneously controlling for other potential confounding factors. Those variables that emerged from the bivariate analysis as appearing to be statistically significant predictors of intention to leave at a cut-off point 0.05 was used as independent variables in multivariate logistic regression. Variables which showed association in multivariate analysis was considered as final predictors of intention to leave. The strength of association between different exposure variables and the outcome variable was measured through adjusted odds ratios. The results of a logistic regression are presented in terms of odds ratios. An odds ratio close to 1.0 indicates that the variable is of minor importance for intention to leave. An odds ratio over 1.0 indicates a positive association and below 1.0 a negative association to intention to leave.

### **5.8. Data Quality Control**

To ensure the quality of data gathered from the study subjects, a range of mechanisms was employed. First, the questionnaire was pre- tested by taking 5 percent of the sample size on similar but different setting and necessary modification in the questionnaire was made based on the nature of gaps identified. A two days training was given for data collectors on how to gather the appropriate information, procedures of data collection techniques and the whole contents of the questionnaire. Feedback from data collectors was incorporated to enrich the questionnaire and make more applicable to the local situations. Participants were requested kindly to give honest responses. An error found during the process was corrected immediately. The principal investigator was checked each questionnaire immediately after data collection was completed.

### **5.9. Ethical Considerations**

The study was carried out after getting approval from the ethical clearance committee of Jimma University, collage of public health and Medical sciences through Department of Health Services Management. Then, data was collected after getting written consent from Gambella Regional

Health Bureau, zonal health departments & Woreda health offices to gain support for the study. Informed verbal consent was obtained from all study participants. Each respondent were informed about the objective and the possible risks & benefits of the study. The names of respondents were not included in the questionnaire rather a unique identification number was used. Accordingly, the concern of study subjects for confidentiality was assured. The participants were assured that they have full right to participate or withdraw from the study.

#### **5.10 Dissemination of the Study Findings**

Findings of the study will be submitted to Department of Health Services Management College of public health and Medical sciences of Jimma University. After its approval by the Department, hard copies of the findings will be disseminated to Gambella regional health bureau, Aguak zone ZHD, Nuer zone ZHD, Mezhenger zone ZHD, Gambella town health office, Itang special woreda health office, Lare woreda health office, Gogi woreda health office, Godere woreda health office, Abobo woreda health office, to all the 11 HCs, Gambella hospital & different NGOs found in Gambella region concerned with human resource for health. Furthermore, the paper will be presented on workshops, seminars, and on other professional gatherings. The extracts of the article will be sent to journals for publication.

## Chapter Six: Result

### 6.1. Socio Demographic Characteristics of Respondents

A total of 256 health professionals were enrolled in the study from different professional categories including medical doctors, health officers, nurses, pharmacy professionals, laboratory technicians/technologists, environmental health professionals and others working in the selected public health facilities. Of which 252 returned the questionnaire yielding a response rate of 98.4%.

As shown in table 2 from the total respondents, 170 (67.5%) were males. The median age of respondents were 25.00 and majority 206 (81.7%) were between 20 and 29 years old. The major ethnic compositions of the respondents were Oromo (30.2%), Amhara (27.8%), Nuer (13.1%), Agnuak (11.9%), Tigre (6.0%), and followed by other ethnic groups predominantly from southern Ethiopia. Most of the respondents were Orthodox Christians (44.0%) followed by protestants (39.7%) and Muslim (9.1%). About 76.2% of respondent had diploma and certificate, 52.4% were married and 68.3% had been working in health center. Nearly three fourth (149) of them were nurses. The median service year of the respondents were 3.00 and 103(40.9%) had work experience of less than or equal to 2 years.

**Table 2: Socio-demographic Characteristics of Respondents in Health Professionals' Intention to Leave Public Health Facilities in Gambella Region, Southwest Ethiopia, 2012**

Variables (n = 252)	Category	Frequency	Percent
<b>Sex</b>	Male	170	67.5
	Female	82	32.5
<b>Age Group</b>	20-24	101	40.1
	25-29	105	41.7
	30-34	27	10.7
	≥35	19	7.5

**Table 2 (Continued): Socio-demographic Characteristics...**

<b>Variables (n = 252)</b>	<b>Category</b>	<b>Frequency</b>	<b>Percent</b>
<b>Ethnicity</b>	Oromo	76	30.2
	Amhara	70	27.8
	Nuer	33	13.1
	Agnuak	30	11.9
	Tigre	15	6.0
	Gurage	12	4.8
	Kenbata	6	2.4
	Kafficho	5	2.0
	Mezhenger	3	1.2
	Others	2	0.8
<b>Religion</b>	Orthodox	111	44.0
	Protestant	100	39.7
	Muslim	23	9.1
	Catholic	10	4.0
	Others	8	3.2
<b>Marital Status</b>	Married	132	52.4
	Single*	120	47.6

**Table 2 (Continued): Socio-demographic Characteristics...**

<b>Variables (n = 252)</b>	<b>Category</b>	<b>Frequency</b>	<b>Percent</b>
<b>Educational level</b>	Certificate & Diploma	192	76.2
	First & second degree	60	23.8
<b>Institution</b>	Health Center	172	68.3
	Hospital	80	31.7
<b>Profession</b>	Medical Doctor	3	1.2
	pharmacist/druggist	11	4.4
	Health Office	27	10.7
	Nurse	149	59.1
	Midwife	13	5.2
	Lab technologist/technician	38	15.1
	Environmental Health	8	3.2
	Others	3	1.2
<b>Service Year</b>	≤2	103	40.9
	3 – 4	58	23.0
	5 – 6	35	13.9
	≥7	56	22.2

\*single = unmarried + divorced + widowed

## 6.2.Magnitude of Intention to Leave

### 6.2.1. Overall Magnitude

From the total respondents 122(48.4%) had reported that they had intention to leave from the public health facilities of the region within the coming one year. With regards to their plans where to join after leaving the current health facilities, 71 (58.2%) disclosed that they planned to join NGO, 19(15.6%) planed to move to another region, 18 (14.8%) planed to join private institutions while the rest had other plans such as running personal businesses, leaving out of country, or continuing their education. Among the respondents who have an intention to leave, 118 (96.7%) believed that they would have better job opportunity elsewhere if they leave the current institutions (Table 3).

**Table 3: Overall Magnitude of Health Professionals Intention to Leave from Public Health Facilities in Gambella Region, 2012**

Variable (n = 252)	Category	Frequency	Percent
<b>Intention to leave (n = 252)</b>	Yes	122	48.4
	No	130	51.6
<b>Destination (n = 122)</b>	NGO	71	58.2
	Private	19	15.6
	Another region	18	14.8
	Go out of country	8	6.6
	Other	6	4.9
<b>Better job opportunity elsewhere after leaving (for those who intended to leave) (n = 122)</b>	Yes	118	96.7
	No	4	3.3

### 6.2.2. Magnitude of Intention to Leave Versus Socio-demographic Factors

The magnitude of intention to leave was relatively higher in males (50%) as compared to females (45.1%) and the highest rate of intention to leave was reported from those of respondents with age group 20-29 (52.4%). The magnitude was also higher in single (61.7%), as compared to married (36.4%) respondents. Yet again, the magnitude was higher for first and second degree holders (60.0%) as compared to certificate and diploma holders (44.8%). Regarding their profession, the magnitude of intention to leave was highest for medical doctors, 3 out of 3 reported intention to leave within the coming one year, followed by pharmacy professionals and midwives; 72.7% and 69.2% respectively as compared to the other professions. There were also variations with respect to differences in work experience. Accordingly, intention to leave was higher in those with less than or equal to two years of work experience (56.3%). Moreover there was difference with regard to type of health facility, relatively higher for health professionals working in health center (50.6%) as compared to those working in hospital (43.8%) [Table 4].

**Table 4: Magnitude of Health Professionals' Intention to Leave (in-terms of Socio-demographic Factors) from Public Health Facilities in Gambella Region, 2012**

Variables (n = 252)	Category	Intention to Leave	
		Yes (%)	No (%)
<b>Sex</b>	Male	85 (50.0)	85 (50.0)
	Female	37 (45.1)	45 (54.9)
<b>Age Group</b>	20-29	108 (52.4)	98 (47.6)
	30-39	12 (30.8)	27 (69.2)
	40-49	2 (28.6)	5 (71.4)
<b>Marital Status</b>	Married	48 (36.4)	84 (63.6)
	Single	74 (61.7)	46 (38.3)



**Table 4 (Continued): Magnitude of Health Professionals' Intention to Leave ...**

<b>Variables</b>	<b>Category</b>	<b>Intention to Leave</b>	
		<i>Yes (%)</i>	<i>No (%)</i>
<b>Educational level</b>	Certificate & Diploma	86 (44.8)	106 (55.2)
	First & second degree	36 (60.0)	24 (40.0)
<b>Profession</b>	Medical doctors	3 (100)	0
	Pharmacist/druggist	8 (72.7)	3 (27.3%)
	Health officers	13 (48.1)	14 (51.9%)
	Nurse	61 (40.9)	88 (59.1%)
	Midwife	9 (69.2)	4 (30.8%)
	Lab technologist/technician	21 (55.3)	17 (44.7%)
	Environmental Health	4 (50.0)	4 (50.0%)
	Others (anesthesia, physiotherapy..)	3 (100)	0
<b>Service Year</b>	≤2	58 (56.3)	45 (43.7)
	3 - 4	30 (51.7)	28 (48.3)
	5 - 6	14 (40.0)	21 (60.0)
	≥7	20 (35.7)	36 (64.3)
<b>Institution</b>	Health Center	87 (50.6)	85 (49.4)
	Hospital	35 (43.8)	45 (56.2)

### 6.2.3. Magnitude of Intention to Leave Versus Push and Pull Factors

Descriptive analysis on push and pull factors showed that, the magnitude of intention to leave was higher for those who were dissatisfied with their work (86.2%), staff (84.8%), salary (78.8%) management system(75.8%), incentive(75.8%), educational opportunity(76.0%), working environment(76.3%,) and those who were not participated in decision making process (76.0%) as compared to those who were satisfied with the above mentioned factors and those participated in decision making respectively (table 5).

**Table 5: Magnitude of Health Professionals' Intention to Leave (in-terms of Push and Pull Factors) from Public Health Facilities in Gambella Region, Southwest Ethiopia, 2012**

Variables (n = 252)	Category	Intention to Leave	
		Yes (%)	No (%)
<b>Satisfaction with Work</b>	Satisfied	47 (29.6)	112 (70.4)
	Dissatisfied	56 (86.2)	9 (13.8)
<b>Satisfaction with Staff</b>	Satisfied	50 (30.9)	112 (69.1)
	Dissatisfied	56 (84.8)	10 (15.2)
<b>Satisfaction with Salary</b>	Satisfied	23 (21.7)	83 (78.3)
	Dissatisfied	78 (78.8)	21 (21.2)
<b>Satisfaction with Management System</b>	Satisfied	32 (28.1)	82 (71.9)
	Dissatisfied	69 (75.8)	22 (24.2)
<b>Satisfaction with Incentive</b>	Satisfied	26 (25.7)	75 (74.3)
	Dissatisfied	69 (75.8)	22 (24.2)
<b>Satisfaction with Educational Opportunity</b>	Satisfied	27 (26.0)	77 (74.0)
	Dissatisfied	76 (76.0)	24 (24.0)

**Table 5 (Continued): Magnitude of Health Professionals' Intention to Leave ...**

<b>Variables (n = 252)</b>	<b>Category</b>	<b>Intention to Leave</b>	
		<b>Yes (%)</b>	<b>No (%)</b>
<b>Satisfaction with Working Environment</b>	Satisfied	27 (24.5)	83 (75.5)
	Dissatisfied	74 (76.3)	23 (23.7)
<b>Involvement in Decision Making</b>	Yes	84 (41.6)	118 (58.4)
	No	38 (76.0)	12 (24.0)

**6.3. Health Professionals' Perception on the Strength of Push and Pull Factors**

As shown in table 6 below majority of the respondents reported that low salary (82.1%), poor incentives (77.4%), poor working condition (65.9%), inadequate resources to work (71.4%), high work load (58.7%), poor human resource management (71.8%), limited/no career opportunities (69.0%), limited /no training opportunities (71.8%), hot weather condition (60.3%), distance from the capital city (54.4%) and poor living condition (61.1%) were a strong push factors of health professionals from public health facilities. While higher remuneration (80.6%), higher incentives (79.4%), better working condition (79.8%), better resource for work (79.8%), good career structure (77.8%), good education and training opportunities (79.8%) and better living condition (76.2%) reported as strong pull factor by majority of the respondents (table 7).

**Table 6: Health Professionals' Perception on the Strength of Push Factors of Health Professionals from Public Health Facilities in Gambella Region, Southwest Ethiopia, 2012**

Push Factors (n = 252)	Degree of Possibility (Strength)					
	Strong Factor		Medium Factor		Weak Factor	
	Freq	%	Freq	%	Freq	%
Low salary	207	82.1	26	10.3	19	7.5
Poor incentives	195	77.4	41	16.3	16	6.3
Poor working condition	166	65.9	45	17.9	41	16.3
Inadequate resources to work	180	71.4	48	19.0	24	9.5
High work load	148	58.7	59	23.4	45	17.9
Poor human resource management	181	71.8	50	19.8	21	8.3
Limited/no career opportunities	174	69.0	61	24.2	17	6.7
Limited /no training opportunities	181	71.8	46	18.3	25	9.9
Hot weather condition	152	60.3	52	20.6	48	19.0
Distance from the capital city (AA)	137	54.4	51	20.2	64	25.4
Poor living condition	154	61.1	56	22.2	42	16.7

**Table 7: Health Professionals' Perception on the Strength of Pull Factors of Health Professionals' from Public Health Facilities in Gambella Region, Southwest Ethiopia, 2012**

Pull Factors (n = 252)	Degree of Possibility (Strength)					
	Strong Factor		Medium Factor		Weak Factor	
	Freq	%	Freq	%	Freq	%
Higher remuneration	203	80.6	21	8.3	28	11.1
Better incentives	200	79.4	26	10.3	26	10.3
Better working condition	201	79.8	23	9.1	28	11.1
Better resource for work	201	79.8	21	8.3	30	11.9
Good career structure	196	77.8	30	11.9	26	10.3
Good education and training opportunities	201	79.8	22	8.7	28	11.1
Better living condition	192	76.2	31	12.3	29	11.5

#### 6.4. Health Professionals' Perception on the Strength of Retention Strategies

Majority of the respondents reported that improving salary (88.1%), improving financial incentives (86.5%), improving non-financial incentives (84.1%), improving working environment (82.1%), supplying all necessary materials and equipments (84.5%), improving human resource management (81.3%) and holding education documents of professionals were strong retention strategies of health professionals' in public health facilities(61.5%) [table 8].

**Table 8: Health Professionals' Perception on the Strength of Retention Strategies of Health Professionals' in Public Health Facilities in Gambella Region, Southwest Ethiopia, 2012**

Retention Strategy/ Mechanism (n = 252)	Degree of Possibility (Strength)					
	Strong Factor		Medium Factor		Weak Factor	
	Freq	%	Freq	%	Freq	%
Improve salary.	222	88.1	16	6.3	14	5.6
Improve financial incentives	218	86.5	21	8.3	13	5.2
Improve non-financial incentives (Release, promotion, transfer, training...etc.)	212	84.1	27	10.7	13	5.2
Improve working environment	207	82.1	29	11.5	16	6.3
Supply all necessary materials and equipments	213	84.5	29	11.5	10	4.0
Improve human resource management.	205	81.3	36	14.3	11	4.4
Holding education documents of professionals	155	61.5	31	12.3	66	26.2

## **6.5.Determinant Factors of Intention to Leave**

### ***6.5.1. Logistic Regression Analyses of Factors Related to Intention to Leave***

Significance levels of variables were determined using bivariate and multivariate analyses. Intention to leave was compared on key socio demographic variables: age, sex, marital status, ethnicity, religion, profession, educational level and years of experience and on major organizational and environmental factors (push and pull factors): involvement in decision making, satisfaction with work, staff, salary, management system, incentive, educational opportunity and working environment.

#### **i. Bivariate Logistic Regression**

Crude analysis of socio-demographic variables on binary logistic regression showed that marital status, educational level and years of experience were significantly associated with intention to leave at  $p < 0.05$ . While among the organizational and environmental variables (push and pull factors); involvement in decision making, existence of performance evaluation satisfaction with work, staff, salary, management system, incentive, educational opportunity and satisfaction with working environment had shown significant association with health professionals intention to leave at  $p < 0.05$ . On the other hand; age, sex, ethnicity, religion, type of facility and profession of the respondents did not show statistically significant association with intention to leave in the bivariate logistic regression (table 9).

**Table 9: Socio-demographic, push and pull factors showing association with health professionals' intention to leave from public health facilities in Gambella Region, Southwest Ethiopia, 2012**

Variables (n = 252)	Intention to Leave		Crude OR	95% CI	
	Yes	No		Lower	Upper
<b>Marital status</b>					
Married	48	84	1.00		
Single	74	46	2.82	1.69	4.69
<b>Educational level</b>					
Certificate and diploma	86	106	1.00		
First and second degree	36	24	1.85	1.03	3.33
<b>Years of experience</b>					
≤2	58	45	1.00		
3 - 4	30	28	0.83	0.44	1.59
5 - 6	14	21	0.52	0.24	1.13
≥7	20	36	0.43	0.22	0.84
<b>satisfaction with work</b>					
Satisfied	47	112	1.00		
Dissatisfied	56	9	14.83	6.78	32.41
<b>satisfaction with staff</b>					
Satisfied	50	112	1.00		
Dissatisfied	56	10	12.54	5.92	26.58
<b>satisfaction with salary</b>					
Satisfied	23	83	1.00		
Dissatisfied	78	21	13.40	6.87	26.13
<b>satisfaction with mgt</b>					
Satisfied	32	82	1.00		
Dissatisfied	69	22	8.04	4.28	15.09

**Table 9 (Continued): Socio-demographic and Push and Pull Factors...**

Variables (n = 252)	Intention to Leave		Crude OR	95% CI	
	<i>Yes</i>	<i>No</i>		<i>Lower</i>	<i>Upper</i>
<b>satisfaction with incentive</b>					
Satisfied	26	75	1.00		
Dissatisfied	69	22	9.05	4.70	17.42
<b>satisfaction with education</b>					
Satisfied	27	77	1.00		
Dissatisfied	76	24	9.03	4.79	17.04
<b>satisfaction with working env't</b>					
Satisfied	27	83	1.00		
Dissatisfied	74	23	9.89	5.22	18.73
<b>Existence of performance evaluation</b>					
Yes	52	82	1.00		
No	70	48	2.30	1.39	3.81
<b>Involvement in decision making</b>					
Yes	84	118	1.00		
No	38	12	4.45	2.19	9.02

**ii. Multivariate Logistic Regression**

A multivariate analysis involving all associated variables was performed to identify independent predictors of intention to leave. Consequently, four variables were found to have statistically significant association with intention to leave after adjusting for other variables. Of the variables in the complete model, the variable that emerged as most important for intention to leave were: level of education, satisfaction with work, satisfaction with salary and involvement in decision making independently showed significant association. The other variables were not significant at the  $p\text{-value} < 0.05$ .

Those of health professionals whose educational level were first and second degree had 2.08 times more likely to have intention to leave from public health facilities when compared to



married respondents (AOR = 2.82, 95% CI: 1.69, 4.69). In addition those of respondents who were dissatisfied with their work and salary had 4.51 and 5.64 times more likely to show intention to leave public health facilities as compared to those who were satisfied with their work and salary respectively (95% CI: 1.844, 12.366, and 2.216, 11.386 respectively). Moreover, respondents who were not involved in decision making had 2.44 more likely to have intention to leave from the public facilities when compared to those who were participating in decision making (AOR = 2.58, 95% CI: 1.12, 5.92) (Table 10).

**Table 10: Socio-demographic, Push and Pull Factors Determining Health Professionals' Intention to Leave Public Health Facilities in Gambella Region, Southwest Ethiopia, 2012**

Variables (n = 252)	Intention to		Crude OR (95% CI)	Adjusted OR (95% CI)
	Leave			
	Yes	No		
<b>Educational level</b>				
Certificate and diploma	86	106	1.00	
First and second degree	36	24	1.85(1.03, 3.33)	2.08(1.01, 4.28)
<b>Satisfaction with work</b>				
Satisfied	47	112	1.00	
Dissatisfied	56	9	14.83 (6.78, 32.41)	4.51 (1.74, 11.75)
<b>Satisfaction with salary</b>				
Satisfied	23	83	1.00	
Dissatisfied	78	21	13.40 (6.87, 26.13)	5.64 (2.43, 13.10)
<b>Involvement in decision making</b>				
Yes	84	118	1.00	
No	38	12	4.45 (2.19, 9.02)	2.44 (1.06, 5.61)

## Chapter Seven: Discussion

### **Magnitude of Health Professional Intent to Leave**

The results of this study indicated that 48.4% of the health professionals reported that they had intention to leave from the public health facilities of Gambella region within the coming one year which can impose potentially high hiring and training costs on health facilities. This proportion is higher as compared to a study conducted in Jimma University specialized hospital (15.4%) [51]. This much difference might be due to the climatic condition and geographical location of the region, which is far from capital city and characterized by hot weather condition. In addition to this, it might be due to the increasing trend of health professionals' migration from public health facilities as cited in a research conducted in East Wollega which indicated the attrition of health professionals were increasing from time to time [52].

Majority of the participants who had intention to leave the public health facilities of the region, prefer to join NGO (58%), other region (18%) and private sectors (16%). A study done in East Hararghe zone of Oromia and Jimma University specialized hospital also showed that private health sectors and NGOs were the most common destinations of health professionals after leaving public health facilities [22, 51]. Due to the existence of better job opportunity and attractive salary in NGOs and private sectors as compared to public health facilities, most prefer to join these organizations. This is supported by the fact that about 96.7% of those health professionals reporting intention to leave believed that it would have better job opportunity elsewhere if they leave the current institution.

Descriptive analysis on the magnitude of health professionals' intention to leave showed that, the magnitude varies from profession to profession. Although the number of medical doctors participated in the study were very few, the magnitude of intention to leave seems highest in which 3 out of 3 reported an intention to leave. A study conducted in East Hararghe and Jimma University specialized hospital of Ethiopia and a study done in Uganda showed that 66.6%, 26.7% and 28.5% medical doctors had shown an intention to leave within one year respectively [22, 50, 53]. Next to medical doctors, pharmacy professionals (72.7%) and midwives (69.2%) had also the highest rate of intention to leave. A recent study in Senegal indicated that 58.9% of midwives reported intention to leave within a year [54]. The magnitude of intention to leave in nursing profession was 41% for this study and only 14.7%, 10% and 11.7% for the studies conducted in Jimma University specialized hospital, Uganda and Ghana respectively [51, 53, 55].

This difference might be due to poor human resource management system and unpleasant working environment which is strengthened by the fact that majority (75.8% and 76.3%) of the respondents who reported intention to leave for this study were dissatisfied with the management system and working environment respectively.

On the other hand, younger (<29 years), recently recruited ( $\leq 2$  years) and single/unmarried participants had the highest rate of intention to leave as compared to the older, more experienced and married health professionals respectively. A study conducted in Guinea indicated that younger health professionals (<35 years) and those with less service years (0–5 years) had significantly higher agreement with intention to leave [56]. The study conducted in Uganda had also showed that older respondents (age 41 and up) were far less likely to indicate an intention to leave their jobs [53]. The reason may be attributed to the fact that younger and single/unmarried employees are relatively free from family related problems (e.g. giving care for child...) and so they are active finders of new jobs in other vicinity. The literature suggests that older health workers may feel more commitment to the profession (these are the ones who haven't already left their professions) and more control over their jobs [56, 57].

The result also shows that as the level of education increases the rate of intention to leave also increases. The highest rate of intention to leave was reported from those of respondents having first and second degree (60%). A study conducted in rural parts of South Africa also showed that magnitude of intention to leave increases proportionally with level of education [58]. This is due to the fact that health professionals with higher educational qualification (first and/or second degree holders) had better job opportunities as compared to those with less educational qualification since advancement in quality of education increases job opportunity [59]. There is also a slight difference in the rate of intention to leave with respect to type of health facility. Slightly higher rate of intention to leave was reported from those of respondents working in health center (50.6%) as compared to those working in hospital (43.8%). Ethiopian health sector review as cited by World Bank and government of Ethiopia showed that the numbers of staff who left health care institutions in the five years between 1995 and 2000 from regional hospitals and health centres were 20% from each [60].

Among the respondents who were dissatisfied with their work, staff, salary, management system, incentive, educational opportunity and working environment, greater than a third had reported an intention to leave. Earlier studies conducted in Jimma university specialized hospital, Ghana and

Zimbabwe mentioned that health professionals who were not satisfied with their work, salary, incentive and management system were overrepresented in those who indicated intention to leave [51, 55, 61].

The results of this study showed that low salary, poor incentives, poor working condition, inadequate resources to work, high work load, poor human resource management, limited/no career opportunities, limited /no training opportunities, hot weather condition, distance from the capital city and poor living condition were perceived as strong push factors of health professionals from public health facilities by majority of the participants. Whereas higher payment, higher incentives, better working condition, better resource for work, good career structure, good education and training opportunities, and better living condition were reported as strong pull factors of health professionals from public health facilities by majority of the respondents. Various researchers have also identified that poor remuneration, working conditions, management and governance as strong push factors [62, 63, 64], while higher remuneration, better working conditions and human resource management as strong pull factors of health professionals from public health facilities towards the new jobs [65].

Improving salary, improving financial incentives, improving non-financial incentives, improving working environment, supply all necessary materials and equipments, improving human resource management and holding education documents of professionals reported by majority of the respondents as strong factors for the retention of health professionals in public health facilities. A study conducted in Malawi reported that improving human resource management system, adequate pay for work done, and opportunities for career advancement were found to be a strong factors for the retention of health work force in public health facilities [66].

### **Factors Contributing for Health Professionals Intention to Leave**

The need to understand factors contributing to health professional's intention to leave and so turnover is paramount to improving retention of health professionals.

Findings from multivariate analysis revealed that educational level, satisfaction with work, satisfaction with salary and involvement in decision making process were found to be an independent predictor of intention to leave from public health facilities after adjusting for other variables, while the other variables were not significant at the 5% level of significance. Respondents with first and second degree were nearly two times more likely to show intention to leave as compared to those with certificate and diploma holders. A study conducted in Uganda

also showed that health professionals with higher level of education were more likely indicate intention to leave compared to less qualified professionals [53] and also a study conducted in rural parts of South Africa also revealed a direct relationship between level of education and magnitude of intention to leave [58].

This study also showed that those of health professionals who were dissatisfied with their work were nearly four and half times more likely to indicate intention to leave as compared to those who were satisfied with their existing work. The study conducted in Jimma University specialized hospital stated 57% of health professionals who had intention to leave had shown an association with dissatisfaction with work [51]. On the top of this our finding also depicted that those who were not satisfied with their salary had more than five and half times more likely to indicate intention to leave as compared to those who were satisfied with their salary after adjusting for confounding effect. A study conducted in Uganda revealed that those dissatisfied with their salary were two fold more likely to indicate intention to leave as compared to their counter parts [53]. When employees, including health professionals, feel more satisfied, they show more commitment to the organization and the profession and have a lower tendency of leaving [67, 68]. The results of Zeytinoglu et al. [67] demonstrated that health professionals who intended to leave had lower satisfaction scores than health professionals with intent to stay. Moreover the results of this study showed that, respondents who were not involved in decision making were almost two and half times more likely to indicate intention to leave the public health facilities when compared to those who were participating in decision making. This fact is further evidenced by the study conducted in Uganda which reveals active involvement in the facility in decision making process reduces the odds of intention to leave from public health facilities [53]. Lack of involvement in decision making plays an important role in workforce stability and has been confirmed in other study [69].

### **Strength and Limitation of the Study**

#### **Strength of the Study:**

- Multiple logistic regressions were employed to control potential confounding factors.
- The study was conducted in Gambella region, where research findings are deficient to make evidence based decision for program implementation.

**Limitation of the Study:**

- Since the study employed self administered questionnaire for data collection, there were no way of probing for more information in superficial responses.

## Chapter Eight: Conclusion and Recommendations

### 8.1. Conclusion

In conclusion, there is high level of health professional's intention to leave from public health facilities of Gambella region which can enormously affect the quality and coverage of health services in the region. Those of health professionals who were dissatisfied with their work, staff, salary, management system, incentive, educational opportunity, working environment and those who were not participated in decision making process had higher rate of intention to leave compared to those who satisfied by above mentioned factors. Educational level, satisfaction with work, satisfaction with salary and involvement in decision making process appear to be independent predictors of intention to leave. Thus health professionals were more likely stay in the public health facilities were less qualified with their education, those satisfied with their work, salary and those involved in decision making process.

### 8.2. Recommendations

Based on the above conclusions the following recommendations were forwarded:

**To Policy Makers::** The results of this study showed that satisfaction with salary is one of the strong predictor of health professionals intention to leave from public health facilities and the final destination for most of them were NGOs & private sectors, so in-response the public sector should offer competitive salaries so as to reduce the attrition of health professionals from public health facilities to NGO and private sectors. Health care policy makers should also develop and institutionalize evidence based health professionals' recruitment and retention strategies by taking into consideration the predictors of health professionals' intention to leave.

**To Health Care Managers:** Health professionals' intention to leave was influenced by the health care managers' role. For example in this study it was founded that health professionals who were not participated in decision making process were more likely intended to leave the public health facilities as compared to those who participate in decision making process. Therefore, a suggestion in this case is health care managers should have to encourage all health professionals to participate in decision making process equally.

**To Researchers:** There is a need for further research to identify the specific concerns of health professionals' intention to leave and areas where new intervention might encourage the retention of health professionals.



## References

1. Hayes LJ, O'Brien-Pallas L, Duffield C, Shamian J, Buchan J, Hughes F, Laschinger HKS, North N, Stone PW, (2006). Nurse turnover: A literature review. *Int J Nurs Stud*, vol. 43, pp. 237-263.
2. Muhammad, M. A., Jamilha F. M., (2010). Level of job satisfaction and intent to leave among Malaysian nurses. *Business Intelligence Journal Vol.3 (1)*, pp.124-135.
3. Rahim MA, Psenicka C, 1996. A structural equations model of stress, locus of control, social support, psychiatric symptoms, and propensity to leave a job. *J Soc Psychol*, vol. 136, pp. 69-84.
4. Griffeth RW, Hom PW, Gaertner S, 2000. A meta-analysis of antecedents and correlates of employee turnover: Update, moderator tests, and research implications for the next millennium. *J Manage*, vol. 26, pp. 463-488.
5. Marjolein, D. and Jan, W. H., (2006). Improving health worker performance: in search of promising practices. *International Journal of Health Planning and Management*, vol.16, pp.155-68
6. Yumkella F. Retention of Health Care Workers in Low-Resource Settings: Challenges and Re-sponses. *Capacity project*, 2006;1:1-6.
7. Zurn, P., Dolea, C., & Stillwell, B. (2005). Nurse retention and recruitment: developing a motivated workforce, in the global nursing review initiative. *International Council of Nurses*.
8. Fridrkin SX, Pear SM, Williamson TH et al. The role of understaffing in central venous catheter association blood stream infection. *Infect control Hosp epidemic*. 1996; 17; 150-158.
9. Albaugh, J. (2003). Keeping nurses in nursing: the profession's challenge for today. *Urologic Nursing*, vol.23, pp.193-199.
10. Aiken, L. H, Sloane, D, M., & Lake, E. (1997). Satisfaction with Inpatient Acquired Immunodeficiency Syndrome Care: A National Comparison of Dedicated and Scattered-Bed Units. *Medical Care*, vol.35, pp.948-962
11. Shields, M.A., & Ward, M. (2001). Improving nurse retention in the National Health Service in England: the impact of job satisfaction on intention to quit. *Journal of Health Economics*, vol.20, pp.677-701.
12. Tzeng, H.M. (2002). The influence of nurses' working motivation and job satisfaction on intention to quit: an empirical investigation in Taiwan. *International Journal of Nursing Studies*, vol.39, pp.867-878

13. Coomber, B., & Barriball, L. K. (2007). Impact of job satisfaction components on intent to leave and turnover for hospital-based nurses: a review of the research literature. *International Journal of Nursing Studies*, vol.44, pp.297-314
14. Rambur, B., Val Palumbo, M., McIntosh, B., & Mongeon, J. (2003). A Statewide Analysis of RNs' Intention to Leave Their Position. *Nursing Outlook*, vol.51, pp.181-188
15. Working Together for Health: WHO Report, (2006). Available at [www.who.int/whr/2006/en/](http://www.who.int/whr/2006/en/).
16. World Health Organization Report. Part 2 (2006): Global Health Indicators [http://www.who.int/whosis/whostat/EN\\_WHS08](http://www.who.int/whosis/whostat/EN_WHS08).
17. Awases M., Gbary A., Nyoni J., and Chatora R., (2004). Migration of Health Professionals in Six Countries: a Synthesis Report. WHO Regional Office for Africa,11.
18. Hagopian A, Thompson MJ, Fordyce M, Johnson KE, Hart LG (2004). The migration of physicians from sub-Saharan Africa to the United States of America: measure of the African brain drain. *Hum Resource Health*.
19. Amine A. Differentials and Correlates of Internal Migration in the Arsi region of Ethiopia (1998). [MA Thesis], Demographic Training and Research Centre, Institute of Development Research, Addis Ababa University.
20. Global Health Workforce Alliance/World Health Organization, (2010). Ethiopia's Human Resources for Health Program.
21. Ethiopian Federal Ministry of Health, (2005). Health Sector Development Program III.
22. Jundi A., (2008). Assessment of the magnitude, patterns and determinant factors of health worker migration from the public health sectors: A descriptive case study in East Hararghe zone of Oromiya, Eastern Ethiopia.
23. World Health Organization (1997) The Report of the Special Working Group on WHO's Constitution and the Brain Drain Problem in Africa, African Regional Office of the World Health Organization, Brazzaville.
24. ICN (2001) Nurse Migration, International Council for Nursing, Geneva, Switzerland.
25. Mutizwa-Mangiza D. (1998). The Impact of Health Sector Reform on Public Sector Health Worker Motivation in Zimbabwe. Major Applied Research 5, Working Paper 4, Partnerships for Health Reform, Bethesda, Abt Associates.

26. Dovlo, D. Y. (1999). Report on Issues Affecting the Mobility and Retention of Professionals in Commonwealth African States, Unpublished Report for Commonwealth Secretariat Technical Support Group.
27. James Antwi and David Phillips, (February 2011). Wages and Health Worker Retention: Evidence from Public Sector Wage Reforms in Ghana.
28. McCoy, D., McPake, B., and Mwapasa, V. (2008). The double burden of human resource and HIV crises: a case study of Malawi. *Human Resources for Health* 2008, 6:16. Accessed 16 December 2011 at: <http://www.human-resources-health.com/content/6/1/16>
29. Ndeti DM, Ongecha FA, Mutiso V, Kuria M, Khasakhala LI and Kokonya DA (2007) 'The challenges of human resources in mental health in Kenya', *South Africa Psychiatry Review* 10:33–36.
30. Dovlo DY (2002) 'Retention and deployment of health workers and professionals in Africa,' paper presented at consultative meeting on improving collaboration between health professionals and governments in policy formulation and implementation of health sector reform. Addis Ababa.
31. Dovlo D (2003) 'The brain drain and retention of health professionals in Africa,' case study for regional training conference: 'Improving tertiary education in sub-Saharan Africa: Things that work'. Accra, 23-25 September. World Bank: Switzerland, available on 28 July 2007 at: [www.worldbank.org/afri/teia/0903/dela\\_dolvo.pdf](http://www.worldbank.org/afri/teia/0903/dela_dolvo.pdf).
32. Government of Ethiopia and the World Bank, (2004). Health Sector Review, Ethiopian Job Satisfaction and Its Determinants 27 social sector studies. Addis Ababa: Mega, 1st Ed.
33. Gambella Region Health Bureau, (2011). Annual report.
34. Lowell, B.L. and A.M. Findlay (2001). Migration of highly skilled persons from developing countries: impact and policy responses. *International Migration Papers* 44. Geneva: International Labour Office.
35. Bloom, G. and Standing, H. (2001) Human resources and health personnel, *Africa Policy Development Review*, 1, pp. 7-19.
36. Martineau, T., K. Decker, and P. Bundred (2002). Briefing Note on International Migration of Health Professionals: Leveling the Playing Field for Developing Country Health Systems. Liverpool School of Tropical Medicine.

37. USAID SARA (2003). Health sector human resources crisis in Africa: An issues paper. Support for Analysis and Research in Africa. Bureau for Africa, Office of Sustainable Development, Washington.
38. Seepe S. (2001). "Brain drain costly" Int. Herald Trib. (18 October). The brain drain will continue unabated. Cited in Pang T, M.A. Lansang, and A. Haines (2002). Brain drain and health professionals: A global problems need global solutions. *British Medical Journal* 324: 499-500.
39. Cowin, L. (2002). The Self-Concept of Nurses and its Relationship to Job Satisfaction and Retention. Unpublished PhD thesis. The University of Western Sydney, Australia.
40. Larrabee, J.H., Janney, M.A., Ostrow, C.L., Withrow, M., Hobbs, G.R., & Burant. C. (2003). Predicting Registered Nurse Job Satisfaction and Intent to Leave. *Journal of Nursing Administration*, 33, 271-283.
41. El-Jardali, F., Jamal, D., Abdallah, A., & Kassak, K. (2007). Human Resources for health planning and management in the Eastern Mediterranean Region: facts, gaps and forward thinking for Research and Policy. *Human Resources for Health*, 5 (9).
42. Buchan J (2002). Nursing shortages and evidence-based interventions: a case study from Scotland. *International Nursing Review*, 49:209–218.
43. Dussault G, Franceschini MC (2006). Not enough there, too many here: understanding geographical imbalances in the distribution of the health workforce. *Human Resources for Health*, 4:12 (<http://www.human-resourceshealth.com/content/4/1/12>, accessed 22 August 2006).
44. Lehmann U, Martineau T, Dieleman M, Lexomboon D, Matwa P (2005). The staffing of remote rural health services in low-income countries: a literature review of issues and options affecting attraction and retention.
45. Dovlo D. Causes of health worker migration— perspectives from Ghana—voices of health workers (2004). Paper presented at: Institute of Future Studies Workshop on Global Migration, Stockholm, Sweden. Available at <http://framtidsstudier.se/eng/globalMobReg/Dovlopaper.pdf>.
46. Dieleman, M. & Harnmeijer, J.W., (2006), Improving health worker performance: in search of promising practices. WHO, Geneva, Available at [http://www.who.int/hrh/resources/improving\\_hw\\_performance](http://www.who.int/hrh/resources/improving_hw_performance).
47. Zurn P., et al., (2004), Imbalance in the health workforce. *Human Resources for Health*.

48. TGE, (1993) . Health Policy of the Transitional Government of Ethiopia.
49. Cueto M, (2005). The promise of primary health care. Bull World Health Organ.
50. FDR, (2008). Summary and statistical report of the 2007 population and housing census Addis Ababa, Ethiopia.
51. Alemshet Yami, Leja Hamza, Alima Hassen, Challi Jira and Morankar Sudhakar, (2011). Job satisfaction and its determinants among health workers in Jimma University specialized hospital, southwest Ethiopia. *Ethiop J. Health Sci.* 2021:19-26.
52. Yohannes H/Michael, Challi Jira, Belayneh Girma, Kora Tushune, (2010). Health workforce deployment, attrition and density in East Wollega Zone, Western Ethiopia. *Ethiop J Health Sci.* Vol. 20, (1), PP.15-21.
53. Amy Hagopian, (2007). Uganda Facility Based Health Workforce Study: Satisfaction and Intent to Stay Among Current Health Workers. *Human Resources for Health.* 4:13, pp.1-10
54. Dominique Rouleau, Pierre Fournier, Aline Philibert., (2012). The effects of midwives' job satisfaction on burnout, intention to quit and turnover: a longitudinal study in Senegal *Human Resources for Health*, 10:9 doi:10.1186/1478-4491-10-9
55. John Anarfi, Peter Quartey and John Agyei, (2010). Key Determinants of Migration among Health Professionals in Ghana. *J. Development Research Centre*, PP.1-24.
56. Ingersoll GL, Olsan T, Drew-Cates J, Devinney BC, Davies J., (2002). Nurses' job satisfaction, organizational commitment, and career intent in Guinea. *The Journal of Nursing Administration*; 32(5):250-63
57. International Council of Nurses, (2006). Global nursing shortage: priority areas for intervention. Geneva, Switzerland.
58. Delobelle P, Rawlinson JL, Ntuli S, Malatsi I, Decock R, Depoorter AM, (2011). Job satisfaction and turnover intent of primary healthcare nurses in rural South Africa: a questionnaire survey. *J Adv Nurs*, 67:371–383
59. Oakleigh Consulting Ltd and CRAC, (2011). Increasing opportunities for high quality higher education work experience. Report to HEFCE, available at [www.oakleigh.com](http://www.oakleigh.com)
60. Government of Ethiopia and World Bank, (2004). Health Sector Review, Ethiopian Job Satisfaction and Its Determinants. Addis Ababa: Mega, 1st Ed.
61. Abel C., (2005). Medical leave exodus of health professionals from Zimbabwe. Published by Idasa, 6 Spin Street, Church Square, Cape Town, 8001, and Southern African Research Centre, Queen's University, Canada; migration policy series no. 34.

62. Dussault G and Franceschini M (2006) 'Not enough there, too many here: Understanding geographical imbalances in the distribution of health workforces', *Human Resources for Health* 4(12).
63. Mathauer I and Imhoff I (2006) 'Health worker motivation in Africa: The role of non-financial incentives and human resource management tools,' *Human Resources for Health* 4(24).
64. Zurn P, Dal Poz M, Stilwell B, and Adams O (2002) 'Imbalances in the health workforce', Briefing Paper. WHO: Geneva.
65. Paradath A, Chamberlain C, McCoy D, Ntulli A, Rowson M and Loewenson R (2003) 'Health personnel in southern Africa: Confronting mal-distribution and brain drain,' Discussion Paper 3. EQUINET: Harare.
66. Muula A., Maseko F., (2005). Survival and retention strategies for Malawian health professionals. *EQUINET* 2005:32
67. Zeytinoglu IU, Denton M, Davies S, Baumann A, Blythe J, Boos L, (2006). Retaining nurses in their employing hospitals and in the profession: Effects of job preference, unpaid overtime, importance of earnings and stress. *Health Policy*, 79:57-72.
68. Steel R, (2002). Turnover theory at the empirical interface: problem of fit and function. *Academy of Management*, 27:346-60.
69. Bowers, B.J., Esmond, S. & Jacobson, N. (2000). The relationship between staffing and quality in long-term care facilities: Exploring the views of nurse aides. *J Nurs Care Qual*, 14(4):55-64.

## **Annexes**

### **Annex 1: General Information and Request for Participation**

Good morning /afternoon. My name is \_\_\_\_\_

From \_\_\_\_\_. We are conducting study to assess the magnitude and determinants of health professionals' intention to leave from public health facilities. The purpose of the study is to gather information on why health professionals leave public health facilities and to estimate the extent of the problem in Gambella region, Southwest Ethiopia.

I would like your permission to discuss with you about your perceptions, ideas, and experiences related to the health professional intention to leave. No one will charge you for your participation or give you any money, whether or not you agree to participate. Your participation is voluntary and you don't have to answer any particular questions if you prefer not respond. Everything you say will be kept confidential. I 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 me any time. Your name will not be used in any report, but your ideas and suggestions will help us to attain our objective. Please feel free to answer exactly as you feel.

**Thank you for your time**

## Annex 2: Questionnaire

### Health Professionals' Intention to Leave from Public Health Facilities and its and Determinants in Gambella Region, Southwest Ethiopia, 2012

Code no. _____ Name of Woreda _____
Name of health Facility/Institute _____ Date ____/____/____

*Part I: General Information: Please kindly provide the following information.*

QN	Questions	Coding	Skip to
101	Sex	1. Male 2. Female	
102	Age	_____ (in years )	
103	Ethnicity	1. Agnua 2. Nuer 3. Mezhenger 4. Oromo 5. Amhara 6. Kenbata 7. Tigre 8. Others (specify) _____	
104	Religion	1. Orthodox 2. Muslim 3. Protestant 4. Catholic 5. Others(specify) _____	
105	Current marital status?	1. Married 2. Unmarried 3. Divorced/separated 4. Widowed	



106	Institution you currently work	<ol style="list-style-type: none"> <li>1. Hospital</li> <li>2. Health center</li> </ol>	
107	Level of education	<ol style="list-style-type: none"> <li>1. Certificate</li> <li>2. Diploma</li> <li>3. First degree</li> <li>4. Second degree</li> <li>5. PHD degree</li> </ol>	
108	Profession	<ol style="list-style-type: none"> <li>1. Medical doctor</li> <li>2. Pharmacist/Druggist</li> <li>3. Health officer</li> <li>4. Nurse</li> <li>5. Midwife</li> <li>6. Laboratory Technician/Technologist</li> <li>7. Environmental Health</li> <li>8. Others (specify)_____</li> </ol>	
109	Years of experience	_____ (in years )	
110	Your position/job in the institution	_____	
111	Do you have another responsibility other than your position?	<ol style="list-style-type: none"> <li>1. Yes (specify) _____</li> <li>2. No, I don't have</li> </ol>	

**Part II: The following questions are introduced to assess the perception and feeling you have on working condition in your institution. Please select one from the choice.**

<b>QN</b>	<b>Questions</b>	<b>Coding</b>	<b>Skip to</b>
201	Are you satisfied by your work?	1. Very satisfied 2. Satisfied 3. No difference 4. Dissatisfied 5. Very dissatisfied	
202	Are you satisfied by your staff?	1. Very satisfied 2. Satisfied 3. No difference 4. Dissatisfied 5. Very dissatisfied	
203	Are you satisfied by your salary?	1. Very satisfied 2. Satisfied 3. No difference 4. Dissatisfied 5. Very dissatisfied	
204	Are you satisfied by management of your institution/ department?	1. Very satisfied 2. Satisfied 3. No difference 4. Dissatisfied 5. Very dissatisfied	
205	Do you think that you have used your full potential on your work?	1. Not at all 2. To some extent 3. Yes, definitely	
206	Do you think that you are contributing to your institution?	1. Not at all 2. To some extent 3. Yes, definitely	

207	As you think that you are benefiting from your institution?	<ol style="list-style-type: none"> <li>1. Not at all</li> <li>2. To some extent</li> <li>3. Yes, definitely</li> </ol>	
208	Are you satisfied by incentives you got from your institution?	<ol style="list-style-type: none"> <li>1. Very satisfied</li> <li>2. Satisfied</li> <li>3. No difference</li> <li>4. Dissatisfied</li> <li>5. Very dissatisfied</li> </ol>	
209	Are you satisfied by training /education opportunity in the institution?	<ol style="list-style-type: none"> <li>1. Very satisfied</li> <li>2. Satisfied</li> <li>3. No difference</li> <li>4. Dissatisfied</li> <li>5. Very dissatisfied</li> </ol>	
210	Are you satisfied by the working environment?	<ol style="list-style-type: none"> <li>1. Very satisfied</li> <li>2. Satisfied</li> <li>3. No difference</li> <li>4. Dissatisfied</li> <li>5. Very dissatisfied</li> </ol>	
211	Comparing to your lively hood expense do you think that your salary is enough?	<ol style="list-style-type: none"> <li>1. More than enough</li> <li>2. Enough</li> <li>3. No difference</li> <li>4. Less</li> <li>5. Very less</li> </ol>	
212	Comparing to you profession/your work, do you think that your salary is enough?	<ol style="list-style-type: none"> <li>1. More than enough</li> <li>2. Enough</li> <li>3. No difference</li> <li>4. Less</li> <li>5. Very less</li> </ol>	
213	Does your immediate boss involve you in decision making?	<ol style="list-style-type: none"> <li>1. Always</li> <li>2. Some times</li> <li>3. Not at all</li> </ol>	

214	Is there performance evaluation system in the organization?	1. Yes 2. No	
215	Have you evaluated in last six month by your immediate boss?	1. Yes 2. No	
216	Have you satisfied with the evaluation (Did you get what your deserve?)	1. Very satisfied 2. Satisfied 3. No difference 4. Dissatisfied 5. Very dissatisfied	
217	Does the performance evaluation system encourage for further better achievement?	1. Encourage more 2. Encourage some 3. Indifference 4. Discourage some 5. Discourage more	
218	In your organization how many health professionals leave during last one year?	1. No one 2. From 1-3 3. From 4-7 4. From 8-10 5. More than 10	
219	Which type of health professionals leave more from your organization?	1. Doctors 2. Health Officers 3. Nurses 4. Pharmacy tech 5. Laboratory Tech. 6. Other (specify)_____	
220	Do you have an intention to leave the institution within a year?	1. Yes 2. No	If no, go to part III

221	If the answer for Q220 is yes, When do you plan to leave?	<ol style="list-style-type: none"> <li>1. Now</li> <li>2. After a month</li> <li>3. After three months</li> <li>4. After six months</li> <li>5. After a year.</li> </ol>	
222	Why do you plan to leave? Please, put your three main reasons.	<ol style="list-style-type: none"> <li>1. _____</li> <li>2. _____</li> <li>3. _____</li> </ol>	
223	Where do you plan to join after your leave?	<ol style="list-style-type: none"> <li>1. NGOs</li> <li>2. Private sectors</li> <li>3. Another woreda/region</li> <li>4. Go out of country</li> <li>5. Other (specify)_____</li> </ol>	
224	Do you think that you have better opportunity elsewhere if you leave the institution? (Please put your reason in short for the response)	<ol style="list-style-type: none"> <li>1. Yes _____</li> <li>2. No _____</li> </ol>	
225	Based on your experience and knowledge on human resource for health, what impacts does health professional migration have on:	Health system _____ _____ Community: _____ _____ Government: _____ _____ Health professionals left in the public health system: _____ _____	

**Part III: Here below there are possible causes (PUSH & PULL FACTORS) for health professionals' intention to leave from the public health facilities before expected service year has completed**

Please; based on your perception put the degree of possibility in front of the <b>PUSH FACTORS</b> listed bellow using: 3-Strong cause, 2- medium cause, 1- weak cause.		
<b>QN</b>	<b>Push Factors (factors motivating you to leave from your institution)</b>	<b>Degree</b>
301	Low salary	
302	Poor incentives	
303	Poor working condition( Risks like HIV/AIDS)	
304	Inadequate resources to work effectively	
305	High work load	
306	Poor human resource management	
307	Limited/no career opportunities	
308	Limited /no training and educational opportunities	
309	Bad weather condition	
310	Distant from the capital city	
311	Poor living condition	
312	Please specify if any other push factor (s) other than the above:	1. _____
		2. _____
		3. _____
Please; based on your perception put the degree of possibility in front of the <b>PULL FACTORS (factors motivating you to join the new institution or retain in the existing institution)</b> listed bellow using: 3-Strong cause, 2- medium cause, 1- weak cause.		
<b>QN.</b>	<b>Pull Factors</b>	<b>Degree</b>
313	Higher payment	
314	Higher incentives	
315	Better working condition	
316	Better resource for work	
317	Good career structure	
318	Good education and training opportunities	
319	Better living condition	

320	Please specify if any other pull factor(s) other than the above:	1. _____	
		2. _____	
		3. _____	

***Part IV: RETENTION STRATEGY of Health Professionals in the Public Health Facilities.***

<b>Please, According to your perception put the degree of possibility in front of the retention mechanisms for health professionals listed bellow (3-Strong cause, 2- medium cause, 1-weak cause)</b>			
	<b>Retention Strategy/ Mechanism</b>		<b>Degree</b>
401	Improve salary.		
402	Improve financial incentives (Top up, duty allowance ...)		
403	Improve non-financial incentives (Release, promotion, transfer, training...etc.)		
404	Improve working environment		
405	Supply all necessary materials and equipments		
406	Improve human resource management.		
407	Retirement security.		
408	Holding education documents of professionals		
409	Respecting their profession.		
410	Please, specify if any other retention mechanism unmentioned.	1. _____	
		2. _____	
		3. _____	

THANK YOU FOR YOUR TIME!!!

**Assurance of Principal Investigator**

I, the undersigned, declare that the research entitled as *“Health Professionals’ Intention to Leave from Public Health Facilities and its Determinants in Gambella Region, Southwest Ethiopia”* is my original work, has not been presented for a degree in this or other university and that all the sources I have used or quoted have been indicated and acknowledged by means of complete references.

**Name of the Student:** A dugna Endale

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

**Name of Institution:** Jimma University

**Date of Submission** \_\_\_\_\_

**Name and Signature of the Advisors:**

**Name of the First Advisor:** Mr. Shimeles Ololo (BSc. PH, MPH)

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

**Signature** \_\_\_\_\_

**Name of the Second Advisor:** Mr. Fikiru Tafesse (BSc. PH, MPH)

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

**Signature** \_\_\_\_\_

**Approval of Internal Examiner**

**Name:** Yohannes Ejigu (BSc, MSc)

**Date:** \_\_\_\_\_

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