

**STUDY TITLE:
NATIONAL SURVEY ON NURSES AND MIDWIVES CLINICAL WORKING
CONDITIONS IN RWANDA**

PRINCIPAL COLLABORATORS AND INSTITUTIONS:

**Rwanda Nurses and Midwives Union (RNMU) in collaboration with NORAD through
Norwegian Nurses Organization.**

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ACRONYMS

A0	: Bachelors Degree
A1	: Advanced Diploma
A2	: Diploma
BN-H	: Bachelors in Nursing Honor
CESTRAR	: Central des Syndicats des Travailleurs au Rwanda (Trade Union Centre of Workers of Rwanda)
HIV/AIDS	: Human Immunodeficiency Virus/ Acquired Immune Deficiency Syndrome
ICAP	: International Center for AIDSCare and Treatment Programs
ICN	: International Council of Nurses
ICU	: Intensive Care Unit
MOH	: Ministry of Health
MPH	: Masters of Public Health
NCNM	: National Council of Nurses and Midwives
NNO	: Norwegian Nurses Organization
NORAD	: Norwegian Agency for Development Cooperation
PhD	: Doctor of Philosophy
RN	: Registered Nurse
RNEC	: Rwanda National Ethics Committee
RNMA	: Rwanda Nurses and Midwives Association
RNMU	: Rwanda Nurses and Midwives Union
SARS	: Severe Acute Respiratory Syndrome
WHO	: World Health Organization

Summary

Increasing our understanding of how working conditions affect health care workers and the resultant risks of errors and quality of services for patients is of major importance to the health care industry, particularly those who manage or oversee health care organizations, and set policies that affect the physical or organizational working conditions, for health care workers.

Across sectional study used both quantitative and qualitative methods to assess the working conditions of nurses and midwives working in clinical setting of Rwanda in order to provide evidence for supporting Rwanda Nurses and Midwives Union advocacy for improvement of the quality of nursing and midwifery services delivery to the Rwandan population.

A stratified random sampling technique has been used to select 224 public and private health facilities and 542 nurses and midwives working in clinical services to assess their working conditions and their level of job satisfaction.

The study aimed specifically at identifying the level of nurses and midwives staffing at different levels of the health system in Rwanda compared to the national standards and determine the level of job satisfaction among nurses and midwives working in the clinical settings of Rwanda.

The findings revealed a gap in nurses and midwives staffing at all levels of the health facilities compared to the national standards for health facilities staffing. The current level of nurses and midwives staffing has been estimated between 40.6% for health centres and 63.1% for national referral hospitals. The shortage in nursing and human resources requires nurses and midwives to work overtime to meet the patients needs as it has been reported by 83.8 % respondents who work more than 45 hours per week. Despite working overtimes, the national standard of nurse: bed ratio are not met in some units of clinical services, leading to the increase in workload for nurses and midwives.

The study revealed that the proportion of nurses and midwives holding bachelor's and master's degrees are very limited in clinical setting due to the current package of National health facilities that limits them in number and this has been reported as having negative impact on strategic planning for nurses and midwives human resources due to poor planning and less involvement of nurses and midwives in policy making. The study findings also show that 73.2% of nurses and midwives working in clinical services are not satisfied with their job; 93.2% of nurses and midwives are not satisfied with their salary and 53 % of nurses and midwives are not satisfied with the job stability despite the registration process that has provided practice license to 74.4% of nurses and midwives. Participants in the study have identified Rwanda Nurses and Midwives' Union of which 68.3 % are already members, as the most suitable independent and professional body to advocate for their interests and for the improvement of their working conditions.

1. GENERAL INTRODUCTION

1.1 Background of the study

The movement of Nurses in Rwanda started in 1995 with the creation of Rwanda Nurses and Midwives Association (RNMA) which was recognized in February 2006 by Ministerial Order No. 27/11.

Two years after, the National Council of Nurses and Midwives (NCNM) was established through an Act of Parliament № 25/2008 of 25/07/2008. The National Council of Nurses and Midwives (NCNM) is a nursing and midwifery professional regulatory body with a mandate of protecting the public and professional integrity through the regulation of education and practice by setting and monitoring standards and policies of education and practice including professional conduct, and ensuring that they are implemented.

In 2010, RNMA got affiliated to International Council of Nurses (ICN). In 2012 with funding from Norwegian Nurses Organization (NNO), RNMA conducted a survey on Nurses and Midwives' on Needs Assessment. The findings from survey revealed that the socio-economic conditions of professional nurses were not good and that RNMA was powerless to respond to their needs and therefore, suggested the transformation of RNMA into a union which would be able to face the problems that lie in the workplace, education, welfare and profession.

The sensitization campaign started in early 2012 February up to May 2013. All 96 participants in extra ordinary general assembly of RNMA who convened on 15th May 2013 agreed upon the transformation process which led to the creation of Rwanda Nurses and Midwives Union (RNMU) during its first General Assembly held on 30th June 2013 at Top Tower Hotel.

RNMU is committed to being a vibrant, self-sustaining organization that will protect the Professional image, improve Socio-Economic Welfare, and promote the interests of nurses and midwives through effective representation, capacity building and lead in the delivery of high quality care to the population.

RNMU believes in providing high quality, ethical, accessible and equitable nursing and midwifery services to all members of the population to enable them good quality lives. Thus, while upholding this philosophy, RNMU believes that members will receive social and economic justice as reward from their employers.

In December 2013, RNMU got affiliated with the Trade Union Centre of Workers of Rwanda (CESTRAR) which is affiliated with the International Trade Union Confederation.

Currently, Rwanda Nurses and Midwives Union (RNMU) is a Union of over 6000 nurses and midwives of Rwanda with a mission to protect the professional image, improve Socio-Economic Welfare, and promote the interests of nurses and midwives through effective representation, capacity building and lead in the delivery of high quality care to the population.

In line with its mission, RNMU has mobilized funds from NORAD through Norwegian Nurses Organization for conducting national survey on Nurses and Midwives working conditions in Rwanda in order to support RNMU advocacy for policy influencing and evidence based decision making for improvement of quality nursing and midwifery care services delivery to the population.

1.2 Problem statement

In its bid to strengthen health systems while scaling up efficient, effective and sustainable health care services to reduce burden of disease and contribute to the reduction of poverty among the Rwandese, the Rwandan Ministry of health reviewed health service package provided by Health Posts, Health Centers, District Hospitals and National Referral and University Teaching Hospitals, and developed service package for Provincial Referral Hospitals in 2011. The identification of required human resource was based on facility bed capacity in each service. At the time of identifying required human resource the following elements were considered: (1) Available beds for each service, (2) bed occupancy and (3) workload. A scientific based standard staffing approach (Nurse: Bed Ratio) for nurses was adapted to the Rwandan setting. Bed ridden patients were estimated to be 2-5% of the Internal medicine. A standard of two shifts was maintained however, for specific areas like ICU and theater shifts were increased to three given the heavy workload in these services. There was a provision of one staff for every 6-12 nurses to allow nurses to go for annual leave.

The data from Human Resources Information System (HRIS) 2013 and from Rwanda General Population and Household Census 2012, there are 9,448 nurses and midwives together in Rwanda. The ratio of these professionals to the population is 1 Nurse: 1,225 people and 1 midwife: 18,790 people under his/her care. (MOH, 2014) The target is to increase the number of nurses and midwives up to 11,384 by 2018 (Binagwaho et al.; 2013). This means a ratio of 1 nurse/midwife for 1050; 1062 and 1066 population respectively for low, medium and high projection scenarios according to NISR Population projection in 2018¹. According to the WHO (2010), if investments were made as modeled, the 49 low income countries in sub Sahara Africa, including Rwanda would on average spend \$54 per capita on health and there would by 2015 be 22 hospital beds per 10,000 population and 2.3 nurses/midwives per 1,000 population. Even, then, these ratios would barely approach the rates observed in 2006 in the group of lower middle Income countries and none would say that the low income countries have ideal, or even well functioning health system today. (WHO, 2010).

The study conducted by RNMU in January 2015 "optimizing nursing and midwifery in Rwanda" shows a gap of 45% of required nurses at health centre level and 20% at District hospital level by 2009 Ministry of Health guidelines.

Recognizing that the global shortage of Nurses and Midwives in clinical settings requires them to work very long hours and results in fatigue, lack of concentration, apathy and lack of interest and given the present critical shortage of nurses and midwives, it is imperative to explore how both nurses and midwives perceive their jobs, so that strategies might be identified to enhance the quality of their working lives and improve retention.

¹The population of Rwanda in 2018 is estimated at 11,954,132 ; 12,089,720 and 12,132,541 respectively according to the low, medium and high projection scenarios.

1.3 Aim and objectives of the study

1.3.1. General objective

The study aims at assessing the clinical working conditions of nurses and midwives in Rwanda in order to provide evidence for supporting RNMU advocacy for improvement of quality of nursing and midwifery services delivery to the Rwandan population.

1.3.2. Specific objectives

The study has the following specific objectives:

1. To identify the number and levels (A2, A1, A0, masters and PhD) of nurses and midwives staffing in different health facilities
2. To determine the nurse/midwife- bed ratio in different health facilities of Rwanda
3. To benchmark the current nurse/midwife-bed ratio against the national, regional and international standards;
4. To determine the level of satisfaction of nurses and midwives at different levels of health facilities of Rwanda.

1.3.3. Research questions

The study attempted to answer the following research questions:

- What is the current level of nurses and midwives staffing at different levels of health facilities in Rwanda,
- How far are we to reach national and international clinical standards in terms of nurses/ midwives-bed ratio?
- What is the current level of professional satisfaction of nurses and midwives working in clinical settings of Rwanda?
- Why highly qualified nurses do not appear in the new service packages for health facilities of Rwanda
- What are the effects of lack of highly qualified nurses and midwives on strategic planning for improvement of quality of nursing/ midwifery service delivery?
- What should be the suitable professional body to advocate for nurses and midwives and influence policies?

1.4 Scope of the study

This study is limited to the clinical working conditions of nurses and midwives in Rwanda. It focused on exploring the working conditions and job satisfaction of nurses and midwives in public and private sector at all levels of health system in Rwanda including health centers, district referral

hospitals, provincial referral hospitals and national referral hospital or University Teaching Hospital. For the private sector, the study was limited to polyclinics employing at least 50 nurses and midwives. In terms of geographical coverage, the study covered all 30 Districts of the country.

1.5 Organization of the study

The General introduction provides the background of the study, the problem statement, aim and objectives of the study, research questions and the scope of the study.

The chapter two provides a review of literature related to the importance of Nurses and Midwives in the health system, the link between nurses staffing levels, service delivery and health outcomes, nurses and midwives worldwide demand, nursing workforce in sub-Saharan Africa, Nurses and midwives working conditions, African healthcare workers' job satisfaction and retention of qualified nurses and midwives in the health system.

The chapter three presents the research methodology in which we have presented the study design, the site and population of the study, sampling techniques, sample size, data collection techniques, data analysis techniques and ethical consideration.

The chapter four presents, analyses the data of the study and discusses the findings with support from literature review.

Chapter five presents the conclusion and recommendations. This chapter sums up the study and provides recommendations.

CHAPTER TWO: LITERATURE REVIEW

2.1 Importance of Nurses and Midwives

Nursing and midwifery personnel are a significant and vital segment of the health care workforce. Nurses and Midwives all around the world are contributing equally to the quality of health care services at primary health care, secondary and tertiary health care level.

It has been proved that nursing and midwifery services are cost effective, affordable, accessible and sustainable. In many countries they constitute up to two thirds of the national health workforce. Large segments of the population in rural as well urban areas rely on nurses and midwives for health care. In many rural areas, nurses and midwives are the first, and often the only point of contact for health care, and are the only health care providers available. (Cited by Uton Muchtar Rafei in WHO, 2003)

2.2. The link between nurses staffing levels, service delivery and health outcomes

Various studies have documented the important link between nurse staffing levels, service delivery and health outcomes. Staffing patterns and nurses' working conditions are risk factors for health care-associated infections as well as occupational injuries and infections. (Patricia W.S et al., 2004) Staffing shortages, especially of nurses, have been identified as one of the major factors expected to constrain hospitals' ability to deal with future outbreaks of emerging infections. (Institute of Medicine; 2000) There is substantial evidence that inadequate nurses staffing levels are directly correlated with the patients' safety. For instance, with inadequate staffing there is increase in events such as bedsores, medication errors, patients falls, nosocomial infections, prolonged hospitalizations and increased hospital stays.(Stanton MW, Rutherford MK, 2004)

2.3 Nurses and midwives worldwide demand

A worldwide shortage of nurses has been acknowledged by the multidisciplinary Global Advisory Group of the World Health Organization (RZ Booth, 2002). With approximately 11 million nurses worldwide, the insatiable demand continues to grow for more. A common constellation of reasons for the shortage exists from country to country, with the central reason being an increased demand (need). Some of these reasons are, in general, a) a growing number of hospitalized patients who are more acutely ill, b) the development of new procedures and therapies, to include the use of technology, c) an increase in use of nurses in community based, primary care services, d) diseases that are spreading in epidemic proportions, and e) an aging population who will comprise 20 percent of the world's population by 2025.

2.4. The nursing workforce in sub-Saharan Africa

In Africa, nurses form a crucial part of the health workforce, and they are possibly the most affected group in terms of the numbers required to correct the deficit. This has an impact on the spectrum of roles that they play, including those of service providers and collaborators (with other professionals),

and advocates (supporting client needs), as well as the professional role required in organizing and regulating the practice and standards of the profession.

The ability of the nursing workforce to cope with the disease burden is influenced by a variety of factors basic to the planning, management and motivation of any workforce. The recruitment and supply of new nurses into the workforce in most Africa countries has been rather limited, with the possible exception of South Africa.

The production from training schools has been low, leaving countries with fairly poor availability of nurses. Furthermore, some countries undergoing structural adjustment or similar international financial conditionalities have been unable to recruit nurses into what are largely public sector workforces due to fiscal restrictions. These restrictions are also compounded by inefficient and bureaucratic management systems unable to recruit cadres when needed and permitted.

The nursing workforce in many Sub-Saharan African countries has been further constrained by decisions to remove auxiliary/enrolled/sub-professional cadres. This is believed to have resulted in the removal of a major support section of the workforce, whilst the economies and educational systems of those very countries are still not able to increase the production of the numbers needed and, indeed, to pay for a workforce that is entirely made up of professional level cadres.

The density of nurses across the region is generally low, although wide variations occur, with countries such as South Africa, Seychelles and Mauritius having much higher than average nurse: population ratios than other countries in the region. The density of nurses in Africa has shown much fluctuation over the decades since 1960. Many countries have shown fluctuations in the almost four decades between 1960 and 1998. Indeed, trends in nurse supply within country workforces for six countries studied by the Regional Office for Africa of WHO (WHO-AFRO) showed as much as 12% decline over a three-year period (Awases et al. 2004). Uganda was the only country that appeared to have expanded its supply of nurses.

Internal distribution and availability of nurses and midwives is also another problem in every country. Rural, peri-urban and inner-city slum areas are usually badly underserved. Within urban areas, tertiary health facilities tend to attract higher qualified health workers; indeed, particular disciplines and services may be unattractive to health providers for various reasons. The distribution of registered nurses (RNs) in the Ghana Health Service favored the greater Accra region with 18.5% of the population residing there, but having the services of 30.9% of the country's professional nurses. The three northern regions (more rural, on balance, and generally deprived) together contain 18.3% of the population, but have just 15.6% of the country's nurses (Ministry of Health Ghana 2003).

The training of nurses in Africa was reviewed by Oluyinka (2004) and this report provides some interesting analysis of nursing education systems in the countries sampled. In 2002, a paper by the University of Natal, a Collaborating Centre with WHO, examined the status of nurse education in Africa. The paper recommended revisiting policies that restricted entry of eligible candidates into nursing and midwifery training, restrictions that have the impact of limiting supply.

Africa is a challenging arena in which to provide health care and higher education. Nevertheless, thousands of nurses and midwives are engaged in this task every day. They face their daily tasks often with limited support and reward (Hester C. Klopper and Leana R. Uys, 2012).

Nursing and midwifery are also still mainly female professions in Africa, which means that the weak position of women in African societies impact on nurses and midwives in many ways. This makes their positions as leaders in health services more challenging, and in some cases severely limits their ability to influence the care they deliver and the policies they are expected to implement. (Hester C. Klopper and Leana R. Uys, 2012)

No health system is able to meet the needs of populations without its most critical component: healthcare providers (ICAP, 2013). As Nurses provide the majority of health services in sub-Saharan Africa, they are particularly critical to population health outcomes. They are essential for addressing the HIV epidemic, as well as the other health threats facing many countries, including malaria, tuberculosis, maternal and infant mortality, and a looming crisis in non-communicable chronic diseases.(Cited by Wafaa El-Sadr in ICAP, 2013)

2.5 Nurses and midwives working conditions

Working conditions are at the core of paid work and employment relationships. Generally speaking, working conditions cover a broad range of topics and issues, from working time (hours of work, rest periods, and work schedules) to remuneration, as well as the physical conditions and mental demands that exist in the workplace.(ILO, 2014)

The global shortage of Nurses and Midwives in clinical settings requires them to work very long hours and results in fatigue, lack of concentration, apathy and lack of interest. There are more chances of errors especially medical errors with the health care providers who are working constantly without any break.(Cromie, 2004) Most of the time medical errors happen because of sleep deprivation, unsafe staffing, lack of knowledge, fatigue and inexperience etc. (Beggy &Hewitt, 2010)

No one can say about nurses working conditions without saying how much nurses are exposed to professional risks due to poor working conditions. All healthcare workers face a wide range of hazards on the job, including blood and body fluid exposure as well as musculoskeletal injuries related to ergonomic hazards from lifting and repetitive tasks; nursing personnel often experience these hazards most frequently (Centers for Disease Control and Prevention, 2000).

Work-acquired infectious diseases are among the risks all healthcare workers face; and blood borne pathogens figure prominently among these. Occupational exposure to blood and body fluids is well documented among healthcare workers. Annual exposure prevalence rates range from <10% to 44%, depending on the occupational subgroup (U.S. Department of Labor, Bureau of Labor Statistics; 1999). Every year, approximately 600,000–800,000 occupational needlestick injuries occur in the United States (U.S. Department of Labor, Bureau of Labor Statistics; 1999).

In a study of 60 U.S. hospitals in a 4-year period, nurses were the most likely to experience a blood or body fluid exposure (U.S. Department of Labor, Bureau of Labor Statistics; 1999). Most exposures involve percutaneous injuries (e.g., needlesticks), although mucocutaneous (e.g., spray or splashes to the eyes or mouth) and direct contact of infected blood with nonintact skin are also routes

of exposure. These potential infections, like healthcare-associated infections, also appear to be tied to nurses' working conditions.

In a cross-sectional study of more than 1,500 nurses employed in 40 units in 20 hospitals, poor organizational climate and high workloads were associated with 50% to 200% increases in the likelihood of needlestick injuries and near-misses among hospital nurses (Clarke SP, Sloane DM, Aiken LH, 2002).

Emerging infectious diseases and outbreaks of recognized contagious illnesses have highlighted other concerns about the safety of healthcare workers. For example, much of the worldwide severe acute respiratory syndrome (SARS) outbreak was hospital-based, and healthcare workers made up a large proportion of cases, accounting for 37% to 63% of suspected SARS patients in highly affected countries (Varia M, Wilson S, Sarwal S. et al., 2003).

In many countries, nurses were the largest single group affected by SARS (Booth CM, Boone RH, Tomlison G, Detsky AS, 2003). These threats to safety of the nurse and other essential healthcare workers are of concern for many reasons.

First, a trained, qualified healthcare workforce is necessary to respond and care for the public in the event of an outbreak. Staffing issues and hospital organization problems are believed to have complicated the containment of the SARS crisis in Toronto. Staffing shortages, especially of nurses, have been identified as one of the major factors expected to constrain hospitals' ability to deal with possible future threats (First Consulting Group, 2001). Without adequate numbers of trained hospital employees to implement effective infection control procedures, such as hand hygiene and proper isolation procedures, emergency departments and hospital wards can easily become the venues where the spread of epidemics occurs.

Second, the perception of unsafe working conditions both for the patient and the worker may actually hinder recruitment and retention of qualified staff. In an American Nurses Association survey of RNs (N = 7,353), 88% of respondents reported health and safety concerns related to work, 75% felt the quality of nursing care had declined in their work setting in the past 2 years, and 92% of those respondents related these concerns to inadequate staffing. Furthermore, >70% of respondents indicated concerns about the acute and chronic effects of work stress and overwork, concerns about a disabling back injury (60%), and fear of contracting HIV or hepatitis from a needlestick injury (45%). Nurses reported that these health and safety concerns influence their decision to continue working in the field of nursing and the kind of nursing work they choose to perform. Because of these concerns, nearly 55% of the nurses surveyed would not recommend the nursing profession as a career for their children or friends. (Aiken LH, Clarke SP, Sloane DM, 2002).

2.6. African healthcare workers' job satisfaction

Job satisfaction has been shown to be of great consequence in the recruitment, retention, and overall image of health care professionals (McCarthy, Tyrrell & Lehane, 2007). Job satisfaction is an emotional state which results from one's appraisal of the job as meeting the expectations of one's job or values (Locke, 1969). It has received a great deal of attention in research because of its potential effects on the behaviors and wellbeing of professionals. (Weisman CS, Nathanson CA, 1985)

There are numerous job satisfaction conceptual frameworks. These include applications of need fulfillment theory, social reference theory, and two-factor theory. While there is no consensus regarding which conceptual definition is most appropriate, job satisfaction research is extensive. One general conclusion from this large body of literature is that job satisfaction encompasses many factors or dimensions, including pay, job tasks, status, organization policies, and interaction with co-workers. The majority of job satisfaction studies support the notion that it is multifaceted and that jobs have the ability to meet specific individual human needs.

Researchers have attempted to identify the various components of job satisfaction, measure the relative importance of each component of job satisfaction and examine what effects these components have on workers' productivity (Lu et al., 2005). International studies of job satisfaction have revealed interesting variations between countries, suggesting that macro-level cultural, economic and political factors, such as labor policies and work culture and expectations, might also significantly shape an individual's attitudes towards their work. (Aiken LH, et al., 2001 and Spector PE, 1997)

The job satisfaction of African healthcare workers has only recently begun to be studied and research has generally found high levels of dissatisfaction across different countries, including Kenya (Mbindyo Pet al., 2009), South Africa (Kekana et al., 2007; Pillay R, 2008 and Pillay R.,2009) Uganda (Hagopian A et al., 2004) and others (Chirwa ML et al., 2009).

A number of qualitative and quantitative studies have highlighted the influence of certain context specific work related factors on job satisfaction, such as insufficient remuneration, poor working conditions and the HIV/AIDS epidemic. (Kekana et al., 2007; Pillay R., 2009 and Chirwa ML et al., 2009)

Nurses have been the most frequently studied group of healthcare workers. A range of findings derived from quantitative as well as qualitative studies has been reported in the literature regarding sources of job satisfaction among nurses. These sources include working conditions (Adamson et al., 1995; Nolan et al., 1995), interactions with patients/co-workers/ managers (Lee, 1998; Aiken et al., 2001), work itself (Lundh, 1999; Adams and Bond, 2000), remuneration (Price, 2002; Wang, 2002), self growth and promotion (Tzeng, 2002a,b), praise and recognition (Nolan et al., 1995; Lundh, 1999), control and responsibility (Lee, 1998; Price, 2002), job security (Nolan et al., 1995, 1998) and leadership styles and organizational policies (Lee, 1998; Tzeng, 2002a, b).

Job dissatisfaction has been related to a number of workplace withdrawal behaviors such as absenteeism (Davey et al., 2009) and the intention to quit (Irvine D et al., 1992; Tzeng HM, 2002 and Coomber B, Barriball KL, 2007), and it is the most frequently cited reason for nurses and midwives turnover. (Hayes LJ et al., 2006) Also job satisfaction affects the quality of service and the organizational commitment of employees (Bourgeault, Luce & McDonald, 2006).

A study conducted in Limpopo province of South Africa on factors that contribute to public sector nurses' turnover has concluded that Nurses' turnover is attributed to nurses' dissatisfaction with staffing, resources, salaries and workplace safety. (Takalani G. Tshitangano, 2013) Therefore, attention needs to be given to these specific issues if retention of experienced nurses is to be achieved.

2.7 Retention of qualified nurses and midwives in the health system

Despite the intense physical and psychological toll of nursing at the frontlines, individual nurses who feel competent, confident, safe, motivated, and supported in their work are likely to be retained and to contribute to the communities where they are needed most. To ensure that trained nurses remain in practice, retention must be sufficiently emphasized in human resources for health plans, and occupational support strategies must focus on meeting the needs of nurses and midwives themselves. (ICAP, 2013)

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Study design

This study is designed as cross-sectional study involving data collection at a defined time on the working condition of nurses and midwives in Rwanda.

3.2 Study site

This study was conducted within 30 districts of Rwanda and it will cover nurses and midwives working in public health sector as well as those working in the private health sector in Rwanda.

3.3 Study population

The study population was composed of on job nurses and midwives working in public and private health facilities in Rwanda, estimated at 8, 273 nurses, and 240 midwives (MOH, 2012).

3.3.1 Selection of study population

a. Inclusion criteria

The following criteria were used for the selection of the study population:

- being enrolled or registered nurse/midwives
- working in a health facility recognized by the Ministry of Health
- having at least of 3 months of working experience as nurse or midwife in one of the following services: internal medicine, surgical, pediatrics, Accidents& Emergencies, Obstetrics and Gynecology; critical care as well as nurses and midwives administrators at different levels of the health system of Rwanda.

b. Exclusion criteria

The criteria for exclusion includ:

- Non employed nurses/ midwives
- Working in health facility not recognized by the Ministry of Health
- Nurses and midwives not working in health facilities or nurses and midwives related administration

3.4 Sampling

Stratified random sampling technique was used to select a representative sample of health Facilities (Health Centres, District Hospitals, Private Medical Clinics, Regional Referral Hospitals, Teaching University Hospital or National referral Hospitals) based on their proportion number. Purposive sampling technique was used to select a representative sample of public and private nurses/midwives administrators as well as representatives of nursing/midwifery professional bodies.

3.5 Sample size

Considering that number of public health facilities were 523 and estimating private clinics employing at least 50 nurses and Midwives at 6, the total number of health facilities was 529, the sample size calculated by Creative Research Systems with confidence level of 95% and margin of error of 5 was 223 health Facilities and 546 Nurses and Midwives distributed proportionally as follow:

Table 1: Sample size for quantitative aspect of the study

Category of Health Facility	Total	Sample	Clinical Services	Participants
Health center	477	201	2	402
District Hospital	37	16	6	96
Provincial Ref	4	2	6	12
TUH/National referral Hospital	5	2	12	24
Private Polyclinics	6	3	4	12
Total	529	224	30	546

For qualitative aspect, the survey involved a sample of 6 nurses and midwives in leadership positions including the chair person and Registrar of NCNM; president of Rwanda Nurses and Midwives Union; the chairperson of Rwanda Midwives Association; the Director of Nursing/ Kigali University Teaching Hospital and the Dean of faculty of Nursing/ UR College of Medecine and Health Sciences.

3.6 Data collection techniques

Primary data was gathered using Nurses and Midwives Professional satisfaction Survey questionnaire (in appendices 5 and 6) designed from adaptation of “Questionnaire-Satisfaction professionnelle” UARITE “Qualité des soins, gestion du risque et techniques obstétricales and qualitative interview questionnaire designed for Nurses and Midwives in leadership positions.

Secondary data were collected from Heath Facilities Nurses and midwives work schedule/ duty roster and health facilities records for nurses and Midwives staffs.

3.7 Data analysis

Information from Nurses and Midwives professional satisfaction survey was analyzed quantitatively to determine the level of satisfaction of nurses and midwives of their working conditions. The Chi square test was used to compare the level of professional satisfaction for nurses and midwives with different educational background.

Secondary data from Health Facilities records on Nurses and Midwives work schedule / duty roster and nurses/midwives staff was compared to the national, regional and international standards of nurse: bed ratio.

Quantitative data was analyzed using SPSS version 22.0.0.0 whereas qualitative data from interview was analyzed using content analysis method.

3.8 Ethical considerations

Information provided by participants was be kept confidential and anonymous and used for the purpose of this survey. Participation in the survey was totally voluntary after being explained the purpose of survey on nurses and midwives working conditions and signing an Informed Consent. Authorization to conduct the study was obtained from MOH and ethical clearance was provided by RNEC prior to data collection.

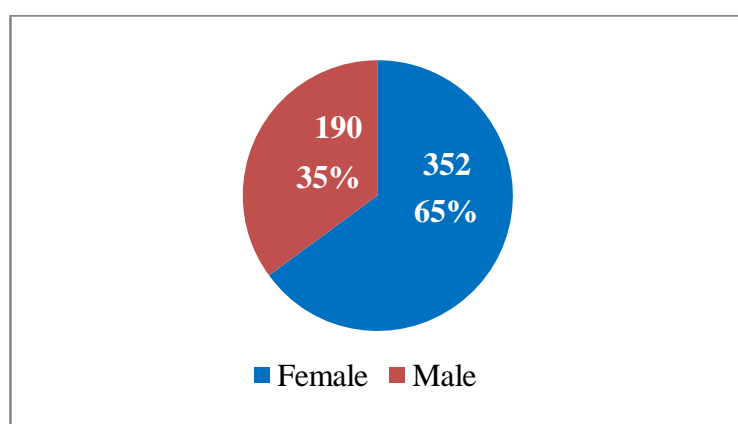
CHAPTER FOUR: DATA PRESENTATION, ANALYSIS AND INTERPRETATION OF THE FINDINGS

4.1.Introduction

This chapter presents, analyzes and interpretes the demographic data of nurses and midwives who participated in the study. It also presentes and analyzes quantitative and qualitative data related nurses and midwives staffing, the level of nurses and midwives professional, job satisfaction dimension as well as nurses and midwives attachment to their professions.

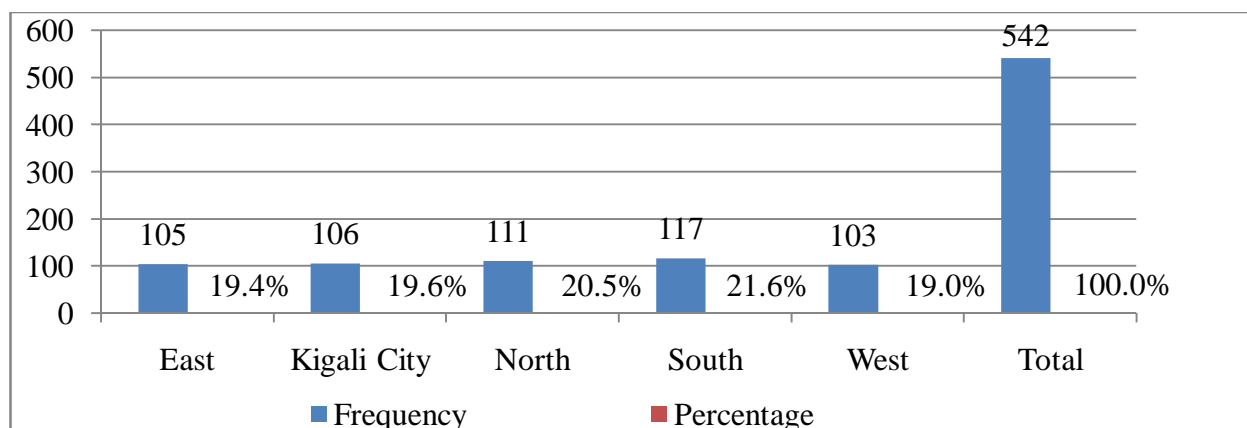
4.2.Demographic data of respondents

Figure 1: Distribution of Respondents per gender



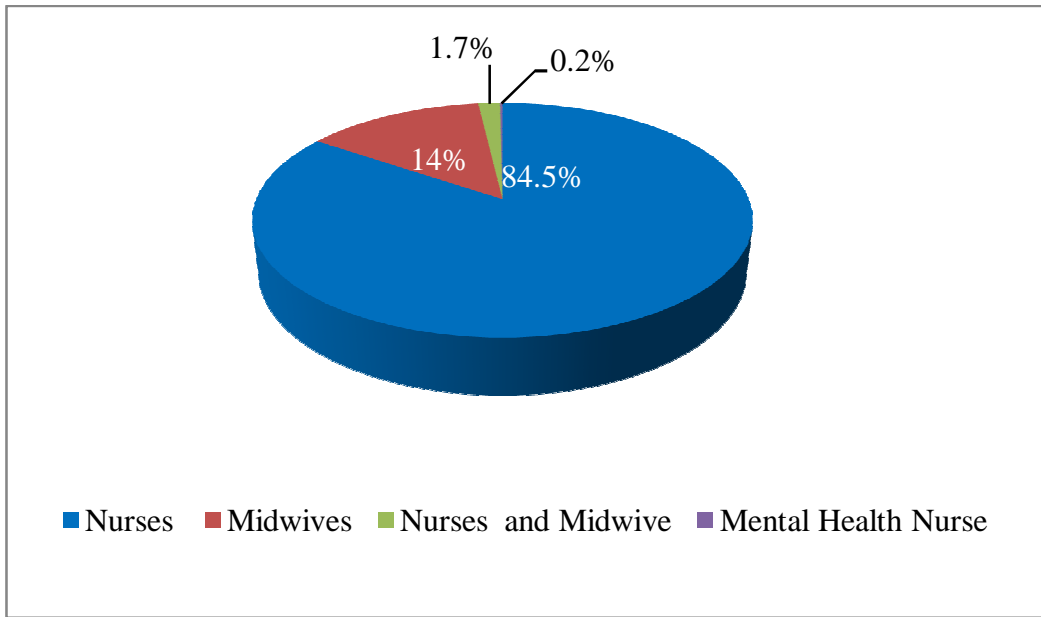
Female participants are dominant with 352 respondents (64.9%) against 190 male respondents (35.1%). This was due to the fact that nursing and midwifery s are in majority female dominated professions.

Figure 2: Distribution of respondents per Province



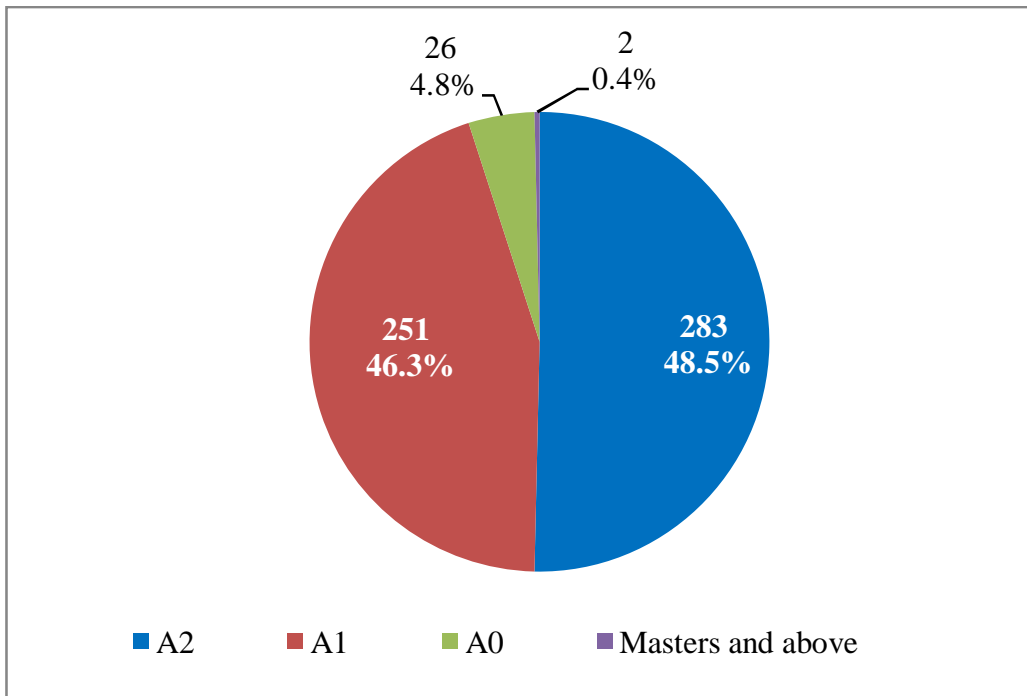
All Provinces and Kigali City are represented according to the existing number of health Facilities.

Figure3: Distribution of Respondents per their Profession



Participants are in majority nurses with 458 respondents (84.5%) followed by midwives with 74 respondents (13.7%).

Table 4: Distribution of Respondents per Education Level



Participants with A2 level are more represented with 263 respondents (48.5%) followed by A1 represented by 251 respondents (46.3%). The participants with bachelor's degree and Master's degree represent respectively 4.8% and 0.4% of the respondents.

Table 2: Distribution of Respondents per age

Age brackets	Frequency	Percent	Valid Percent	Cumulative Percent
20-24	11	2.0	2.0	2.0
25-29	89	16.4	16.4	18.5
20-30	1	.2	.2	18.6
30-34	218	40.2	40.2	58.9
35-39	141	26.0	26.0	84.9
Valid 40-44	47	8.7	8.7	93.5
45-49	17	3.1	3.1	96.7
50-54	13	2.4	2.4	99.1
55-59	3	.6	.6	99.6
60-64	2	.4	.4	100.0
Total	542	100.0	100.0	

The above table shows that 58.9% of respondents are still in the category of youth (under 35 years old) while 41.1% are 35 years old and above

Table 3: Distribution of respondents per type health facilities

Health Facility	Frequency	Percent	Valid Percent	Cumulative Percent
Health Centre	398	73.4	73.4	73.4
District Hospital	96	17.7	17.7	91.1
Provincial Referral Hospital	12	2.2	2.2	93.4
National Referral Hospital	24	4.4	4.4	97.8
Private Clinic or polyclinic	12	2.2	2.2	100.0
Total	542	100.0	100.0	

The Health centres are more represented with 398 respondents representing 73.4% of the respondents. District Hospitals are represented by 96 nurses/ midwives representing 17.7% of the respondents while the remaining respondents work in National Referral Hospitals (4.4%), Provincial Referral Hospitals (2.2%) and Private clinics and poly clinics (2.2%).

Table 4: Distribution of Respondents per practice License

	Frequency	Percent	Valid Percent	Cumulative Percent
No	139	25.6	25.6	25.6
Valid Yes	403	74.4	74.4	100.0
Total	542	100.0	100.0	

The majority of respondents (74.4%) affirm having a practice license while 25.6% do not have a practice license.

Table 5: Affiliation of Respondents in labor Union

	Frequency	Percent	Valid Percent	Cumulative Percent
No	172	31.7	31.7	31.7
Valid Yes	370	68.3	68.3	100.0
Total	542	100.0	100.0	

The majority of respondents (68.3%) are members in a labor union while 31.7% are not.

4.3.Nurses and midwives'staffing

Table 6: Available vs. required nurses/midwives in clinical services of the health facilities

Health Facility	Available nurses/ midwives	Total required nurses/midwives	Percentage
Health Centre	2,668	6,567	40.6
District Hospital	1,347	2,384	56.5
Provincial Hospital	234	402	58.2
National Referral Hospital	597	946	63.1
Total	4,846	10,299	47.1

The Available nurses and midwives in clinical services represent 40.6% of the required at the level of health centre, 56.5% at the level of District Hospital, 58.2 at the level of Provincial Referral Hospital and 63.1 % at National Referral Hospital.

Table 7: Average working hours per week

	Nbr. of working hours per week	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 40 hours	2	.4	.4	.4
	40-45 hours	86	15.9	15.9	16.2
	more than 45 hours	454	83.8	83.8	100.0
	Total	542	100.0	100.0	

Concerning the average working hour per week, 83.8 % work more than 45 hours;, 15.9% work 40 to 45 hours while 0.4% work less than 40hours per week.

Table 8 : Current Nurse: bed ratio vs. recommended ratio at the level of District Hospital

Units	Nurse: bed ratio the day shift		Nurse: bed ratio the night shift	
	Recommended ratio	The current ratio	Recommended ratio	The current ratio
Antenatal	1:15	1:18	1:15	1:18
Post natal	1:5	1:8	1:8	1:8
Labor ward	1:3	1:3	1:3	1:3
Delivery room	1:1	1:1	1:1	1:1
Emergency	1:3	1:3	1:3	1:3
Pediatrics	1:6	1:10	1:10	1:10
Neonatology	1:4	1:4	1:4	1:4
ICU	1:1	1:1	1:1	1:1
Recovery	1:3	1:3	1:3	1:3
IM & Mental health	1:8	1:12	1:12	1:16
Surgery	1:7	1:9	1:10	1:09

The above table shows that in some units like Antenatal , Post natal, pediatrics, IM & mental health and surgical services the bed ratios are above the recommended during the day shift . In Antenatal, IM& mental health units the current bed ratio are above the recommended during the night shift. However it is bellow the recommended in Surgery. Which shows poor distribution of existing nursing human resources between different units.

Table 9: Current Nurse: bed ratio vs. recommended ratio at the level of Provincial Referral Hospital

Units	Nurse: bed ratio the day shift		Nurse: bed ratio the night shift	
	Recommended ratio	The current ratio	Recommended ratio	The current ratio
Antenatal	1:15	1:14	1:15	1:14
Post natal	1:5	1:8	1:8	1:8
Labor ward	1:3	1:3	1:3	1:3
Delivery room	1:1	1:1	1:1	1:1
Emergency	1:3	1:3	1:3	1:3
Pediatrics	1:6	1:10	1:10	1:10
Neonatology	1:4	1:4	1:4	1:4
ICU	1:1	1:1	1:1	1:1
Recovery	1:3	1:3	1:3	1:3
IM & Mental health	1:8	1:10	1:12	1:12
Surgery	1:7	1:14	1:10	1:14

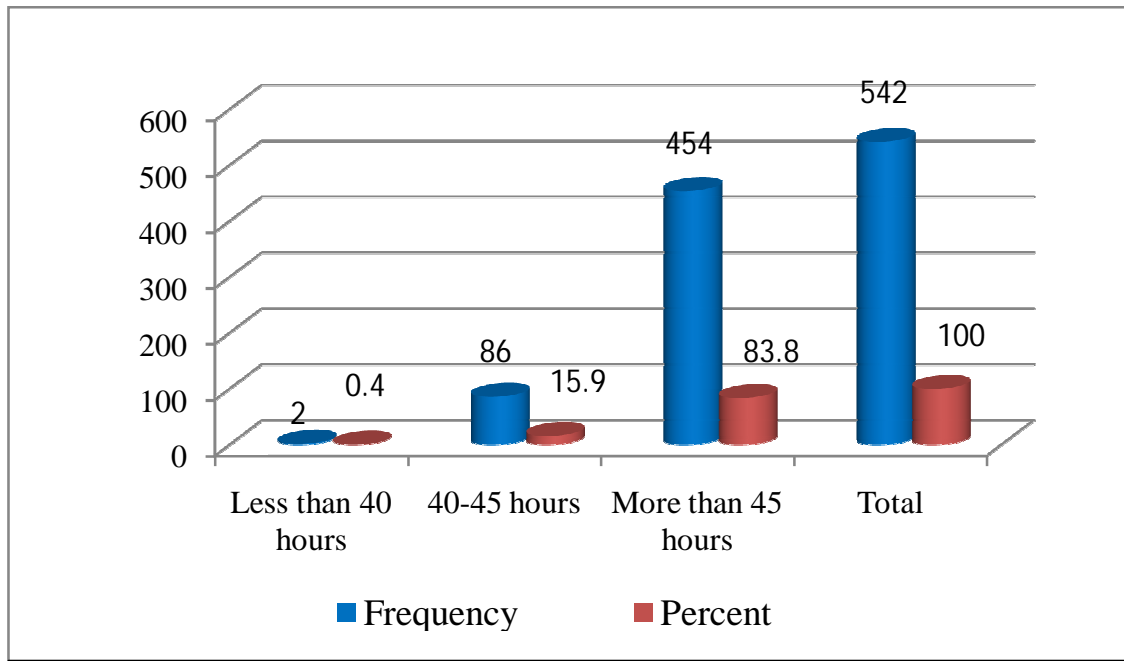
The precedent table shows that the current nurse: bed ratios in post natal, pediatrics, IM & Mental health and surgery is above the recommended during the day shift. The current Nurse: bed ratio in antenatal is below the recommended during the night shift. However in surgery, it is above the recommended ratio, showing poor distribution of existing nursing and midwifery human resources between different units and services.

Table 10: Current Nurse: bed ratio vs. recommended ratio at the level of National Referral Hospital

Units	Nurse: bed ratio the day shift		Nurse: bed ratio the night shift	
	Recommended ratio	The current ratio	Recommended ratio	The current ratio
Antenatal	1:15	1:12	1:15	1:12
Post natal	1:5	1:8	1:8	1:8
Labor ward	1:3	1:3	1:3	1:3
Delivery room	1:1	1:1	1:1	1:1
Emergency	1:3	1:3	1:3	1:3
Pediatrics	1:6	1:10	1:10	1:10
Neonatology	1:4	1:4	1:4	1:4
ICU	1:1	1:1	1:1	1:1
Recovery	1:3	1:3	1:3	1:3
IM & Mental health	1:8	1:12	1:12	1:14
Surgery	1:7	1:16	1:10	1:18

The nurse:bed ratios in Internal Medecine& mental health and in surgery are above the recommended ratios for both day and night shifts. However the ratio in antenatal is bellow the recommended ratio for both day and night shifts, Leading to poor distribution of existing nursing and midwifery in these services/units.

Figure 5: Average working hours per week



83.8 % of respondents work more than 45 hours while almost 16% work 40 to 45 hours per week.

4.4. Professional satisfaction of nurses and midwives

Table 11: Satisfaction with the amount of salary

	Frequency	Percent	Valid Percent	Cumulative Percent
Very dissatisfied	93	17.2	17.2	17.2
Dissatisfied	214	39.5	39.5	56.6
Moderately satisfied	198	36.5	36.5	93.2
Satisfied	33	6.1	6.1	99.3
Very satisfied	4	.7	.7	100.0
Total	542	100.0	100.0	

As the salary is concerned, 57% of respondents are dissatisfied to very dissatisfied while 43 % are moderately to very satisfied.

Table 12: Satisfaction with bonuses and allowances received

	Frequency	Percent	Valid Percent	Cumulative Percent
Very dissatisfied	172	31.7	31.7	31.7
Dissatisfied	182	33.6	33.6	65.3
Valid Moderately satisfied	150	27.7	27.7	93.0
Satisfied	38	7.0	7.0	100.0
Total	542	100.0	100.0	

Considering the bonuses and other allowances, 93.0% of respondents are not satisfied while the remaining 7% are satisfied.

Table 13: Satisfaction of the coverage of needs by salary

	Frequency	Percent	Valid Percent	Cumulative Percent
Very dissatisfied	171	31.5	31.5	31.5
Dissatisfied	235	43.4	43.4	74.9
Valid Moderately satisfied	120	22.1	22.1	97.0
Satisfied	15	2.8	2.8	99.8
Very satisfied	1	.2	.2	100.0
Total	542	100.0	100.0	

Comparing the salary and their needs, 97.0% of respondents are in the range of those who are very dissatisfied to moderately satisfied, while the remaining 3.0% are in the range of those who are satisfied and very satisfied.

Table 14: Satisfaction of the amount of the salary over qualification and experience

	Frequency	Percent	Valid Percent	Cumulative Percent
Very dissatisfied	160	29.5	29.5	29.5
Dissatisfied	239	44.1	44.1	73.6
Valid Moderately satisfied	119	22.0	22.0	95.6
Satisfied	22	4.0	4.0	99.6
Very satisfied	2	.4	.4	100.0
Total	542	100.0	100.0	

Considering the salary over qualification and experience, 95.6 % of respondents are in the range of those who are very dissatisfied to moderately satisfied while the remaining 4.4 % are in the range of those satisfied and very satisfied.

Table 15: Satisfaction with the amount of salary related to the volume of work

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very Dissatisfied	203	37.5	37.5	37.5
Dissatisfied	216	39.9	39.9	77.3
Moderately Satisfied	107	19.7	19.7	97.0
Satisfied	14	2.6	2.6	99.6
Very satisfied	2	.4	.4	100.0
Total	542	100.0	100.0	

Considering the amount of salary and the volume of work, 97.0 % of respondents are in the range of those who are very dissatisfied to moderately satisfied while the remaining 3.0% are in the range of those who are satisfied and very satisfied.

Table 16: Satisfaction with the quantity and quality of consumables available to do job

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very Dissatisfied	27	5.0	5.0	5.0
Dissatisfied	81	14.9	14.9	19.9
Moderately Satisfied	191	35.2	35.2	55.2
Satisfied	216	39.9	39.9	95.0
Very Satisfied	27	5.0	5.0	100.0
Total	542	100.0	100.0	

As the quantity and quality of available consumables to do job is concerned, 55.2% of respondents are in the range of those who are very dissatisfied to moderately satisfied while the remaining 44.8% are in the range of those satisfied and very satisfied.

Table 17: Satisfaction with protection against professional risks

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very Dissatisfied	65	12.0	12.0	12.0
Dissatisfied	103	19.0	19.0	31.0
Moderately Satisfied	173	31.9	31.9	62.9
Satisfied	181	33.4	33.4	96.3
Very Satisfied	20	3.7	3.7	100.0
Total	542	100.0	100.0	

Considering the availability of protection means against professional risks as factor of job satisfaction, 62.9% of respondents are in the range of those who are very dissatisfied to moderately satisfied while the remaining 37.1% are in the range of those satisfied and very satisfied.

Table 18: Satisfaction with working hours

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very Dissatisfied	75	13.8	13.8	13.8
Dissatisfied	132	24.4	24.4	38.2
Moderately Satisfied	180	33.2	33.2	71.4
Satisfied	131	24.2	24.2	95.6
Very Satisfied	24	4.4	4.4	100.0
Total	542	100.0	100.0	

Regarding the working hours, 71.4% of respondents are in the range of those who are very dissatisfied to moderately satisfied while the remaining 28.6 % are in the range of those satisfied and very satisfied.

Table 19: Satisfaction with the workload

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very Dissatisfied	82	15.1	15.1	15.1
Dissatisfied	160	29.5	29.5	44.6
Moderately Satisfied	208	38.4	38.4	83.0
Satisfied	81	14.9	14.9	97.9
Very Satisfied	11	2.1	2.1	100.0
Total	542	100.0	100.0	

Considering the workload, 83.0% of respondents are in the range of those who are very dissatisfied to moderately satisfied while the remaining 17.0% are in the range of those satisfied, and very satisfied.

Table 20: Satisfaction of distribution of the workload among the members of working team

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very Dissatisfied	34	6.3	6.3	6.3
Dissatisfied	86	15.9	15.9	22.1
Moderately Satisfied	159	29.3	29.3	51.5
Satisfied	231	42.6	42.6	94.1
Very Satisfied	32	5.9	5.9	100.0
Total	542	100.0	100.0	

As the distribution of workload among members of working team is concerned, 51.5% of respondents are in the range of those who are very dissatisfied to moderately satisfied while 48.5% are in the range of those satisfied and very satisfied.

Table 21: Satisfaction of the distribution of work time and other tasks

	Frequency	Percent	Valid Percent	Cumulative Percent
Very Dissatisfied	42	7.7	7.7	7.7
Dissatisfied	124	22.9	22.9	30.6
Moderately Satisfied	209	38.6	38.6	69.2
Satisfied	157	29.0	29.0	98.2
Very Satisfied	10	1.8	1.8	100.0
Total	542	100.0	100.0	

Considering the distribution of work time and other tasks, 69.2% of respondents are in the range of those who are very dissatisfied to moderately satisfied while the remaining 30.8% are in the range of those satisfied and very satisfied .

Table 22: Satisfaction with the support of colleagues in accomplishing task

	Frequency	Percent	Valid Percent	Cumulative Percent
Very Dissatisfied	25	4.6	4.6	4.6
Dissatisfied	81	14.9	14.9	19.6
Moderately Satisfied	213	39.3	39.3	58.9
Satisfied	197	36.3	36.3	95.2
Very Satisfied	26	4.8	4.8	100.0
Total	542	100.0	100.0	

Regarding the support of colleagues in accomplishing tasks, 58.9% of respondents are in the range of those very dissatisfied to moderately satisfied while the remaining 41.1% are in the range of those who are satisfied and very satisfied.

Table 23: Satisfaction with the variety of tasks

	Frequency	Percent	Valid Percent	Cumulative Percent
Very Dissatisfied	23	4.2	4.2	4.2
Dissatisfied	100	18.5	18.5	22.7
Moderately Satisfied	187	34.5	34.5	57.2
Satisfied	215	39.7	39.7	96.9
Very Satisfied	17	3.1	3.1	100.0
Total	542	100.0	100.0	

As the variety of tasks is concerned, 57.2% of respondents are in the range of those very dissatisfied to moderately satisfied while the remaining 42.8% are satisfied and very satisfied.

Table 24: Satisfaction with the adequacy between tasks and skills

	Frequency	Percent	Valid Percent	Cumulative Percent
Very Dissatisfied	38	7.0	7.0	7.0
Dissatisfied	68	12.5	12.5	19.6
Moderately Satisfied	153	28.2	28.2	47.8
Satisfied	239	44.1	44.1	91.9
Very Satisfied	44	8.1	8.1	100.0
Total	542	100.0	100.0	

Looking at the adequacy between tasks and skills, 47.8% of respondents are in the range of very dissatisfied to moderately satisfied while 52.1% are satisfied and very satisfied

Table 25: Satisfaction with the level of professional responsibility

	Frequency	Percent	Valid Percent	Cumulative Percent
Very Dissatisfied	28	5.2	5.2	5.2
Dissatisfied	66	12.2	12.2	17.3
Moderately Satisfied	141	26.0	26.0	43.4
Satisfied	270	49.8	49.8	93.2
Very Satisfied	37	6.8	6.8	100.0
Total	542	100.0	100.0	

Concerning the level of professional responsibilities, 43.4% of respondents are in the range of those very dissatisfied to moderately satisfied while 56.6 % are satisfied and very satisfied.

Table 26: Satisfaction with the description that was made of the job

	Frequency	Percent	Valid Percent	Cumulative Percent
Very Dissatisfied	28	5.2	5.2	5.2
Dissatisfied	59	10.9	10.9	16.1
Moderately Satisfied	148	27.3	27.3	43.4
Satisfied	266	49.1	49.1	92.4
Very Satisfied	41	7.5	7.5	100.0
Total	542	100.0	100.0	

Considering the job description made for their jobs, 43.4% of respondents are in the range of those very dissatisfied to moderately satisfied while 56.6 % are satisfied and very satisfied.

Table 27: Satisfaction with the job description and what is actually done

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very Dissatisfied	29	5.4	5.4	5.4
Dissatisfied	75	13.8	13.8	19.2
Moderately Satisfied	170	31.4	31.4	50.6
Satisfied	226	41.7	41.7	92.3
Very Satisfied	42	7.7	7.7	100.0
Total	542	100.0	100.0	

Comparing their job description and what they do, 50.6% of respondents are in the range of those very dissatisfied to moderately satisfied while the remaining 49.4% are satisfied and very satisfied.

Table 28: Satisfaction with the collaboration between members of service

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very Dissatisfied	5	.9	.9	.9
Dissatisfied	27	5.0	5.0	5.9
Moderately Satisfied	100	18.5	18.5	24.4
Satisfied	342	63.1	63.1	87.5
Very Satisfied	68	12.5	12.5	100.0
Total	542	100.0	100.0	

For the collaboration between members of service, 24.4% of respondents are in the range of those who are very dissatisfied to moderately satisfied while 75.6% are satisfied and very satisfied.

Table 29: Satisfaction with the recognition of the quality of work done by superiors

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very Dissatisfied	26	4.8	4.8	4.8
Dissatisfied	65	12.0	12.0	16.8
Moderately Satisfied	178	32.8	32.8	49.6
Satisfied	233	43.0	43.0	92.6
Very Satisfied	40	7.4	7.4	100.0
Total	542	100.0	100.0	

As the recognition of the quality of work done is concerned, 49.6% of respondents are in the range of those who are very dissatisfied to moderately satisfied while 50.4% are satisfied and very satisfied.

Table 30: Satisfaction with how the performance appraisal is made

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very Dissatisfied	181	33.4	33.4	33.4
Dissatisfied	108	19.9	19.9	53.3
Moderately Satisfied	138	25.5	25.5	78.8
Satisfied	96	17.7	17.7	96.5
Very Satisfied	19	3.5	3.5	100.0
Total	542	100.0	100.0	

On the topic of Performance appraisal for advancement of rank, 25.5% respondents are moderately satisfied, 17.7% are satisfied and 3.5% are very satisfied.

Table 31: Satisfaction with the respect by superiors

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very Dissatisfied	26	4.8	4.8	4.8
Dissatisfied	62	11.4	11.4	16.2
Moderately Satisfied	159	29.3	29.3	45.6
Satisfied	263	48.5	48.5	94.1
Very Satisfied	32	5.9	5.9	100.0
Total	542	100.0	100.0	

About the respect by superiors, 45.6% of the respondents are in the range of those who are very dissatisfied to moderately satisfied while 54.4% are satisfied and are very satisfied.

Table 32: Satisfaction of in service training received from the employer

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very Dissatisfied	72	13.3	13.3	13.3
Dissatisfied	94	17.3	17.3	30.6
Moderately Satisfied	213	39.3	39.3	69.9
Satisfied	142	26.2	26.2	96.1
Very Satisfied	21	3.9	3.9	100.0
Total	542	100.0	100.0	

About in service training, 39.3% of respondents are moderately satisfied, 69.9% are in the range of very dissatisfied to moderately satisfied while 30.1% are satisfied and very satisfied with in service training received from the employer.

Table 33: Satisfaction of selection of staff members to participate in trainings

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very Dissatisfied	53	9.8	9.8	9.8
Dissatisfied	80	14.8	14.8	24.5
Moderately Satisfied	199	36.7	36.7	61.3
Satisfied	179	33.0	33.0	94.3
Very Satisfied	31	5.7	5.7	100.0
Total	542	100.0	100.0	

On the topic on how staff members are selected to participate in trainings, 61.3% of respondents are in the range of very dissatisfied to moderately satisfied while 38.7% are satisfied and very satisfied.

Table 34: Satisfaction with the adequacy of the proposed training to the needs

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very Dissatisfied	44	8.1	8.1	8.1
Dissatisfied	91	16.8	16.8	24.9
Moderately Satisfied	196	36.2	36.2	61.1
Satisfied	188	34.7	34.7	95.8
Very Satisfied	23	4.2	4.2	100.0
Total	542	100.0	100.0	

Regarding the adequacy of the proposed training the needs, 61.1% of respondents are in the range of very dissatisfied to moderately satisfied while 38.9 % are satisfied and very satisfied.

Table 35: Satisfaction with how the knowledge gained in the training are used in work

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very Dissatisfied	18	3.3	3.3	3.3
Dissatisfied	45	8.3	8.3	11.6
Moderately Satisfied	193	35.6	35.6	47.2
Satisfied	250	46.1	46.1	93.4
Very Satisfied	36	6.7	6.7	100.0
Total	542	100.0	100.0	

Regarding the use of knowledge gained from the training, 47.2% of respondents are in the range of very dissatisfied to moderately satisfied, 52.8 are satisfied and very satisfied of how the knowledge gained from trainings are used in their work.

Table 36: Satisfaction with skills acquired during the last training

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very Dissatisfied	30	5.5	5.5	5.5
Dissatisfied	40	7.4	7.4	12.9
Moderately Satisfied	146	26.9	26.9	39.9
Satisfied	268	49.4	49.4	89.3
Very Satisfied	58	10.7	10.7	100.0
Total	542	100.0	100.0	

Concerning the skills acquired from the training, 39.9% of respondents are in the range of very dissatisfied to moderately satisfied while 60.1% are satisfied and very satisfied with the skills acquired in their last training.

Table 37: Satisfaction with opportunities to participate in decision-making

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very Dissatisfied	35	6.5	6.5	6.5
Dissatisfied	85	15.7	15.7	22.1
Moderately Satisfied	209	38.6	38.6	60.7
Satisfied	184	33.9	33.9	94.6
Very Satisfied	29	5.4	5.4	100.0
Total	542	100.0	100.0	

As participation in decision making is concerned, 60.7% of respondents are in the range of very dissatisfied to moderately satisfied while 39.3% are satisfied and very satisfied with opportunities given to them to participate in decision making.

Table38 : Satisfaction with the transparency in the management of structural funds

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very Dissatisfied	67	12.4	12.4	12.4
Dissatisfied	140	25.8	25.8	38.2
Moderately Satisfied	167	30.8	30.8	69.0
Satisfied	147	27.1	27.1	96.1
Very Satisfied	21	3.9	3.9	100.0
Total	542	100.0	100.0	

About the management of structural funds, 69.0% of respondents are in the range of very dissatisfied to moderately satisfied while 31.0% are satisfied and very satisfied with the transparency in the management of structural funds.

Table39: Satisfaction with the quality of own work

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very Dissatisfied	15	2.8	2.8	2.8
Dissatisfied	42	7.7	7.7	10.5
Moderately Satisfied	139	25.6	25.6	36.2
Satisfied	272	50.2	50.2	86.3
Very Satisfied	74	13.7	13.7	100.0
Total	542	100.0	100.0	

For the quality of the work, 36.2% of respondents are in the range of very dissatisfied to moderately satisfied, while 63.9 % are satisfied and very satisfied with the quality of their work.

Table 40: Satisfaction of how the workplace does not prevent employee practicing religion

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very Dissatisfied	46	8.5	8.5	8.5
Dissatisfied	77	14.2	14.2	22.7
Moderately Satisfied	119	22.0	22.0	44.6
Satisfied	222	41.0	41.0	85.6
Very Satisfied	78	14.4	14.4	100.0
Total	542	100.0	100.0	

On the topic of practicing religion, 44.6% of respondents are in the range of very dissatisfied to moderately satisfied while 55.40% are satisfied and very satisfied with how their work place does not prevent them to practice their religion.

Table 41: Satisfaction with the professional image

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very Dissatisfied	50	9.2	9.2	9.2
Dissatisfied	51	9.4	9.4	18.6
Moderately Satisfied	128	23.6	23.6	42.3
Satisfied	223	41.1	41.1	83.4
Very Satisfied	90	16.6	16.6	100.0
Total	542	100.0	100.0	

Concerning the professional image, 42.3% of respondents are in the range of very dissatisfied to moderately satisfied while 57.7% are satisfied and very satisfied with the image of their profession.

Table 42: Satisfaction with regularity of salary

	Frequency	Percent	Valid Percent	Cumulative Percent
Very Dissatisfied	22	4.1	4.1	4.1
Dissatisfied	55	10.1	10.1	14.2
Moderately Satisfied	157	29.0	29.0	43.2
Satisfied	190	35.1	35.1	78.3
Very Satisfied	118	21.7	21.7	100.0
Total	542	100.0	100.0	

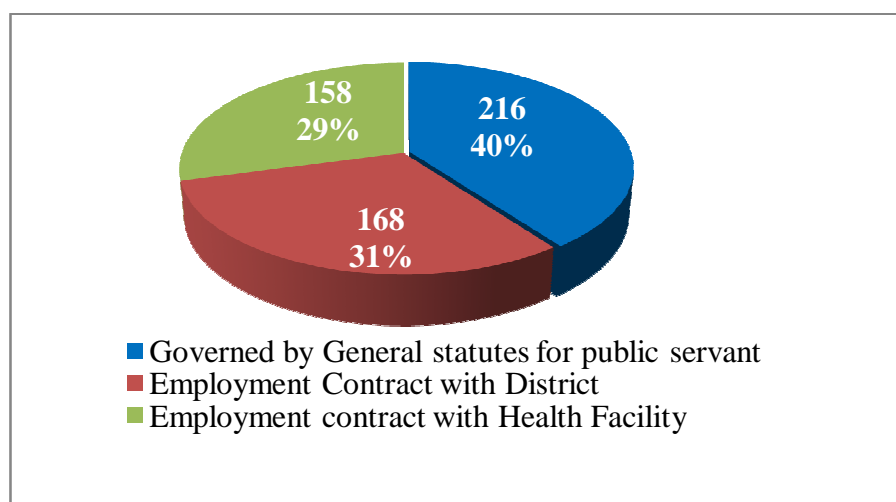
Regarding the regularity of salary, 43.2% of respondents are in the range of very dissatisfied to moderately satisfied while 56.8% are satisfied and very satisfied with the regularity of their salary.

Table 43: Satisfaction with stability of job

	Frequency	Percent	Valid Percent	Cumulative Percent
Very Dissatisfied	41	7.6	7.6	7.6
Dissatisfied	88	16.2	16.2	23.8
Moderately Satisfied	158	29.2	29.2	53.0
Satisfied	191	35.2	35.2	88.2
Very Satisfied	64	11.8	11.8	100.0
Total	542	100.0	100.0	

Concerning the stability of job, 53.0% of respondents are in the range of very dissatisfied to moderately satisfied while 47% are satisfied and very satisfied with the stability of their job.

Figure 6: Professional status of Respondents



The above figure shows that 40% of nurses and midwives are governed by general statutes for public servants, 60% have a contract with either the District or the health facility.

Table 44: overall job satisfaction

	Frequency	Percent	Valid Percent	Cumulative Percent
Very Dissatisfied	19	3.5	3.5	3.5
Dissatisfied	81	14.9	14.9	18.5
Moderately Satisfied	297	54.8	54.8	73.2
Satisfied	120	22.1	22.1	95.4
Very Satisfied	25	4.6	4.6	100.0
Total	542	100.0	100.0	

In summary, 18.5% of respondents are overall dissatisfied to very dissatisfied while 81.5% are moderately to very satisfied with their working conditions.

Table 45: Cross tabulation of Average monthly take home salary in Rwf and Overall job satisfaction

		Overall job satisfaction					Total	
		Very Dissatisfied	Dissatisfied	Moderately Satisfied	Satisfied	Very Satisfied		
Average monthly take home Rwf	<100,000	Count	0	0	6	4	0	10
		% within Average monthly take home salary in Rwf	0.0%	0.0%	60.0%	40.0%	0.0%	100.0%
	100,000-150,000	Count	11	38	167	72	14	302
		% within Average monthly take home salary in Rwf	3.6%	12.6%	55.3%	23.8%	4.6%	100.0%
	150,001-200,000	Count	7	41	110	39	10	207
		% within Average monthly take home salary in Rwf	3.4%	19.8%	53.1%	18.8%	4.8%	100.0%
	200,001-300,000	Count	1	2	14	4	1	22
	% within Average monthly take home salary in Rwf	4.5%	9.1%	63.6%	18.2%	4.5%	100.0%	
	> 300,000	Count	0	0	0	1	0	1
		% within Average monthly take home salary in Rwf	0.0%	0.0%	0.0%	100.0%	0.0%	100.0%
Total		Count	19	81	297	120	25	542
		% within Average monthly take home salary in Rwf	3.5%	14.9%	54.8%	22.2%	4.6%	100.0%

The above table shows that out of 542 respondents, 519 earn Rwf 200,000 or less per month and 23 earn more than Rwf 200,000. 73.2% of the respondents are in the range of very dissatisfied to

moderately satisfied while 26.8% are satisfied and very satisfied with their job. However the difference is not significant ($p= 0.574$) , leading to the conclusion that the proportion of job satisfaction is the same for all the salaries brackets.

Table 46: Cross tabulation of working area and Overall job satisfaction

		Overall job satisfaction					Total
		Very Dissatisfied	Dissatisfied	Moderately Satisfied	Satisfied	Very Satisfied	
Rural	Count	19	55	179	93	15	361
	% within working area	5.2%	15.2%	49.6%	25.8%	4.2%	100.0%
Work Semi area urban	Count	0	4	26	12	0	42
	% within working area	0.0%	9.5%	61.9%	28.6%	0.0%	100.0%
Urban	Count	0	22	92	15	10	139
	% within working area	0.0%	15.8%	66.2%	10.8%	7.2%	100.0%
Total	Count	19	81	297	120	25	542
	% within working are	3.5%	14.9%	54.8%	22.1%	4.6%	100.0%

Out of 542 respondents, 361 work in rural area; among them 70.0% are in the range of very dissatisfied to moderately satisfied while 30.0% are satisfied and very satisfied with their job. The difference is extremely statistically significant ($p<0.0001$); leading to the conclusion that there is an association between the working area and the overall job satisfaction of nurses and midwives.

Table 47: Cross tabulation of Education Level of Respondent and Overall job satisfaction

			Overall job satisfaction					Total
			Very Dissatisfied	Dissatisfied	Moderately Satisfied	Satisfied	Very Satisfied	
Education Level	A2	Count	9	35	142	68	9	263
		% within Overall job satisfaction	47.4%	43.2%	47.8%	56.7%	36.0%	48.5%
	A1	Count	8	43	134	50	16	251
		% within Overall job satisfaction	42.1%	53.1%	45.1%	41.7%	64.0%	46.3%
	A0	Count	2	3	19	2	0	26
		% within Overall job satisfaction	10.5%	3.7%	6.4%	1.7%	0.0%	4.8%
	Masters & above	Count	0	0	2	0	0	2
		% within Overall job satisfaction	0.0%	0.0%	0.7%	0.0%	0.0%	0.4%
	Total	Count	19	81	297	120	25	542
		% within Overall job satisfaction	3.7%	14.9%	54.8%	22.1%	4.5%	100.0%

The above table shows that 48.5 % of the respondents are nurses with A2 certificate; 46.3% are nurses and midwives with advanced diploma (A1); 4.8% of respondents are nurses and midwives with bachelor’s degree (A0) while 0.4 respondents have a Mastner’s degree. Among the respondents, 73.4% are in the range of very dissatisfied to moderately satisfied while 26.6 % are satisfied and very satisfied with their job. However the difference is not statistically significant ($p=0.291$); leading to the conclusion that the proportion of nurses/midwives satisfaction is the same within all education levels

Table 48: Cross tabulation of Age bracket and Overall job satisfaction

		Overall job satisfaction					Total	
		Very Dissatisfied	Dissatisfied	Moderately Satisfied	Satisfied	Very Satisfied		
Age bracket	20- 24	Count	0	2	4	4	1	11
		% of Total	0.0%	0.4%	0.7%	0.7%	0.2%	2.0%
	25- 29	Count	1	17	45	20	6	89
		% of Total	0.2%	3.1%	8.3%	3.7%	1.1%	16.4%
	20- 30	Count	0	1	0	0	0	1
		% of Total	0.0%	0.2%	0.0%	0.0%	0.0%	0.2%
	30- 34	Count	9	35	126	42	6	218
		% of Total	1.7%	6.5%	23.2%	7.7%	1.1%	40.2%
	35- 39	Count	4	20	79	31	7	141
		% of Total	0.7%	3.7%	14.6%	5.7%	1.3%	26.0%
	40- 44	Count	3	5	26	10	3	47
		% of Total	0.6%	0.9%	4.8%	1.8%	0.6%	8.7%
	45- 49	Count	0	1	9	7	0	17
		% of Total	0.0%	0.2%	1.7%	1.3%	0.0%	3.1%
	50- 54	Count	2	0	6	3	2	13
		% of Total	0.4%	0.0%	1.1%	0.6%	0.4%	2.4%
	55- 59	Count	0	0	1	2	0	3
		% of Total	0.0%	0.0%	0.2%	0.4%	0.0%	0.6%
	60- 64	Count	0	0	1	1	0	2
	% of Total	0.0%	0.0%	0.2%	0.2%	0.0%	0.4%	
Total	Count	19	81	297	120	25	542	
	% of Total	3.5%	14.9%	54.8%	22.1%	4.6%	100.0%	

The above table shows that 58.8 respondents are under 35 years old and 41.2 % are 35 years old and above . Among them 73.2% are in the range of very dissatisfied to moderately satisfied while 26.8% are satisfied and very satisfied with their job. The difference is not statistically significant (p=0.375), leading to the conclusion that the proportion of job satisfaction is the same within all age brackets

Table 49: cross tabulation of Sex of respondent and Overall job satisfaction

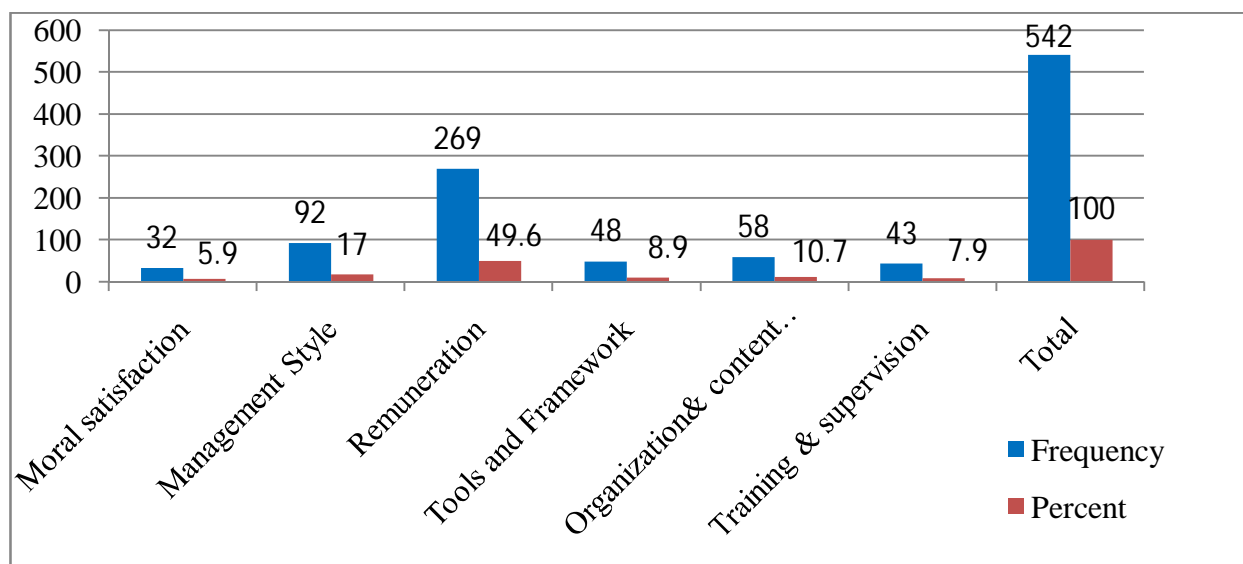
		Overall job satisfaction					Total
		Very Dissatisfied	Dissatisfied	Moderately Satisfied	Satisfied	Very Satisfied	
Sex of respondent	Female	Count 13	49	207	65	18	352
	% of Total	2.4%	9.0%	38.2%	12.0%	3.3%	64.9%
Male	Count	6	32	90	55	7	190
	% of Total	1.1%	5.9%	16.6%	10.1%	1.3%	35.1%
Total	Count	19	81	297	120	25	542
	% of Total	3.5%	14.9%	54.8%	22.2%	4.6%	100.0%

The above table shows that 64.9% of respondents are females while 35.1 % are males. Among respondents 73.2% are in the range of very dissatisfied to moderately satisfied while 26.8% are satisfied and very satisfied. The difference is statistically significant ($p=0.034$), leading to the conclusion that there is an association between the gender of respondents and the overall job satisfaction.

4.5 Nurses/midwives job satisfaction dimensions

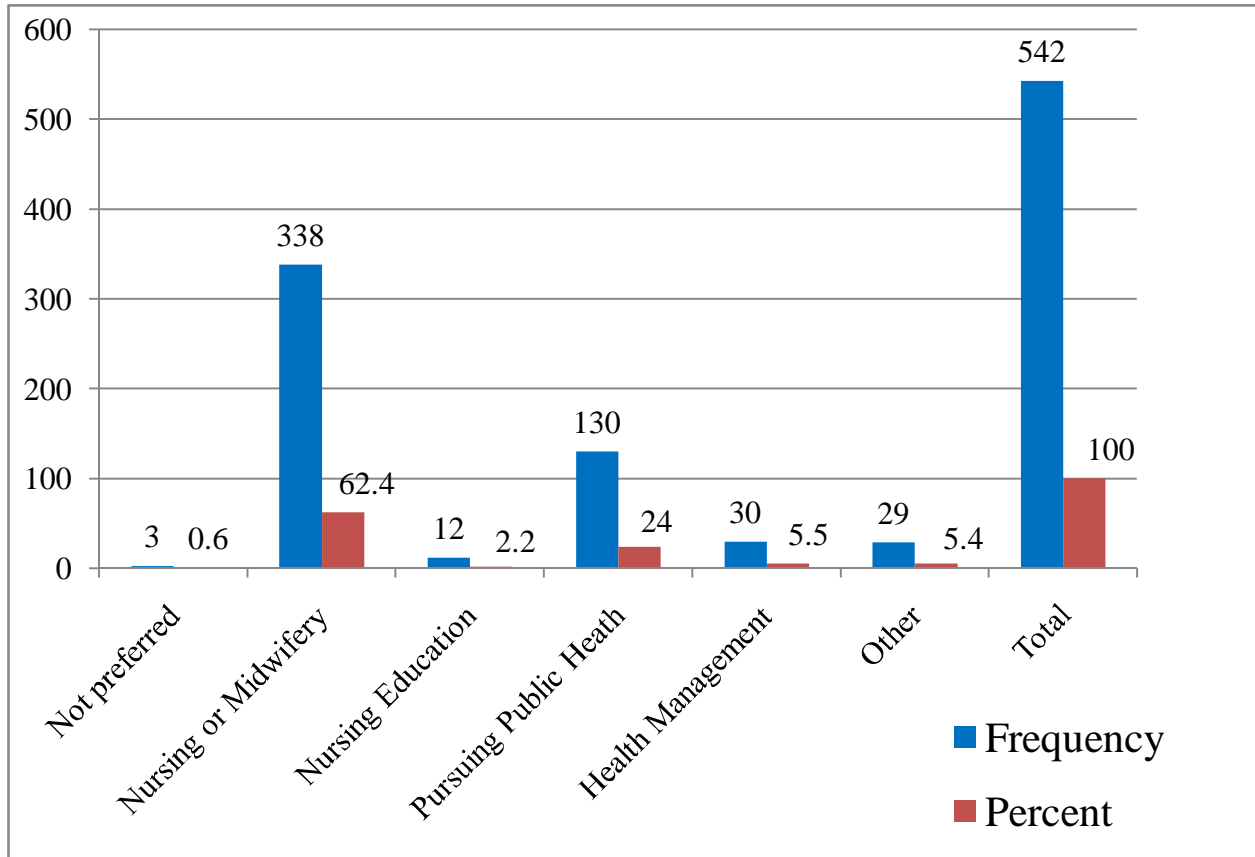
Recognizing variations between countries on job satisfaction dimensions, the study also attempted to determine the job satisfaction dimensions for nurses and midwives in Rwanda as well as their preferences in terms of remaining or dropping out their profession.

Figure 7: Job satisfaction Dimension



The precedent figure shows that . Remuneration is ranked as the first dimension of job satisfaction (50%) followed by the management style (17%), organization and content of work (11%), tools and framework (9%), training & supervision (8%) and the moral satisfaction (6%).

Figure 8: Nurses/midwives attachment to their profession



The above figure shows that 62.4% of respondents would prefer pursuing nursing or midwifery in their further studies, 24% would prefer Public Health ; 5.5% Health Management and 5.4% other options.

Table 50: Option to live job

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Not chosed	4	.7	.7	.7
Valid Seeking new job in public or private Health Facility	259	47.8	47.8	48.5
Valid Seeking new job in public administration	16	3.0	3.0	51.5
Valid Seeking new job in public or private teaching institution	73	13.5	13.5	64.9
Valid Seeking new job within NGO	82	15.1	15.1	80.1
Valid Doing Business	81	14.9	14.9	95.0
Valid Other	27	5.0	5.0	100.0
Total	542	100.0	100.0	

The above table shows that 47.8% of respondents would seek a new job in public or private health facility in case there an option to leave their current job. This shows also that they are willing to remain in the health sector.

4.6 Qualitative Findings

4.6.1 Nursing human resources and the package for National health facilities

The participants in qualitative interview nurses revealed that nurses and midwives are not effectively involved in policies making, reason why the highly qualified nurses and midwives are not appearing in the national packages for health facilities. Apart of the existence of nursing and midwives bodies such as National Council of Nurses and Midwives and the Rwanda nurses and midwives union, Nurses and midwives don't have space for participating in policy making at the ministerial level. However, they have reported that, policy influencing is among the major activities of Rwanda Nurses and Midwives Union. According to the respondents, Nurses used to have a division of nursing under the Ministry of Health. Since the nursing division in the ministry of Health as an entity in charge of policy making for the health sector does no longer exist the planning for nurses and midwifery is done by people who are not familiar with the nursing professional advancement, resulting in poor nursing human resource planning.

4.6.2. Effect of nursing human resource poor planning

Participants in qualitative were complaining about the high turnover of highly qualified nurses and midwives in respective health Facilities due to the organizational structure that doesn't recognize their education level. There are nurses and midwives with bachelors' degree who are working and paid as registered nurses and midwives with advanced diploma (A1) because of the organizational structure of health facilities. Nurses and midwives who managed to upgrade their education level do not have enough opportunities for advancement in their career while still working in public health facilities where the positions of highly qualified nurses and midwives seems not recognized and this contribute to the increase of highly qualified nursing staff turnover in public health facilities. The limitation in number of highly qualified nurses and midwives also affect the strategic planning for nursing and midwifery human resources as well as their effective participation in nursing and midwifery related policies making. The participants in qualitative interview have associated the prevailing tendency to the persisting gender related stereotypes vis –a vis nursing as a traditional female dominated vocation.

4.6.3 The suitable professional body to advocate for nurses and midwives and influence policies

According to the participants, the national council of Nurses and midwives is an arm of the ministry of health focusing more on protection of public from anything that may endanger their lives arising from the deeds of Nurses and Midwives rather than on strategic planning of nurses and midwives work force. Furthermore, the existence of an oversight of health professional bodies officer desk can't address specific issues faced by nurses and midwives as the large segment of health professionals in Rwanda. The reason why the Rwanda Nurses and Midwives Union was established by nurses and midwives is primarily for advocating for improvement of nurses and midwives working conditions.

4.7. Discussion of findings

4.7.1. Nursing and Midwifery staffing

Different methods are used to determine the level of nursing and midwifery staffing. The Rwanda MoH has opted for a method based on health facility bed capacity in each service, bed occupancy and workload to identify required human resources including nurses and midwives. However, the available literature suggests that best practice in relation to determining staffing levels cannot clearly be identified. As long as all approaches have their inherent strengths and limitations and the choice of method or system to determine staffing levels should be largely dependent on the context in which it will be used. Therefore, it seems impossible to find one suitable standard nursing and midwifery staffing approach for all levels of health facilities; e.g. the nurse: bed ratio used by the Rwanda MoH (2012) seems not a suitable standard staffing approach for health centres as it can

underestimate the importance of prevention and health promotion services. For that reason, it is preferable for health centers to identify required human resources based on the population in the catchment area. The national nursing staffing standards has estimate the minimum required nurses and midwives in clinical services of a health centre at 33 nurses and midwives.

The current level of nursing staffing at the level of health center (40.6%) that resulted in aggregation of statistics for nurses and midwives on the duty roster is less than the real level of nurses and midwives staffing as it didn't consider nurses and midwives who were in their annual leave and those who were allowed time off for having worked previously the night shift. Indeed, in most health facilities those who were on the night shift have right to time off during the next day. Based on that reasons we can assume that with consideration of nurses on annual leave and those in time off , the real nursing staffing is close to 50% of the required nursing human resources at the level of health centre. Gitembagara Andre et al. (2015) has estimated the level of nurses and midwives staffing in health centers at 55% with reference to the standards of the MoH which were based on population in the catchment area and to the minimum package of activities to be delivered at each level of health facilities (Rwanda MOH, 2009)

The National standards for nurses/ midwives staffing require a minimum of 149 nurses and midwives in clinical services at District Hospital, 201 nurses and midwives at Provincial Referral Hospitals and 473 nurses and midwives. Using aggregated data of nurses and midwives on day and night shifts, the study came up with an estimation of the level of nurses and midwives staffing in clinical services at district hospitals, Provincial Referral Hospital and National Referral Hospital at 56.5%; 58.2% and 63.1% of the total require nurses and midwives human resources respectively in clinical services of District Hospitals, Provincial Referral Hospitals and National Referral Hospitals. Considering the nurse: bed ratio per unit and the national standards, 5 out 11 unit of clinical services at District Hospital have been identified as under staffed with nurses and midwives during the day shift and 3 units are under staffed during the night shift. Indeed , in antenatal care during the day and night shift the ratio is 1:18 against the national standard of 1:15; in Internal medicine and mental health the ratios are 1:12 during the day shift against the national standard of 1:8 and 1:16 during the night shift against the national standard of 1:12; In pediatric unit the ratio is 1:10 during the day shift against the standard of 1:8; In surgery the nurse: bed ratio during the day shift is 1:9 compared to the national standard of 1:7. Even if the new standard staffing approach of nurse: bed ratio seems to be suitable for District, Provincial and National referral hospitals, simply because hospitalization at those levels requires much the presence of nurses and midwives; the nurse: bed ratio can underestimate also the number of required nurses/ midwives in the context of over populated hospitals where one bed is shared by two or more patients like it used to be in internal medicine, pediatrics and post natal wards. This means that the nurse to bed ratio does not necessary reflect the nurse- patient ratio. Evidence supporting ratios has shown that every extra patient per nurse, over four patients is linked with a seven per cent increase in the likelihood of that patient dying within 30 days of admission each additional patient per nurse, over four patients, is associated with a seven percent increase in likelihood of failure to rescue which means death from complications such as pneumonia, shock or cardiac arrest, upper gastrointestinal bleeding, sepsis or deep vein thrombosis. (Aiken et al, 2002); Other evidence has shown that every extra patient added to a nurse's workload in pediatrics increases a medically admitted child's risk of being readmitted within 15 to 30 days by

11 percent (Tubbs-Colley et al.2013). On the side of nurses, each additional patient per nurse, over four patients was directly linked to a 23 per cent increase in the likelihood of the nurse burning out. (Aiken et al., 2002)

Apart of the number of required nurses and midwives per service and health facility, the skills mix of nurses and midwives is also an important issue that needs to be considered. The study has revealed that 48.5% of nurses manpower are enrolled nurses with A2; 46.3% are nurses and midwives with advanced diploma (A1); 4.8% are nurses and midwives with bachelor's degree while 0.4% are nurses and midwives with Master's degree. This situation can be explained by the availability nurses/ midwives human resources and the current package of health services which limit the position of nurses and midwives with bachelors degree to nurse/ midwife departmental managers. Nurses and midwives with Master's degree don't appear on the structure probably because Master's degree program for nurses/midwives was not available in the country at the moment of the development of the current package for health facilities and this has inevitably its negative impact on recruitment and maintenance of highly qualified nurses and midwives in clinical services for public health facilities. With the advancement of nursing and midwifery professions more nurses and midwives are upgrading their education level and become specialized in their profession. The Government of Rwanda has also initiated bachelor's and Master's degree program in nursing and these progresses have to reflect the skills mix of nurses and midwives in the public health facilities. As revealed by participants in qualitative interview, limitation of positions of qualified nurses and midwives is the major source of professional dissatisfaction of highly qualified nurses. e.g in one National Referral Hospital there are 12 candidates who are doing their Masters and the current structure recognize one position for nurse or midwives with Masters Degree.

Even if the cost for recruitment more degree-qualified registered nurses and midwives may be high and not easily affordable for developing countries, including Rwanda, its benefits has been scientifically demonstrated: increasing degree-qualified registered nurses by 10 percent improved death and failure to rescue outcomes, regardless of the care environment by four percent. (Aiken et al. 2003) On the other side, hiring degree-qualified registered nurses and midwives and paying them like simple registered nurses/midwives increases dissatisfaction among high qualified registered nurses/midwives that can compromise its benefits. One participant in qualitative interview has revealed that 15 nurses with Bachelors degree (A0) are paid like nurses with advanced diploma (A1) due to the limitation in number of their positions.

4.7.2. The job satisfaction of nurses and midwives

It is important to consider the multifaceted aspect of job satisfaction especially while measuring the job satisfaction of health professional including nurses and midwives. This study assessed the level of job satisfaction of nurses vis-a vis compensation, working hours, availability of consumables, protection against professional risks, in service training, performance appraisal, respect by their superior, the support received from their co-workers, opportunity for participation in decision making, and stability of job

a. Nurses and midwives's compensation

One of the aspects of nurses and midwives job satisfaction assessed is the extent to which there are satisfied with their compensations. The study has showed that 93.2 % of respondents are in the range of very dissatisfied to moderately satisfied with their amount of salary; which means simply that they are not satisfied. It is true that the salary that may satisfy everyone may not be affordable for many countries. This explain why the proportion of overall job satisfaction is the same within all salary brackets ($p= 0.574$). In terms of nurses' compensation, the Nursing Personnel Convention recommends that remuneration of nursing personnel should be fixed at levels which are commensurate with their socio-economic needs, qualifications, responsibilities, duties and experience, which take account of the constraints and hazards inherent in the profession, and which are likely to attract persons to the profession and retain them in it. The ILO also recommends that nurses' remuneration should be adjusted from time to time to take into account variations in the cost of living and rises in the national standard of living. (ILO, 2005)

b. Working hours

The number of working hours has been identified among the sources of employees' job satisfaction. Considering the number of working hours per week, 71.4% nurses and midwives are not satisfied; 83.8 % of nurses and midwives reported working more than 45 hours while the labour code recommends a maximum of 45 working hours per week. Overtime is frequently used in health care settings to meet staffing needs due to employee shortages, patients' influxes or both. The fact that the health facilities in rural area are more understaffed compared to those in urban area explains the relationship found between nurses/midwives working area and their satisfaction with working hours ($p=0.0203$).

Overtime was assumed to be related to fatigue in nurses, such that the more hours nurses reported working, the more fatigued they might be. The strong relationship between nurses reporting frequent medications errors may represent a decrease in vigilance associated with fatigue. (Dean, Scott and Rogers, 2006; Jagsi et al., 2005; Rogers et al., 2004; Scott et al., 2006).

c. Availability of consumables

The availability of sufficient and quality consumables for nursing care has been related to nurses and midwives job satisfaction. Nursing consumables includes latex examination gloves, surgical examination gloves, gauzes, bed sheets, wash cloth, soap, cotton roll, catheters and other materials used by nurses or midwives while performing nursing care. The study has revealed that 55.2% of nurses and midwives are not satisfied with the quantity and the quality of available consumables to allow nurses and midwives to do their job.

d. Protection against professional risks

Working in poor working conditions with limited resources combined to emerging contagious illnesses expose nurses and midwives to high risk of professional risks. 62.9% of nurses and midwives are not satisfied with the quality and the quantity of available nursing consumables to do their job. Every year, approximately 600,000–800,000 occupational needlestick injuries occur in the

United States and nurses were the most likely to experience a blood or body fluid exposure (U.S. Department of Labor, Bureau of Labor Statistics; 1999).

e. Satisfaction with the support of colleagues in accomplishing task

Co-worker support has the ability to make a working environment a pleasure or an unpleasant place to spend your time. 58.9% of nurses and midwives are not satisfied with the support received from their support in accomplishing task. Some researchers argue that co-worker support is more relevant to overall satisfaction with the job where as supervisor support relates to specific job satisfaction areas (Seers, McGee, Serey & Graen, 1983) An important finding made by La Rocco and Jones (1978) in their research on co-worker and leader support is that there is that there was a positive correlation between co-worker support and greater tendency to remain in the organization.

f. Employment stability

Concerning the stability of job, 53.0% of nurses and midwives are not satisfied with their employment stability. Employment stability, usually measured by the type of contract an individual has may affect one's job satisfaction directly as well as through its impact on other relative variables, such as job security, since a stable position seems to bring individuals a sense of security (Aleksandra Wilczynska, Dominik Barski, Joan Torrent Sellens, 2015). In the case of nurses and midwives, the existence of professional bodies such as the nursing council that protect the population from the wrong doing by nurses and midwives and limitation in advancement in their career also contributed to the reduction of the level of nurses and midwives satisfaction with employment stability.

g. Overall nurses and midwives' job satisfaction

Considering all factors that contribute to the job satisfaction, 73.2% of nurses and midwives reported not being overall satisfied with their job. This has negative implication on maintenance of qualified and experienced personnel. The study has found an association between the working area and the overall job satisfaction for nurses and midwives ($p < 0.0001$). This can be explained by the poor working conditions in rural setting the fact that the majority of respondents work in the health centres where there is a huge gap in nurses and midwives staffing.

h. Nurses/midwives job satisfaction dimensions

Recognizing variations between countries on job satisfaction dimensions, the study also attempted to determine the job satisfaction dimensions for nurses and midwives in Rwanda. Remuneration has been rank first by 49.6% of respondents, followed by the management style, organization and content of work, tools and framework, training and supervision and lastly the satisfaction of the quality of their work. These findings seems to contradictory to nursing ethics principles which place the moral satisfaction at the first place. However, researchers have identified that job satisfaction dimensions are contextual. Where employees are still struggling to meet their basic needs and are relying only of salary to cater for their basic needs, it is obviously that remuneration will be

considered as the priority for job satisfaction. As long as the ideal amount of salary that may satisfy everyone is still unknown, the recommendation of the Nursing Personnel Convention about fixing the remuneration of nursing personnel at levels which are commensurate with their socio-economic needs, qualifications, responsibilities, duties and experience, and the need for remuneration to be adjusted from time to time to take into account variations in the cost of living and rises in the national standard of living is still valid.

i. Nurses and midwives' preferences

In order to assess the extent to which nurses and midwives are attached to their profession, the study has investigated nurses and midwives' preferences in case they are given opportunity for further studies and their attitude in case they are dismissed on the current job. The findings seem not be conclusive as 62.4% of nurses and midwives reported that they would prefer to pursue nursing or midwifery in their further studies, which means that they are still attached to their profession, however when it comes to their choice after being dismissed on the current job only 47.8% would seek a new job in public or private health facility. However, these findings shows that there a need to improve the working conditions for nurses and midwives in clinical setting of Rwanda in order to make it more attractive for nurses and midwives.

CHAPTER FIVE : CONCLUSION AND RECOMMENDATIONS

Working conditions cover a broad range of topics and issues, from working time (hours of work, rest periods, and work schedules) to remuneration, as well as the physical conditions and mental demands that exist in the workplace. Working conditions for nurses and midwives vary widely depending on a variety of factors. The largest percentage of nurses work in a hospital or clinical setting, dealing directly with patients. This study served as a barometer of nursing and midwifery clinical working conditions in Rwanda. Using a mixed method, the study came up with the following key findings that call decision makers' attention for the improvement of the quality of health care services provided by nurses and midwives:

- There is still a gap in nurses and midwives staffing at all levels of the health facilities. The situation is worse for the health facilities in rural area than those in urban area. Based on the statistics of nurses and midwives on their duty during the day and night shift, the current level of staffing varies between 40.6% of the required nurses and midwives at the level of health centres and 63.1% at the level of national referral hospitals.
- The shortage in nursing and human resources faced by the health facilities, requires nurses and midwives to work overtime to meet the patients needs as it has been reported that 83.8 % of nurses and midwives work more than 45 hours per week.
- Despite working overtimes, the national standard of nurse : bed ratio are not met in some units of clinical services, leading to the increased workload for nurses and midwives.
- More than 94% of the current nurses and midwives manpower in clinical services is composed by enrolled nurses with A2 certificate and Registered nurses/ midwives with advanced diploma (A2). The proportion of nurses and midwives holding bachelor's and master's degrees are very limited in clinical setting and the current package of National health facilities has been pointed out as having a negative effect on recruitment and maintenance of highly qualified nurses and midwives in clinical settings due to limited positions allocated to nurses and midwives with bachelor's degree and above. This situation combined with the lack nursing division at central level has been revealed as impacting negatively on strategic planning for nurses and midwives human resources as well as their involvement in policy making for improvement of the quality of nursing/ midwifery service delivery.
- Regarding the level of nurses and midwives satisfaction, 73.2% are in the range of very dissatisfied to moderately satisfied meaning that they are not satisfied with their working conditions. As compensation is concerned, 93.2% of nurses and midwives are not satisfied with their salary. Despite the registration process, which allowed 74.4% of nurses and midwives to get a practice license, 53 % of nurses and midwives are not satisfied with their job stability and
- The Rwanda Nurses and Midwives' Union has been identified as the most suitable professional and independent bodies to advocate for interests of nurses and midwives and 68.3% of nurses and midwives in clinical services have reported being affiliated in a labor union .

Recommendations

Based on the findings of this study, recommendations were addressed to the Ministry of Health and RNMU.

To The Ministry of Health :

1. To review the package for national health facilities and increase the proportion of nurses with bachelor's degree and above in the structure of clinical services as this will influence positively the recruitment and maintenance of highly qualified nurses and midwives in clinical setting
2. Increase the budget allocated to health care human resources and salaries for nurses to attract more nurses and maintain highly qualified, specialised and experienced health care personnels
3. To avail at central level a direction or division of nursing in order to improve nurses and midwives involvement in strategic planning for improvement of the quality of nursing and midwifery service delivery.

To the Ministry of Public Service and Labour :

1. To recruit more nurses and midwives in order to reduce the existing gap in nursing and midwifery staffing
2. To reinforce the implementation of the law regulating labour in Rwanda specifically in its articles regarding the legal duration of work (45 working hours per week maximum)
3. To extend the general statutes for public servants to all nurses and midwives in working in Public clinical setting.

To RNMU :

1. To investigate different ways to initiate a scheme that can support nurses and midwives to easily access affordable finance services and improve their well being
2. To conduct CPD need assessment for nurses and midwives
3. To facilitate nurses and midwives for access to CPD of their interest
4. To develop an effective advocacy and lobby strategy for policy influencing

To the management of Health Facilities

1. To insure the proper distribution of existing nursing and midwifery human resources
2. To consider the need of employees in different services/Units for personal growth
3. To provide words for encouragement for the work well done rather than blaming only the wrong doers
4. To avail and respect the job description for every recruited employee;
5. To involve the representative of RNMU at the level of health Facility in decision making.

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7. Appendices

Appendix 1: Informed Consent form for Nurses/Midwives working in clinical setting(English version)

This Informed Consent Form is for Nurses and Midwives working in clinical setting and who we are inviting to participate in National Survey on Nurses and Midwives Clinical working conditions in Rwanda.

Principle Investigator: Jean Paul Rulisa, RN, MPH: mob: 0788528564

Co- Investigator: Jean Damascene Munyagashubi, RN, BN-H: mob: 0788468375

1. Introduction

I am _____, working on behalf of Rwanda Nurses and Midwives Union in the research entitled “ National Survey on Nurses and Midwives clinical working condition in Rwanda” sponsored by Norwegian Agency for Development Cooperation (NORAD) through Rwanda Nurses and Midwives Union (RNMU). RNMU is a Union of over 6000 nurses/midwives with a mission to protect the professional image, improve Socio-Economic Welfare, promote interests of Nurses/Midwives, capacity building and lead in the delivery of high quality care to the population.

We are doing a research on Nurses and Midwives clinical working conditions in Rwanda. I am going to give you information and invite you to be part of this research.

2.Right to ask questions: There may be some words that you do not understand. Please ask me to stop as we go through the information and I will take time to explain. If you have questions later, Please contact Jean Paul Rulisa at 788528564 or Jean Damascene Munyagashubi at 0788468375 with the questions, complaints or concerns about this research.

3. Purpose of the study: The study aims at assessing the clinical working conditions of nurses and midwives in Rwanda in order to provide evidence for supporting RNMU advocacy for improvement of quality of nursing and midwifery services delivery to the Rwandan population.

4. Procedures to be followed: You will be asked to complete the Nurse and Midwives Professional Satisfaction Survey Questionnaire in the language that you feel comfortable with (English or French).

5. Duration: The completion of the questionnaire will take you about 15 minutes
6. Discomforts and risks: There are no risks in participating in this research beyond those experienced in everyday life. Some of the questions such as your age and monthly salary are personal and might cause discomfort, we have tried to minimize the discomfort by providing you with intervals rather than asking you exactly how old are you or how much is your monthly earning.
7. Benefits: Apart from the benefit from advocacy that will be conducted by RNMU for improvement of nurses and midwives working conditions in Rwanda for improved nursing and midwifery service delivery to the Rwandan population, there is no other specific incentive for participating in this research.
8. Statement of confidentiality: Your participation in this research is confidential. The data collection methods do not ask for any information that would identify who the responses belongs to and information you will provide will be used exclusively for the purpose of this study.
9. Voluntary Participation: Your participation to the questionnaire is entirely voluntary. It is your choice whether to participate or not. Whether you choose to participate or not, you will continue to benefit from RNMU as usual. You will be given a copy of the full Informed Consent Form.
10. Certificate of consent: I have read the foregoing information. I have had the opportunity to ask questions about it and any questions that I have asked have been answered to my satisfaction.

I consent voluntarily to participate as a participant in this research.

Name of participant: _____

Signature of participant: _____

Date (day/month/year): _____

Appendix 2 : Formulaire de consentement éclairé pour les infirmières / sages-femmes travaillant en milieu clinique (version française)

Ce formulaire de consentement éclairé est pour les infirmières et les sages-femmes travaillant en milieu clinique que nous invitons à participer à l'Enquête nationale sur les conditions de travail des infirmières et sages-femmes en milieu clinique au Rwanda.

Investigateur principal: Jean Paul Rulisa, RN, MPH : mob: 0788528564

Co- investigateur : Jean Damascène Munyagashubi, RN, BN- H : mob: 0788468375

1. Introduction

Je m'appelle _____, travaillant pour le compte de l'Union des infirmières et Sage-femmes du Rwanda (RNMU) dans la recherche intitulé « Enquête nationale sur les conditions de travail des infirmières et sages-femmes en milieu clinique au Rwanda », parrainé par l'Agence Norvégienne de Coopération pour le Développement (NORAD) à travers l'Union des infirmières et Sages-femmes du Rwanda (RNMU). RNMU est une Union de plus de 6000 infirmières / sages-femmes avec pour mission de protéger l'image professionnelle, d'améliorer le bien-être socio- économique, de promouvoir les intérêts des infirmières / sages-femmes, à travers une représentation efficace, le renforcement des compétences et être leader aux services de haute qualité à la population.

Nous sommes entrain de mener une étude sur les conditions de travail des infirmières et sages-femmes en milieu clinique au Rwanda. Je vais vous donner des informations et vous inviter à faire partie de cette recherche.

2.Droit à poser des questions : Il peut y avoir quelques mots que vous ne comprenez pas. S'il vous plaît, demandez- moi de m'arrêter avancer dans l'information pour prendre le temps d'expliquer. Si vous avez des questions plus tard, s'il vous plaît, contacter Jean Paul Rulisa au 788528564 ou Jean Damascène Munyagashubi au 0788468375 avec les questions, plaintes ou des préoccupations au sujet de cette recherche.

3.Objet de l'étude : L'étude vise à évaluer les conditions de travail d'infirmières et sages-femmes en milieu cliniques au Rwanda afin de fournir des preuves pour soutenir le plaidoyer de RNMU pour l'amélioration de la qualité de la prestation des services de soins infirmiers et de sages-femmes à la population rwandaise .

4. Procédures à suivre : Vous serez invité à compléter le Questionnaire d'Enquete sur la satisfaction professionnelle d'infirmière et de sages-femmes dans la langue que vous vous sentez à l'aise avec (anglais ou français).

5. Durée: La completion du questionnaire vous prendra environ 15 minutes.

6. Malaises et des risques: Il n'y a pas de risques en participant à cette recherche au-delà de celles rencontrées dans la vie quotidienne. Certaines des questions telles que votre âge et votre salaire mensuel sont personnels et pourrait causer de l'inconfort, nous avons tenté de minimiser l'inconfort en vous fournissant des intervalles plutôt que de vous demander exactement quel âge êtes-vous ou combien est votre revenu mensuel.

7. Avantages:A part le bénéfice du plaidoyer qui sera mené par RNMU pour l'amélioration des conditions de travail des infirmières et des sages-femmes en milieu clinique au Rwanda envue d'améliorer la prestation des services de soins infirmiers et sage-femme à la population rwandaise, il n'y a pas d'autres mesures incitative spécifique pour participer à cette recherche .

8. Déclaration de confidentialité: Votre participation à cette recherche est confidentielle. Les méthodes de collecte de données ne demandent pas de toute information qui permettrait d'identifier le nom du participant et des informations que vous fournirez seront utilisées exclusivement aux fins de cette étude.

9. Participation volontaire : Votre participation au questionnaire est entièrement volontaire. Il est de votre choix de participer ou non. Que vous choisissiez de participer ou non, vous pourrez continuer à bénéficier de service de RNMU comme d'habitude. Vous recevrez une copie du formulaire complet de consentement éclairé.

10. Certificat de consentement : J'ai lu l'information qui précède. J'ai eu l'occasion de poser des questions à ce sujet et des questions que j'ai posées ont été répondues à ma satisfaction.

Je consens volontairement à participer en tant que participant à cette recherche.

Nom du participant : _____

Signature du participant : _____

Date (jour / mois / année): _____

Appendix 3: Informed Consent form for Nurses/Midwives in leadership position (English version)

This Informed Consent Form is for Nurses and Midwives in leadership positions and who we are inviting to participate in National Survey on Nurses and Midwives Clinical working conditions in Rwanda.

Principle Investigator: Jean Paul Rulisa, RN, MPH: mob: 0788528564

Co- Investigator: Jean Damascene Munyagashubi, RN, BN-H: mob: 0788468375

3. Introduction

I am _____, working on behalf of Rwanda Nurses and Midwives Union in the research entitled “ National Survey on Nurses and Midwives clinical working condition in Rwanda” sponsored by Norwegian Agency for Development Cooperation (NORAD) through Rwanda Nurses and Midwives Union (RNMU). RNMU is a Union of over 6000 nurses/midwives with a mission to protect the professional image, improve Socio-Economic Welfare, promote interests of Nurses/Midwives, capacity building and lead in the delivery of high quality care to the population.

We are doing a research on Nurses and Midwives clinical working conditions in Rwanda. I am going to give you information and invite you to be part of this research.

4.Right to ask questions: There may be some words that you do not understand. Please ask me to stop as we go through the information and I will take time to explain. If you have questions later, Please contact Jean Paul Rulisa at 788528564 or Jean Damascene Munyagashubi at 0788468375 with the questions, complaints or concerns about this research.

3. Purpose of the study: The study aims at assessing the clinical working conditions of nurses and midwives in Rwanda in order to provide evidence for supporting RNMU advocacy for improvement of quality of nursing and midwifery services delivery to the Rwandan population.

4. Procedures to be followed: You will be invited to participate in an interview on the participation of nurses and Midwives in the formulation and influencing national health-related policies in the language that you feel comfortable with (English or French).

5. Duration: The interview will last 30 minutes at maximum.

6. Discomforts and risks: There are no risks in participating in this research beyond those experienced in everyday life.

7. Benefits: A part from the benefit from advocacy that will be conducted by RNMU for improvement of nurses and midwives working conditions in Rwanda for improved nursing and midwifery service delivery to the Rwandan population, there is no other specific incentive for participating in this research.

8. Statement of confidentiality: Your participation in this research is confidential. The data collection methods do not ask for any information that would identify who the responses belongs to and information you will provide will be used exclusively for the purpose of this study.

9. Voluntary Participation: Your participation to the interview is entirely voluntary. It is your choice whether to participate or not. Whether you choose to participate or not, you will continue to benefit from RNMU as usual. You will be given a copy of the full Informed Consent Form.

10. Certificate of consent: I have read the foregoing information. I have had the opportunity to ask questions about it and any questions that I have asked have been answered to my satisfaction.

I consent voluntarily to participate as a participant in this research.

Name of participant: _____

Signature of participant: _____

Date (day/month/year): _____

Appendix 4 : Formulaire de consentement éclairé pour les infirmières / sages-femmes occupant les poste de leadership (version française)

Ce formulaire de consentement éclairé est pour les infirmières et les sages-femmes occupant les postes de leadership que nous invitons à participer à l'Enquête nationale sur les conditions de travail des infirmières et sages-femmes en milieu clinique au Rwanda.

Investigateur principal: Jean Paul Rulisa, RN, MPH : mob: 0788528564

Co- investigateur : Jean Damascène Munyagashubi, RN, BN- H : mob: 0788468375

1. Introduction

Je m'appelle _____, travaillant pour le compte de l'Union des infirmières et Sage-femmes du Rwanda (RNMU) dans la recherche intitulé « Enquête nationale sur les conditions de travail des infirmières et sages-femmes en milieu clinique au Rwanda », parrainé par l'Agence Norvégienne de Coopération pour le Développement (NORAD) à travers l'Union des infirmières et Sages-femmes du Rwanda (RNMU). RNMU est une Union de plus de 6000 infirmières / sages-femmes avec pour mission de protéger l'image professionnelle, d'améliorer le bien-être socio- économique, de promouvoir les intérêts des infirmières / sages-femmes à travers une représentation efficace, le renforcement des compétences et être leader aux services de haute qualité à la population.

Nous sommes entrain de mener une étude sur les conditions de travail des infirmières et sages-femmes en milieu clinique au Rwanda. Je vais vous donner des informations et vous inviter à faire partie de cette recherche.

4. Droit à poser des questions : Il peut y avoir quelques mots que vous ne comprenez pas. S'il vous plaît, demandez- moi de m'arrêter avant d'aller dans l'information pour prendre le temps d'expliquer. Si vous avez des questions plus tard, s'il vous plaît, contactez Jean Paul Rulisa au 788528564 ou Jean Damascène Munyagashubi au 0788468375 avec les questions, plaintes ou des préoccupations au sujet de cette recherche.

5. Objet de l'étude : L'étude vise à évaluer les conditions de travail d'infirmières et sages-femmes en milieu cliniques au Rwanda afin de fournir des preuves pour soutenir le plaidoyer de RNMU pour l'amélioration de la qualité de la prestation des services de soins infirmiers et de sages-femmes à la population rwandaise .

4. Procédures à suivre : Vous serez invité à participer à une interview sur la participation des infirmières et Sage-femmes à l'élaboration et à influencer les politiques nationales liés à la santé dans la langue que vous vous sentez à l'aise avec (anglais ou français).

5. Durée: L'interview vous prendra 30 minutes au maximum.

6. Malaises et des risques: Il n'y a pas de risques en participant à cette recherche au-delà de celles rencontrées dans la vie quotidienne.

7. Avantages: A part le bénéfice de plaidoyer qui sera mené par RNMU pour l'amélioration des conditions de travail des infirmières et des sages-femmes en milieu clinique au Rwanda en vue d'améliorer la prestation des services de soins infirmiers et sage-femme à la population rwandaise, il n'y a pas d'autres mesures incitative spécifique pour participer à cette recherche .

8. Déclaration de confidentialité: Votre participation à cette recherche est confidentielle. Les méthodes de collecte de données ne demandent pas de toute information qui permettrait d'identifier le nom du participant et des informations que vous fournirez seront utilisées exclusivement aux fins de cette étude.

9. Participation volontaire : Votre participation a l'interview est entièrement volontaire. Il est de votre choix de participer ou non. Que vous choisissiez de participer ou non, vous pourrez continuer à bénéficier de service de RNMU comme d'habitude. Vous recevrez une copie du formulaire complet de consentement éclairé.

10. Certificat de consentement : J'ai lu l'information qui précède. J'ai eu l'occasion de poser des questions à ce sujet et des questions que j'ai posées ont été répondues à ma satisfaction.

Je consens volontairement à participer en tant que participant à cette recherche.

Nom du participant : _____

Signature du participant : _____

Date (jour / mois / année) : _____

**APPENDIX 5 :NURSES AND MIDWIVES PROFESSIONAL SATISFACTION
SURVEY QUESTIONNAIRE**

Date (dd/m/year)	__/__/__
Enumerator Code	/_/
Respondent Code	Rp /_/_/
Type of Health Facility (Tick the health Facility you are working in) 1. Health Centre 2. District Hospital 3. Provincial Hospital 4. National Referral Hospital 5. Private Clinic/polyclinic	/_/
Sex : 1. Female 2. Male	/_/
Profession : (Tick bellow) 1. Nurse 2. Midwife 3. Nurse and Midwife 4. Mental Health nurse	/_/
Education Level (Nursing/Midwifery): 1. A2 (Senior 6) 2. A1 (Advanced diploma) 3. A0 (Bachelor Degree) 4. Masters and above	/_/
Do you have any other qualification in addition to Nurse/ midwife? 0. No 1. Yes If yes, which one? _____	/_/
Do you have a Practice License? 0. No 1. Yes	/_/
Do you have responsibility of supervising others? 1. No 2. Yes	/_/
If yes which : 1. Nurse Departmental Manager 2. Midwife Departmental Manager 3. In charge 4. Other (specify) : _____	/_/

Age bracket : 1. 20 – 24 2. 25 - 29 3. 30 - 34 4. 35 - 39 5. 40 - 44 6. 45 - 49 7. 50 - 54 8. 55 - 59 9. 60 - 64	/ _ /
10. Length of time in the current Health Facility (years)	/ _ / _ /
<i>If the length of time in the current Health Facility is less than 12 months, mention if :</i> 1. You have been newly recruited or 2. You have been transferred from another Health Facility	/ _ /
<i>If you have been transferred from another Health Facility, which one?</i> 1. Health Center located in rural area 2. Health Center located urban area 3. District Hospital located in rural area 4. District Hospital located in urban area 5. Provincial Referral Hospital 6. University Teaching Hospital/National Referral Hospital 7. Private clinic or polyclinic	/ _ /
Seniority in Nursing or Midwifery profession (Years)	/ _ / _ /
Professional Statut: 1 Governed by employment contract 2 Governed by General statutes for public service 3 Employment contract with Health Facility 4 Employment Contract with District	/ _ /
Type of employee: 1 Full time 2 Part time	/ _ /
Affiliation in a labour Union: 0. No 1. Yes	/ _ /
Matrimonial Status : 1. Single 2. Married 3. Widow/Widower 4. Divorced 5. Separated	/ _ /

How many people do you support with your salary?(yourself, spouse, children, parents, ...) :	/ _ // _ /
Do you live far from your family because of your work? 0. No 1. Yes	/ _ /
Travel time between home and workplace : 1. < 15 min 2. 15 – 30 min 3. 31 – 60 min 4. More than 1 hour	/ _ /
Main mean to go to work: 0. On foot 1. Public transport 2. Own Bicycle 3. Own Motorcycle 4. Own car	/ _ /
Average number of working hours per week 1. < 40 hours 2. 40 – 45 hours 3. > 45 hours	/ _ /
Average monthly take home salary in Rwf 1. <100,000 2. 100,000 -150,000 3. 151,000- 200,000 4. 200,001 – 300,000 5. >300,000	/ _ /
Housing 1. Own house 2. Health Facility's house 3. Rented house/home 4. Housed by parents or a relative	/ _ /
Do you know your scope of practice? 0. No 1. Yes	/ _ /
Do you have Access to Professional code of conduct? 0. No 1. Yes	/ _ /
Do you know the difference between RNMU et NCNM ? 0. No 1. Yes	/ _ /

Instructions: We will ask you a list of questions about your satisfaction with your work. The questions focus on different aspects of satisfaction: 1) compensation; 2) the tools and framework; 3) workload; 4) the task; 5) the agreement to work; 6) continuing education; 7) management; 8) the moral satisfaction and 9) stability. For each question, there are 5 answer choices (Leave the sheet with the answer choices). There is no right or wrong answer: what matters is that you express your opinion.

I. Questions on compensation

1	Are you satisfied with the amount of your salary?	5 Very satisfied	4 Satisfied	3 Moderately satisfied	2 Dissatisfied	1 Very dissatisfied
2	Are you satisfied with bonuses and allowances you receive?	5 Very satisfied	4 Satisfied	3 Moderately satisfied	2 Dissatisfied	1 Very dissatisfied
3	Are you satisfied with the coverage of your needs by your salary	5 Very satisfied	4 Satisfied	3 Moderately satisfied	2 Dissatisfied	1 Very dissatisfied
4	Are you satisfied with the amount of your salary over your qualification and experience?	5 Very satisfied	4 Satisfied	3 Moderately satisfied	2 Dissatisfied	1 Very dissatisfied
5	Are you satisfied with the amount of your salary related to the volume of your work?	5 Very satisfied	4 Satisfied	3 Moderately satisfied	2 Dissatisfied	1 Very dissatisfied

II. Questions about the tools and framework

6	Are you satisfied with the quantity and quality of consumables (eg cotton, alcohol ...) you have available to do your job?	5 Very satisfied	4 Satisfied	3 Moderately satisfied	2 Dissatisfied	1 Very dissatisfied
7	Are you satisfied with Protection against professional risks (eg against exposure to HIV, hepatitis, TB against other risks)?	5 Very satisfied	4 Satisfied	3 Moderately satisfied	2 Dissatisfied	1 Very dissatisfied

III. Questions about the workload

8	Are you satisfied with your working hours?	5 Very satisfied	4 Satisfied	3 Moderately satisfied	2 Dissatisfied	1 Very dissatisfied
9	Are you satisfied with your workload (workload, overworked or not)?	5 Very satisfied	4 Satisfied	3 Moderately satisfied	2 Dissatisfied	1 Very dissatisfied
10	Are you satisfied with the distribution of the workload among the members of your team?	5 Very satisfied	4 Satisfied	3 Moderately satisfied	2 Dissatisfied	1 Very dissatisfied
11	Are you satisfied with the distribution of your work time between care and your other tasks?	5 Very satisfied	4 Satisfied	3 Moderately satisfied	2 Dissatisfied	1 Very dissatisfied
12	Are you satisfied with the support of your colleagues in accomplishing your task?	5 Very satisfied	4 Satisfied	3 Moderately satisfied	2 Dissatisfied	1 Very dissatisfied

IV. Questions related to the task

13	Are you satisfied with the variety of tasks (tasks of different kinds)?	5 Very satisfied	4 Satisfied	3 moderately satisfied	2 Dissatisfied	1 Very dissatisfied
14	Are you satisfied with the adequacy between your tasks and skills?	5 Very satisfied	4 Satisfied	3 Moderately satisfied	2 Dissatisfied	1 Very dissatisfied
15	Are you satisfied with the level of professional responsibility entrusted to you?	5 Very satisfied	4 Satisfied	3 Moderately satisfied	2 Dissatisfied	1 Very dissatisfied
16	Are you satisfied with the description that was made of your job?	5 Very satisfied	4 Satisfied	3 Moderately satisfied	2 Dissatisfied	1 Very dissatisfied
17	Are you satisfied with the description that was made of your job and what you actually done?	5 Very satisfied	4 Satisfied	3 Moderately satisfied	2 Dissatisfied	1 Very dissatisfied

V. Questions on work collaboration

18	Are you satisfied with the collaboration between the members of your service?	5 Very satisfied	4 Satisfied	3 Moderately satisfied	2 Dissatisfied	1 Very dissatisfied
19	Are you satisfied with the recognition of the quality of your work by your superiors?	5 Very satisfied	4 Satisfied	3 Moderately satisfied	2 Dissatisfied	1 Very dissatisfied
20	Are you satisfied with how the performance appraisal is made for the advancement of rank?	5 Very satisfied	4 Satisfied	3 Moderately satisfied	2 Dissatisfied	1 Very dissatisfied
21	Are you satisfied with the manner in which you are respected by your superiors?	5 Very satisfied	4 Satisfied	3 Moderately satisfied	2 Dissatisfied	1 Very dissatisfied

VI. Questions on continuing education

22	Are you satisfied with in service training that you receive from the employer?	5 Very satisfied	4 Satisfied	3 Moderately satisfied	2 Dissatisfied	1 Very dissatisfied
23	Are you satisfied with the way staff members are selected to participate in trainings?	5 Very satisfied	4 Satisfied	3 Moderately satisfied	2 Dissatisfied	1 Very dissatisfied
24	Are you satisfied with the adequacy of the proposed training and your needs?	5 Very satisfied	4 Satisfied	3 Moderately satisfied	2 Dissatisfied	1 Very dissatisfied
25	Are you satisfied with how the knowledge gained in the training are used in your work?	5 Very satisfied	4 Satisfied	3 Moderately satisfied	2 Dissatisfied	1 Very dissatisfied
26	Are you satisfied with the skills acquired during your last training?	5 Very satisfied	4 Satisfied	3 Moderately satisfied	2 Dissatisfied	1 Very dissatisfied

VII. Questions about the Management

27	Are you satisfied with opportunities to participate in decision-making to solve the problems of organizing work?	5 Very satisfied	4 Satisfied	3 Moderately satisfied	2 Dissatisfied	1 Very dissatisfied
28	Are you satisfied with the transparency in the management of structural funds?	5 Very satisfied	4 Satisfied	3 Moderately satisfied	2 Dissatisfied	1 Very dissatisfied

VIII. Questions about the moral satisfaction

29	Are you satisfied with the quality of your own work?	5 Very satisfied	4 Satisfied	3 Moderately satisfied	2 Dissatisfied	1 Very dissatisfied
30	Are you satisfied with your workplace does not prevent you from practicing your religion?	5 Very satisfied	4 Satisfied	3 Moderately satisfied	2 Dissatisfied	1 Very dissatisfied
31	Are you satisfied with the image that has your profession?	5 Very satisfied	4 Satisfied	3 Moderately satisfied	2 Dissatisfied	1 Very dissatisfied

IX. Questions about stability

32	Are you satisfied with your salary payment regularity (wages paid on time, late ...)?	5 Very satisfied	4 Satisfied	3 Moderately satisfied	2 Dissatisfied	1 Very dissatisfied
33	Are you satisfied with your job stability (certainty or uncertainty about the keep / lose your job)?	5 Very satisfied	4 Satisfied	3 Moderately satisfied	2 Dissatisfied	1 Very dissatisfied

X. Overall job satisfaction

34	To summarize, what is overall your job satisfaction?	5 Very satisfied	4 Satisfied	3 Moderately satisfied	2 Dissatisfied	1 Very dissatisfied
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XI. Factors of job satisfaction

35. Rank the 6 dimensions of job satisfaction according to the importance they have for you? (1 for the most important, and so on, up to 6 for the least important)

Remuneration	/___/
Tools and Framework	/___/
Organization and content of work	/___/
Training and supervision	/___/
Moral satisfaction	/___/
Management style	/___/

36. Are there other elements that have not been addressed in this questionnaire that increase or decrease your job satisfaction? (Please explain briefly)

XII. Questions about Nurses and Midwives' preferences

35. If you have to go for further studies, would you like to pursue or specialize in which area? (0: not chose,1: Chose)

Nursing and midwives	/___/
Nursing/ Midwifery Education	/___/
Public health	/___/
Management	/___/
Other (specify)_____	/___/

36. If you have an option to leave your current job, what would you like to do?

<ol style="list-style-type: none">1. Seeking a new job within a public or private health facilities2. Seeking a new job within a public administration3. Seeking a new job within public or private teaching institution4. Seeking new job within Non-Gouvernemental Organisations5. Doing business (specify) _____6. Other (specify)_____	/ _ /
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Thank you for your participation

APPENDIX 6. QUESTIONNAIRE D'ENQUETE NATIONALE SUR LES CONDITIONS DE TRAVAIL DES INFIRMIERES ET SAGES-FEMMES EN MILIEU CLINIQUE

Date	_/_/___
Code de l'enquêteur	/_/_/
Code du répondant	Rp/ _/_/_/
Type de formation sanitaire (cocher la formation sanitaire dans la quelle tu travailles) 1. Centre de Santé 2. Hôpital de District 3. Hôpital Provincial 4. Hôpital de référence nationale/hôpital universitaire 5. Clinique ou Polyclinique privée	/_/
Sexe : 1. Féminin 2. Masculin	/_/
Profession : (cocher votre profession) 1 Infirmier/ère 2 Sage-femme 3 Infirmière et Sage-femme 4 Infirmier/ère en santé mentale	/_/
Niveau d'Education: 1. A2 2. A1 3. A0 4. Maitrise et plus	/_/
Avez-vous une autre qualification en plus d'Infirmier ou Sage-Femme ? 0. Non 1. Oui Si oui, laquelle ? _____	/_/
Avez-vous une licence de pratique professionnelle ? 0. Non 1. Oui	/_/
Avez-vous la responsabilité de superviser les autres ? 0. Non 1. Oui	/_/
Si Oui, laquelle : 1. Infirmier/ère chef 2. Sage-femme chef de service 3. Titulaire du centre de sante 4. Autre (préciser): _____	/_/

Quelle est votre tranche d'âge ? 1. 20 – 24 2. 25 -29 3. 30 - 34 4. 35 - 39 5. 40 - 44 6. 45 - 49 7. 50 - 54 8. 55 – 59 9. 60 - 64	/_/_/_/
Quelle est votre ancienneté dans la Formation Sanitaire actuelle (années):	/_/_/_/
Si la durée dans la formation sanitaire actuelle est inférieure à 12 mois, s'agit-il 1. Nouveau recrutement 2. Mutation d'une formation sanitaire a une autre ?	/_/_/
S'il s'agit d'une mutation, Quelle est votre formation sanitaire initiale ? 1. Centre de Sante situé milieu rural 2. Centre de Sante situé en milieu urbain 3. Hôpital de District situé en milieu rural 4. Hôpital de District situé en milieu urbain 5. Hôpital de référence Provincial 6. Hôpital universitaire/ Hôpital de référence nationale 7. Clinique ou poly clinique privée	/_/_/
Ancienneté dans la profession Infirmière ou Sage-Femme(années)	/_/_/_/
Statut professionnelle : 1 Sous-contrat (avec une personne privée ou contrat verbal) 2 Sous statuts pour le service publique 3 Contrat de service avec une formation sanitaire 4 Contrat de service avec le District	/_/_/
Type d'emploi 1. Employé à temps partiel 3. Employé à temps plein	/_/_/
Affiliation à un syndicat 0. Non 1. Oui	/_/_/
Statut matrimoniale: 1. Célibataire 2. Marié 3. Veuve/ veuf 4. Divorcé 5. Séparé	/_/_/
Combien de personnes supportez-vous avec votre salaire ? (vous-même, votre partenaire, enfants, parents, ...) :	/_/_/_/

Habitez-vous loin de votre famille en raison de votre travail? 0. Non 1. Oui	/_/_/
Le temps entre le domicile et le lieu de travail 1. < 15 min 2. 15 – 30 min 3. 31 – 60 min 4. Plus d'une heure	/_/_/
Principal moyen de transport pour aller au travail: 1. à pied 2. Transports en commun 3. Propre Vélos 4. Propre Moto 5. propre voiture	/_/_/
Nombre moyen d'heures de travail par semaine 1. < 40 heures 2. 40 – 45 heures 3. > 45 heures	/_/_/
Salaire net moyen mensuel 1. <100,000 2. 100,000 -150,000 3. 151,000- 200,000 4. 200,001 – 300,000 5. >300,000	/_/_/
Logement 1. Propre maison 2. Maison/home louée 3. Logé par la Formation Sanitaire 4. Logé par tes parents/ un membre de ta famille	/_/_/
Savez-vous la portée de votre pratique? 0. Non 1. Oui	/_/_/
Avez-vous accès au code professionnel? 0. Non 1. Oui	/_/_/
Savez-vous la différence entre RNMU et NCNM ? 0. Non 1. Oui	/_/_/

Instructions : Nous allons vous poser une liste de questions sur votre satisfaction dans votre travail. Les questions portent sur 6 aspects : la rémunération; les outils et le cadre de travail; l'organisation et le contenu du travail; la formation et la supervision; la satisfaction morale ; le style de management. Pour chaque question, il y a 5 choix de réponse. Il n'y a pas de réponse vraie ou fausse : ce qui compte c'est que vous exprimiez votre opinion

I. Questions en rapport avec la rémunération

1	Êtes-vous satisfait(e) du montant de votre salaire ?	5 Très satisfait	4 Satisfait	3 Modérément satisfait	2 Insatisfait	1 Très insatisfait
2	Êtes-vous satisfait(e) des primes et indemnités que vous recevez ?	5 Très satisfait	4 Satisfait	3 Modérément satisfait	2 Insatisfait	1 Très insatisfait
3	Êtes-vous satisfait(e) de la couverture de tes besoins par votre salaire?	5 Très satisfait	4 Satisfait	3 Modérément satisfait	2 Insatisfait	1 Très insatisfait
4	Êtes-vous satisfait(e) de votre salaire par rapport a votre qualification et expérience ?	5 Très satisfait	4 Satisfait	3 Modérément satisfait	2 Insatisfait	1 Très insatisfait
5	Êtes-vous satisfait(e) de votre salaire par rapport au volume de travail?	5 Très satisfait	4 Satisfait	3 Modérément satisfait	2 Insatisfait	1 Très insatisfait

II. Questions en rapport avec les outils et le cadre de travail

6	Êtes-vous satisfait(e) des consommables (par ex : coton, alcool...) dont vous disposez pour faire votre travail ?	5 Très satisfait	4 Satisfait	3 Modérément satisfait	2 Insatisfait	1 Très insatisfait
7	Êtes-vous satisfait (e) de la protection contre les risques professionnels (par ex, contre l'exposition au VIH, contre d'autres risques) ?	5 Très satisfait	4 Satisfait	3 Modérément satisfait	2 Insatisfait	1 Très insatisfait

III. Questions en rapport avec l'organisation et le contenu du travail

8	Êtes-vous satisfait (e) de vos horaires de travail?	5 Très satisfait	4 Satisfait	3 Modérément satisfait	2 Insatisfait	1 Très insatisfait
9	Êtes-vous satisfait (e) de votre charge de travail (quantité de travail, débordé ou pas) ?	5 Très satisfait	4 Satisfait	3 Modérément satisfait	2 Insatisfait	1 Très insatisfait
10	Êtes-vous satisfait (e) de la répartition de la charge de travail entre les membres de votre équipe ?	5 Très satisfait	4 Satisfait	3 Modérément satisfait	2 Insatisfait	1 Très insatisfait
11	Êtes-vous satisfait (e) de la répartition de votre temps de travail entre les soins et vos autres tâches?	5 Très satisfait	4 Satisfait	3 Modérément satisfait	2 Insatisfait	1 Très insatisfait
12	Êtes-vous satisfait (e) de l'appui technique (conseils, encadrement) que vous donnent vos supérieurs hiérarchiques ?	5 Très satisfait	4 Satisfait	3 Modérément satisfait	2 Insatisfait	1 Très insatisfait

IV. Questions en rapport avec vos tâches et responsabilités

13	Êtes-vous satisfait (e) de la variété de vos tâches (tâches de différentes sortes) ?	5 Très satisfait	4 Satisfait	3 Modérément satisfait	2 Insatisfait	1 Très insatisfait
14	Êtes-vous satisfait (e) de l'adéquation qui existe entre vos tâches et vos compétences (est-ce que vos tâches correspondent bien à vos compétences) ?	5 Très satisfait	4 Satisfait	3 Modérément satisfait	2 Insatisfait	1 Très insatisfait
15	Êtes-vous satisfait (e) du niveau de responsabilité professionnelle qui vous est confié ?	5 Très satisfait	4 Satisfait	3 Modérément satisfait	2 Insatisfait	1 Très insatisfait
16	Êtes-vous content(e) de la description qui a été faite de votre tâche?	5 Très satisfait	4 Satisfait	3 Modérément	2 Insatisfait	1 Très insatisfait

				satisfait		
17	Êtes-vous satisfait (e) de la description de vos tâches et ce que vous faites actuellement?	5 Très satisfait	4 Satisfait	3 Modérément satisfait	2 Insatisfait	1 Très insatisfait

V. Questions en rapport avec la collaboration au travail

18	Êtes-vous satisfait (e) de la collaboration entre les membres de votre services?	5 Très satisfait	4 Satisfait	3 Modérément satisfait	2 Insatisfait	1 Très insatisfait
19	Êtes-vous satisfait (e) de la reconnaissance de la qualité de votre travail par vos supérieurs hiérarchiques ?	5 Très satisfait	4 Satisfait	3 Modérément satisfait	2 Insatisfait	1 Très insatisfait
20	Êtes-vous satisfait (e) de la façon l'évaluation du personnel et faite pour la promotion au grade supérieur?	5 Très satisfait	4 Satisfait	3 Modérément satisfait	2 Insatisfait	1 Très insatisfait
21	Êtes-vous satisfait (e) de la manière vous êtes respectés par vos supérieurs hiérarchiques?	5 Très satisfait	4 Satisfait	3 Modérément satisfait	2 Insatisfait	1 Très insatisfait

VI. Questions en rapport avec la formation continue

22	Êtes-vous satisfait (e) de la formation que vous continuez à recevoir ?	5 Très satisfait	4 Satisfait	3 Modérément satisfait	2 Insatisfait	1 Très insatisfait
23	Êtes-vous satisfait (e) de la façon dont on sélectionne les membres du service pour participer aux activités de formation ?	5 Très satisfait	4 Satisfait	3 Modérément satisfait	2 Insatisfait	1 Très insatisfait
24	Êtes-vous satisfait (e) de l'adéquation entre la formation proposée et tes besoins?	5 Très satisfait	4 Satisfait	3 Modérément satisfait	2 Insatisfait	1 Très insatisfait
25	Êtes-vous satisfait (e) de l'application des connaissances acquises dans votre travail ?	5 Très satisfait	4 Satisfait	3 Modérément satisfait	2 Insatisfait	1 Très insatisfait

26	Êtes-vous satisfait (e) des compétences acquises pendant votre dernière formation ?	5 Très satisfait	4 Satisfait	3 Modérément satisfait	2 Insatisfait	1 Très insatisfait
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VII. Questions en rapport avec la gestion

27	Êtes-vous satisfait (e) des possibilités de participer à la prise de décisions pour résoudre les problèmes d'organisation du travail ?	5 Très satisfait	4 Satisfait	3 Modérément satisfait	2 Insatisfait	1 Très insatisfait
28	Êtes-vous satisfait (e) de la transparence dans la gestion des ressources financières de la structure ?	5 Très satisfait	4 Satisfait	3 Modérément satisfait	2 Insatisfait	1 Très insatisfait

VIII. Questions en rapport avec votre satisfaction morale

29	Êtes-vous satisfait (e) de la qualité de votre propre travail ?	5 Très satisfait	4 Satisfait	3 Modérément satisfait	2 Insatisfait	1 Très insatisfait
30	Êtes-vous satisfait (e) que votre lieu de travail ne vous empêche pas de pratiquer votre religion ?	5 Très satisfait	4 Satisfait	3 Modérément satisfait	2 Insatisfait	1 Très insatisfait
31	Êtes-vous satisfait (e) de l'image que l'on a de votre profession ?	5 Très satisfait	4 Satisfait	3 Modérément satisfait	2 Insatisfait	1 Très insatisfait

XII. Questions en rapport avec la stabilité de votre emploi

32	Êtes-vous satisfait (e) de la régularité de versement de votre salaire (salaire versé à temps, en retard...) ?	5 Très satisfait	4 Satisfait	3 Modérément satisfait	2 Insatisfait	1 Très insatisfait
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33	Êtes-vous satisfait (e) de votre stabilité d'emploi (certitude ou incertitude sur le fait de garder / perdre votre emploi) ?	5 Très satisfait	4 Satisfait	3 Modérément satisfait	2 Insatisfait	1 Très insatisfait
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X. Question en rapport avec votre satisfaction professionnelle dans l'ensemble

34	Pour résumer, quelle est dans l'ensemble, votre satisfaction professionnelle	5 Très satisfait	4 Satisfait	3 Modérément satisfait	2 Insatisfait	1 Très insatisfait
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XI. Question en rapport avec les facteurs de votre motivation

35. Classer les 6 dimensions de la satisfaction professionnelle selon l'importance qu'elles ont pour vous (Noter 1 pour la plus importante, ainsi de suite, jusqu'à 6 pour la moins importante)

Rémunération	/_/_/
Outils et cadre de travail	/_/_/
Organisation et contenu du travail	/_/_/
Formation et supervision	/_/_/
Satisfaction morale	/_/_/
Style de management	/_/_/

36 Existe-t-il d'autres éléments qui n'ont pas été abordés dans ce questionnaire et qui augmentent ou diminuent votre satisfaction professionnelle ? (expliquez brièvement)

XII. Questions en rapport avec votre préférence

12. Questions a propos de préférences des Infirmier/ères et Sages-femmes

35. Si vous devez continuer vos études, préféreriez-vous poursuivre ou se spécialiser dans quel domaine? (0: non préféré, 1: préféré)	
Sciences Infirmières et Sage-femme	/_/_/
Education des Infirmières et Sages-femmes	/_/_/
Santé publique	/_/_/
Gestion	/_/_/
Autre (Spécifier)_____	/_/_/

36. Si vous aviez le choix de quitter votre emploi actuel, que feriez-vous ? (0: non préféré, 1: préféré)	
Chercher un nouvel emploi dans une formation sanitaire publique ou privé	/_/_/
Chercher un nouvel emploi dans l'administration publique	/_/_/
Chercher un nouvel emploi dans une institution d'enseignement publique ou privée	/_/_/
Chercher un nouvel emploi dans des Organisations Non Gouvernementale	/_/_/
Faire le commerce	/_/_/
Autre (spécifier) _____	

Merci pour votre participation

APPENDIX 7: QUESTIONNAIRE FOR QUALITATIVE INTERVIEW FOR NURSES AND MIDWIVES IN LEADERSHIP POSITIONS

- 1. Nursing and midwifery personnel are a significant and vital segment of the health care workforce and quality health service delivery is one of the worldwide concerns that require effective management of health human resources. Would you like to tell us about your qualification and your role in nursing and midwifery leadership in Rwanda?**
- 2. Nursing and midwifery are mainly female professions. This means that the weak position of women in African societies impacts on nurses and midwives in some ways; making their positions as leaders in health services more challenging, and in some cases severely limits their ability to influence the care they deliver and the policies they are expected to implement. How do you see the involvement of nurses and midwives in health related policies making in Rwanda? And what do you see as the barriers for effective participation of nurses and midwives in nursing and midwifery related policy making and influencing?**
- 3. Currently nurses and midwives like any others health professionals are striving for reaching the highest level of qualification (Masters and Phd) and specialize in their profession; however the service package for health facilities at different levels of service delivery reserves one position for Nurses with Masters Degree in Quality Assurance at the level of National Referral Hospital and assign the tasks for Nurses departmental managers and incharge of health centers to Nurses with respectively A0 (bachelors' degree) and A1. How do you see the motivation of highly qualified/experienced nurses to remain in the health system and what do you think is the implication on strategic planning for improvement of quality of nursing and midwifery service delivery in the health facilities of Rwanda?**
- 4. What are the main challenges faced in nursing/midwifery human resources management and what can you suggest to improve the motivation of high qualified and specialized nurses to remain in the health system and contribute to the improvement of nursing and midwifery profession image as well as quality Nursing /midwifery service delivery in Rwanda?**

Thank you for your participation

APPENDIX 8 : QUESTIONNAIRE POUR L'INTERVIEW AVEC DES LEADERS DES INFIRMIER/ERES ET SAGE-FEMMES

- 1) Les Infirmier/ères et sages-femmes sont un segment important et vital de la main-d'œuvre des soins de santé et la prestation des soins de qualité est l'une des préoccupations mondiale qui exige une gestion efficace des ressources humaines en santé. Voudriez-vous nous parler de votre qualification et de votre rôle dans le leadership des soins infirmiers et sages-femmes au Rwanda?
- 2) Les infirmières et sages-femmes sont des professions essentiellement féminines. Cela signifie que la position de faiblesse des femmes dans la société Africaine a un impact sur les infirmières et les sages-femmes à certains égards, faisant leurs positions de leader dans les services de santé les plus difficiles, et dans certains cas limite fortement leur capacité à influencer sur les soins qu'ils offrent et les politiques qu'ils sont censés mettre en œuvre. Comment voyez-vous la participation des infirmières et des sages-femmes dans les politiques liés à la santé au Rwanda ? Et quels sont les barrières pour une participation effective des infirmières et sages-femmes à la participation dans l'élaboration et à influencer les politiques liées à la santé au Rwanda?
- 3) Les infirmières et sages-femmes comme d'autres professionnels de la santé actuellement se battent pour atteindre le plus haut niveau de qualification (maîtrise et doctorat) et de se spécialiser dans leur profession ; Cependant, le paquet de services pour les formations sanitaires à différents niveaux de prestation de services réserve une seule position pour les infirmières avec niveau Maîtrise en assurance de la qualité, surtout au niveau de l'hôpital national de référence et assigne les tâches pour les infirmières gestionnaires et titulaire de Centre de Santé aux infirmières avec respectivement le niveau A0 et A1. Comment voyez-vous la motivation des infirmières hautement qualifiés à rester dans le système de santé et que pensez-vous sur son implication sur la planification stratégique pour l'amélioration de la qualité de la prestation de services de soins infirmiers et de sages-femmes dans les formations sanitaires du Rwanda ?
- 4) Quels sont les principaux défis à relever dans la gestion actuel du personnel infirmier et sage- femme et que pouvez-vous suggérer pour améliorer la motivation des infirmières et sage-femmes hautement qualifiés et spécialisés pour rester dans le système de santé afin de contribuer à l'amélioration de l'image de la profession d'infirmière et de sage-femme ainsi que la prestation des services de soins infirmiers et sages-femmes de qualité au Rwanda ?

Merci de votre participation

