Factors that influence intention to stay amongst health workers in Kabaya, Rwanda

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Abstract

Background

Adequate human resources for health play a crucial role in improving access to services and quality of care. Human resources for health are often inequitably distributed between rural and urban areas within countries. In Rwanda, almost 88% of physicians and 58% of nurses in the country work in urban areas, despite the fact that 82% of the population lives in rural areas. Kabaya is located in a remote rural area in Ngororero District; its health facilities consist of one hospital and four health centers. Living and working conditions are poor for health workers. This results in constant migration out of health workers, which has negative impacts on service delivery and quality of care provided to the population.

Aim and Objectives

This study aimed to assess factors that influence the intention to stay in Kabaya amongst health workers currently in Kabaya's health facilities. The specific objectives were to analyze the associations between the following factors and intention to stay among health workers in Kabaya: socio-demographic and job characteristics; working and living conditions; and financial and non-financial incentives.

Study design

An analytical, cross-sectional survey of all health workers from five facilities in Kabaya was conducted.

Methods

A self-administered questionnaire, adapted from one used in a study in Uganda (Hagopian, Zuyderduin, Kyobutungi & Yunkella, 2006), was used to collect data. Data were entered in Epi-Info 3.4 and analyzed using SPSS 16.0. Descriptive analyses and inferential statistics (Chi-square, Fisher's Exact) were done to test for associations with the main outcome, intention to stay.

Results

Out of 155 employees working in Kabaya's health facilities, 111 (72%) accepted to participate in the study. Of the 111 respondents, 34 (31%) indicated they intended to stay working in Kabaya indefinitely. Intention to stay (bivariate analysis) was associated with:

- employment category ($p=0.001$) and age ($p<0.001$);
- rural background - born in Kabaya ($p<0.001$); and born ($p=0.001$), grew up ($p=0.001$) and studied in a rural area ($p<0.001$);
- good quality supervision - encouraging employee development ($p=0.029$), caring for the employee as a person ($p=0.011$), and competent and committed facility managers ($p=0.039$);
- presence of workplace friends ($p<0.001$);

- conducive work and living environments - manageable workloads ($p<0.001$); good infrastructure ($p<0.001$); access to safe and clean water at work ($p<0.001$); adequate housing at home ($p<0.001$); having time to take lunch at work ($p=0.001$); access to adequate transportation to work ($p=0.004$); adequate shopping and entertainment ($p=0.001$);

- adequate incentives - sufficient salary ($p<0.001$); recognition for doing a good work ($p<0.001$); and adequate training ($p<0.001$).

The small study sample precluded multi-variate analyses and it was therefore not possible to control for potential confounders such as age, sex and profession in the analysis of workplace factors.

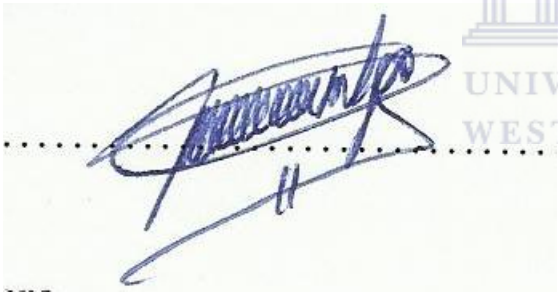
Conclusions

Intention to stay in Kabaya appears to be influenced by a complex set of factors that include individual (age, profession, rural background), workplace, human, social, career and salary-related factors. Promoting retention in Kabaya's health facilities requires multi-faceted interventions, without which the majority of the employees are likely to continue to migrate away from the area.

Declaration

I declare that **Factors that influence intention to stay among health workers in Kabaya, Rwanda,** is my own work, that it has not been submitted for any degree or examination at any other university, and that all sources I have used or quoted have been indicated and acknowledged by complete references.

GATSINDA MELENCE



Signature

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Abbreviations

PBF – Performance Based Financing

MDGs – Millennium Development Goals

WHO – World Health Organization

HIV – Human Immunodeficiency Virus

AIDS – Acquired Immunodeficiency Syndrome

HRH – Human Resource for Health

NGOs – Non Governmental Organizations

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Chapter 1 Introduction

1. 1. *Context and problem statement*

Human resources for health are "people whose job it is to protect and improve the health of their community" (WHO, 2006: 1). They are "all persons, with or without formal health related training, who contribute in a substantial way to the promotion, protection and restoration of health. They may work in the public or private sector and may or may not be paid" (Moorman & Pick, 1996:10). Adequate human resources for health are mandatory for achieving the MDGs and play a crucial role in improving access to service and quality of care (Dieleman, Cuong, Anh & Martineau, 2006; Mukanga, Namusisi, Gitta, Pariyo, Tshimanga, Weaver *et al*., 2010). Globally, there is a deficit of 2.4 million health workers in 57 most affected countries with critical shortages in health workers. Almost all countries suffer from maldistribution with urban concentration and rural deficits (WHO, 2006). Inequitable distribution of human resources for health (HRH) has also been noted between countries (WHO, 2006; Iipinge, Dambisya, Loewenson, Chimbari, Ndetei, Munga *et al*., 2009). Developing countries which have the greatest burden of diseases have the lowest health workforce per population (WHO, 2006; Lehmann, Dieleman & Martineau, 2008).Within countries, affluent urban areas are attracting health workers which leave rural areas underserved. More than 75% of doctors, over 60% of nurses and 58% of other health workers live in urban areas where they serve fewer than 55% of the global population. Particularly, in Rwanda, almost 88% of physicians and 58% of nurses in the country work in urban areas, despite the fact that 82% of the population lives in rural areas (WHO, 2009). This understaffing of rural areas is partly due to migration of health workers from rural to urban areas because of poor working conditions, lack of equipment and infrastructure,

difficult geographic terrain, political instability and insecurity and better economic prospects in the cities (Adkoli, 2008; Habte, Dussault & Dovlo, 2004; Hongoro & McPake, 2004). In Sub-Saharan Africa, the human resource crisis is deepened by emigration of trained professionals, difficult working conditions, poor salaries, low worker motivation and a high burden of infectious diseases, particularly HIV/AIDS, among the health workers (Zachariah, Ford, Philips, Lynch, Massaqoui, Janssens *et al.*, 2008).

Remote and rural areas in Rwanda like many other Sub-Saharan African countries have a shortage of health personnel, and the available ones tend to migrate to urban areas (Serneels, Montalvo, Pettersson, Lievens, Butera & Kidanu, 2010). Doctor to population ratio is 1:18,000 and nurse to population ratio is 1:1,690 (Rwanda Ministry of health, undated). Kabaya hospital, where this research was conducted, has only four doctors serving a catchment population of 160,000:thus a doctor to population ratio of 1:40,000 (Nsengiyumva & Ndagijimana, 2010).Kabaya health facilities are affected by the migration of health workers. From January 2007 to December 2010, 49 people left their posts to work in urban areas and 22 recruitment processes were initiated (Nsengiyumva and Ndagijimana, 2010). Managers are challenged to find candidates to fill vacant posts after migration and posts remain unfilled for long periods. Loss of skilled and experienced personnel results in poor quality of health care delivered to patients, a heavy workload for the remaining personnel, and financial and time losses in recruitment procedures and training of new recruited employees.

This research examined the factors associated with "intention to stay" among health workers in order to consider strategies for future retention of health workers in Kabaya. "Intention to stay or to leave the organization is one indicator of employee satisfaction or dissatisfaction. The

information gained can help employers gauge the extent of latent turnover or retention in their organizations." (Bevan, Barber & Robinson, 1997: 8).

1. *2. Description of Study setting*

Kabaya is located in Ngororero District (Western Province) 165 km from Kigali, the capital city of Rwanda. It has one district hospital and four health centers: Kabaya district hospital, Kabaya Health Center, Muramba Health Center, Rubaya Health Center and Ramba Health Center. These facilities have a combined personnel establishment of 155 health workers which serves a population of 159,233 people. These employees are classified into different categories: physicians (doctors) which include general practitioners, and specialists who completed university studies in medical faculties, Nurse A1 and paramedical technicians A1 categories who completed 6 years of secondary school and an additional 3 or 4 years post-secondary studies in nursing schools, the Nurse A2 category with 6 years of study in nursing schools, social workers and administrative workers. All the health facilities in Kabaya are situated in rural settings where the working conditions necessary to retain health workers are lacking: three health centers do not have access to electricity, two health centers do not have access to safe and clean water, roads and bridges linking health centers to the hospital are in very bad state, two health centers do not have access to phone networks, all health centers have old physical infrastructure and are regularly out of stock in medicines. In addition, necessary living conditions like schools for employees' children, job for employees' partners, accommodation, transportation and entertainment facilities are not readily available.

Chapter 2 Literature review

Factors that influence the intention to stay among health workers have been explored worldwide. I have classified those factors into socio-demographic and job characteristics; working and living conditions; and financial and non-financial incentives.

A good and safe working environment which includes appropriate equipment and supplies, supportive supervision, and helps to makes posts professionally attractive, increases the recruitment and retention of health workers in remote and rural areas (WHO, 2010). Living conditions for health workers and their families include factors such as sanitation, electricity, telecommunications, schools, etc (WHO, 2010). These factors have a significant influence on a health worker's decision to accept a post and remain in rural areas.

The WHO defines incentives as "all rewards and punishments that providers face as a consequence of the organizations in which they work, the institution under which they operate and the specific interventions they provide" (WHO, 2000). Incentives for health workers are broadly seen as either financial or non-financial. Financial incentives may be direct like pay (salary) or indirect like in promotion. Non-financial incentives include recognition for doing a good job, flexible working hours, and access to training opportunities. In the following paragraphs, studies done on these factors in both developed and developing countries are discussed in more depth.

2.1. *Socio-demographic and job characteristics associated with intention to stay*

The category of health worker was associated with intention to stay among health workers in the United States of America (USA), Australia and Uganda where nurses tend to stay in rural area more than other categories of health workers (Daniels, Skipper, Sanders, Robert & Rhyne, 2007; Playford, Larson and Wheatland, 2006; Schofield, Fletcher, Fuller, Birden & Page, 2009; Hagopian *et al.*, 2006). This is because some health worker categories like doctors and pharmacists have more job opportunities in urban areas.

Age has an influence on the intention to stay among health workers in studies done in the USA, Australia, Croatia, Uganda and Kenya where older health workers (> 40 years) have greater intention to stay in rural areas than younger ones (Daniels *et al.*, 2007; Humphreys, Jones, Jones & Mara, 2002; Polasek, Kolcic, Dzakula, and Bagat, 2006; Hagopian *et al*., 2006; Mullei, Mudhune, Wafula, Masano, English, Goodman *et al.*, 2010). Older health workers have more commitment and control over their jobs (Hagopian *et al.*, 2006). Gender has been associated with the intention to stay among health workers in studies done in Australia, Croatia and Uganda where being male is positively associated with the retention of health workers in rural areas (Meek, Doherty, & Deans, 2009; Humphreys *et al.*, 2002; Polasek *et al.*, 2006; Hagopian *et al.*, 2006). Marital status was associated with retention of health workers in rural areas of Australia and Canada (Humphreys *et al.*, 2002; Mayo & Mathews, 2006).

Across the globe, studies have repeatedly found that rural backgroundand exposure through studies, clerkships and practice are associated with the intention to stay in rural areas among health workers (Daniels *et al.,* 2007; Chan, Degani, Crichton, Pong, Rourke, Goertzen & McCready, 2005; Playford *et al.,* 2006; Matsumoto, Okayama, Inoue & Kajii, 2005; Lea & Cruickshank, 2005; Couper, Hugo, Mfenyana & Conradie, 2006; Katyola, Lehmann, Martineau, Matwa & Storey, 2006; Nguyen, Ropers, Nderitu, Zuyderduin, Luboga& Hagopian, 2008). People with a rural background have rural awareness and not only find living there easier but also are better able to understand the needs of their counterparts. Desire to work closer to home was positively associated with the retention of health workers in the USA and Australia (Daniels *et al*., 2007; Meek *et al*., 2009; Scanlan, Still, Stewart and Croaker, 2010; Kruger & Tennant, 2005). People want to work closer to their home where extended families live and so caring for their family becomes easier and cheaper. Finally, length of time spent at facility was found to be associated with the intention to stay in Australia (Humphreys *et al.,* 2002). The longer the period an employee spends at a facility the lower is the intention to leave that facility.

2. 2. *Working and living conditions associated with intention to stay*

2. 2. 1. Working conditions

The role of supportive supervision by managers in health worker performance and motivation, and in turn, intention to stay, has been documented in a wide range of settings, including the sub-Saharan African countries of Mali, South Africa, Swaziland, Malawi, Uganda, Kenya and Tanzania (Navaie-Waliser *et al*., 2007; Humphreys *et al*., 2002; Fleming & Taylor, 2006; Dieleman *et al.,* 2006; Kotzee & Couper, 2006; Masango *et al.,* 2008; Manafa *et al.*, 2009; Hagopian *et al*, 2006; Mullei *et al*., 2010; Mathauer & Imhoff, 2006; Willis-Shattuck *et al*.,

2008; Manongi, Marchant & Bygbjerg, 2006). A fault-finding and punitive supervision style has more negative than positive effects on employees' morale, dissatisfaction and turnover (Bevan *et al.*, 1997). Interpersonal rapport or team climate has been found to influence positively the retention of health workers in studies done in USA, Canada, Finland, Australia, North Ireland, Mali, Malawi and Uganda (Navaie-Waliser *et al.*, 2007; Denton, Zeytinoglu, Davies & Lian, 2002; Kivimäki, Vanhala, Pentti, Länsisalmi, Virtanen, Elovainio *et al.*, 2007; Harding, Whitehead, Aslani & Chen, 2006; Scanlan *et al.*, 2010; Fleming & Taylor, 2006; Dieleman *et al.*, 2006; Manafa *et al.*, 2009; Hagopian *et al.*, 2006).

Employees' perceptions of their organization are shaped by their day-to-day contact with managers and colleagues and the quality of their relationships is central to manage turnover (WHO, 2006). In their nature people like jobs which are well defined and like coming to job with a knowledge of what is expected from them; role ambiguity is associated negatively with the retention of health workers in studies done in the USA and Greece (Edgar & Rosa-Lugo, 2007; Iliopoulou & While, 2010). Clear job descriptions give greater confidence about the job and responsibilities and so, influence employees to stay in one facility (WHO, 2006).

Workers are generally proud to see their facility improving due to their effort and like to be implicated actively in management of their health facility. Active involvement in facilities has been associated positively with the retention of health workers in different studies done in the USA, Japan and Uganda (Navaie-Waliser *et al.*, 2007; Matsumoto *et al.*, 2005; Hagopian *et al.*, 2006; Mathauer & Imhoff, 2006). It is easier and more enjoyable to do a job which matches

exactly with studies and experience of the employee who make it, a good match between skills and experience of a health worker with the job has been positively associated with the retention in studies done in Australia and Uganda (Scanlan *et al.,* 2010; Hagopian *et al.*, 2006). A good match between skills and attributions reduces the amount of employees' "boredom" in their jobs and so their turnover (Bevan *et al.*, 1997).

When health workers are doing a job which exceeds their capacity, it becomes stressful, services and care provided to patients are of poor quality and they are exposed to medical accidents amongst them HIV/AIDS. Non manageable workload was positively associated with the intention to leave among health workers in several studies (Blosser, Cadet & Downs, 2010; Edgar & Rosa-Lugo, 2007; Navaie-Waliser *et al.*, 2007; Cole, Panchanadeswaran & Daining, 2004; Denton *et al.*, 2002; Shields & Ward, 2001; Fleming & Taylor, 2006; Girasek & Szocska, 2010; Sharon, Quienton, Kirk & Takeisha, 2011; Awofeso, 2010; Mullei *et al.,* 2010; Ndetei *et al.,* 2008; Munga & Mbilinyi, 2008; Hagopian *et al.,* 2006). Work-related stress, as a result of excessive work pressures, can increase the risks of turnover (Bevan *et al.*, 1997).

In the execution of the work of health workers, physical infrastructure is of vital importance. In Rwanda like many other Sub-Saharan countries and particularly in rural areas, health facilities are in a rudimental state due to the lack and maldistribution of financial means for maintenance and rehabilitation. Many facilities were constructed in the colonial era and not extended with the increase of the population. Poor infrastructure has been found to be negatively associated with the retention of health workers in many studies and in literature reviews (Girasek& Szocska,

2010; Awofeso, 2010; Kotzee & Couper, 2006; Mullei *et al*., 2010; Lehmann *et al.*, 2008; Willis-Shattuck *et al*., 2008).

A job is liked if it is stable. Job insecurity has been shown to be negatively associated with job retention among health workers in many studies (Denton *et al.*, 2002; Lea & Cruickshank, 2005; Dieleman *et al*., 2003; Mackintosh, 2003; Hagopian *et al.*, 2006).

Performing a job necessitates a lot of things amongst them equipments, supplies and drugs. Lack of them makes employees feeling unmotivated and by then search for other jobs where those conditions are met. Inadequate equipment, supplies and drugs in health facilities was found to negatively influence the retention of health workers in rural areas in several studies (Girasek *et al*., 2010; Agyepong, Anafi, Asiamah, Ansah, Ashon & Narh-Dometey, 2004; Awofeso, 2010; Kotzee & Couper, 2006; Masango *et al.*, 2008; Mullei *et al*., 2010; Ndetei *et al.*, 2008). With a lack of equipment, supplies and drugs, health workers are unmotivated and frustrated as they are unable to satisfy their 'professional conscience' and this decreases their intention to stay with their health facilities (WHO, 2006).

Finally, HIV/AIDS is a disease which can be transmitted by sharp instruments used by health professionals if not well protected. HIV/AIDS is known to increase the burden to health professionals by death of colleagues, absence at work to participate in burials or caring to relatives. Fear of being contaminated has caused health professionals to search for other jobs especially in other non-health sectors. HIV/AIDS has been found to be negatively associated

with the retention of health workers in studies done in South Africa, Malawi and Kenya and in literature reviews (Katyola *et al.,* 2006; Tobi, George, Schmidt & Renton, 2008; Ndetei *et al*., 2008; Marchal, De Brouwere & Kegels, 2005; Lehmann *et al.*, 2008). HIV/AIDS increases workloads, frustration and burn-out which have been demonstrated to influence the attrition rate in health workers (Marchal *et al*, 2005).

2. 2. 2. Living conditions

Parents prefer urban areas where good schools are present to increase the probability of their children success in life. Inadequate schooling for children has been found to be negatively associated with the intention to stay in studies done in Australia, Ghana, Swaziland, Kenya and Uganda (Meek *et al.,* 2009; Kruger & Tennant, 2005; Agyepong *et al.*, 2004; Masango *et al.*, 2008; Mullei *et al*., 2010; Ndetei *et al.,* 2008; Hagopian *et al.*, 2006).

Studies done in African countries have associated lack of adequate housing in rural areas with the poor retention of health care providers (Meek *et al.* 2009; Agyepong *et al.*, 2004; Kotzee & Couper, 2006; Masango *et al.,* 2008; Munga & Mbilinyi, 2008). Remote rural areas in Rwanda are isolated from the rest of the country because of roads and bridges in a very bad state especially in northern and western part of the country where the relief is made of high mountains and valleys. Inadequate communication and transport facilities have been negatively associated with the retention of health workers in rural area in studies in Australia and developing countries (Schofield *et al.,* 2009; Agyepong *et al.,* 2004; Masango *et al.,* 2008; Ndetei *et al.,* 2008).After work, people need to relax in order to go back to job with energy and a mind to perform it well.

Recreation facilities are needed to facilitate that. Lack of recreation facilities was associated with the intention to leave among health workers in studies done in South Africa and Swaziland (Kotzee & Couper, 2006; Masango *et al.*, 2008).

2. 3. *Financial and non-financial incentives associated with intention to stay*

2. 3. 1. Financial incentives

Relationship between salary and retention is the most studied amongst all other factors and all studies done either in developed and developing countries have linked satisfaction with salary with intention to stay working in rural health facilities (Daniels *et al*., 2007; Blosser *et al*., 2010; Navaie-Waliser *et al.*, 2007; Auerbach, McGowan, Ausberger, Strolin-Goltzman & Schudrich, 2010; Edgar & Rosa-Lugo, 2007; Armstrong-Stassen, 2005; Chan *et al*., 2005; Shields & Ward, 2001; Fleming & Taylor, 2006; Kruger& Tennant, 2005; Meek *et al*., 2009; Schofield *et al.*, 2009; Schoo, Stagnitti, Mercer & Dunbar, 2005; Girasek *et al*., 2010; Dieleman *et al*., 2003; Kimberly, Moulds & Usher, 2009; Dieleman *et al*., 2006; Kotzee & Couper, 2006; Katyola *et al*., 2006; Manafa *et al*., 2009; Mullei *et al*., 2010; Ndetei *et al.*, 2008; Hagopian *et al*., 2006; Serneels *et al.*, 2010).

Underpayment and inequity in pay systems between employees with same qualifications reduces productivity and leads to high turnover among health workers (WHO, 2006). This is a problem in the Rwandan health system where disparities are found in remuneration between employees

working in health facilities in rural and urban areas and between employees working in health facilities and in NGOs.

Career advancement or promotion has been positively associated with retention of health workers in many studies (Blosser *et al*., 2010, 2010; Auerbach *et al.,* 2010; Shields & Ward, 2001; Schofield *et al.,* 2009; Kimberly *et al.*, 2009; Agyepong *et al.,* 2004; Dieleman *et al*., 2006; Masango *et al.,* 2008; Mackintosh, 2003; Ndetei *et al.,* 2008; Manongi *et al.,* 2006). Employees who feel their contribution goes unrewarded often feel undervalued, which can lead to dissatisfaction and an increase of unwanted turnover (Bevan *et al.*, 1997).

2. 3. 2. Non-financial incentives

When employees do a good job and no-one acknowledges it, they become discouraged, lose interest in that job and look for employment elsewhere. Recognition by managers, colleagues and community for doing good work has been found to positively influence retention among health workers (Navaie-Waliser *et al*., 2007; Armstrong-Stassen, 2005; Fleming & Taylor, 2006; Dieleman, Cuong, Anh & Martineau, 2003; Kimberly *et al.*, 2009; Mathauer & Imhoff, 2006; Willis-Shattuck, Bidwell, Thomas, Wyness, Blaauw & Ditlopo, 2008; Dieleman, Toonen, Touré & Martineau, 2006; Kotzee & Couper, 2006; Masango, Gathu & Sibandze, 2008; Munga & Mbilinyi, 2008; Hagopian *et al*, 2006).

Opportunities for training respond to employees' individual needs and aspirations and widen their experiences within and outside their institutions. So, the likelihood of further training can

positively influence retention with same organization, apart from additional incomes to their salaries earned in those training programmes (Bevan *et al.*, 1997). Training opportunities for health workers during their job have positively influenced them in their intention to leave or staying in the same workplace for a long period in studies done in the United Kingdom(UK), Australia, Vietnam, Mali, Ghana, South Africa, Malawi, Kenya and Tanzania (Shields & Ward, 2001; Humphreys *et al*., 2002; Meek *et al*., 2009; Dieleman *et al.*, 2003; Dieleman *et al.*, 2006; Agyepong *et al.*, 2004; Kotzee & Couper, 2006; Manafa *et al*., 2009; Ndetei *et al.*, 2008; Mathauer & Imhoff, 2006; Willis-Shattuck *et al*., 2008; Kruger & Tennant, 2005, Munga & Mbilinyi, 2008).

Employees have obligations towards families and society. When there is an imbalance and work occupies the most time, people do feel not comfortable and tend to move to elsewhere to find time to fulfill those other obligations. Flexibility to balance work and personal life has been found to influence positively the retention of health workers in several studies (Navaie-Waliser *et al*., 2007; Armstrong-Stassen, 2005; Humphreys *et al*., 2002; Schofield *et al.*, 2009; Fleming and Taylor, 2006; Masango *et al.*, 2008; Manafa *et al*., 2009; Hagopian *et al*., 2006; Mullei *et al*., 2010; Ndetei, Khasakhala & Omolo, 2008; Manongi *et al.*, 2006; Munga *et al.*, 2009).

In summary, there are a wide variety of factors that influence the retention of health workers in rural areas. Rwanda like other developing countries and even developed countries has numerous constraints on the retention of health workers in remote rural areas. Although some efforts have been made to increase income of health workers through interventions such as performance

based financing, incomes are still insufficient and unequally distributed in rural and urban facilities in the public sector. Another problem is that there are disparities in incomes between people working in public sector and private sector and in NGOs working in health sector. These problems are a cause of constant migration of health workers.

Chapter 3 Methodology

3.1. *Aim and objectives*

Aim

The study aims were to assess factors which influence intention to stay among health workers in Kabaya, Rwanda.

Objectives

The specific objectives were to analyze the associations between intention to stay amongst health workers in Kabaya and the following factors:

- Socio-demographic and job characteristics.
- Working and living conditions.
- Financial and non-financial incentives.

3.2. *Study design*

A cross-sectional analytic study was conducted.

3.3. *Population and Sampling*

The study population consisted of the 155 health workers in Kabaya's health facilities. The total study population was included in the study and therefore no sampling method was required.

3.4. *Data collection*

A self-administered questionnaire of 46 questions grouped in five sections was used to gather information needed to respond to the study's objectives (Appendix A). The questions used in our questionnaire were extracted from a study done on retention of health workers in Uganda (Hagopian *et al*, 2006). Only questions related to the study objectives were chosen and adapted.

3.5. *Validity*

Validity refers to the extent to which the true response of a question is correctly obtained by the instrument (Saw, 2001; Roberts *et al.*, 2006). The validity of the questionnaire from which our questions were extracted was itself based on an extensive literature review on job satisfaction, morale and retention and the use of questions form tools validated in both the US and developing countries (Hagopian *et al*., 2006)

Face validity was granted by making sure that the questionnaire covered everything that is intended to measure. The questionnaire was translated into the most understandable language (Kinyarwanda) of all the target population by two experts in translation. Likert scales were used to allow respondents to be more specific in their responses. Questions were simplified to be well understood and tested to see how accurately they reflect the true responses. Six research assistants (one at each health center and two at the hospital) were recruited and trained to help in collecting data by giving explanations to health workers in case of misunderstanding or misinterpretation of some questions. Global terms like "satisfaction" and "living conditions" were avoided in the questionnaire and replaced by more specific factors.

As the total study population was studied, there was no selection bias in the study. To increase the response rate, employees were enrolled through meetings to explain the study's objectives

and consent procedures, including anonymity. Research assistants were not known by participants. Data collection was done at different hours of the day and on different days of the week, with follow-up of those who were absent at the time of data collection. As some questions required potentially sensitive answers, anonymity and a self-administered questionnaire were used to encourage people to co-operate.

3.6. *Data analysis*

Data were entered into Epi-Info 3.4 version and analyzed with SPSS 16.0 statistical software. Descriptive statistics included means and standard deviations for continuous variables (age, time at the facility) and counts and percentages for each categorical variable. Comparisons were made to test for associations between intention to stay in Kabaya (dependent variable) and different factors (independent variables) using Chi-square statistical test for categorical variables with the cut-off for significance of the association set at p-value=0.05. Fisher Exact tests were conducted where there were <5 observations in a cell of a 2x2 table.

We combined items to create binary variables for the analysis of associations. For example:

- for the variable employee category, we separated employees in two categories, professionals which include doctors, nurses and technicians and other workers.
- employee position was divided into managers which include top, middle and frontline managers versus other employees.
- age was divided into younger employees (<35 years) and older employees (=>35 years).
- marital status was divided in married and single which includes widowed.

- years of experience was divided into older (=>3 years) and new employees (<3 years).
- for Likert scare, we grouped strongly agree and agree into “agree” and neutral, disagree and strongly disagree into “neutral/disagree”.

3.7. *Ethical considerations*

Ethical approval was obtained from the University of the Western Cape Research Committee. A letter was sent to the Mayor and Director of Health in Ngororero District explaining the nature of the research. A consent form, translated into Kinyarwanda was signed by each participant after being informed about the purpose and the scope of the research. Participants completed the questionnaire individually with the help of an interviewer (only if requested) in a closed office, after which the questionnaire was put in a self-sealing envelope. Neither the envelope nor the questionnaire had the name of the individual. Each participant was represented by a code. Participants were allowed to refuse to participate or not answer any question and to withdraw from the study at any time without penalty. Participants received no incentives for participating in this study, and participation was totally voluntary. Filled questionnaires and other hard documents related to this study will be kept for five years after which they will be destroyed. Confidentiality agreements were signed by all staff members who participated in the research.

Chapter 4 Results

4. 1. Response rate and distribution of respondents per health facility

A total of 111 out of 155 employees working in health facility of Kabaya accepted to fill and return the study questionnaires, which makes a response rate of 72% (Table 1). Kabaya health center has the highest response rate at 87% while Rubaya HC has the lowest response rate at 37%.

Table 1: Response rate and distribution of respondents per health facility

	Employees (n)	Responses (n)	Response rate (%)
Kabaya Health Center	15	13	87
Muramba Health Center	18	14	78
Kabaya Hospital	80	60	75
Ramba Health Center	23	17	74
Rubaya Health Center	19	7	37
Total	155	111	72

4.2. Socio-demographic and employment profile

4. 2. 1. Employment profile

The most significant category of workers was nurses/technicians (72% of all employees). More than a half (51%) of respondents was directly involved in patient care i.e. frontline providers, while the remainder was in management positions. Only half (49%) of respondents had worked in their health facility more than 3 years (Table 2).

Table 2: Distribution of respondents per employment profile

Variable		Frequency	Percent
Employment category	A2 Nurse/technician	44	40
	A1 Nurse/technician	36	32
	Others	18	16
	Administrative worker	6	5
	Doctor	4	4
	Social worker	3	3
Position	Frontline provider	57	51
	First level manager	25	23
	Middle manager	20	18
	Top manager	9	8
Years of experience	<36 months	56	51
	>=36 months	55	49

4. 2. 2. Socio-demographic characteristics

The respondents were predominantly female (58%), in the age range 16 years to 34 years (56%), and married (67%). Many of the respondents were born, had grown up, studied and worked previously in rural areas, while only a third of them did their clerkship in rural areas (Table 3).

Table 3: Socio-demographic and employment profile of respondents (n=111)

Variable		Frequency	Percent
Age	16-34 years	62	56
	35-54 years	42	38
	55+ years	7	6
Gender	Female	64	58
	Male	47	42
Marital status	Married	74	67
	Single	33	30
	Widowed	4	4
Rural exposure	Born in a rural area	81	73
	Born in Kabaya region	35	32
	Grew up in a rural area	78	71
	Studied in a rural area	63	57
	Did clerkship in rural area	38	34
	Had a previous job in a rural area	66	60

4.3. Findings on intention to stay

Only 30% of respondents want to stay working indefinitely in Kabaya. Half of those intending to leave (49%) wished to migrate to urban areas; 25% wanted to leave their job as soon as possible (Table 4).

Table 4: Intention to stay amongst health workers in Kabaya

Variable		Frequency	Percent
Intention to stay (n=111)	Intend to leave	77	70
	Intend to stay	34	30
Preferred destination of those intending to leave (n=77)	Urban area	38	49
	Other rural area	28	36
	Foreign country	11	14
Intended period to leaving (n=77)	leaving as soon as possible	19	25
	leaving within one year	11	26
	leaving between 1-2 years	21	27
	leaving between 3-5 years	21	27

4. 4. Description of factors linked to intention to stay

4. 4. 1. Working and living conditions

4. 4. 1. 1. Working conditions

Participants were asked to rate their agreement (on a 5-point likert scale) with a series of statements on working conditions, including relationships with supervisors and colleagues, resources, workload, availability of adequate infrastructure, clean water at work, electricity, access to equipment, supply and drugs needed to perform. Out of 111 respondents, relationships with and quality of supervisors were generally rated well, with 61% of respondents being encouraged to develop in the past six months, 55% reporting being fairly evaluated on their work, 69% feeling cared for as a person by their immediate supervisor, 72% agreeing their supervisors were available when they needed support, and 72% agreeing that the facility manager was competent and committed. Relationships between employees were rated well with more than a half (60%) reporting that they have a good friend at work. There was almost universal agreement on the match between job employee's skills and experience, on knowledge of job expectations (95%) and on active involvement in making their health facility a conducive place (97%). More than a half (60%) of respondents disagreed with the statement that the workload was manageable, 83% disagreed with the statement that their facility had adequate infrastructure to perform their job well. Three quarter (75%) of respondents agreed with the statement that their organization took specific measures to protect them against HIV/AIDS (Table 5).

Table 5: Distribution of respondent agreement with various statements on working conditions (n=111)

Statements	Strongly agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly disagree (%)
In the past six months, someone has talked to me to encourage my development.	28	33	5	13	21
I am fairly evaluated on my work.	26	29	16	18	11
My immediate supervisor cares about me as a person.	27	41	8	14	10
My supervisor is available when I need support.	29	43	4	15	9
The hospital/Health center manager here is competent and committed.	47	25	6	16	6
I have a good friend at work.	35	24	12	14	15
The job is a good match for my skills and experience.	70	26	2	1	1
When I come to work, I know what is expected of me.	81	14	1	4	0
I am actively involved in helping to make this a great health care facility.	73	23	1	1	2
The workload is manageable.	17	24	0	34	25
This facility has adequate infrastructure that I need to do my job well	6	9	2	44	39
At work, I have access to safe, clean water.	15	26	5	27	27
At work, I have good access to electricity.	72	15	1	12	0
I feel I have job security.	67	14	10	3	6
I have the supplies I need to do my job well and safely (gloves, needles, bandages, etc).	29	37	6	15	13
I have the equipment I need to do my job well and efficiently (ultrasound, x-ray, blood pressure cuffs).	37	20	13	18	12
This facility has good access to drugs and medications.	28	36	10	22	4
The organization takes specific measures to protect me against HIV/AIDS.	38	37	14	5	6
I can take time to eat lunch almost every day.	24	23	5	29	19

4. 4. 1. 2. Living conditions

Participants were asked to rate their agreement (on a 5-point likert scale) with a series of statements on living conditions including adequate houses, availability of water and electricity at home, access to good schools and availability of transportation and recreation facilities. Participants disagreed with almost all the statements related to living conditions except for the availability of electricity at home (78%). Respondents disagreed with the statement that they had access to adequate house near their workplace (60%). Half of respondents (49%) disagreed with the statement that they had access to safe and clean water at home. Out of 80 respondents who responded having children, 66% of respondents disagreed that they have access to good schools for their children. Respondents disagreed that they do not have access to safe and efficient transportation to work in 63% and to good shopping and entertainment in 64% respectively (Table 6).

Table 6: Distribution of respondent agreement with various statements on living conditions

Statements	Strongly agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly disagree (%)
I have access to adequate house near my workplace (n=111)	22	16	2	30	30
At home, I have access to safe, clean water (n=111).	23	23	5	25	24
At home, I have good access to electricity (n=111).	58	20	0	10	12
I have access to good schooling for my children(n=80)	13	19	2	44	22
I have safe and efficient transportation to work (n=111).	20	13	3	23	41
The community where I live has good shopping and entertainment (n=111).	16	15	5	32	32

4. 4. 2. Financial and non-financial incentives

Participants were asked to rate their agreement (on a 5-point Likert scale) with a series of statements on financial and non-financial conditions including salary package, promotion, recognition, flexibility to balance job and personal life and training opportunities. As with living conditions, there was a generalized disagreement with all the statements related to financial and non-financial incentives. Out of 111 respondents, 68% of respondents disagreed with the statement that their salary package is fair; an almost equal number of respondents agreed and disagreed with the statement that they felt there were sufficient opportunities for promotion. Sixty one percent of respondents disagreed with the statement that they received recognition for doing a good job. Fifty two percent of participants disagreed with the statement that they have flexibility to balance work and personal life while two third (67%) of participants disagreed with the statement that they received training needed to succeed in the work (Table 7).

Table 7: Distribution of respondent agreement with various statements on financial and non-financial incentives (n=111)

Statements	Strongly agree (%)	Agree (%)	Neutral (%)	Disagree (%)	Strongly disagree (%)
My salary package (Salary, PBF, and Perdiems) is fair.	13	19	0	34	34
I feel there are sufficient opportunities for promotion with this employer.	16	23	22	20	19
I receive recognition for doing good work.	12	24	4	50	11
I have flexibility to balance the demands of my workplace and my personal life.	17	23	8	22	30
I have been given the training needed to succeed in my position.	14	16	3	19	48

5. Associations between intention to stay and factors

5. 1. Associations between intention to stay with socio-demographic characteristics and employment profile

5. 1. Employment profile and socio-demographic characteristics

Of the various socio demographic and employment characteristics of participants, age (<vs >=35 years) and category (professional vs other), and in particular, a rural history were associated with intention to stay. Having done a clerkship done in a rural area was not associated with intention to stay (Table 8).

Table 8: Association between intention to stay with employment profile of respondents (n=111)

Profile		Stay indefinitely				Total		p-value
		Yes		No				
		n	%	n	%	N	%	
Employment category	Professionals	20	23	67	77	87	100	0.001
	Other workers	14	58	10	42	24	100	
Employment position	Managers	16	30	38	70	54	100	0.824
	Providers	18	32	39	68	57	100	
Employee's experience	<36 months	16	29	40	71	56	100	0.635
	>=36 months	18	33	37	67	55	100	
Age	<35 years	6	10	56	90	62	100	<0.001
	>=35 years	28	57	21	43	49	100	
Gender	Female	21	33	43	67	64	100	0.561
	Male	13	28	34	72	47	100	
Marital status	Married	27	36	47	64	74	100	0.058
	Single/ widowed	7	19	30	81	37	100	
Born in a rural area	Yes	32	40	49	60	81	100	0.001
	No	2	1	28	29	30	100	
Born in Kabaya region	Yes	26	74	9	26	35	100	<0.001
	No	8	11	68	89	76	100	
Grew up in a rural area	Yes	31	40	47	60	78	100	0.001
	No	3	3	30	99	33	100	
Studied in a rural area	Yes	28	44	35	66	63	100	<0.001
	No	6	13	42	87	48	100	
Did clerkship in a rural area	Yes	13	34	25	66	38	100	0.555
	No	21	40	31	60	52	100	
Had a previous job in a rural area	Yes	24	36	42	64	66	100	0.113
	No	10	22	35	78	45	100	

5. 2. Association between working and living conditions with intention to stay

5. 2. 1. Working conditions

Supervisory and management issues emerge as significant predictors of intention to stay, but access to resources even more strongly. Unmanageable workload and inadequate infrastructure were significantly associated with intention to leave while availability of electricity, equipment and supplies was not associated with intention to stay (Table 9).

Table 9: Association between intention to stay and working conditions of respondents (n=111)

Factors		Stay indefinitely				Total		p-value
		Yes		No				
		n	%	n	%	n	%	
In the past six months, someone has talked to me to encourage my development	Agree	26	38	42	62	68	100	0.029
	Neutral/Disagree	8	19	35	81	43	100	
I am fairly evaluated on my work.	Agree	20	33	41	67	61	100	0.586
	Neutral/Disagree	14	28	36	72	50	100	
My immediate supervisor cares about me as a person.	Agree	29	38	47	62	76	100	0.011
	Neutral/Disagree	5	14	30	86	35	100	
The hospital/Health center manager here is competent and committed.	Agree	29	36	51	64	80	100	0.039
	Neutral/Disagree	5	16	26	84	31	100	
I have a good friend at work.	Agree	29	44	37	56	66	100	<0.001
	Neutral/Disagree	5	11	40	89	45	100	
The workload is manageable.	Agree	28	67	14	33	42	100	<0.001
	Neutral/Disagree	6	9	63	91	69	100	
This facility has adequate infrastructure	Agree	12	71	5	71	17	100	<0.001
	Neutral/Disagree	22	23	72	57	94	100	
At work, I have access to safe, clean water.	Agree	28	61	18	39	46	100	<0.001
	Neutral/Disagree	6	9	59	91	65	100	
At work, I have good access to electricity.	Agree	28	29	69	71	97	100	0.288
	Neutral/Disagree	6	43	8	57	14	100	
I have the equipment I need to do my job well and efficiently (ultrasound, x-ray, blood pressure cuffs).	Agree	23	36	41	64	64	100	0.157
	Neutral/Disagree	11	23	36	77	47	100	
I have the supplies I need to do my job well and safely (gloves, needles, bandages, etc).	Agree	24	33	49	67	73	100	0.477
	Neutral/Disagree	10	26	28	74	38	100	
The organization takes specific measures to protect me against HIV/AIDS.	Agree	27	33	56	67	83	100	0.310
	Neutral/Disagree	6	22	21	78	27	100	
I can take time to eat lunch almost every day.	Agree	24	46	28	54	52	100	0.001
	Neutral/Disagree	10	17	49	83	59	100	

5. 2. 2. Living conditions

Lack of conducive living conditions (such as adequate house, good school of children, transportation and shopping facilities) seems to be highly associated with intention to leave, except for access to clean water and electricity at home (Table 10).

Table 10: Association between intention to stay and living conditions of respondents (n=111)

Factors		Stay indefinitely				Total		p-value
		Yes		No				
		n	%	n	%	n	%	
I have access to adequate house near my workplace.	Agree	23	53	20	47	43	100	<0.001
	Neutral/Disagree	11	16	57	84	68	100	
At home, I have access to safe, clean water.	Agree	17	33	34	67	51	100	0.569
	Neutral/Disagree	17	28	43	72	60	100	
At home, I have good access to electricity.	Agree	26	30	60	70	86	100	0.866
	Neutral/Disagree	8	32	17	68	25	100	
I have access to good schooling for my children.	Agree	24	92	2	8	26	100	<0.001
	Neutral/Disagree	10	12	75	88	85		
I have safe and efficient transportation to work.	Agree	18	49	19	51	37	100	0.004
	Neutral/Disagree	16	22	58	78	74	100	
The community where I live has good shopping and entertainment.	Agree	18	51	17	49	35	100	0.001
	Neutral/Disagree	16	21	60	79	76	100	

5. 3. Association between intention to stay and financial and non-financial incentives

5. 3. 1. Financial incentives

There is a significant association between the intention to stay amongst health workers and all incentives except for promotion and flexibility to balance job and personal life (Table 12).

Table 12: Association between intention to stay and financial incentives (n=111)

Factors		Stay indefinitely				Total		p-value
		Yes		No				
		n	%	n	%	n	%	
My salary package (Salary, PBF, and Per-diems) is fair.	Agree	28	80	7	20	35	100	<0.001
	Neutral/Disagree	6	8	70	92	76	100	
I feel there are sufficient opportunities for promotion with this employer.	Agree	17	40	26	60	43	100	0.106
	Neutral/Disagree	17	25	51	75	68	100	
I receive recognition for doing good work.	Agree	25	63	15	37	40	100	<0.001
	Neutral/Disagree	9	13	62	87	71	100	
I have flexibility to balance the demands of my workplace and my personal life.	Agree	9	20	35	80	44	100	0.059
	Neutral/Disagree	25	37	42	63	67	100	
I have been given the training needed to succeed in my position.	Agree	25	74	9	26	34	100	<0.001
	Neutral/Disagree	9	12	68	88	77	100	

Chapter 5 Discussion

From this study several factors were associated with the intention to stay amongst health workers in Kabaya:

Employment category

Intention to stay was found to be associated with employment categories in our study. The same results were found in studies done in the United States of America (USA), Australia and Uganda (Daniels *et al*., 2007; Playford, Larson and Wheatland, 2006; Schofield *et al*., 2009; Hagopian *et al.*, 2006). Professionals were more likely to leave than others workers. This could be explained by the fact that some health worker categories like doctors, pharmacists and registered nurses have many opportunities for being recruited in urban areas.

Age

Age was associated with the intention to stay amongst health workers in our study, similar to studies done in the USA, Australia, Croatia, Uganda and Kenya (Daniels *et al.*, 2007; Humphreys *et al.*, 2002; Polasek *et al.*,2006; Hagopian *et al*., 2006; Mullei *et al.*, 2010). Older health workers possibly have more commitment and control over their jobs and may be more stable than younger ones. In addition they could have had opportunities to try out different placements and may have made life choices to end their career in one place before retirement.

Rural backgrounds

Intention to stay is significantly greater when an employee's birth, growth and study places are in rural area. This is very similar to findings in other African countries as South Africa, Malawi and Uganda (Couper *et al.*, 2006; Katyola *et al*., 2006; Nguyen *et al.*, 2008). This is due to the fact

that people with rural background are familiar with life there and have a commitment and engagement to contribute to a better life for their relatives. However, there is no association between intention to stay and clerkship and previous job in rural area. The reason could be that most time clerkships are being made in big urban hospitals where many of the medical and nursing schools are located and probably most people worked in rural areas previously.

Desire to work closer to birthplace

Birthplace in the region where the health facility is located was found to be associated with the intention to stay in our study. This desire to work closer to home was positively associated with the retention of health workers in studies done in USA and Australia (Daniels *et al*., 2007; Meek *et al*., 2009; Scanlan *et al*., 2010; Kruger & Tennant, 2005). The reason is that there people feel comfortable with their extended families around them and they can care for them easily and cheaply.

Supportive supervision

Supportive supervision was related to the intention to stay in our study. Supportive supervisory practices included: encouragement to develop, care to employee as a person, supervisor available when needed and manager's competence. Supportive supervision by managers was associated with the retention of health workers in studies done in Mali, South Africa, Swaziland, Malawi, Uganda, Kenya and Tanzania (Dieleman *et al.,* 2006; Kotzee & Couper, 2006; Masango *et al.*, 2008; Manafa *et al.*, 2009; Hagopian *et al*, 2006; Mullei *et al*., 2010; Mathauer & Imhoff, 2006; Willis-Shattuck *et al*., 2008; Manongi, Marchant & Bygbjerg, 2006). The relationship between

employees and their managers is crucial to employees' performance as people like to work in an environment where there are encouraged to improve instead of being punished.

Workload

Results from our study showed a relationship between workload and the intention to stay among health workers. Non manageable workload was positively associated with the intention to leave among health workers in studies done in Nigeria, Kenya and Uganda (Awofeso, 2010; Mullei *et al.,* 2010; Ndetei *et al.,* 2008; Munga & Mbilinyi, 2008; Hagopian *et al.,* 2006). Excessive workload makes people feel stressed and tired and exposes employees to work accidents, amongst them HIV/AIDS. Health facilities in Rwanda rural area receive a big number of patients which exceeds the number of employees available to treat them. This reduces the morale of health workers working there.

Infrastructure

Inadequacy of health facility infrastructure at work was associated with the intention to stay in our study. Poor infrastructure has been found to be negatively associated with the retention of health workers in studies done other African countries as Nigeria, South Africa and Kenya and in literature reviews (Awofeso, 2010; Kotzee & Couper, 2006; Mullei *et al*., 2010; Lehmann *et al.,* 2008; Willis-Shattuck *et al*., 2008). This could be due the fact that no one would enjoy working in a place where infrastructure needed to perform job is not available or is not in a good state.

Adequate schools of children

Unavailability of good schools for employees' children was associated with the intention to change their workplace in our study. Inadequate schooling for children has been found to be negatively associated with the intention to stay in studies done in Ghana, Swaziland, Kenya and Uganda (Agyepong *et al.*, 2004; Masango *et al.*, 2008; Mullei *et al*., 2010; Ndetei *et al.*, 2008; Hagopian *et al.*, 2006). People wish to give a legacy of good education to their children and good schools are located in urban areas and people tend to search for job there to allow their children to have that opportunity.

Salary

There is a very significant relationship between salary package and the intention to stay among health workers in our study. A perceived adequate salary was positively linked to health worker's retention in rural areas in several studies done in African countries and others countries all over the World such as USA, Canada, UK, North Ireland, Australia, Hungary, Vietnam, Fiji, Mali, South Africa, Malawi, Kenya, Uganda and Ethiopia and Rwanda (Daniels *et al*., 2007; Blosser *et al*., 2010; Navaie-Waliser *et al.*, 2007; Auerbach, McGowan, Ausberger, Strolin-Goltzman & Schudrich, 2010; Edgar & Rosa-Lugo, 2007; Armstrong-Stassen, 2005; Chan *et al*., 2005; Shields & Ward, 2001; Fleming & Taylor, 2006; Kruger & Tennant, 2005; Meek *et al*., 2009; Schofield *et al.*, 2009; Schoo, Stagnitti, Mercer & Dunbar, 2005; Girasek *et al*., 2010; Dieleman *et al*., 2003; Kimberly *et al.*, 2009; Dieleman *et al*., 2006; Kotzee & Couper, 2006; Katyola *et al*., 2006; Manafa *et al*., 2009; Mullei *et al*., 2010; Ndetei *et al.*, 2008; Hagopian *et al*., 2006; Serneels *et al.*, 2010). Underpayment and inequity in pay systems between employees

of the same qualification reduces their productivity and leads to high turnover amongst workers. This is often the case in the Rwandan health system where disparities are found in remuneration between employees working in rural and urban areas and between employees working in health facilities and in NGOs.

Recognition

Our study revealed that recognition for doing a good job was associated with intention to stay amongst health workers. Recognition by managers, colleagues and community for doing good work has been found to positively influence retention amongst health facilities in USA, Canada, North Ireland, Vietnam, Fiji, Mali, South Africa, Swaziland, Tanzania, Uganda and other developing countries (Navaie-Waliser *et al*., 2007; Armstrong-Stassen, 2005; Fleming & Taylor, 2006; Dieleman, Cuong, Anh & Martineau, 2003; Kimberly *et al.*, 2009; Mathauer & Imhoff, 2006; Willis-Shattuck, Bidwell, Thomas, Wyness, Blaauw & Ditlopo, 2008; Dieleman, Toonen, Touré & Martineau, 2006; Kotzee & Couper, 2006; Masango, Gathu & Sibandze, 2008; Munga & Mbilinyi, 2008; Hagopian *et al*, 2006). When employees do a good job and no-one acknowledges it, they become discouraged, lose interest in that job and look for employment elsewhere.

Flexibility to balance job and personal life

Flexibility to balance job and personal life was not associated with intention to stay amongst health workers in our study even though it has been found to influence positively the retention of health workers in several studies done in African countries (Masango *et al.*, 2008; Manafa *et al*., 2009; Hagopian *et al*., 2006; Mullei *et al*., 2010; Ndetei, Khasakhala & Omolo, 2008; Manongi

et al., 2006; Munga *et al.*, 2009). This could be due to a large number of single people (a third of our population is single) and young people (a half of our population is under 35 years) who can manage their life as they do not have many commitments toward their families and the society.

Training opportunities

Training received was associated with the intention to stay amongst health workers in our study. Training opportunities were also associated with the retention of health workers in studies done in the UK, Australia, Vietnam, Mali, Ghana, South Africa, Malawi, Kenya and Tanzania (Shields & Ward, 2001; Humphreys *et al.*, 2002; Meek *et al.*, 2009; Dieleman *et al.*, 2003; Dieleman *et al.*, 2006; Agyepong *et al.*, 2004; Kotzee & Couper, 2006; Manafa *et al.*, 2009; Ndetei *et al.*, 2008; Mathauer & Imhoff, 2006; Willis-Shattuck *et al.*, 2008; Kruger & Tennant, 2005, Munga & Mbilinyi, 2008). Opportunities for training are seen by employees as a means to become more marketable and as sources of additional revenues to their salary. Training also help employees to improve their work and if they are missing employees intent to migrate elsewhere.

Kabaya is a remote rural area where like others areas in Rwanda, health facilities are facing a lack of financial resources, skilled personnel and infrastructure needed to perform. When employees do not have access to those primary needs, they become demoralized and poorly motivated and their intention to stay becomes low. This is why people intend to leave Kabaya 'en masse'.

Limitations

This study has contributed to the understanding of the problems which influence the retention of health workers in Kabaya, one region of Rwanda. Results could be different if a larger sample from other rural and urban areas was included in the research and the results can therefore not be generalized to other rural settings in Rwanda. However, it is anticipated that findings could be of relevance to other similar settings. A larger sample would have also enabled multivariate analyses, and controlling for confounding effects, not possible in this study.

Chapter 6 Conclusions and recommendations

Many factors have been related with intention to stay working in Kabaya health facilities. Among them we can cite: employee category, age, rural backgrounds in socio-demographic characteristics and employment profile; supervision, having a good friend at work, manageable workload, HF infrastructure and water at work, access to transportation and recreation facilities in working and living condition; and salary, recognition for doing a good job, training opportunities in financial and non-financial incentives.

From these findings, different recommendations can be made for different decision-makers, otherwise employees will continue to migrate:

Ministry of Health

- Improve recruitment process by hiring older candidates, candidates with rural backgrounds and especially people from the region where the health facility is located.
- Increase human resource management knowledge and skills of managers and leaders of different health facilities to facilitate them to realize supportive supervision; and encourage workers to develop workplace friendships and teamwork.
- Improve working and living conditions of health workers in rural areas
- Review of the compensation and benefits system by giving more and equitable salaries and other financial and non-financial benefits for health workers especially for workers in very remote, difficult and inaccessible areas.

— Rehabilitate health facility infrastructure and provide equipment needed by employees in their daily work

Local Management of the Hospital and Health Centers

— Reinforce the human resource management skills of frontline and middle managers.

— Use of incentives such as Performance Based Financing, transport bonus to motivate and retain people.

— Make all the supplies and medicines available in all facilities.

Academic institutions

Conduct studies in other areas and with larger sample sizes to produce valid results to assist policy and decision makers develop strategies with respect to recruitment, planning, motivation and retention of health workers, especially in rural areas where the majority of Rwandan population lives.

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Appendixes

Appendix A: Questionnaire (English)

FOR OFFICIAL USE ONLY

Questionnaire Number: ☐☐☐

Date: ☐☐/☐☐/☐☐☐☐(dd/mm/yyyy)

Date Checked:☐☐/☐☐/☐☐☐☐ (dd/mm/yyyy)

Name: _____

Kabaya Health Worker Intention to Stay Study Questionnaire

Section I:Employment profile

S1.Q1. Facility Name: _____

S1.Q2. What is your category?

1 = Physician

2 = Nurse A1/ Technician A1

3 = Nurse A2/ Technician A2

4 = Social Worker

5 = Administrative Worker Specify type: _____

6 = Other Specify type: _____

S1.Q3. Current Job Title (position): _____

Section II: Background Information

Enter or circle your answers to the questions below.

#	Questions	Enter or circle your answers.
S2.Q1.	What is your birth year?	**19** ☐☐(yyyy)
S2.Q2.	What is your exact age?	☐☐years
S2. Q3.	What is your gender?	1=Male 2=Female
S2.Q4.	What is your marital status? (Circle one category)	1= Married 2= Single 3=Divorced 4=Widowed 5=Separated
S2. Q5.	How long have you been at this facility?	☐☐years☐☐months
S2.Q6.	Is your birthplace in rural area?	1=Yes 0=No
S2.Q7.	If it is in rural area, were you born in Kabaya region?	1= Yes 0=No
S2. Q8.	Have you grown up in rural area?	1=Yes 0=No
S2. Q9.	Do you have study background in rural area?	1=Yes 0=No
S2. Q10.	Have you done your clerkship in rural area?	1=Yes 0=No
S2. Q11.	Was your previous workplace in rural area?	1=Yes 0=No

Please continue to next page

Section III: Living and Working Conditions

The following questions refer to your job satisfaction where you are currently working. Please circle the number that fits your response.

#	**To what extent do you agree with the following statements?**	5= Strongly Agree	4 = Agree	3= Neutral	2 = Disagree	1 = Strongly disagree
S3.Q1.	In the past six months, someone has talked to me to encourage my development.	5	4	3	2	1
S3.Q2.	I am fairly evaluated on my work.	5	4	3	2	1
S3.Q3.	My immediate supervisor cares about me as a person.	5	4	3	2	1
S3.Q4.	My supervisor is available when I need support.	5	4	3	2	1
S3.Q5.	The hospital/Health Facility (Centre de Santé) manager here is competent and committed.	5	4	3	2	1
S3.Q6.	The organization takes specific measures to protect me against HIV/AIDS.	5	4	3	2	1
S3.Q7.	I have a good friend at work.	5	4	3	2	1
S3.Q8.	The job is a good match for my skills and experience.	5	4	3	2	1
S3.Q9.	When I come to work, I know what is expected of me.	5	4	3	2	1
S3.Q10.	I am actively involved in helping to make this a great health care facility.	5	4	3	2	1

S3.Q11.	The workload is manageable.	5	4	3	2	1
S3.Q12.	This facility has adequate infrastructure that I need to do my job well	5	4	3	2	1
S3.Q13.	At work, I have access to safe, clean water.	5	4	3	2	1
S3.Q14.	At work, I have good access to electricity.	5	4	3	2	1
S3.Q15.	I feel I have job security.	5	4	3	2	1
S3.Q16.	I have the supplies I need to do my job well and safely (gloves, needles, bandages, etc).	5	4	3	2	1
S3.Q17.	I have the equipment I need to do my job well and efficiently (ultrasound, x-ray, blood pressure cuffs).	5	4	3	2	1
S3.Q18.	This facility has good access to drugs and medications.	5	4	3	2	1
S3.Q19.	I can take time to eat lunch almost every day.	5	4	3	2	1
S3.Q20.	I have access to adequate house near my workplace.	5	4	3	2	1
S3.Q21.	At home, I have access to safe, clean water.	5	4	3	2	1
S3.Q22.	At home, I have good access to electricity.	5	4	3	2	1
S3.Q23.	I have access to good schooling for my children.	5	4	3	2	1
S3.Q24.	I have safe and efficient transportation to work.	5	4	3	2	1
S3.Q25.	The community where I live has good shopping and entertainment.	5	4	3	2	1

Section IV: Financial and non-financial incentives

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

#	**To what extent do you agree with the following statements?**	5 = Strongly Agree	4 = Agree	3= Neutral	2 = Disagree	1 = Strongly disagree
S4.Q1.	My salary package (Salary, PBF, and Perdiems) is fair.	5	4	3	2	1
S4.Q2.	I feel there are sufficient opportunities for promotion with this employer.	5	4	3	2	1
S4. Q3.	I receive recognition for doing good work.	5	4	3	2	1
S4.Q4.	I have flexibility to balance the demands of my workplace and my personal life.	5	4	3	2	1
S4.Q5.	I have been given the training needed to succeed in my position.	5	4	3	2	1

Section VI: Intent to stay/leave

Please circle the most appropriate response to the questions below.

#	Questions	Circle your answers
S5.Q1.	Which of the following statements is true for you?	1= I plan to stay in this job indefinitely 2= I would leave this job as soon as possible. 3= I would leave this job within a year from now. 4= I would leave this job one to two years from now. 5= I would leave this job three to five years from now. 6= Other (Specify): ☐☐ years
S5.Q2.	Where will you wish to go?	1= Urban area 2= Another rural area 3= Foreign country

THANK YOU FOR YOUR COOPERATION

Appendix B: Questionnaire (Kinyarwanda)

Ubushakashatsi ku mpamvu zituma abakozi baguma mu mavuriro ya Kabaya

Igice cya mbere: Amakuru rusange

S1.Q1. Izina ry'ivuriro: _____

S1.Q2. Ni ikihe gice cy'abakozi uherereyemo?

1 = Muganga

2 = Umuforomo A1/Umutekinisiye A1

3 =Umuforomo A2/Umutekinisiye A2

4 =Umusosiyale

5 = Ukora mu buyobozi bw'ikigo/Sobanura: _____

6 =Akandi kazi/Sobanura: _____

S1.Q3.Akazi ukora ubungubu: _____

Igice cya 2: Umwirondoro

Uzuza cyangwa ushyire akaziga ku mubare uhwanye n'igisubizo cyawe

#	Ibibazo	Uzuza cyangwa ushyire akaziga ku gisubizo cyawe.
S2.Q1.	Wavutse ryari?	**19** ☐☐(yyyy)
S2.Q2.	Ubu ugize imyaka ingahe?	☐☐**Imyaka**
S2. Q3.	Igitsina cyawe ni ikihe?	1=Gabo 2=Gore
S2.Q4.	Ni irihe rangamimerere ryawe?	1=Ndubatse 2=Ndi ingaragu 3=Natandukanye n'uwo twashakanye 4=Umupfakazi 5=Simbana n'uwo twashakanye
S2. Q5.	Umaze igihe kingana iki ukora kuri iri vuriro?	☐☐Imyaka☐☐Amezi
S2.Q6.	Waba waravukiye mu cyaro?	1=Yego 0=Oya
S2.Q7.	Niba ari mu cyaro, waba waravukiye mu karere ka Ngororero?	1=Yego 0=Oya
S2. Q8.	Waba warakuriye mu cyaro?	1=Yego 0=Oya
S2. Q9.	Waba warize amashuri yawe mu cyaro?	1=Yego0=Oya
S2. Q10.	Waba warakoreye stages zawe mu cyaro?	1=Yego 0=Oya
S2. Q11.	Mbere y'uko uza aha wakoreraga mu cyaro?	1=Yego 0=Oya

Igice cya 3: Ibijyanye n'imibereho mu buzima busanzwe no mu kazi

Ibibazo bikurikira byerekeye imibereho yawe haba mu buzima busanzwe no mu kazi ukora ubu.

. Shyira akaziga ku mubare ujyanye n'igisubizo cyawe.

#	**Ni ku ruhe rugero wemeranya n' iyi nteruro?**	5= Turemeranya cyane	4 = Turemeranya	3= Simbizi	2= Ntitwemeranya	1 = Ntitwemeranya na gato
S3. Q1.	Ndashimirwa iyo nkoze akazi neza	5	4	3	2	1
S3.Q2.	Mu mezi 6 ashize, hari uwamvugishije agamije kunshishikariza gutera imbere mu kazi	5	4	3	2	1
S3.Q3.	Nkorerwa isuzumwa rinoze mu kazi kanjye	5	4	3	2	1
S3.Q4	Umuyobozi wanjye anyitaho nk'ikiremwamuntu	5	4	3	2	1
S3.Q5.	Umuyobozi wanjye mubonera igihe iyo nkeneye ko hari ibyo yamfasha	5	4	3	2	1
S3.Q6.	Umuyobozi w'iri vuriro azi ibyo akora kandi akorana umwete	5	4	3	2	1

S3.Q7.	Nshobora gufatanya akazi n'ubuzima bundi nta kibangamiye ikindi	5	4	3	2	1
S3.Q8.	Nabonye amahugurwa ahagije kugira ngo ntunganye akazi nshinzwe	5	4	3	2	1
S3.Q9.	Ivuriro nkoreramo rikora uko rishoboye ngo ntandura SIDA	5	4	3	2	1
S3.Q10.	Mfite inshuti nyanshuti mubo dukorana	5	4	3	2	1
S3.Q11.	Ibyo nkora bihuye neza n'ibyo nize	5	4	3	2	1
S3.Q12.	Iyo nje ku kazi mba nzi neza icyo ntegetwe gukora	5	4	3	2	1
S3.Q13.	Nkora uko nshoboye ngo iri vuriro rikomere	5	4	3	2	1

#	**Ni ku ruhe rugero wemeranya ni iyi nteruro**	5= Turemeranya cyane	4= Turemeranya	3= Simbizi	2 = Ntitwemeranya	1 = Ntitwemeranya cyane
S4.Q1.	Akazi nkora kari mu rugero	5	4	3	2	1
S4.Q2.	Iri vuriro rifite inyubako zihagije zituma	5	4	3	2	1

	nkora akazi kanjye uko bigomba					
S4.Q3.	Ku kazi, hari amazi meza igihe cyose	5	4	3	2	1
S4.Q4.	Ku kazi, hari umuriro w'amashanyarazi	5	4	3	2	1
S4.Q5.	Numva ntawapfa kunsezerera muri aka kazi kanjye nta mpamvu igaragara	5	4	3	2	1
S4.Q6.	Mfite ibikoresho bya ngombwa nkenera kugira ngo akazi kanjye kagende neza (gants, inshinge, ibipfukisho, n'ibindi)	5	4	3	2	1
S4.Q7.	Dufite imashini zidufasha gutunganya akazi kacu (Ekografi, radiografi, tensiyometre, etc)	5	4	3	2	1
S4.Q8.	Iri vuriro rihorana imiti yose ya ngombwa	5	4	3	2	1
S4.Q9.	Nshobora kubona umwanya wo gufata ifunguro ryanjye rya saa sita buri munsi ndi ku kazi	5	4	3	2	1
S4.Q10.	Ntuye mu nzu ifite ibikenewe bya ngombwa kandi hafi y'akazi	5	4	3	2	1
S4.Q11.	Mu rugo, hari amazi meza	5	4	3	2	1
S4.Q12.	Mu rugo, hari umuriro w'amashanyarazi	5	4	3	2	1
S4.Q13.	Abana banjye bafite aho biga heza hanshimishije.	5	4	3	2	1
S4.Q14.	Mfite uburyo bunoze kandi bwihuse bungeza ku kazi	5	4	3	2	1
S4.Q15.	Aho ntuye hari amaduka n'aho kwidagadurira bya ngombwa	5	4	3	2	1

Igice cya 4: Agahimbazamusyi

Erekana uko wemeranya n'ibi bibazo ushyira akaziga ku gisubizo kikunogeye

#	**Ni ku ruhe rugero wemeranya ni iyi nteruro**	5 = Turemerany a cyane	4 = Turemerany a	3= Simbizi	2 = Ntitwemeran ya	1 = Ntitwemeranya cyane
S5.Q1.	Umushahara n'ibindi ngenerwa birahagije	5	4	3	2	1
S5.Q2.	Mbona hari uburyo buhagije bwo kuzamurwa mu ntera n'umukoresh a wanjye w'iki gihe	5	4	3	2	1

Igice cya 5: Ugushaka kugenda cyangwa kuguma aho ukorera

Shyira akaziga ku gisubizo kikunogeye mu bikurikira

#	Ibibazo	Zengurutsa akaziga ku gisubizo kikunogeye
S6.Q1.	Ni iyihe nteruro ikunogeye muri izi zikurikira?	1= Nzigumira muri aha nkorera igihe nshigaje mu kazi 2= Nzava hano vuba bishoboka 3= Ndateganya kuva hano mu gihe kitageze ku mwaka umwe uvuye ubu 4= Ndateganya kuva hano mu gihe kiri hagati y'umwaka umwe n'imyaka ibiri uvuye ubu 5= Ndateganya kuva hano mu gihe kiri hagati y'imyaka itatu n'imyaka itanu uvuye ubu 6=Indi myaka: ☐☐ Imyaka
S6.Q2.	Waba wifuza kwerekeza he?	1= Mu ivuriro riri mu mugi 2= Mu rindi vuriro riri mu cyaro 3= Mu mahanga 4=Akandi kazi katari ako kwa muganga

MURAKOZE CYANE

Appendix C: Participant Form (English)

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PARTICIPANT INFORMATION SHEET

I am GATSINDA MELENCE, a student at the SOPH, University of the Western Cape. As part of my Masters in Public Health, I am required to do a Mini-thesis. I will focus on intention to stay among health workers in Kabaya health facilities. I am accountable to Prof Helen Schneider who is contactable at School of Public Health, University of the Western Cape or c/o SOPH Fax 021 959 2872 or by e-mail at hschneider@uwc.ac.za.

The purpose of the study is to learn about how health workers view their jobs, how satisfied they are with working and living conditions, and their intentions to stay in their work. We hope to learn what things the Ministry of Health, the District, Facilities Management Teams or other partners could do to improve working conditions and other factors that would improve health worker recruitment and retention of health workers in Ngororero District or other rural areas in Rwanda.

We do not anticipate that some questions will be difficult to answer, but some may cause you to think about working conditions that are distressing and may cause emotional discomfort. You may refuse to participate or answer any question and may withdraw from the study at any time without penalty. When you complete the questionnaire and return it to a study team member, you are conveying your consent to participate without giving us your name.

Some people are concerned that giving a negative report about their supervisor or employer may put them at risk. We have attempted to minimize that risk in the following ways: 1) The questionnaire is anonymous; your name is not attached to your responses; 2) If the study staff reads the questions to you and records your spoken answers, this will be done in a private setting where no one can overhear your responses.

If you have any questions, please do not hesitate to ask any of the study team members or call GATSINDA Mélence (Phone: 0788480175 or 0722480175; E-mail: mel.gatsinda@gmail.com or mgatsinda@yahoo.fr.)

Please remove this page and keep it for your records.

Name of study staff:

GATSINDA Mélence, MD, UWC MPH Student

Appendix D: Participant form (Kinyarwanda)

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UNIVERSITY OF THE WESTERN CAPE

School of Public Health

Private Bag X17 ● **BELLVILLE** ● 7535 ● South Africa

Tel: 021- 959 2809, Fax: 021- 959 2872

URUPAPURO RUMENYESHA UGIRA URUHARE MU BUSHAKASHATSI

Izina ry'ubushakashatsi: Impamvu zituma abakozi bo mu mavuriro bifuza kuguma gukorera mu mavuriro yo muri Kabaya, Rwanda.

Ikigamijwe n'ubushakashatsi: Ndi umunyeshuri mu ishuri ry'Ubuzima rusange, kuri Univerisite ya Western Cape, Afrika y'epjo (South Africa).Nka kimwe mu bisabwa kugirango mbone impanyabumenyi ihanitse mu buzima rusange (Masters in Public Health), nsabwa gukora ubushakashatsi.Nkaba rero nzibanda ku kureba uburyo abakozi bo mu mavuriro y'I Kabaya bifuza kuguma bakorera muri ayo mavuriro. Nkaba Nyoborwa na Prof. Helen Shneider ubarizwa ku Ishuri ry'Ubuzima rusange - School of Public Health, University of the Western Cape or c/o SOPH Fax 021 959 2872 cyangwa e-mail ye nihschneider@uwc.ac.za.

Ikigamijwe muri ubu bushakashatsi ni ukwiga uburyo abakozi bo mu mavuriro babona akazi kabo, imibereho yabo no kumenya niba bifuza kuguma bakorera muri ayo mavuriro.

Amakuru arebana n'ubushakashatsi: Ugira uruhare muri ubu bushakashatsi arasabwa kuzuza ifishi y'ibazwa wenyine, bikamufata nk'iminota 15. Bibaye ngombwa, ubazwa ashobora kwitabaza ufasha mu bushakashatsi uzaba uhari akamufasha kumusobanurira aho adasobanukiwe.

Ingaruka mbi z'ubushakashatsi: Turakeka ko ibibazo bimwe bishobora kuba byagutera gutekereza ku mibereho yawe mu kazi no kumwa utamerewe neza. Ufite uburenganzira bwo gusimbuka ibibazo bimwe na bimwe ndetse no kuva mu bushakashatsi aho waba ugeze hose. Ariko igihe cyose wujuje urupapuro rw'ibibazo uzaba wemeye kugira uruhare mu bushakashatsi kandi amazima yawe ntazajya kuri ruriya rupapuro.

Abakozi bamwe bashobora kwibaza niba bagize icyo bavuga kitari kiza ku bayobozi babo bitabagiraho ingaruka mbi. Twageregeje kuvanaho izo nzitizi ku buryo bukurikira; 1) Urupapuro rw'ibibazo uzuzuza nta zina uzashyiraho; 2) Igihe uhisemo kubazwa, uzabarizwa mu cyumba gifunze aho nta wundi muntu wakumva ibyo urimo gusubiza.

Icyo uzungukira muri ubu bushakashatsi: Nta nyungu z'ako kanya zizava muri ubu bushakashatsi. Ariko, tukaba twizeye ko ibizava muri ubu bushakashatsi byafasha Ministeri y'ubuzima, Akarere n'amavuriro mu kunoza imikorere n'imibereho y'abakozi byafasha mu gushyira mu myanya no kurambana abakozi mu mavuriro y'Akarere ka Ngororero no mu bindi byaro byo mu Rwanda.

Ikizakurikiraho: Nta ngaruka na zimwe zizabaho ku muntu wese utazifuza kugira uruhare muri ubu bushakashatsi haba aha cyangwa mu yandi mavuriro.

Ibanga: Ntawuzamenya abagize uruhare muri ubu bushakashatsi, bose bazagirirwa ibanga. Buri muntu azuzuza ifishi y'ubazwa wenyine, igihe bibaye ngonbwa ko afashwa bizakorerwa mu biro bifunze aho ibiganirwaho bidashobora kumvwa n'abandi, hanyuma iyo fishi y'ubazwa ishyirwe mu ibahasha ifunze. Buri ubazwa azagira umubare w'ibanga.Amafishi y'ubazwa azabikwa imyaka itanu nyuma yaho azatwikwa.Abazakora muri ubu bushakashatsi bose bazasinyishwa urupapuro rubasaba kugira ibanga.Ari abakozi ari n'ababazwa ntawuzaba azi undi.

Kugira uruhare muri ubu bushakashatsi: Nta gihembo kigenewe ugira uruhare muri ubu bushakashatsi. Kugira uruhare ni ubushake busesuye. Kandi igihe cyose, ugira uruhare mu bushakashatsi ashobora gusaba kandi akabihabwa kuva mu bushakashatsi.

Ku bindi bisobanuro: Ikibazo cyose wagira wakwiyambaza umwe mu bakuriye ubu bushakashatsi cyangwa ugahamagara GATSINDA Mélence (Telefoni igendanwa: 0788480175 cyangwa 0722480175; E-mail: mel.gatsinda@gmail.com cyangwamgatsinda@yahoo.fr.)

Kuraho uru rupapuro urugumane

Amazina y'ushyikirije uru rupapuro

Appendix E: Consent form (English)

UNIVERSITY OF THE WESTERN CAPE

School of Public Health

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CONSENT FORM

Title of Research Project: Factors that influence intention to stay among health workers in Kabaya, Rwanda

The study has been described to me in language that I understand and I freely and voluntarily agree to participate. My questions about the study have been answered. I understand that my identity will not be disclosed and that I may withdraw from the study without giving a reason at any time and this will not negatively affect me in any way.

Participant's name……..

Participant's signature…….

Witness……..

Date……

Should you have any questions regarding this study or wish to report any problems you have experienced related to the study, please contact the study coordinator:

Study Coordinator's Name: Prof Helen Schneider

University of the Western Cape

Private Bag X17, Belville 7535

Telephone: (021)959-3563

Cell: 0832750277

Fax: (021)959-2872

Email: hschneider@uwc.ac.za

Appendix F: Consent form (Kinyarwanda)

UNIVERSITY OF THE WESTERN CAPE

School of Public Health

Private Bag X17 ● **BELLVILLE** ● 7535 ● South Africa

Tel: 021- 959 2809, Fax: 021- 959 2872

URUPAPURO RWO KWEMERA KUGIRA URUHARE MU BUSHAKASHATSI

Izina ry'ubushakashatsi: Impamvu zituma abakozi bo mu mavuriro bifuza kuguma gukorera mu mavuriro yo muri Kabaya, Rwanda.

Ubu bushakashatsi nabusobanuriwe neza mu rurimi numva neza, nkaba rero nemeye kugira uruhare muri ubu bushakashatsi.Ibibazo byose nari mfite nabiboneye ibisubizo binyuze. Nasobanuriwe ko amazina yanjye ntaho azagaragara kandi nshobora kuva muri ubu bushakashatsi igihe cyose nshakiye kandi ntibigire ingaruka mbi bingiraho uko ariko kose.

Amazina y'ugira uruhare mu bushakashatsi:……..

Umukono w'ugira uruhare mu bushakashatsi:…….

Umugabo wo kubihamya:…….

Itariki:……