

DrPH thesis

Zambian public sector nurses' incentives and motivation in the context of migration: how to retain Zambian nurses?

Naomi Toyoshi-Hamada

Department of Public Health and Policy

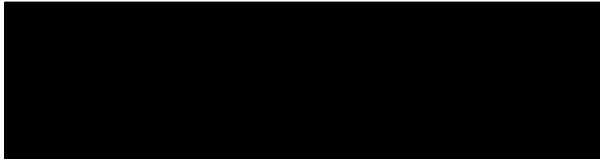
London School of Hygiene and Tropical Medicine

Declaration of candidate's own work

I have read and understood the London School of Hygiene and Tropical Medicine's definition of plagiarism and cheating given in the Research Degrees Handbook.

The research investigation reported in this thesis was conceptualized, carried out, analysed and written up by myself. An assistant, under my support and supervision, helped to transcribe part of the interviews. Otherwise the entire thesis was undertaken by me as my own work, with support from my supervisors: Jill Maben, Barbara McPake and Charles Hongoro; and advisory committee members: Justin Parkhurst, Kara Hanson, Jane Hendy, Gill Walt, Dina Balabanova and Virginia Wiseman. I have acknowledged all results and quotations from the published or unpublished work of other people.

Signed:

A large black rectangular box redacting the signature of the candidate.

Date: 27 April 2007

Full name: Naomi Toyoshi-Hamada

Abstract

In Africa, attrition of health workers has reached critical rates in recent years and many countries have implemented incentive programmes without an empirical basis to guide their choice of intervention.

This research uses a thorough understanding of nurses' perspectives to examine the complex factors and mechanisms that influence them to leave public hospitals. A case-study approach was employed. Data were collected using mainly qualitative methods: in-depth semi-structured interviews. Quantitative data such as verifications from the professional body were also collected.

Contextual factors (e.g. Structural Adjustment Program (SAP), Public Service Reform Programme (PSRP), health reform) and the increasing HIV/AIDS epidemic significantly influenced nurses' migration decisions. This was reflected in the concentration of breadwinners or widows in the failed migrants' group – those who had attempted, but failed, to migrate mainly due to high costs.

Declining levels of funding for tertiary-level hospitals have broad implications for the motivation and turnover of their nurses as a result of fewer professional development opportunities, lower allowances, fewer staff and reduced access to essential equipment/drugs. The importance of a lifelong wage structure is stressed, especially the important role of training, a living wage and an adequate pension. While younger nurses tend to give higher value to training opportunities, senior nurses with family responsibilities need more financial support. While most nurses interviewed consider it important to meet a minimum standard of living, they are also guided strongly by their professional conscience.

The quantitative data in this study suggest that restrictive immigration policies were effective in decreasing migration numbers. However, the primary focus of any retention strategy should be on retaining a motivated workforce through improved work and policy environments rather than restricting their migration. Specific areas are

identified where the Government might intervene to provide effective incentive programmes for Zambian nurses.

Doctorate in Public Health summary statement

The Doctorate in Public Health (DrPH) programme of the London School of Hygiene and Tropical Medicine (LSHTM) is intended for senior public health professionals who want a flexible career which combines high-level leadership, management and research skills. The DrPH has three main components, outlined below.

Taught component

This consists of six modules - three compulsory core modules and three optional study modules. These were taken during the first eight months of the DrPH programme which started in October 2002.

My core modules (Evidence-based Public Health Practice 1 and 2; Leadership and Management Development) provided me with theoretical knowledge and practice in the leadership and management of a public health area, research methods and effective strategies to disseminate research results. They also helped to develop specific skills and knowledge for conducting both my professional attachment and my research project.

The optional modules (Economic Analysis for Management & Policy; Economics of Health Care Systems; Foundations of Health Policy - 2) provided me with theoretical perspectives and current academic discussions on a wide range of public health issues such as health providers' behaviour, health policy and management and became the basis for the design of my research project.

While the objective of the DrPH research should be practical, it should support the practical recommendations with sound theory and evidence. This taught component was an important foundation for formulating the research questions in the context of current academic discussions about health economics and management.

Professional attachment

This provides the opportunity to observe and analyse the operation of a public health organization in order to learn how to design, develop and use such organizations to deliver public health goals. This leads to the production of a professional attachment report. With newly-acquired skills from the taught component, I arranged for my professional attachment to be with the Japanese Organization for International Cooperation in Family Planning (JOICFP) - one of the leading international Japanese non-governmental organizations (NGOs) active in the field of population and reproductive health.

Generally governments have a growing tendency to promote partnerships with NGOs. I used to work in the public sector, funding NGOs working for public health in developing countries. This experience produced a better understanding of NGOs' complex operations, perspectives and constraints; professional attachments are thought to help to establish mechanisms for effective public-NGO partnerships. I worked for JOICFP on a part-time basis, July to December 2003, observed its operation and produced a professional attachment report in May 2004. This was an excellent opportunity to practice the management theories and evidences learned in the taught component and to acquire new research skills of observation and interview techniques.

Research project

This aims to help to learn about the role of research in public health practice. The DrPH thesis must be a high quality piece of research like that for a PhD although the volume of work required is about one-third that of a PhD thesis. Full-time DrPH students are expected to spend 12-24 months carrying out and writing up their research in a maximum of 50 000 words.

My DrPH thesis explores factors likely to influence the out-migration of Zambian nurses. When I worked in Zambia as a health advisor to an international development agency, I felt that there was a big gap between the information needed by the Government and the areas of research available. Much research in Zambia focused narrowly on specific diseases; high quality policy-relevant research was rarely found. I

hope that my research enables policy-makers and donors in Zambia to make informed decisions.

DrPH theses are oriented towards public health practice, therefore it is appropriate to choose a topic which can address the current public health concerns of policy-makers in Zambia or sub-Saharan African countries. All my newly-acquired skills and knowledge in the taught component including health economics, qualitative methods, human resource management, literature review methods, dissemination strategies for research findings and evidence-based public health practice, contributed to the completion of this thesis.

DrPH was an appropriate match for my existing experience and my newly-acquired skills in management and academic research.

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Currency equivalents

(23 May 2005)

UK£ 1.00 = 8463 Zambian Kwacha (KW)

List of abbreviations

ACHAP: The African Comprehensive HIV/AIDS Partnerships

ART: Antiretroviral therapy

CBoH: Central Board of Health

DFID: Department for International Development

DHMT: District Health Management Team

DrPH: Doctorate in Public Health

EMs: Enrolled midwives

ENs: Enrolled theatre nurses

GDP: Gross domestic product

GNC: General Nursing Council

GNI: Gross national income

HIPC: Heavily indebted poor countries

HIV/AIDS: Human Immunodeficiency Virus/ Acquired Immunodeficiency Syndrome

IELTS: International English Language Testing System

IMF: International Monetary Fund

INESOR: Institute of Economic and Social Research

IOM: International Organization for Migration

JOICFP: Japanese Organization for International Cooperation in Family Planning

LSHTM: London School of Hygiene and Tropical Medicine

MDGs: Millennium Development Goals

MoH: Ministry of Health

NGOs: Non-governmental organizations

NHS: National Health Service

NMC: Nursing and Midwifery Council

OECD: Organisation for Economic Co-operation and Development

PRSP: Poverty reduction strategy papers

PSRP: Public Service Reform Programme
RMs: Registered midwives
RNs: Registered nurses
RTNs: Registered theatre nurses
SADC: Southern African Development Community
SAP: Structural Adjustment Program
Sida: Swedish International Development Cooperation Agency
UK: The United Kingdom
UNAIDS: Joint United Nations Programme on HIV/AIDS
UNDP: United Nations Development Programme
UNICEF: United Nations Children's Fund
UNZA: The University of Zambia
USA: United States of America
USAID: United States Agency for International Development
UTH: University teaching hospital
VSP: Voluntary separation package
WHO: World Health Organization
ZCCM: Zambia Consolidated Copper Mines

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Chapter 1: Introduction

1.1 Global context: human resource agenda

A cross-country econometric study shows that the low density of human resources for health is significant in explaining variations in maternal, infant and under-five mortality rates even after controlling for other variables used to account for these health outcomes (Anand and Baernighausen 2004). The World Health Organization (WHO) also recently identified a threshold in workforce density below which adequate coverage of essential interventions is very unlikely (WHO 2006). Fifty-seven countries (36 in sub-Saharan Africa) fall below this 80% coverage-level threshold and therefore are defined to have a critical shortage of health-care workers (WHO 2006). Despite the important role of health workers, many sub-Saharan countries have not increased their numbers but rather have experienced massive losses of nurses and doctors through migration in recent years; a trend that seems set to continue.

It is increasingly recognized that public health service delivery suffers serious consequences from the loss of health workers. It is also acknowledged that there are many other constraining factors on improving access to priority health interventions in developing countries (Hanson, Ranson et al. 2003). Yet, tackling human resources for health can be a vital prerequisite to achieving the Millennium Development Goals (MDGs) including the scaling up of interventions for human immunodeficiency virus/acquired immunodeficiency syndrome (HIV/AIDS).

The global community has started to respond to the HIV/AIDS crisis in sub-Saharan Africa by mobilizing financial resources and increasing access to essential drugs. However, the shortage of human resources for health will continue to be one of the most important barriers to the scale-up of antiretroviral therapy efforts (ART) in many countries (ACHAP 2001; WHO 2002; Huddart, Lyons et al. 2003; WHO 2003; Diallo, Zurn et al. 2003a; Diallo, O' Neill et al. 2003b; Narasimhan, Brown et al. 2004; Wyss 2004). A number of HIV/AIDS programmes already have begun to reassign tasks as a result of the shortage of health workers. This includes assigning nurses to evaluate

patients for ART and prescribe in uncomplicated cases, and shifting counselling and education from nurses to lay counsellors and trained peers (Hirschhorn, Oguda et al. 2006). Despite this change in skill mix, it is estimated that the equivalent of an extra 20 000 to 100 000 health workers were needed to meet WHO's target of treating 3 million people living with HIV/AIDS by 2005. While this target was not reached, the latest international target, "All by 2010" is aiming at universal access to treatment by 2010. It is obvious that this new and more ambitious scheme will require even larger numbers of health workers.

Historically, Africa has had inadequate numbers of trained health workers but in recent years a number of factors have escalated the situation. Many government health workers are ill-motivated because they are poorly paid, poorly equipped, infrequently supervised and informed, and have limited career opportunities within the civil service (USAID 2003). The consequent attrition of civil servants, especially skilled workers, has reached critical rates due to the combined effects of accelerated retrenchment and voluntary retirement, departure to the private sector and abroad, high rates of sick leave and eventual death due to HIV/AIDS. In the context of African countries, the remaining health workers feel burnt-out due to the ever-increasing burden of disease from HIV/AIDS and other infectious diseases. Public-sector health workers cope with this and the low salaries by seeking supplementary work and may also pilfer public property such as drugs (Ferrinho, Lerberghe et al. 1998; Killingsworth, Hossain et al. 1999; McPake, Asimwe et al. 1999; Van Leberghe, Conceicao et al. 2002).

Although many factors have escalated the shortage and resulted in desperate measures by some health workers in sub-Saharan Africa, the international migration of nurses has been a growing feature of the global health agenda since the late 1990s (Buchan, Kingma et al. 2005b). Nurses are in especially high demand in wealthy countries with an ageing population and workforce (Baumann, Blythe et al. 2004; Narasimhan, Brown et al. 2004). Although the WHO estimates that these countries may be defined as without a critical shortage (WHO 2006), other estimates suggest that to cover nursing needs the USA must recruit 1 million nurses by 2010 and the UK 80 000 nurses by 2008; also Canada will have a nurse shortfall of 331 000 by 2011 (Kingma 2006). In

order to attempt to address nursing “shortages” in developed countries, these countries have started both active and passive recruitment of nurses from developing countries. Some countries, such as the UK, made international recruitment an explicit national policy (Buchan, Kingma et al. 2005b). Current British policy does not permit active recruitment from a proscribed list of developing countries but there is a continuing outflow of nurses from these countries as a result of nurses’ individual choices (Buchan, Kingma et al. 2005b).

The UK has experienced the most dramatic growth in the number of foreign nurse registrants from the Philippines but there has also been a rapid increase in the number of registrants from African countries (Buchan and Sochalski 2004). These authors warn that recruiting nurses from overseas often serves only to redistribute the global nursing shortage to a country less well-equipped to deal with it. Thus the migration of nurses from poor to wealthy countries can deepen inequities in health between wealthy and poor countries. Indeed health workers have already been distributed towards wealthy countries while poor countries have a greater disease burden.

Ensuring sufficient numbers of nurses in health services will require serious attention to retention issues such as increased pay and improved working conditions (Buchan and Sochalski 2004; Kingma 2006). Without adequate retention strategies, newly-qualified nurses leave or migrate soon after they enter employment. There has been a failure to address the root causes and mechanisms of migration, and reasons for immobility that potentially influence migration from the perspective of sending countries. Much of the incentive literature within economic disciplines focuses on the structure of payments used to remunerate physicians for providing care in developed countries. The long-term perspectives of pay, working conditions and non-financial incentives including good human resource management practices have been neglected, especially for nurses in developing countries.

Incentive strategies in health care are coming under increased scrutiny as many countries have implemented incentive programmes without any empirical bases to guide their choice of intervention (Franco, Bennett et al. 2002) especially in the context

of migration. Recently there has been increasing attention to non-financial incentives, but separating these from financial incentives may not be helpful in solving the problem of migration as their influence on motivation may be intertwined. In order to guide an effective retention strategy in the context of migration, it is vital to examine more comprehensively the critical issues of migration from the perspectives of nurses remaining in a source country.

1.2 Rationale for the study

There are pros and cons for the international migration of health workers, although much of the work on international migration has focused on the notion of a brain drain from developing countries. One advantage of international migration is the remittances sent home to these developing countries, policy-makers in some countries (e.g. the Philippines) increasingly have recognized this positive contribution. However, there seems to be no consensus on whether these remittances are enough to offset the losses incurred by the source country when its professionals emigrate (Kingma 2006).

I chose Zambia for this case study because it is experiencing an increased exodus of health workers although the Zambian Government has no deliberate policies to encourage nurse migration. The Zambian Health Minister commented on the emigration of approximately 2000 Zambian nurses to the UK in the recent past at the Joint Consultative Meeting with International Cooperating Partners:

2000 nurses are enough to run the UTH (University Teaching Hospital in Zambia) and what hurts is that most of them are working as maids when we need nurses here.
(Health Minister Brian Chituwo, January 2005)

It is not clear how the Minister arrived at the number of 2000, however, he highlights the frustration and desperation felt by many in the developing world and the deep desire to try to solve this problem and ensure the provision of adequate health services in these countries. Most statistics on the migration of health-care workers are neither complete nor fully comparable (Diallo 2004). Despite the lack of accurate information, it is evident that many Zambian health institutions have been experiencing a nurse

exodus. To tackle the human resource crisis in the public sector including migration issues, the Ministry of Health in Zambia set up a Human Resource Taskforce.

The exodus of health workers from African countries, fuelled by the factors discussed above, stimulated a need for this study to investigate the perceptions of nurses who have remained in Zambia. The most important aspect of this research is its policy focus and ability to address the current concerns of policy-makers in Zambia. This study does not use researcher-defined questions alone, it was set up to provide the information needed to enable policy-makers and donors in Zambia to make informed decisions in this important area.

While nurses represent the largest category of health worker in most countries, the ratio of nurses to doctors in Zambia is 16:1, substantially higher than in developed countries - e.g. 3.5:1 in the USA (WHO, World Bank et al. 2004). In Zambia, nurses and midwives constitute the largest of the professional groups (MoH Zambia 2004a) therefore it is the movement of nurses that can cripple a health system in developing countries (Narasimhan, Brown et al. 2004).

Although the issues of migration and incentives for doctors receive more attention than those for any other health workers, we know little about the perspectives of nurses who remain in sending countries, especially in sub-Saharan Africa (Narasimhan, Brown et al. 2004). It might be possible to create suitable incentives for improving the management and retention of such a significant workforce if their perspectives are understood more clearly. In turn, this would support the implementation of more feasible health reform and a more targeted approach towards ambitious MDGs. Over 50% of current government expenditure on health is used to meet the direct costs of employing staff (MoH Zambia 2000) therefore it is vital to ensure that this achieves the maximum health benefit.

1.3 Overall structure of the thesis

Chapter 2 reviews the literature describing financial incentives, motivation and migration which are key concepts of relevance for this study; a flexible framework for analysis was developed from this review of the literature. **Chapter 3** describes and justifies the methods used for the study. **Chapter 4** provides background: information on socio-economic context, HIV/AIDS, health reform and human resources in the Zambian situation is particularly drawn upon for this study. **Chapter 5** presents the international flow of Zambian nurses using quantitative data. **Chapter 6** presents factors likely to influence the out-migration of nurses using qualitative data. Contextual, general and critical push factors and stick factors are explored. **Chapter 7** presents discussion and recommendations together with areas for future research.

Chapter 2: Literature review

This chapter reviews the theoretical literature describing the key concepts of financial incentives, motivation and migration which are likely to influence the out-migration of nurses. Firstly, financial incentives such as provider-payment mechanisms, benefit packages and wage structures which are likely to have substantial impacts on health workers' motivation, performance and retention are described. Secondly, the concept of motivation is investigated in terms of relevant empirical evidence, its sources and relevant theories. Thirdly, the phenomenon of migration and its mechanisms and factors determining nurses' decision to migrate are also investigated. Lastly, key concepts of relevance for this study arising from the literature review are presented in a flexible framework that provides an analysis of the data from this research.

2.1 Financial incentives

An incentive is an explicit or implicit reward for performing a particular act (Saltman 2002). According to this definition, an incentive is a broad-ranging concept which can apply to groups, organizations and an individual. It may be from an external entity or generated from within the group, organization, or individual. Incentives can operate at the level of the individual as well as the organization such as health-care funding agencies, hospitals and clinics.

Individuals place different values on incentives. Incentives' effects on receivers may vary between urban and rural areas, professional categories, genders, health institutions and ages. One person may have different preferences for incentives at different points of her/his life. Despite this broad concept of incentives, this section focuses on financial incentives for health workers at the individual level including the provider-payment mechanisms, benefit packages and wage structures.

2.1.1 Provider-payment mechanisms

Provider-payment mechanisms for workers exist within the context of financial incentives and concern specifically the structure of payments that are used to remunerate health workers for providing care. Kingma identified four different types: capitation, shared financial risk, fee-for-service and salary (Kingma 1998). Capitation payments give providers a fixed amount per person for a certain period to finance a defined package of health services. The shared financial risk is a popular approach to health care financing in the USA. Benefits as well as deficits may be shared by a group of physicians with this approach. Fee-for-service is a retrospective payment mechanism with cost per procedure or case. Salary is a fixed payment that may be increased as a result of promotion or annual cost of living increases. While much of the work on provider-payment mechanisms focuses on physicians in developed countries, Kingma studied community nurses' incentives in developed countries and Liu focused on physicians in developing countries (Kingma 1998; Liu 1999).

There is much literature on the effects of financial incentives on physician behaviour. Chaix-Couturier et al. (2000) conducted a systematic literature review of 130 articles assessing the effects of financial incentives on medical practice. They concluded that they can be used to reduce the use of health care resources, improve compliance with practice guidelines or achieve a general target (Chaix-Couturier, Durand-Zaleski et al. 2000). Robinson also analysed the advantages and disadvantages of payment methods, and argues that payment incentives affect physician behaviour in a predicted direction (Robinson 2001). While retrospective forms of payment (such as fee-for-service) reward the physician who does more work, they also encourage the provision of inappropriate services and oversupply. Capitation and other prospective forms of payment offer a financial antidote to this supplier-induced demand, but also reward physicians who limit even necessary care and underpay those who provide many complex services. In order to offset the disadvantages of fee-for-service and capitation, blended methods of payment are often highlighted in the economic literature (Robinson 2001). For example, capitation payments for generalists are supplemented with fees for

specified carved-out services. Often these fee-for-service supplements provide a retrospective form of risk adjustment and encourage primary health care practice.

The little research undertaken on nurses suggests that provider-payment mechanisms do have an impact on community nurses' conduct and attitudes in developed countries (Kingma 1998). Even in developing countries like Zambia, for example, blended methods are used intentionally or unintentionally for nurses in the form of donor-funded retrospective supplements for HIV/AIDS testing and counselling (Huddart, Furth et al. 2004). The number of clients counselled and tested has been influenced by various forms and levels of supplementary payments for nurses from projects run by international development partners. Withdrawal of the supplementary payment at the end of project support has had a significant impact on the numbers of clients that nurses counsel (Huddart, Furth et al. 2004). Provider-payment mechanisms might have more impact on health providers in developing countries where the level of salary is under the living wage.

2.1.2 Benefit packages and wage structure

The main concern thus far has been the provider-payment mechanisms used to remunerate health workers for providing care. Buchan et al add a further dimension - the benefit package for financial incentives in developed countries (Buchan, Thompson et al. 2000). These include pay, pensions, allowances, subsidies, vacations, flexible working hours, access to training and education and recreational facilities. Benefit packages tend to be used as effective incentives for civil servants who receive a lower basic salary than workers in the private sector.

The World Bank website page on "Administrative & Civil Service Reform-Rewards & Incentives", Mukherjee and Manning (2000) categorized the compensation package for a civil servant (Table1) using empirical evidence from developing countries. Analysis of the total compensation package for a civil servant, a combination of current rewards, future expectations and contractual and intangible rewards, is shown in Table 1 (Mukherjee and Manning 2000). This categorization includes some non-financial

dimensions more relevant to a developing-country setting, although the components included differ from country to country. The effectiveness of these measures depends on how benefits packages are designed, implemented and perceived by health workers and what other incentives are in place (WHO 2006).

Table 1 Compensation package for a civil servant

		Contractually-provided		Non-contractual/intangible
		Monetary	In-kind	
Current rewards	Base rewards	Base wage/salary	Health insurance	Job security, prestige, social privileges
	Allowances	Transportation, housing, meals, telephone, travel, cost-of-living	Transportation, housing, meals, travel	Trips abroad, training
Future expectations		Pension	Housing, land, etc.	Reputation, re-employment after retirement

Source:<http://www1.worldbank.org/publicsector/civilservice/agency.htm> prepared by Mukherjee and Manning (2000)

Salary level is also included in the benefit packages. An investigation of informal payments made to health workers (doctors and nurses) in several countries concludes that closing the salary gap by raising public sector salaries to fair levels is unlikely to be enough to solve the problems of individual “coping strategies” (Van Leberghe, Conceicao et al. 2002). The authors argue that increasing the salaries of all civil servants to the level of the private sector is not a financially realistic option for the poorest countries. They also argue that a mere increase in salary would not automatically restore the sense of purpose that is required to make public services function.

Other research on non-financial incentives also highlights the limitations of financial incentives for motivation (Franco, Bennett et al. 2002; Mathauer and Imhoff 2006). WHO admits the difficulty of raising salaries and the limited impact on performance if salary increases are used alone, but argues that health workers need to receive a living

wage that arrives on time as underpayments negatively affect their performance (WHO 2006). Health workers need to believe that their wage is appropriate to their responsibilities and fair when compared to equivalent jobs. It is also worth noting that external agencies recently have been increasing salary support for health workers in low-income countries such as Malawi, Namibia, Zambia, Ghana, Ethiopia and South Africa although these are not necessarily long-term initiatives (Palmer 2004; Yumkella 2006).

Although the civil-service salary may be low, the perceived value of other benefits may be overlooked (Martinez and Martineau 1998). Recent experience in Zambia seems to suggest that compensation for the loss of government conditions of service needs to be very high (Martinez and Martineau 1998). A plan to remove health workers from the civil service was not implemented due to the conditions set by trade unions. Neither the Government, nor the international cooperating partners could pay the requested terminal benefits (KW 400 billion) for civil servants who changed their status from permanent to freelance employees (MoH Zambia 2004b). This suggests that public health workers still value some benefits of employment.

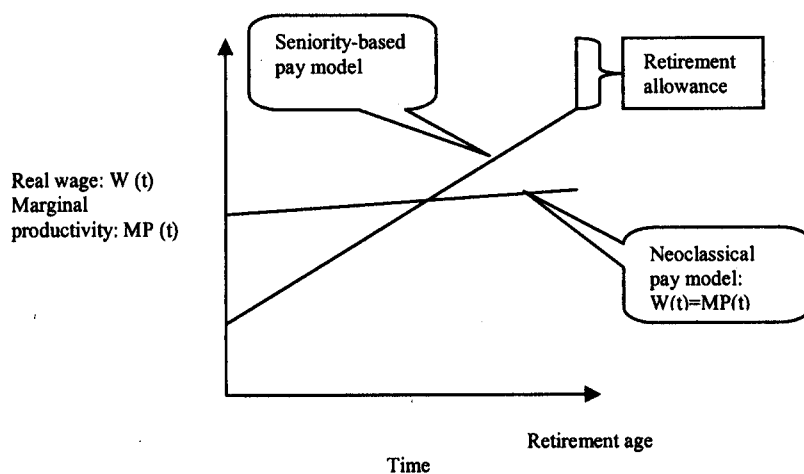
Becker argues that wage structures vary systematically with human asset specificity (Becker 1964) and a neoclassical pay model is applied for untrained persons (see Figure 1). In the neoclassical economics, workers are treated as inputs to production, wages are determined in a spot market¹ where the wage level is equal to the marginal productivity level, and labour turnover is frequent. On the other hand, a seniority-based pay model is applied for trained persons where the continuity of employment is valued by both employer and employee (see Figure 1). Payments start lower than productivity but increase more quickly above the productivity level because employers invest in training which will raise workers' salaries above productivity. Therefore a seniority-based pay model has a steeper wage profile than the neoclassical. In advanced economies, wages do rise with age and experience, even after controlling for productivity (Milgrom and Roberts 1992). Firms are aware that training can raise

¹ A contract for the immediate market exchange of goods or services at current prices (Milgrom & Roberts, 1992)

employees' productivity but additional expenditure is required to retain them. For this reason many employers seek to provide deferred compensation including the steeper wage profile and retirement allowance as long-term incentives to keep highly-skilled labourers.

Outside the health sector, the economics literature confirms that as much as two-thirds of the differential in turnover in the industrial sectors of Japan and the USA is explained by the differences in the steepness of the wage profiles (Mincer and Higuchi 1988). The greater volume and greater firm specificity of investments in human capital and worker skills in Japan is cited as the central reason for the large differences in the degree of attachment to the firm in the two countries. Larger investments in workers' in-service training in Japan result in steeper tenure-wage profiles, shown as a seniority-based pay model in Figure 1. Given a degree of specificity in each unit of human capital - the steeper the profile, the smaller the turnover. Thus the industrial sector applies a seniority-based pay model that is steeper in Japan than in the United States. Aoki et al. also argue that the retirement allowance plays the role of "hostage" for staying within the same company till retirement age (Aoki, Okuno-Fujiwara et al. 1996).

Figure 1. Wage profile according to human asset



Source: Adapted from Aoki et al. (1996), p.132

Civil servants' wage structure over their professional lifetime may impact on their retention. In many ways, the financial stresses faced by civil-service pension schemes are quite similar around the world. Proposed modifications to civil-service schemes generally lower or abolish future benefit entitlements including retirement allowances (Figure 1), shifting towards some form of advance funding of benefit obligations such as early retirement or lump sum payment (Sin 2001). However, applying such advance payments to skilled workers such as health workers (including nurses) can create disincentives for employers. Both employers and employees value continuity of employment for tasks that involve the acquisition of significant transaction-specific skills (Williamson 1985). This includes health workers such as nurses whom employers are keen to retain because their skills and experience are difficult to replace. In Zambia, implementation of a Voluntary Separation Package (VSP) through advance lump-sum payments might have a negative impact on the retention of health workers despite the current government's effort to retain them (Robinson 1990).

According to the nursing literature, the wage structure observed for nurses in developed countries seems close to the neoclassical pay model (see Figure 1). Baumann and colleagues point out that wage growth for nurses occurs early in their careers and tapers off (Baumann, Blythe et al. 2004). Yet the neoclassical pay model is not appropriate as nurses, especially those who are highly-trained, are regarded as skilled workers. Consequently, this kind of wage structure contains an incentive for transfer to other careers as nurses gain seniority. Kingma argues that there is very little incentive for professional longevity in nursing, unlike other professions (Kingma 2006). It seems that this wage structure is perceived to be a signal that senior nurses' experience, clinical judgement and in-depth knowledge are not valued highly by their employers. However, there have been attempts to reverse this trend, particularly in the UK where the recent Agenda for Change policy initiative aims to reward and retain senior and experienced clinical nurses who stay at the bedside (Department of Health 2005)

The seniority-based pay model in Figure 1 may contain incentives for experienced rather than junior nurses. Initially workers in this model are not paid as well as they would be elsewhere, but they are compensated for this later in their careers when pay levels exceed market opportunities (Milgrom and Roberts 1992). Pensions particularly are often regarded as attractive features of the benefit package of public service employment. Becker recognized that continuity interests would be manifested in incentive schemes:

A pension plan with incomplete vesting privileges penalizes employees who quit before retirement and thus provides an incentive – often an extremely powerful one – not to quit. At the same time pension plans 'insure' firms against quits, for they are given a lump sum-the nonvested portion of payments-whenver a worker quits. Insurance is needed for specifically trained employees because their turnover would impose capital losses on the firm (Becker, 1965 quoted in Williamson, 1985).

Buchan and colleagues also point out that a relational employment, commonly based on a long-term relationship, is more likely to see the use of long-term incentives and deferred payments to align the interests of the individual with the long-term performance of the organization (Buchan, Thompson et al. 2000).

The effectiveness of a deferred compensation or seniority-based pay model which encourages employees to stay with an organization may depend on several preconditions. Employees have to perceive the level of compensation to be high enough to stay with the organization. Nurses may have different values placed on them by the external labour market. For example, the nurse wage in Australia and Canada is about 25 times that in Zambia, after adjusting for purchasing power parity (Vujicic, Zurn et al. 2004). Thus a small change of wage structure in developing countries might not have a substantial impact on retention because of the massive wage differentials between source and receiving countries. Robinson argues that the extent of a pensions' attraction depends largely on the type of provision in the equivalent formal sector of employment (Robinson 1990). If the value of the currency used is not relatively stable, the level of compensation has to be adjusted constantly for inflation. Generally these conditions are lacking in developing countries, therefore deferred compensation by cash (as in a pension) may not be regarded as the effective retention strategy that it is in industrialized countries.

On the other hand, it is also true that civil servant benefit structures tended to ignore the incentive effect of output-related elements in the past. Even if employees stay in the public sector for job security and fringe benefits, there is abundant evidence of work avoidance and the search for outside work, particularly amongst highly-skilled labourers (Henley and Ereisha 1989; Roenen, Ferrinho et al. 1997; Ferrinho, Lerberghe et al. 1998; Macq and Van Lerberghe 2000). In such circumstances, managers tend to use informal forms of incentive such as tolerating various forms of work avoidance and indiscipline in order to retain employees (Henley and Ereisha 1989; Van der Gaag, Stelcner et al. 1989; Colclough 1997) although this practice will affect productivity, quality and even equity in public service.

Another possible disincentive for highly-skilled nurses is salary compression. African governments tend to favour reducing pay differences between skilled and unskilled employees, a phenomenon known as salary compression, which has encouraged skilled workers to move elsewhere (USAID 2003). This policy, known as narrowing the gaps, was rooted in earlier strands of African socialism and ideals of equality

(Colclough 1997). Civil service differentials were somewhat narrower than even the private sector. However, recent attempts at pay reform in Zambia have attempted to reverse this trend by increasing salaries for key technical and professional staff, including nurses (World Bank 2005). There are two dimensions here when considering the equity of payment. These are equity of payment across different jobs and occupations within a country and equity of payment within the same profession across the different countries. In the era of globalization the ideals of equality across different jobs and occupations within a country are increasingly not accepted by mobile skilled workers (including nurses) with strong links to global labour markets.

To sum up, most of the literature on financial incentives to date has focused on the payment mechanisms for physicians. Benefit packages and wage structures have not received sufficient attention in the discussion of financial incentives, despite their potential importance in the context of nurse migration in sub-Saharan African countries. One aspect of this thesis explores nurses' perceptions of their benefit packages and wage structures rather than their payment mechanisms. However, it has been suggested recently that it is problematic to focus solely on financial incentives (Franco, Bennett et al. 2002), dimensions of non-financial incentives, namely motivation, are also needed.

2.2 Motivation

2.2.1 Non-financial incentives

Robinson suggests that even the most sophisticated provider-payment mechanism does not eliminate the incentives for over-treatment, under-treatment and other socially undesirable behaviours created by this system (Robinson 2001). Chaix-Couturier et al also found that practice changes in response to financial incentives result from economic factors rather than professional motivation; consequently they may not be effective if they are the only method used in the public sector (Chaix-Couturier, Durand-Zaleski et al. 2000). Although not denying the strength of financial incentives per se, their limited ability to resolve the complex problems in health care has seen increasing examination of complementary non-financial incentives.

Motivation and incentives are closely linked especially at the individual level. While Saltman's definition suggests a much broader range of incentives at the organizational or institutional level, the World Bank applies a limited definition of incentives at the individual level, defining motivation as an individual's degree of willingness to sustain efforts toward achieving certain goals; incentives are rewards and sanctions to improve staff performance and motivation by providing benefits (WHO, World Bank et al. 2004). Thus, it is critical to understand motivation in order to create effective incentives at the individual level. At the individual level, motivation rather than incentive should be the lead concept. Le Grand points out the importance of understanding "mainsprings of human motivation" which are key to the design of social policy (Le Grand 1997).

Little research has been published on health worker motivation in developing country contexts but some studies deserve mention. These include an assessment of motivating factors influencing hospital workers in Jordan and Georgia (Franco, Bennett et al. 2004); a study examining the role of non-financial incentives in Benin and Kenya (Mathauer and Imhoff 2006); and a study examining the effect of the policy implementation process on South African midwives (Penn-Kekana, Blaauw et al. 2004). Important non-financial motivating incentives for health workers in Jordan and Georgia include confidence in their own ability to accomplish tasks, pride in their jobs, the management support provided, communication in the workplace and job design (Franco, Bennett et al. 2004).

Franco et al. acknowledge that some of the scales used in their study need further exploration based on detailed qualitative research. Their scale was generic and did not necessarily capture the most critical dimensions of performance in the health sector for various types of health workers. It is thought that a more flexible and open semi-structured qualitative approach would be more suitable for this type of research, rather than pre-defined scales. Two of the studies (Franco, Bennett et al. 2004; Mathauer and Imhoff 2006) emphasized the need to tailor interventions according to the professional groupings, and Mathauer et al. concluded that health workers (doctors and nurses) are

guided strongly by their professional consciences and similar aspects related to professional ethos (Franco, Bennett et al. 2004; Mathauer and Imhoff 2006). Penn-Kekana et al. (2004) stressed the importance of giving a voice to front-line health workers who implement system change. This study also stressed the importance of process issues in implementing reform of the performance of South African midwives.

In the Zambian context, an early study on work motivation of various occupations (using a critical incident technique based on Herzberg's Motivation Theory) found six factors to be determinants of work motivation (Machungwa and Schmitt 1983). Work itself and growth opportunity were the most important elements when reporting what makes one work hard. Relations with others, the fairness of organizational practices and personal problems were mentioned most frequently as things that make one want to do little. Material and physical provisions were mentioned equally as things that make one work hard and things that make one want to do little.

An investigation of informal payments to health workers (doctors and nurses) in several countries emphasized the importance of (i) establishing incentive systems that are congruent with an organization's social goals, (ii) developing career paths and providing opportunities for training for health workers, and (iii) re-establishing the reasons for becoming health professionals. (Van Leberghe, Conceicao et al. 2002)

Other work on motivation among health workers in developing countries has begun to emerge recently. These studies have neither theoretical underpinnings nor do they deal directly with migration issues yet they have practical usefulness for human resource management studies (Muula and Maseko 2005; Lipinge, Hofnie et al. 2006; Manongi, Marchant et al. 2006). Furthermore, some economists and social psychologists argue that financial performance incentives can be harmful under certain circumstances (Frey 1993; Frey 1997; Bohnet and Oberholzer-Gee 2002; Fehr and Gächter 2002; Frey and Osterloh 2002). Before discussing this further, it is necessary to clarify the source of motivation.

2.2.2 The source of motivation

The literature on motivation suggests that there are two categories: extrinsic and intrinsic. Extrinsic motivation results from satisfying, indirectly, the lower-level human needs associated with basic survival (Franco, Bennett et al. 2002) and includes financial rewards, working conditions and job security. Intrinsic motivation results from satisfying the higher-level human needs (Franco, Bennett et al. 2002). This includes job satisfaction, compliance with standards for their own sake (e.g. ethical standards, fairness and team spirit) and the achievement of personal goals (Frey and Osterloh 2002).

Although evidence in the health sector is limited, several socio-psychological experiments have shown that, under certain circumstances, there is a trade-off between intrinsic and extrinsic motivation (Deci and Flaste 1995; Frey and Oberhozer-Gee 1997; Gneezy and Rustichini 2000a; Gneezy and Rustichini 2000b). This phenomenon has been called a “crowding-out effect” suggesting that extrinsic rewards undermine intrinsic motivation under certain conditions (Frey and Osterloh 2002). These authors describe the crowding-out effect in action: a dedicated salesperson finds her job interesting and gets a tremendous sense of achievement from serving her customers. However, when a bonus system is introduced, she begins to feel that her employer attributes her good work not to personal commitment but to the fact that her performance is being monitored. As a result she becomes more interested in the financial reward than customer satisfaction. Her intrinsic motivation has been eroded.

A crowding-out effect might explain why the new public management style of health reform, using financial incentives and sanctions, may undermine caring and ethical provider behaviour and patient trust in the provider (Gilson 2003). Despite the apparent merits of these assertions, there is continuing debate about the reliability and robustness of the undermining effect. Kreps argues that the theory applies only to employees with high initial levels of intrinsic motivation, where pride in one’s work is high and the work is interesting (Kreps 1997). Indeed Eisenberger et al disagree strongly with the

assertion that extrinsic rewards undermine intrinsic motivation and argue the need for more applied research (Eisenberger, Rhoades et al. 1999).

In low and middle-income countries there is only limited experience and evaluation of implementing the carrot and stick approach to changing health worker behaviour, therefore its applicability to the health sector in developing countries is still debatable. Nevertheless, this theory urges a change or expansion of the underlying assumptions of the concept of incentives in the discipline of economics. Buchan et al. also found several studies examining the introduction of performance-related pay into government departments in the USA and UK (Perry 1986; Marsden 1993; Marsden and French 1998) demonstrating that motivation had declined over the period of its operation (Buchan, Thompson et al. 2000). These authors also reported that the employment relationship was damaged by the shift in value systems from public service ethos to monetary benefits. Le Grand pointed out that assumptions concerning human motivation and behaviour are the key to the design of social policy (Le Grand 1997). He argues that the strategy - based on the belief that individuals are more self-interested than public-spirited - may make public-spirited altruistic doctors (knights) behave in a more self-interested way (knaves). In line with "crowding-out effect" suggestions, he also supports potentially similar effects in the health sector (e.g. the introduction of performance-related pay may make doctors/knights pay more attention to their own interests).

Kingma argues that some human resource literature suggests that a sharp distinction between extrinsic and intrinsic incentives is absent under certain circumstances (Kingma 1998). Wiley found a link between the commonly-accepted extrinsic incentives of pay and job security, and intrinsic rewards such as public recognition, peer acceptance, professional advancement, family well-being and self-esteem (Wiley 1997). Although promotion within an organization might imply greater financial incentive, it may also confer status which is an intrinsic incentive (Thompson and Buchan 1992). Others go further by stating that "pay is a proxy of self-worth" (Flannery, Hofrichter et al. 1996).

In nursing, Kingma points out that the financial implications of extrinsic incentives and the external dimension of most intrinsic incentives must be recognized by economic policy (Kingma 1998). In a developing-country context, a study undertaken in South Africa and Tanzania found that complaints about low salaries reflected health workers' concerns to have their lower-level (extrinsic) needs met and to be recognized, an intrinsic incentive (Gilson, Khumalo et al. 2004).

2.2.3 Motivation theories

Motivation theories can be categorized broadly into content and process theories. Content theories of motivation are based on identifying specific human needs and describing the circumstances under which these needs activate behaviour. Amongst these, Maslow and Herzberg are the most famous and still cited in most of the motivation literature. Process theories of motivation focus on the ways that people think through motivation issues and how they determine whether their actions were successful. These include expectancy theory, equity theory, goal theory and the psychological contract. Each has merits, but none is sufficient in itself (Handy 1993).

It is beyond the scope of this chapter to review all the different content and process theories of motivation. Amongst these theories, Herzberg's Motivation Theory (Herzberg, Mausner et al. 1959) has been used to identify the job motivation of nurses in the USA (Rantz, Scott et al. 1996) and health workers in developing countries (Machungwa and Schmitt 1983; Dieleman, Cuong et al. 2003). Therefore for the purposes of this research, and after full consideration of all the theoretical evidence, Herzberg's Motivation Theory is thought to be most relevant for this study.

2.2.3.1 Herzberg's Motivation Theory

Psychologists introduced the concept of intrinsic motivation - a hypothetical construct residing within the person - and management scholars addressed similar needs specific to work settings. Herzberg suggested that there are two different types of needs: (1) hygiene factors (if inadequate these determine levels of worker dissatisfaction):

supervision, interpersonal relations, work conditions, salary and job security (2) motivator factors (these determine the level of worker motivation and satisfaction): achievement, the work itself, recognition, responsibility, advancement and growth.

Herzberg described tasks as intrinsically motivating when they are characterized by motivators. Although this theory was originally developed and applied in the American corporate world amongst engineers and accountants during the early 1960s, it has also been applied to recent studies amongst nurses in the USA (Rantz, Scott et al. 1996). Herzberg's model proposes that if salaries are not paid in a timely manner, health workers are likely to become more concerned with getting paid and less willing to exert effort at their job as they seek alternative means of gaining income and support for their families. Motivator factors have been examined at length but researchers have neglected hygiene factors. However, Herzberg also suggests that even when hygiene factors are met, they simply produce neutral feelings if motivator factors are absent.

Dieleman et al. argue that Herzberg's theory has relevance for human resource management in the health sector because of the need to clarify whether a problem is due mainly to hygiene or motivator factors (Machungwa and Schmitt 1983; Dieleman, Cuong et al. 2003). If the problem is staff retention, hygiene factors such as improved salary levels and working conditions will be effective. If the problem is staff performance, attention should be given to motivator factors. For the primary purpose of addressing staff retention, it is relevant for this study to identify the hygiene factors within Herzberg's framework bearing in mind that some (such as pay) may also be valued as motivator factors.

In the context of cross-cultural studies, this theory has been applied to general workers around the world and proved to be relevant in the context of developing countries including Zambia (Machungwa and Schmitt 1983). Machungwa and Schmitt chose five occupational groups from public, private and quasi-government organizations in Zambia. This study confirmed a tendency toward satisfaction with motivator factors, and dissatisfaction with hygiene factors. These were similar to results from the USA and Japan. However, the research was undertaken during the period of socialist rule

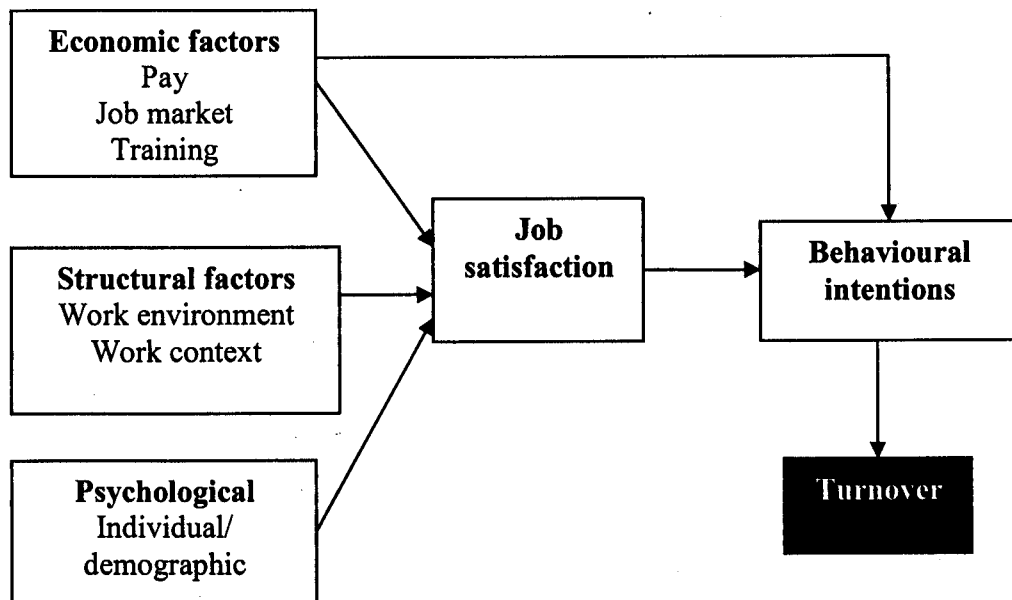
and across different occupations and therefore might not be applicable to Zambian nurses under the current situation. More recently, Herzberg's theory was used in a study to identify factors for job motivation among rural health workers in North Viet Nam with the objective of improving the performance of general health workers in rural areas (Dieleman, Cuong et al. 2003). To date, no studies have examined the hygiene factors of Herzberg's theory amongst nurses working in an urban public hospital in the context of international migration from developing countries.

Recent literature on health workers' motivation has highlighted the importance of taking a specific approach depending on the professional group (Franco, Bennett et al. 2004; Mathauer and Imhoff 2006). Theoretical models of nurse turnover based on these motivation theories were developed in nursing research in developed countries. Many authors concluded that increasing job satisfaction (motivation) decreased turnover rates (Saleh, Lee et al. 1965; Price and Mueller 1981a; Cavanagh and Coffin 1992). Therefore it is thought to be useful to examine the literature on nurse turnover, mainly from within the nursing discipline, in order to create an effective retention strategy .

2.2.4 Theoretical models of nurse turnover

Several models have been developed to explain nurse turnover behaviour (Price and Mueller 1981a; Price and Mueller 1981b; Mobley 1982; Hinshaw and Atwood 1983; Abelson 1986; Parasuraman 1989). Although these differ in levels of complexity and in factors selected to predict behaviour, all describe a multistage, attitudinal (job satisfaction), decisional (behavioural intentions) and behavioural (turnover) process (Irvine and Evans 1995). Nursing literature uses the term job satisfaction rather than motivation although proposed turnover models are based on motivation theories. Irvine and Evans proposed a model based on Mueller and Price's conceptualization. This summarizes different disciplinary variables including economics, sociological and psychological and nurse job satisfaction, behavioural intentions and turnover behaviour (see Figure 2) (Mueller and Price 1990; Irvine and Evans 1995).

Figure 2 Model of nurse turnover behaviour



Source: (Irvine and Evans, 1995)

This contains factors which are common with previous models. Here, behavioural intentions were viewed as a direct antecedent of turnover behaviour. Job satisfaction was expected to relate indirectly to turnover through behavioural intentions. A recent literature review on nurse turnover also confirmed these models' findings: job dissatisfaction and expressed intent to leave are overwhelmingly reported as impacting turnover (Hayes, O'Brien-Pallas et al. 2006).

Structural factors including workload, management style, empowerment and autonomy, promotional opportunities and work schedules are believed to contribute to turnover. Psychological factors including youth, inexperience and fewer years of employment, higher educational levels and kinship responsibilities are also identified as impacting on nurse turnover. Economic factors have both direct and indirect effects on turnover intent and there are varied findings relating to job market characteristics such as the impact of pay on turnover. Figure 2 shows a direct arrow to behavioural intentions and

an indirect arrow through job satisfaction to behavioural intentions. There is little evidence to show whether alternative employment opportunities are a determinant of nurse turnover.

These theoretical models and findings should be applied with caution to this study in a developing country. Usually they are based on theoretical and empirical evidence obtained mainly from developed countries generally in the west, which could bias the results of the meta-analysis. However, findings from data that have begun to emerge from Asian countries suggest that the models work fairly well in explaining job satisfaction even in non-western countries such as Korea and Taiwan (Lincoln and Kalleberg 1990; Chu, Hsu et al. 2003; Seo, Ko et al. 2004).

This framework's potential usefulness in providing practical empirical tools for guiding a nurses' retention strategy may not be applicable to sub-Saharan African countries, especially in the migration context. For example, pay levels in a developed country usually are above the living wage, this is not always the case in a developing country. In addition, many past studies of nurses' turnover focused on examining the unit and organization level but failed to examine macro-level variables such as setting and funding status (Mor Barak, Nissly et al. 2001). It is therefore important to take account of contextual factors, including policy and environmental factors, which might have contributed indirectly to nurse migration or turnover in this study. It has also been pointed out that the relationship between intention to leave and actual turnover deserves further examination in these models (Mor Barak, Nissly et al. 2001). This might be even more important when examining nurse turnover in the context of migration from developing countries where there are expected to be higher barriers to movement for nurses. Identified barriers to migration include the expense of re-qualification and physical transfer; the need to learn a new language and different clinical practices; and costly and time-consuming immigration procedures (Kingma 2006).

In summary, the common framework for nurse turnover has focused more on examining the individual and organizational levels, neglecting contextual factors which are also likely to influence turnover and migration. It has also been pointed out that the

relationship between intention to leave and actual turnover should be examined further in the model of nurse turnover behaviour. Also, there is little evidence whether alternative employment opportunities are a determinant of nurse turnover. Clarifying the source of motivation is also important for deciding which type of interventions should be undertaken. Furthermore, studies on non-financial incentives and nurse turnover have not been conducted in the context of migration. In the next section the migration literature is reviewed briefly in order to understand nurse turnover more comprehensively in the context of migration.

2.3 Migration

The most recent research on the migration of health workers has relied largely on a push-pull framework of analysis (Van Eyck 2004). Push factors are those that encourage health workers to leave their country. Pull factors are factors in the recipient country that facilitate the movement of health workers towards that country (Padarath et al. 2003). According to them, push and pull factors interact with and relate to each other. For example, a push-pull framework used in a study of six African countries (Cameroon, Ghana, Senegal, South Africa, Uganda and Zimbabwe) found that reasons contributing to the intention to migrate vary from country to country (Awases, Gbary et al. 2004). The most commonly-cited push factors are low wages; lack of further training opportunities; salaries that are not realistic in terms of the risks and amount of work; lack of social and retirement benefits; lack of proper equipment to carry out the procedures that professionals have been trained to perform and deliver; and an unsatisfactory or unstable political environment (Awases, Gbary et al. 2004).

Van Eyck added the context of structural changes in the global economy including public sector reforms; privatization; and the liberalization of trade, investment and migration rules to this push-pull analytical framework (Van Eyck 2004). His comprehensive research in twelve countries and regions (Canada, Caribbean, Chile, Ecuador, Fiji, Ghana, Kenya, Netherlands, Philippines, Poland, Sri Lanka, UK) attempted to understand the phenomenon of migration from the perspective of female health-care workers in both developing and developed countries (Van Eyck 2004).

For Southern African countries, Padarath et al. reviewed existing literature to present an overview of the migration patterns of health workers (Padarath, Chamberlain et al. 2003). This added stick-stay factors to the conventional push-pull factors. Stick factors keep people where they are despite compelling push and pull factors to migrate. These include family and cultural ties, loyalty to governments and countries (patriotism), the expense of relocation, difficulties of learning a new language and time-consuming registration requirements. Stay factors prevent a return to the home country after migration. Their analysis also includes the influence of natural attrition such as deaths from HIV/AIDS and the number of health personnel graduating from training institutes. This thesis focuses more on push, pull and stick factors in the source country in the qualitative part of the study. These factors are incorporated into the flexible framework.

Some commonalities can be expected across the African countries, but these previous findings cannot be extrapolated automatically to Zambian nurses who operate in a different socio-political context and a different health system. Although international knowledge is important, more country-level analysis of the health workforce is needed (Joint Learning Initiative 2004). However, there is scant evidence from Zambia regarding the health workforce. There is virtually no evidence on the potential causes and mechanisms of Zambian nurse migration especially on the reasons for the immobility of remaining nurses. There have been studies of health workers' motivation in Zambia (MoH Zambia 1995; MoH Zambia 2005a) but these lack clarity of method and theoretical underpinning so their applicability to nurse migration might be limited.

2.3.1 Migration theories

An overview of theories that explain why international migration begins is presented below (Massey 1993; Arango 2000; IOM 2003).

Neoclassical macro- and micro-economic theories: focus on the differentials in wages and employment conditions between countries, and on migration costs. Migration flows from an individual decision to maximize income.

New economy of professional migration: migration as a family strategy. Main focus is diversifying sources of income in order to minimize risk rather than maximize income.

Dual labour market theory migration: caused by a permanent demand for foreign labour that is inherent in the economic structure of advanced industrial societies.

World systems theory: migration is a natural consequence of economic globalization and market penetration across national boundaries.

Migration networks theory: migrant networks in receiving countries increase the likelihood of international movement for those remaining in their country of origin through the exchange of information, provision of financial assistance, help in finding a job and other forms of assistance. Makes migration easier by reducing the costs and inherent risks.

Most of the recent research on the migration of health workers carried out by international organizations including the International Organization for Migration (IOM), WHO and Organisation for Economic Co-operation and Development (OECD) largely have used the push-pull framework of analysis based on neoclassical economic theories. Neoclassical microeconomic theory is considered to provide the most appropriate flexible framework for this qualitative study in order to gain a better understanding of the micro-level decision-making processes of nurses migrating from developing countries. In this theory individuals decide to migrate because a cost-benefit calculation leads them to expect a positive net return from movement. Migration costs are also included in this cost-benefit analysis. Before migration, the individual has to undertake certain investments which include travelling costs, costs of maintenance while moving and looking for work, efforts to learn a new language and culture, difficulties in adapting to a new labour market, and the psychological costs of cutting old ties and forging new ones (Massey 1993). Other theories such as dual labour market theory and world systems theory generally ignore such a micro-level approach,

focusing instead on forces operating at much higher levels of aggregation (Massey 1993).

The neoclassical theory of migration has often been criticized as it downplays non-economic factors. For example, political factors such as restrictive entry policies are currently much more influential than differential wages in determining migration (Arango 2000). Determining why nurses migrate is complex, and no one theory has yet captured all factors which influence an individual's decision to move. In order to overcome these shortcomings, non-economic factors were included in the analytical framework in this study. Political factors such as changes in immigration policy were also included in the analysis. Developed countries manage the inflow of workers, creating special routes by removing restrictions for specific occupational groups or tightening immigration policies according to the country's needs.

Where relevant, the migration networks theory will also be used to explain factors likely to influence the migration of Zambian nurses. Migration experts increasingly recognize the strong influence of relatives or friends already living and working in the destination country (diasporas), stimulating a desire to migrate and facilitating access to information and employment (Kingma 2006). Also, that recruitment agencies stimulate the migration of health workers from low-income countries (WHO 2006). A recent analysis of 400 internationally-trained nurses in London found that agencies had recruited as many as two-thirds (Buchan, Jobanputra et al. 2005a). Therefore diasporas and recruitment agencies have also been included in the flexible framework.

The original neoclassical microeconomic theory was developed for all groups of migrants including unskilled labourers, not specifically for health workers. Vujicic et al. attempted to apply this migration theory specifically to health-care professionals considering migration in developing countries (Vujicic, Zurn et al. 2004). An individual estimates the costs and benefits of moving overseas and chooses to migrate to where the expected net returns are greatest. The expected utility gained from wages and working conditions overseas are subtracted from those expected in the home country. The estimated migration costs are subtracted from this integrated difference to

yield the expected net return of migration. An individual wishes to migrate if the net return of migration is bigger than the compensating differential in favour of staying in the source country. This decision-making process is summarized analytically by the following equation:

$$U(W_f J_f) - U(W_d J_d) - C > N + P$$

W_f: foreign wage

W_d: domestic wage

J_f: foreign working conditions

J_d: domestic working conditions

C: direct financial cost of migration

N: national components

P: personal components.

Working conditions (*J*) are non-wage job characteristics that people value such as safety, lack of stress, opportunities for advancement, prestige, housing or transportation. Country-specific or national components (*N*) include factors such as crime rates, availability of schools, language spoken and the availability of clean water in the source and destination country. Individual-specific or personal components (*P*) include factors such as presence of family, patriotism and the size of a person's social network in the source and destination country. (*N + P*) is collectively referred to as living conditions. Thus, the opportunity costs of migration are affected by all these complex subjective and objective factors.

Components of this equation will be integrated into the framework of analysis. Do Zambian nurses weigh the foreign wages of nurses with various factors in their decisions to stay or leave? A micro-level approach was deemed appropriate to understand the complex perceptions and subtle barriers in the decision-making processes of nurses contemplating or indeed undertaking migration.

2.4 Summary: a flexible framework for data collection and analysis

Several key concepts and models arise from the literature review presented here. These informed the development of a number of categories which form a flexible framework to enable consideration of the factors likely to influence the out-migration of nurses, and are shown in Figure 3.

Contextual factors (Box1 in figure3) such as the socio-economic context, health system, health reform, public-sector reform, epidemiological change and funding potentially are all influential directly or indirectly to the migration. These were included neither in the previous model of nurse turnover behaviour nor in the conventional push-pull analysis despite being identified in both the nurse turnover and the migration literature (Mor Barak et al., 2001; Van Eyck, 2004).

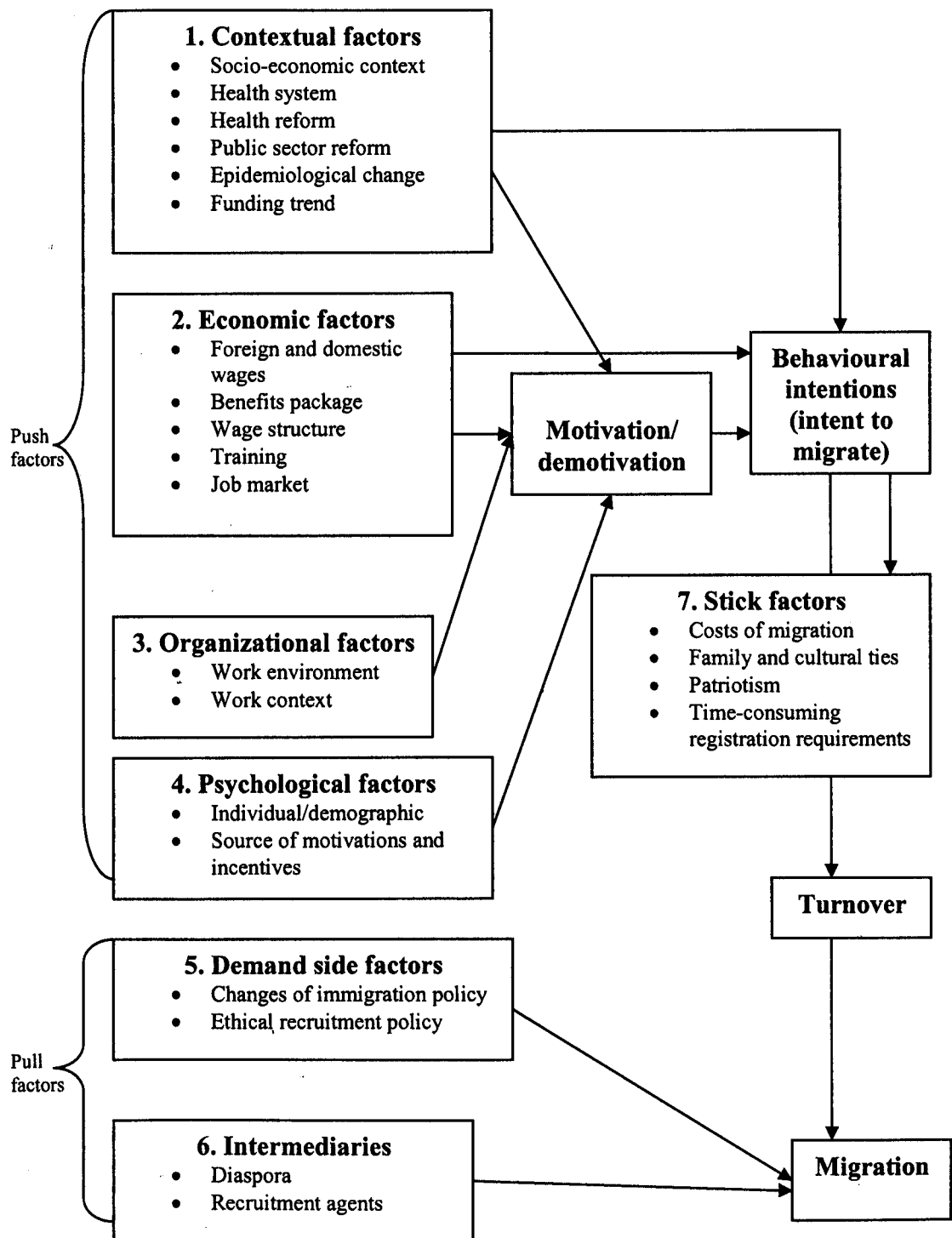
A nurse turnover model from figure2 included *economic-pay*, training and job market (Box2 in figure 3), *organizational-work environment and work context* (Box3 in figure 3) and *psychological factors-individual/demographic* (Box4 in figure 3) (Irvine & Evans, 1995). Literature from developed countries identified these as likely to influence the migration of nurses via motivation and behavioural intentions, but as yet they have not been explored in the context of nurse migration from sub-Saharan African countries. It was thought to be appropriate to take the turnover model specifically from the nursing discipline as recent research on non-financial motivation in sub-Saharan African countries found that health workers are guided strongly by their professional ethos (Mathauer and Imhoff 2006). The model was used flexibly as nurse turnover, especially in the context of migration, may have entirely different operating mechanisms in developing countries from those identified in developed country literature. Within *economic factors* (Box2 in figure3), pay, which was identified in the model of nurse turnover behaviour, is broken down according to concepts from the financial incentive literature - how the difference between the foreign and domestic wages, the effect of benefits packages and wage structures were found to be important to the retention strategy for nurses. In *psychological factors* (Box4 in figure3) the

relationship between extrinsic and intrinsic motivation is also examined as this influences the appropriate form of incentives.

The migration literature also identifies *demand side factors* (Box5 in figure3), *intermediaries* (Box6 in figure 3) and *stick factors* (Box7 in figure 3) as influential. The push-pull analysis was incorporated into the overall framework. In Figure 3, boxes 1-4 are categorized under push factors although some of the push factors can also be stick factors; boxes 5 and 6 are categorized under pull factors and stick factors are also identified in box 7. Stay factors in the recipient country, natural (non-migratory) attrition of health workers and production of health workers have been identified as factors influencing health personnel availability and distribution (Padarath, Chamberlain et al. 2003) but they are largely excluded from this study's framework because the main focus is the process of out-migration from the source country rather than the net movement of health workers. The availability and distribution of health personnel have been addressed briefly to provide context and background only.

The complex factors likely to influence the out-migration of nurses need to be examined from a range of perspectives, utilizing the concepts suggested by the incentive, motivation and migration literature. A broad approach which takes account of all aspects of the influential factors in nurses' migration will allow a comprehensive exploration of the mechanisms that appear important in explaining Zambian nurses' incentives and motivation in this context.

**Figure 3 Flexible framework for data collection and analysis:
factors likely to influence the out-migration of nurses**



Source: Adapted from Irvine and Evans, 1995 and Padarath et al. 2003

Chapter 3: Research design and research methods

This chapter includes a description and justification of the choice of research design, aims, objectives and methodology. The research was designed to utilize quantitative and qualitative data collection, details of each of the two phases of data collection are presented in this chapter.

3.1 Research design

Although this research aims to contribute to knowledge and theory, it is also applied research with the purpose of illuminating societal concern and making recommendations about the exodus of nurses from Zambia.

3.1.1 Aim

To understand better the factors likely to influence the out-migration of Zambian nurses in order to create effective incentive strategies for increased retention of a motivated health workforce.

3.1.2 Objectives

- to examine the context of Zambian nurses' migration;
- to describe and analyse the international flow of Zambian nurses using quantitative data;
- to explore motivating and demotivating factors influencing Zambian nurses working in a public hospital at the tertiary level that might directly or indirectly influence their intentions to migrate;
- to identify other factors that potentially facilitated or hindered their decision to migrate e.g. stick factors, and especially to explore the reasons for the immobility of the remaining Zambian nurses;
- to explore the implications of the findings and make recommendations in order to create effective incentive strategies for retaining motivated public health

nurses in Zambia as well as to address global human resource issues in developed countries.

The concepts highlighted in the literature review were used to formulate a series of research questions to achieve this aim and the objectives. Table 2 provides a summary of the methodology linked to the key research questions and methods used. The previous chapter reviewed theories and concepts which formed the basis for the collection of data in this study (see Figure 3) but final interpretation of the data arose from inductive analysis rather than any predetermined theoretical framework. This suggested the need for an open-ended qualitative enquiry therefore the study's framework was used flexibly in order to develop theory grounded in real experience.

Table 2 Methodology matrix

Objectives	Key theoretical issues highlighted by literature (Figure 3)	Key research questions	Methods	Nature of information sought	Map of results chapter
1. To examine the context of Zambian nurses migration	1.Contextual factors (socio-economic context, health reform, public sector reform, epidemiological change and funding trend)	What is the Zambian context and health system that is potentially influencing Zambian nurses' migration?	Policy document review	Reported facts	4.1 4.2 4.3 4.4
2. To describe and analyse the international flow of Zambian nurses using quantitative data.	5. Demand side factors (immigration and ethical recruitment policies)	What are the volume and time-trends of Zambian nurse migration? How do policy changes impact on this trend ?	Primary data Policy document review	Reported facts	5
3. To explore factors influencing the motivation and demotivation of Zambian nurses working in a tertiary-level public hospital that might directly or indirectly influence their intentions to migrate	1.Contextual factors (socio-economic context, health reform, public-sector reform, epidemiological change and funding trend)	What environmental and policy factors have potential impacts on Zambian nurses' intention to migrate?	Semi-structured interview	Perceptions and reported facts	6.1
	2.3.4.Economic, organizational and socio-demographic factors (wages, wage structure, training, job market and the source of motivation)	How do demotivating factors including economic, organizational and socio-demographic factors impact on Zambian nurses' intention to migrate?		Perceptions	6.2 6.3
4.To identify other factors that potentially facilitated or hindered nurses' decisions to migrate and especially to explore the reasons for immobility of remaining Zambian nurses	5.6.7. Demand side factors, intermediaries (diaspora and recruitment agents) and stick factors (costs of migration, family and cultural ties)	What are other potential determinants of migration when nurses estimate the costs and benefits of the migration?		Perceptions and reported facts	6.4
		How does the process of migration operate?		Reported facts	
		Why did Zambian nurses decide to stay in the country? What is the general motivation of Zambian nurses?		Reported facts and perceptions	

The research was designed in two phases. The first covered the collection of quantitative data on migration trends; the second involved the collection of qualitative data via semi-structured interviews with nurses. Quantitative and qualitative methods have been combined to achieve deeper understanding of complementary aspects of the factors that influence nurse migration in this study.

Largely qualitative methods were used and thematic analysis was applied using some principles of grounded theory (e.g. deviant case, constant comparison). Quantitative data were collected in March and April 2005; the specific quantitative data have been used for purposive sampling for the case study site used for the qualitative data collection. Meetings with key informants at the hospitals were held from 30 March 2005 to 5 April 2005 in order to brainstorm and inform selection of the study setting. Two pilot interviews were conducted before the main study. The main study of 34 interviews was undertaken from 31 May to 10 June 2005. Interviews were transcribed from June to September 2005, and the analysis and writing were conducted sequentially from October 2006 to March 2007.

3.2 Research approach

Case studies are particularly appropriate in the following circumstances (Yin 2003):

- when how or why questions are being asked
- where contextual conditions are highly relevant to the phenomenon of study
- when investigating a contemporary phenomenon within its real-life context
- where researchers have no control over actual behavioural events.

This study fits well into the above circumstances. The main questions in this study are how or why: “Why do nurses intend to migrate?” and “How do they intend to migrate?” “Why do they decide to stay?” The importance of examining contextual factors is highlighted in the literature on nurse turnover and the health workforce (Joint Learning Initiative 2004). In reality phenomenon and context are not always

distinguishable, so an experimental research design would not have been possible. A case study is able to cope with this type of technically distinctive situation which has many more variables of interest than data points (Yin 2003). For these reasons, a case study was clearly the most appropriate choice for studying public nurses' motivation in the context of migration in the real world of a developing-country setting.

One case of a tertiary-level hospital was studied. Evidence from multiple-cases is often considered to be more compelling and robust because it can provide more substantial analytical benefits (Herriott and Firestone 1983; Yin 2003). But it is also argued that the single-case study is an appropriate design under certain circumstances. Unusual, critical and revelatory cases respectively are likely to involve only a single case (Yin 2003). This thesis examines the case of a health institute with reportedly the highest turnover rates, a revelatory case that is expected to yield rich information about the factors likely to influence the migration of nurses. This justified a single-case design.

3.3 Phase 1. Quantitative data collection – migration trends

Although qualitative interviews form a major part of the research, quantitative data were also collected in order to describe the international flow of Zambian nurses, an important part of the contextual factors of this study. Quantitative and qualitative approaches were not seen as methodological opposites, each method was used to complement the other.

3.3.1 Selection of indicators

Many indicators from different sources have the potential to describe and analyse the migration trends of Zambian nurses. These sources include records of entry visas; registries of work permits, professional associations and population respectively; facility, workforce and household surveys; and population and economic censuses (Diallo 2004). Each has its own strengths and limitations, but verifications from the Zambian General Nursing Council (GNC) were selected as the main indicator because

they had been used successfully to describe migration trends in other studies such as that in South Africa (WHO, World Bank et al. 2004).

The indicators of Zambian admissions to the register of the UK's Nursing and Midwifery Council (NMC) were compared with the GNC data in order to increase their validity. The number of verifications from the GNC in Zambia can differ from the number of nurses actually leaving Zambia or the number of NMC registrations. Some nurses apply to several countries when they are looking for an overseas posting so it is possible that double counting occurs. Others may never take up the UK's decision letter to leave Zambia because there is a shortage of supervised practice places or they fail to raise sufficient funds for the trip. Therefore, it should be noted that there are limitations to using the verification and registration data to show the actual outflow of nurses overseas. Neither GNC nor NMC data show when a nurse actually leaves the country, or indicate what the nurse is doing. Nevertheless, in the absence of any other data these provide useful measures of the extent of nurses and midwives intentions to migrate from Zambia.

3.3.2 Data collection procedure and analysis

The registration number of the nurse, cadres, proposed destination country and dates have been recorded manually in the registration notebooks since 1991. During three weeks at the GNC the researcher counted the number of verifications in the registration notebooks by cadre and destination country. In order to improve accuracy, the researcher collected and double counted primary data sources. Comparisons between GNC and NMC data were attempted in order to add credibility. The researcher discussed the practical interpretation of the data with key informants from the GNC and the Ministry of Health. The main focus of this analysis was on what kind of major policy changes impacted on the trend of nurse migration. The literature review also helped in the interpretation of these data.

3.4 Phase 2. Qualitative interviews

3.4.1 Choice of qualitative methods

Qualitative research is concerned with the meanings people attach to their experiences of the social world and how people make sense of that world (Pope and Mays 2000). It studies people in their natural, rather than experimental, settings. Therefore qualitative research is especially appropriate for applied research like this which seeks to address societal concerns in the real world.

Three main qualitative methods are used most widely in health and health-service settings: face-to-face interviews, focus groups and observation. Direct observation may be more suitable for studies of social roles and formal organizations (Pope and Mays 2000), but this thesis aims to explore individual nurses' motivations and migration decisions that cannot be observed. Focus groups are more suitable for studies that highlight cultural values or group norms through tapping into interpersonal communication (Pope and Mays 2000), but these were not appropriate for this kind of study which explored nurses motivations based on their individual biographies or experiences. Face-to-face interviews are thought to offer rich insights into individual nurses' perceived incentives, motivations and migration decisions and beliefs.

Face-to-face interviews differ according to the degree of structure in the interviews. Many studies on nurse turnover in developed countries have used questionnaires as the sole means of data collection (Cavanagh 1989). While this approach is most advantageous in a large-scale investigation, it has been suggested that more opportunity to comment on relevant aspects of turnover behaviour could enrich the overall findings (Fottler, Crawford et al. 1995). A structured approach does not permit the interviewer to pursue issues that were not anticipated when the interview or questionnaire was written (Patton 2002). For this reason structured questionnaires with a fixed choice of responses constructed in developed countries are regarded as inappropriate for this study in the developing-country context. Relatively flexible semi-structured interviews based on existing knowledge from the literature were regarded as the most suitable method for this study. Semi-structured interviews are conducted on the basis of a loose

structure of open-ended questions that define the area to be explored but from which the interviewer or interviewee may diverge in order to pursue a more detailed response (Pope and Mays 2000). This study utilized the loose interview schedule in Appendix I.

Herzberg's critical incident method was adapted in order to generate questions to capture the most critical dimensions of the work motivation of Zambian nurses. This avoids the early imposition of a set research agenda by allowing interviewees to identify what they consider important to their work experiences (Gilson, Khumalo et al. 2004). In this thesis, critical incident methods informed requests to: "Describe a time, an incident, when you felt motivated and felt like working hard, and a time or incident, when you felt like leaving the hospital." This approach is regarded as a useful way to examine factors or contexts which underpin actions.

3.4.2 Researcher as research instrument

Substantial skill is required to undertake qualitative interviews as the quality of the information obtained largely is dependent upon the interviewer (Pope and Mays 2000; Patton 2002). Basic interview techniques were always kept in mind: e.g. not interrupting the interviewee, giving sufficient time for them to continue speaking and to pick up any cues (Pope and Mays 2000; Mason 2005). It is vital that the interviewer maintains control of the interview but the amount of direction should be appropriate to the style of research. Care was taken to avoid leading questions. Questions were left as open as possible in order to encourage interviewees to explore their feelings and thoughts regarding the topic, prompts were used rarely. It was important that the researcher's prior theoretical assumptions did not drive the data unduly, rather they were left to emerge. If some questions attracted enthusiastic responses from interviewees then these areas were pursued more closely as appropriate.

3.4.3 Choice of study setting

Limited available data from the Central Board of Health (CBoH) appear to suggest that turnover rates of nurses are higher in urban areas than in rural areas (CBoH Zambia

2004). Even within the same urban area, turnover rates of nurses at a tertiary-level hospital reportedly are higher than those at a district service. Therefore the researcher decided to choose one hospital from three urban-based tertiary hospitals which reportedly were losing more staff than any other health institutions in Zambia (MoH Zambia 2004c). Prior visits and meetings with key informants in the three tertiary-level hospitals were conducted in order to determine the location of interviews from 30 March 2005 to 5 April 2005. The following criteria were important in sampling the hospital for the study:

- level of resignation rates;
- hospital's level of cooperation with this study;
- terminations of nurses, comprising numbers of deaths, transfers, resignations and retirements 2002-2004;
- filled positions of nurses in 2004;
- current establishment of nurses.

Nurses on leave are not included in the criteria because the government has already cleared any 'ghost health workers' out of the system. The researcher collected these data from all three tertiary hospitals during the initial visits. Turnover, resignation and vacancy rates were calculated using the collected data and the following formulae:

$$\text{Turnover rates} = \frac{\text{Total terminations 2002-2004}}{\text{Filled positions 2004} + \text{total terminations 2002-2004}}$$

$$\text{Resignation rates} = \frac{\text{Resignations 2002-2004}}{\text{Filled positions 2004} + \text{Total terminations 2002-2004}}$$

$$\text{Vacancy rates} = \frac{\text{Current establishment} - \text{filled positions 2004}}{\text{Current establishment}}$$

Vacancy rates were excluded from the indicators for site selection. They are not comparable between the health institutions as the establishment level in Zambia is decided historically rather than based on actual workload. Resignation rates exclude

deaths, transfers and retirements from the turnover rates and are a more suitable indicator for study-site selection. They focus on nurses' migrating overseas or leaving for the private sector. These data show that Hospital A has the highest resignation rates among nurses at the three hospitals (Table 3).

Table 3 Turnover and resignation rates of nurses in three public hospitals at tertiary level, 2002-2004

	Turnover rates	Resignation rates	Filled nurse positions 2004	Current establishment	Vacancy rates
Public Hospital A	32%	24%	269	470	43%
Public Hospital B	23%	9%	270	542	50%
Public Hospital C	20%	12%	697	1311	46%

However there is a possibility of data limitations regarding turnover and resignation rates. There might be the possibility of underreporting of turnover and resignation rates especially at Public Hospital C. This hospital is large with a big staff group so that it is difficult for the nurse manager to capture all the information on nurses movements. Public Hospital A was chosen as a site for this study. It showed a very high level of cooperation because the senior managers already had strong concerns about the high turnover of nurses. In addition, Hospital A had more detailed records on the destinations of nurses who had resigned. Its smaller size might make it easier to know where the nurses are. The bed capacity of this hospital is 628 (CBoH Zambia 2000). The total workforce of 669 comprises medical doctors (60), nurses (269), paramedics (65) and support staff (275)². Hospital A is a third-level referral health institution catering for three provinces. It also runs a training school for RNs.

Extreme sampling, which illuminates both the unusual and the typical, was applied to select the study setting as it was likely to be an information-rich case. The hospital with the highest reported resignation rates is expected to reveal more intensive insights into the mechanisms of the exodus of nurses to the private sector or overseas than a hospital with lower rates.

² According to Nurse Strength (2004) and the leaflet "The Five 'W' and the 'H'" of Hospital A.

3.4.4 Main study

Before commencing the main study, two semi-structured pilot interviews were conducted with nurses working in the hospital to ensure that questions were relevant and easy to understand. Each participant was recruited by the researcher.

3.4.4.1 Sampling interviewees

Data collected at three tertiary-level hospitals on the resignation rates of the different cadres revealed that attrition rates were generally higher amongst RNs, Registered Theatre Nurses (RTNs) and Registered Midwives (RMs) than amongst Enrolled Nurses (ENs), Enrolled Theatre Nurses (ETNs) and Enrolled Midwives (EMs) (Table 4). This was echoed in the data of verification numbers at the national level. However, in 2003 resignations amongst ENs also started to increase at Hospital A (Table 5) despite a relatively lower level of resignation rates and numbers compared to those of RNs. The majority of nurses remaining at this hospital are ENs (Table 6) and it was felt to be important that this study explored their perceptions. For this reason, ENs and EMs were included in the sampling strategy for interviews; ETNs were excluded because two were unavailable during the interview period.

Table 4 Resignation rates by cadre at Hospital A

	Public Hospital A (2001-2004)
Registered Nurses (RNs)	53%
Registered Theatre Nurses (RTNs)	67%
Registered Midwives (RMs)	68%
Enrolled Nurses (ENs)	12%
Enrolled Theatre Nurses (ETNs)	0%
Enrolled Midwives (EMs)	5%

Table 5 Trends of resignations at Hospital A

	2001	2002	2003	2004	2005
Registered Nurses (RNs)	7	18	30	29	9
Enrolled Nurses (ENs)	0	0	7	12	8

Table 6 Nursing establishment Hospital A as at 1 November 2004

Qualifications (management positions)	Numbers
Nursing Administrative Manager	12
Ward Manager	26
Registered Midwives	10
Registered Theatre Nurses	3
Registered Mental Health Nurse	1
Registered Nurses	50
Infection Control Nurse	1
Enrolled Theatres Nurses	2
Enrolled Midwives	37
Enrolled Nurses	127
Total	269

In order to gather a cross section of responses as well as specific responses among certain groups of nurses, interviewees were purposely sampled for maximum variation to include the following criteria:

- age (to represent all age groups – e.g. 20-30,30-40, 40-50, 50-54);
- gender (to include both);
- qualifications (to include RNs, RMs, RTNs, ENs, EMs);
- departments (range of departments within Public Hospital A – Outpatients, Medical, Surgical, Gynaecology & Obstetrics, Paediatrics);
- wards (to include both high and low-cost wards³);
- level of management (range of management responsibility - e.g. sister-in-charge, ward manager, nursing service manager);
- marital status (to include married, widow, divorced, single, breadwinner);
- number of dependants (to include nurses with different numbers of dependants);

Two student nurses and two clinical instructors from the hospital were also included. Interviewees were selected from all five departments in this hospital although most

³ The hospital provides a two-tier service: free-of-charge medical services on low-cost wards and fee-paying medical services on high-cost wards. Patients on high-cost wards pay KW 25 000 (£3) for consultation fees and KW 200 000 (£24) fees for the admission of adults for up to three days plus any expenses incurred e.g. drugs, investigation fees, meals etc.

nurses rotate every few years. The researcher and the Nursing Service Manager used the diversity criteria to select appropriate interviewees who were not on annual leave during the interview period. The interview timetable was developed with the Nursing Service Manager. The total number of interviewees was 34 excluding one interviewee who preferred the interview not to be tape-recorded (see Appendix II for more information on interviewees). Preliminary and on-going analysis of the interview data whilst data collecting meant the researcher could recruit interviewees until it was felt that no significant new material was emerging. A more thorough analysis of the interview data was subsequently undertaken but this in-situ analysis helped determine the sample size and those in the sample itself.

3.4.4.2 Data collection procedure

Access to the 34 nurses was negotiated via the Nursing Service Manger who facilitated the research. There was a possibility of bias if she acted as a gatekeeper and chose nurses who would favour managers' perspectives. However, the Nursing Service Manager did not appear to have any intention to control access to specific nurses; she and the researcher chose interviewees at random using the criteria outlined above.

The Nursing Service Manager was very helpful and arranged some help for the researcher. During the entire period of the main study data collection (31 May-10 June) a nurse from Hospital A assisted in coordinating the interview schedule, distributing the information sheet (Appendix III) and escorting participants to the interview room. She helped to ensure the smooth and efficient timing needed to conduct interviews within the short time period. The nurse presented the study to each interviewee by supplying an information sheet (Appendix III) in advance; the researcher gave a verbal explanation just before the commencement of interviews. Interviewees were provided with drinks and snacks in order to create a relaxed environment which encouraged them to talk freely, and as a token of thanks for their participation.

Although interviews were booked in advance, sometimes it was difficult to keep these appointments when wards were short-staffed. This happened especially with nurses working in busy departments such as Obstetrics & Gynaecology. In those cases,

interviews were moved to more convenient times such as before or after interviewees' shifts. Thus the researcher took care not to disturb daily work but ensured that nurses working on busy wards were also included in the interviews.

3.4.4.3 The effect of the researcher

The context and effect of the researcher herself should also be considered. It has to be acknowledged that the interviewer's identity as a female, Asian, non-native English speaker without medical training may have influenced the outcome of the interview to some extent. In the case of this thesis, cross-cultural assumptions or misconceptions might have added layers of complexity to the already complex interactions of an interview (Patton 2002). However, the researcher was familiar with the setting and the culture, having lived and worked in Zambia (1999- 2002) as a health advisor to an international development agency involved in the process of Zambian health sector reform. This was a particular advantage for conducting interviews smoothly and analysing the data although she was careful not to make assumptions because of her own experiences in Zambia. The friendly and open-minded character of the interviewees generally also helped them to speak freely without exercising caution because of the foreign researcher. Perceiving the researcher as an outsider mean that nurses sometimes tried to explain local customs and thus it was at times advantageous for the researcher to be a foreigner and meant that it was possible to gain more insights and readily understandable accounts for outsiders including international readers. On balance it is felt that any disadvantages from cross-cultural interviews were more than offset by the advantages of prior familiarity with the country and people.

3.4.4.4 Analysis of qualitative data

The flexible framework drew on motivation, incentives and migration theories. This formed the basis for the deductive collection and analysis of data but initially the researcher analysed the data inductively using the grounded-theory approach. Grounded theory emphasizes being systematic and creative simultaneously. It aims to generate explanations that correspond to real-world phenomena, rather than just testing

theory (Patton 2002). This approach was thought to be most appropriate for this study which aims to explain rigorously the real-world phenomena of nurses' migration.

Coding procedures help to provide systematic rigour to the analytical process and open coding of early data was used to create initial categories (Strauss and Corbin 1998). This helped to bring fresh ideas to the analysis in an inductive way and ensured that the researcher developed some analytical distance (Green and Thorogood 2004). At this first stage of analysis, the data were broken down into as many potential conceptual labels as possible, and then categorized into themes that appeared to belong together. This involved intense line-by-line analysis called microanalysis - one of the features of grounded theory (Strauss and Corbin 1998). There was constant re-coding or new coding during this process. Coded data were treated as "unfinished resources" for further use rather than end products in themselves (Mason, 2005). At this stage, links between these preliminary categories were not sought. Emerging accounts were continually compared and verified with the actual data - constant comparison which is the notion that interpretation of data moves forward through comparing codes, cases and data sets (Green and Thorogood 2004). Examples of this process of initial data analysis are described in Appendix IV (see also Appendix V for one complete example of the transcribed interviews).

In the second level of analysis the researcher aimed to allow more integration of the relationships between and within labelled themes. Flow charts were used to provide a concise illustration of the function of different relational concepts. As master themes emerged they were validated continuously against data. This process identified and verified relationships and patterns that were presented strongly and also widely repeated within the data.

Close attention to deviant cases (another important feature of grounded theory) was crucial in order to increase the validity of the research. Deviant case analysis looks specifically for disconfirming evidence rather than searching the data to prove points the researcher wants to make. The themes and relationships resulting from this analysis are illustrated in Appendix VI. Grounded theory also places importance on writing in

memos throughout the process. This included operational and theoretical notes kept by the researcher which were regarded as essential elements in the analysis itself (Green and Thorogood 2004).

In the final stage of analysis, the contexts of particular themes were explored in order to identify which kinds of respondents are more likely to report the specific emerging theme. Tables were used in order to arrange each emerging theme by specific group of interviewees, there are examples in Appendix VII; Appendix VIII; Appendix IX and Appendix X.

The nurses interviewed often concentrated on the more immediate demotivating work environment. However, some senior nurses have more analytical skills and experience, sometimes they noticed the link between more indirect environmental and policy factors and their demotivation or intention to migrate. For example, only older and experienced nurses knew how changes in disease patterns affect nurses' motivation. Purposive sampling with maximum variation made this variation possible.

Interview data were supplemented by additional field notes of discussions at the brainstorming meeting with key informants. Quotes were included in the thesis on the basis of being typical or atypical of each theme, or providing insightful illustrations from key informants.

3.5 Rigour: validity and reliability

From a qualitative perspective, Denzin argues that validity might refer to improved understanding, rather than improved accuracy (Denzin 1989). Theoretical triangulation can help to improve understanding of the multi-disciplinary and complex area that is human resources for health. Theoretical triangulation requires the theoretical frameworks utilized in a study to be widened to include a range of models and theories when analysing data (Green and Thorogood 2004). This study collected qualitative data of nurses experiences using a flexible framework derived from three different concepts:

financial incentives, motivation and migration, with the intention of showing the findings in different theoretical perspectives.

From the discipline of new institutional economics Williamson argues that, while many social commentators place excessive importance on questionnaires, most economists would argue that preferences are revealed by actual choices (Williamson 1985). In this study the remaining Zambian nurses, i.e. the interviewees, made choices not to leave the country. If they felt demotivated by a poor work environment, what made them not pursue migration? Different disciplinary perspectives were used to identify such discrepancies between what is said and what is done throughout this study. In order to increase reliability, the researcher analysed the whole data set rather than reporting only interesting examples. In addition, the researcher discussed the coding and themes with other qualitative researchers and undertook some co-coding. A series of presentation opportunities including local and international conferences was used to confirm that the findings were meaningful and credible to Zambian audiences as well as researchers.

3.6 Generalizability

It is acknowledged that the strategy of purposive sampling in this study may limit the application of some of the findings to other facilities, even within the country. For example, the findings on the mechanism of migration might be peculiar to urban, tertiary-level hospitals and the site, and therefore not able to be extrapolated automatically to rural health centres with low turnover rates. On the other hand, findings regarding a demotivating work environment might be applicable to other nurses working in the public sector generally or even to other civil servants. Therefore, the researcher has aimed to give sufficient details and context to allow readers to judge the generalizability of the research for themselves.

Conceptual generalizability may be most appropriate for qualitative research (Green and Thorogood 2004). Yin emphasizes the role of theory characterized as “analytic generalization” in case studies. This contrasts with “statistical generalization” - the

most common method when undertaking surveys or analysing archival data (Yin 2003). He argues that a good investigator should make the effort to develop a theoretical framework which will become the vehicle for generalizing the results of the case study. For this study, the development of a flexible framework based on previous theories and models enabled new insights from qualitative data. Sampling an extreme hospital with reportedly the highest turnover rates made it possible to shed light on pivotal issues likely to influence the migration of nurses generally and thus contribute to a wider body of knowledge. Although different contexts in different countries might limit the full application of this study, some findings are useful for understanding similar issues of nurses' migration currently faced by many other sub-Saharan African countries.

3.7 Ethical considerations

Ethical approval for this study was sought from the LSHTM (Appendix XI), University of Zambia (Appendix XII) and Ministry of Health (Appendix XIII). The researcher gave the information sheet (Appendix III) to the potential research participants in order to facilitate their informed consent. Anonymity of the data was achieved by using identity codes rather than names on the tapes, transcripts and thesis. Participants were reassured that they will not be identified in any reporting of findings from the research. Data from the study were stored under lock and key in order to maintain confidentiality. Thus anonymity and confidentiality were assured.

This chapter has presented the research design, research approach and details of each of the two phases of data collection. Both the literature review and the description of methods have suggested the potentially important role of context in the study of nurse migration. The next chapter reviews the background and provides contextual information on Zambia.

Chapter 4: Zambian context and health system

4.1 Socio-economic context

Zambia is one of the world's poorest countries. The population of approximately 10.4 million has a GNI (Gross National Income) of approximately US\$ 450 per capita (World Bank 2002). Zambia was one of the most prosperous countries in Africa in the 1960s and at the beginning of the 1970s. However, economic stagnation started in 1975 when the price of copper on the international market fell by almost 50%. At that time, copper exports represented over 90% of exports in value terms therefore the price fall had an immediate and massive effect upon Zambia's income (Colclough 1997).

The International Monetary Fund (IMF) and World Bank supported the Structural Adjustment Program (SAP) which took measures to address the economic weakness. Zambia had to reduce the real wages of public services, given the high level of government expenditure relative to tax revenues. By 2000, real public service salaries for most salary groups had declined by 85-90% in comparison to their value in 1975 (Valentine 2002). Often, the wage decline led public employees to engage in a wide range of supplementary income-generating activities.

Overall between 1975 and 2000, real public service pay declined much faster than real GDP per capita (Valentine 2002). Two dimensions need to be considered when deciding wage levels: total costs imposed on government employees and the standard of living (Robinson 1990). In Zambia, however, consideration of the latter seemed to be neglected at the expense of the former. Cutting costs by squeezing real wages can contribute to macroeconomic stability but becomes counterproductive beyond a certain point (Lienert 1998). As the economic situation worsened in Zambia, the epidemiological situation also deteriorated mainly due to HIV/AIDS.

4.2 HIV/AIDS

After independence life expectancy at birth increased from 42 years in the 1969 census to 50 years in 1980. By 1990, it had dropped to 46 years (MoH Zambia 1998). It is projected that Zambia will have the world's lowest life expectancy at birth at 32.4 years for 2000-05 (Garbus 2003). This marked fall in life expectancy is attributable mainly to the very high prevalence of HIV/AIDS. This epidemic has a pervasive impact on Zambian nurses' work and family life. The treatment of opportunistic infections resulting from AIDS puts considerable strain on health service delivery. It has been estimated that AIDS morbidity and mortality has resulted in over 70% of medical hospital admissions in Zambia (UNAIDS 2006). For those who need hospital care, the average length of stay is longer than for most other diseases as AIDS patients tend to enter, leave and re-enter hospitals depending on the severity of the illness (MoH Zambia 1999).

Increasing numbers of HIV patients have increased the burden on bedside nurses working in the hospital. Sickness and death primarily from HIV/AIDS, together with emigration, have caused a significant loss of nurses in Zambia. A person living with AIDS may be away from work for up to 50% of their final year of life (Kober and Van Damme 2004). Caring for ill dependants and attending funerals are also known to contribute to higher absenteeism. One serious consequence of parental death from AIDS is an increase in the number of orphans. In Zambia, 20% of all children were orphans in 2005 - over half of them due to AIDS (UNICEF 2006). In many sub-Saharan African countries, including Zambia, extended families have assumed responsibility for orphans. As the numbers rise, families are increasingly strained to meet the growing need of childcare (Foster 2000). Female-headed households generally assume care of more orphans than those that are male-headed, resulting in higher burdens than the general population (UNICEF 2006).

Geographical variations in HIV prevalence may also account for the different workloads amongst health institutes. HIV prevalence rates in urban areas, including the study site, were constantly higher than those in rural areas: 28.5% (1994), 26.3%

(1998) and 25.5% (2002) at urban sites; 12.3% (1994), 11.7% (1998) and 11.1% (2002) for rural sites (CBoH Zambia, National HIV/AIDS Council (Zambia) et al. 2002). The higher HIV prevalence in urban areas might also have contributed to heavier workloads for nurses working in urban-based hospitals. At the same time they might have a larger number of AIDS orphans to care for at home. Facing this deteriorating epidemiological and economic situation, the Zambian Government embarked upon health reform.

4.3 Zambian health reform

4.3.1 History

As the economic situation deteriorated from the 1970s onwards, the Government's health budget fell from US\$ 29 per capita in 1970 to US\$ 5.1 in 1991 (Blas and Limbambala 2001b). In this context, the Zambian Government has been engaged in a process of health reform since 1991. Health sector reforms are described as "sustained, purposeful change to improve the efficiency, equity and effectiveness of the health sector" (Berman 1995). Although many countries implemented health reforms during the 1990s, Zambia seems to have pursued a more ambitious reform programme including restructuring public sector organizations through decentralization, creating autonomous hospitals and separating the policy-making and service-delivery wings of the Ministry of Health (MoH); creating a clearer link between performance and reward; liberalizing the private health sector; broadening the sources of funding; and increasing the role of the consumer in the health system. While these measures have not been implemented fully, some may have changed the work environment of public health workers. Health reform was necessarily accompanied by the redistribution of resources.

4.3.2 Redistribution of resources

Blas and Limbanbala (2001) argue that the health reform focused on cost-effectiveness and financial sustainability, which is closer to the thinking behind the World Development Report (1993) than WHO's Health for All strategy (WHO 1978; World

Bank 1993; Blas and Limbambala 2001b). In 1996, packages of cost-effective care were decided from health posts to district hospitals. The total cost was US\$ 11.50 per capita of which US\$ 0.5 was allocated to community health posts, US\$ 6.7 to health centres and US\$ 4.3 to first referral-level hospitals. Secondary and higher referral hospital levels were untouched (Blas and Limbambala 2001b).

Despite the knowledge that the centre of the health system's capital, personal and financial resources is located in the hospitals (Newbrander, Barnum et al. 1992), policy-makers and donors had two reasons to focus exclusively on primary health care. Firstly, neither the Alma Ata Declaration (1978) nor the World Development Report (1993) explained explicitly how to reallocate resources from higher referral hospitals to lower levels (WHO 1978; World Bank 1993; Blas and Limbambala 2001b). Secondly, while the packages amounted to US\$ 11.50 per capita (excluding higher referral hospitals) the estimated affordable budget in 2000 was US\$ 10.50 per capita (MoH Zambia 2000). A minimum financing of around US\$ 30-40 per person per year is necessary to cover essential interventions including HIV/AIDS at all levels, much of this amount is required from public-sector budgeting rather than private-sector financing (Sachs 2001). Facing these overall government budget constraints, the initiated health reforms introduced a relative shift in allocation between the higher hospital and district health service levels. In 1994 the three level III hospitals A, B and C were allocated 34.5% of the budget, this was reduced gradually to 22.3% in 1997 (Blas 2003). Allocation to the districts increased from 39.8% to 53.2% during the same period. This resource shift might have different implications for public health workers' motivation at district and higher hospital levels.

The success of this cost-effectiveness approach depended on a functioning referral system. However, a survey found that the higher-level hospitals mainly provide care to the population in their immediate catchment area, not referred cases only (Blas and Limbambala 2001b). This survey also found that the percentage of chronically-ill patients increased with referral level: 29% at first-level hospitals, 32.9% at second, 34.6% at third, 49% at Hospital C. Patients completing active treatment and care at higher-level hospitals should have been referred back to lower levels or for home care.

This lack of a functioning referral system might have serious implications for the health workers' workload at higher level hospitals including the study site. To discuss the referral system, it is necessary to clarify the health system in Zambia.

4.3.3 Health system

Health services in Zambia are provided by the Government, missions and the private sector, including mining and other industrial companies. In addition, traditional medicine is still popular and practised alongside western medicine. Despite a recent increase in the number of private clinics, the Government still plays a major role in Zambian health services. Of a total of 1327 health institutions 1124 (77%) are owned by the Government, 115 (16%) by the private sector and 88 (7%) by the missions (CBoH Zambia 2002). Health reform envisaged that the following five levels of care would provide a defined package of service at each level (MoH Zambia 2000). The number of current units is shown in brackets (CBoH Zambia 2002).

Third-level hospital (5): national-level referral of care with highly-specialized medical care and teaching hospitals. Each central hospital has an average of 300 to 800 beds.

Second-level hospital (18): provincial-level referral of care with specialized medical care. Each general hospital has an average of 200 to 250 beds.

First-level hospital (74): district-level referral of care with in- and outpatient services within the main specialties (medicine, surgery, gynaecology/obstetrics, paediatrics). Each district hospital has an average of 100 to 200 beds.

Health centre (1210): current first level of contact with the formal health-care system. Provides basic preventive and curative health care, normal deliveries and some inpatient capacity (urban health centre: 30 beds; rural: 10-12 beds).

Health posts: envisaged first level of contact with the formal health care system. Outreach activities such as initiating and supervising community-based health activities through community health workers and traditional birth attendances.

The health reforms envisaged that the bulk of health care services would be provided at the lower levels and only severe cases would be referred upwards. Overall there was a dramatic decrease in general attendance at both hospitals and health centres, mainly due to the introduction of user-payments from 1993 to 1997 (Blas and Limbambala 2001a). Although nationwide implementation of the health-post system⁴ was suspended due to financial restrictions (MoH Zambia 2000), there was much improvement at health-centre level with increases in measles vaccinations (up 40%), admissions (up 25%) and deliveries (up 60%) during the period from 1993 to 1997 (Blas and Limbambala 2001a).

Caseloads for some key services shifted from hospitals to health centres, however, the intended overall shift in outpatient caseload did not happen. The existing referral system is not working well - many patients still turn up at hospital without being screened at health-centre levels (MoH Zambia 2000). It is argued that some second and third-level hospitals should be reclassified as first-level in order to reflect the real situation. However, decisions on the reclassification of hospitals are still pending (CBoH Zambia 2000). For the purposes of this research it is also necessary to further explain the human resource situation in the Zambian health system.

4.4 Human resources in Zambia

This section explains the human resource situation in Zambia covering staff distribution and training programmes for nurses.

⁴ The envisaged first level of contact with the formal health care system before accessing health centres.

4.4.1 Staff distribution

Staff distribution problems are twofold: uneven distribution across the globe (escalated by international migration) and uneven distribution within countries. Although this thesis focuses on international distribution, a brief examination of the problems of internal distribution is necessary for more comprehensive understanding of the issues.

The geographical distribution of doctors, RNs, RMs and EMs is skewed towards urban areas; some categories such as clinical officers and ENs are distributed reasonably across the country (MoH Zambia 2000)⁵. Almost two-thirds of the RNs and RMs employed at higher-referral levels are concentrated in Hospitals A, B and C although together these hospitals provide less than 20% of the referral hospital beds (Blas and Limbambala 2001b). Some mission and government hospitals have only one or two registered midwives; 66% of rural health centres have no midwife (CBoH Zambia 2000). More than 70% of all doctors are concentrated in Lusaka and Copperbelt provinces, which together account for only one-third of the population.

This skewed distribution of staff is attributable partly to the uneven distribution of hospitals, a legacy of the colonial era. Any redistribution of hospital capacity or closing of hospitals inherently involves the political process. Attempts at geographical redistribution of hospital capacity were prevented by many political actors and no hospitals were officially closed or downgraded (Blas and Limbambala 2001b). Health workers' preference for working in urban areas is another reason for this skewed distribution. This reflects their training orientation in urban hospitals. Nursing curricula emphasize hospital nursing care at the expense of health care in rural health centres (MoH Zambia 2000), for example, ENs spend 1 week in rural health centres, 3 weeks in urban health centres and 52 weeks on hospital wards during a two-year training period.

⁵ Clinical officers in Zambia carry out only limited medical tasks, ENs perform some of the functions and roles of RNs. Many African countries created country-specific cadres to carry out some of the functions and roles normally reserved for internationally-recognized health professionals such as doctors and nurses. Usually they receive shorter pre-service training and possess lower qualifications.

This uneven distribution of staff is contrary to the objective of equity expressed in the health reform documents and there is attention on how to reallocate health staff from urban to rural areas and tertiary to district levels (CBoH Zambia 2000; MoH Zambia 2000). However, there has been less attention to the experiences of nurses in level 3 hospitals which have seen a rapid decline in funding combined with increased numbers of chronically-ill patients, no functioning referral systems, no downsizing of capacity and a rapid increase in the number of migrations. In 2004 the Zambian public sector had a total of 8706 nurses in-post and 8026 vacancies, based on the establishment developed in 2001 i.e. a 48% vacancy rate (Koot and Martineau 2005). This is reflected in the high vacancy rates in level 3 hospitals which are mostly urban and close to the national average: 43% for Hospital A, 50% for Hospital B and 47% for Hospital C⁶.

Redistribution should be tackled either by increasing the overall number of health workers or by downsizing higher-level hospitals in the context of an overall labour shortage. It has been pointed out that where there is an overall labour shortage any redistribution of health workers from urban to rural and from tertiary to district may simply redistribute the problems (Koot and Martineau 2005). In some cases, perfect equity is not desirable and it can be completely acceptable for certain types of health workers to be concentrated around teaching hospitals (WHO 2006).

It should also be noted that not all the vacancies are attributable to the consequences of migration. The current establishment level is based on the historical legacy and does not consider overall national financial constraints or actual workloads. A government organization's staff establishment is normally approved by the Public Service Commission and Ministry of Finance within the context of the Government's capacity to meet salary requirements (CBoH Zambia 2000). In 2001 the Ministry of Health developed a new nurse establishment based on the prototype health facility structure, but this has not been approved by the Cabinet Office due to the conditions to reduce expenditure on civil service enrolment and overall financial constraints.

⁶ According to nursing strength of Hospitals A, B and C in 2004.

4.4.2 Training programmes for nurses

This section explains briefly the training programmes provided for Zambian nurses as these have various implications for their potential migration. The basic and post-basic training programmes available are outlined in Table 7.

Table 7 Training programmes for nursing in Zambia

Level	Training programme	Duration	Authority
Basic	Registered Nurse (RN)	3 years	Ministry of Health
	Enrolled Nurse (EN)	2 years	
Upgrading	EN to RN	2 years	
Post basic	B.Sc. nursing	3 years	University of Zambia
	Diploma in nursing education	2 years	
	Public Health Nurse	1.5 years	
	Psychiatric nursing	1.5 years	Ministry of Health
	Operating Theatre Nurse	1 year	
	Midwifery (RM and EM)		
	Enrolled Psychiatric Nurse	2 years	

The Ministry of Health provides 12 schools of nursing and midwifery and authorizes mission hospitals to provide 7 schools of nursing and midwifery. Initially Zambia followed other countries in the region by phasing out ENs, starting by converting three EN schools to RN in 2000. This was justified by the need to increase the status of ENs taking account of the fact that the two programmes require almost identical educational qualifications and the training is very similar in content and quality (CBoH Zambia 2000).

This decision had various implications for the nursing workforce overall. Firstly, RNs train for one year longer than ENs. When a school converts the output of nurses is reduced by one-third without any compensating increase in the total student intake (CBoH Zambia 2000). A lack of tutors, hostels and classrooms also constrained the expansion of training capacity. The consequent reduction in nursing output is reflected

in the number of graduates from Zambian nursing schools: 643 in 2000 to 501 in 2002 (see Appendix XIV). Secondly, training costs generally increase as an RN's training costs one-third more. Thirdly, this could escalate the exodus of nurses from the public sector because RNs and RMs are more marketable in the private sector and overseas despite the recent steady increase of the market for ENs overseas. Fourthly, the implications for the distribution of nurses are not known but some argue that the urban-biased distribution will increase as the current distribution of RNs is skewed to urban areas while ENs are distributed evenly across the country (CBoH Zambia 2000). Subsequently the decision to phase out ENs has been suspended following these negative implications.

Thus it should be noted that nurse shortages are caused not only by migration but also by decreasing student enrolment in training institutions, although this is beyond the remit of this thesis. In 2000 the MoH was urged to (1) stop any further conversion of EN schools to RN schools (2) reduce loss rates by improving terms and conditions of service (3) increase its nurse training capacity by CBoH (CBoH Zambia 2000).

Government funding provides very little in-service training (MoH Zambia 2000). Most short-term sponsored in-service training courses are provided at conferences or workshops organized by donors. However, donor-supported in-service training can have limitations - lacking coordination; reaching only a proportion of service providers; and disrupting normal practices where staffing levels are poor (MoH Zambia 2000; USAID 2003).

This chapter has presented the Zambian health system and its wider context. The results of this thesis are presented in the following two chapters.

Chapter 5: International flow of Zambian nurses

This section presents the procedures undertaken by nurses willing to migrate and the analysis of various primary data at the national level. Data from professional associations in destination and source countries were collected and used to describe the international flow of Zambian nurses. All recorded data in the registration notebooks were collected except for 1999 and 2001 when there was no differentiation between ENs and RNs. It is not known why these two cadres were not separated in these years.

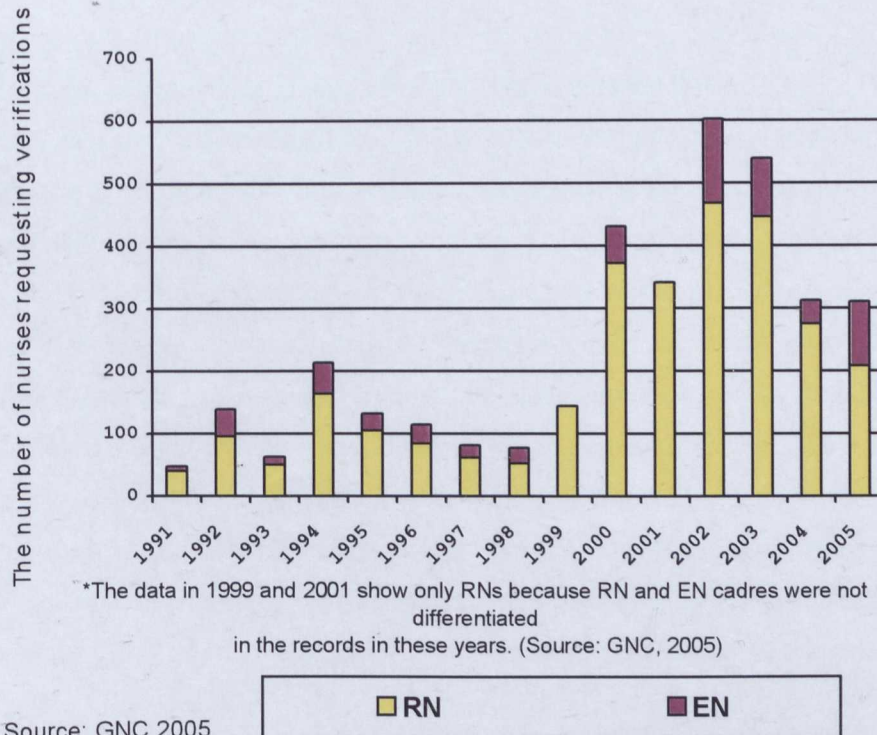
Nevertheless, the data set is regarded as sufficient for the purpose of understanding migration trends and the impact of policy on migration trends due to the availability of data over a long time span (15 years). Primary data at the General Nursing Council (GNC) were collected and double-checked by the researcher in order to improve accuracy. An attempt was made to compare data from the GNC with those from the NMC in the UK in order to enhance their credibility. Before examining these data, the time-consuming procedure of migration is explained briefly in order to understand the meaning of verifications which are used as indicators of nurses' intention to leave the country. More details on the costs of this process will be examined in the section on migration costs.

Any nurse who wishes to practice abroad must be registered with the professional regulatory authority of the destination country. The standard procedure in the UK requires Zambian nurses to complete a package of standard forms to apply for registration with the NMC. A verification letter from the GNC in Zambia is required to confirm that the applicant is competent to undertake safe and effective practice. These verification letters are sent directly to the NMC while the Zambian nurse returns the other completed forms together with a registration fee. In addition, nurses wishing to work in the UK are required to demonstrate competence in English by achieving an overall average score of 6.5 for the International English Language Testing System (IELTS). The NMC sends successful candidates a "decision letter" containing a

registration number and information about the requirement for supervised practice in British hospitals (usually 3-6 months). A nurse receives formal admittance to the UK's register on successful completion of this supervised practice. The number of requests for verification letters is one way of ascertaining nurses' intention to leave.

Figure 4 shows the total number of Zambian RNs and ENs requesting verifications from the GNC for potential registration in twenty-one countries: the UK, South Africa, Botswana, New Zealand, USA, Australia, Namibia, Canada, Zimbabwe, Swaziland, Ireland, Malawi, China, Kenya, Lesotho, Tanzania, Saudi Arabia, Norway, Tuvalu, Mexico and Angola. The total number of verifications from 1991 to 2005 is 3062; 35% of the current total number of nurses who are on the current pay role in the Zambian public sector (MoH Zambia 2004d). English is Zambia's official language and this is reflected in the choice of destination countries: 99% of the verifications requested 1991-2005 are for English-speaking countries.

Figure 4 The total number of Zambian RNs and ENs requesting verifications from the General Nursing Council for potential registration in twenty one countries



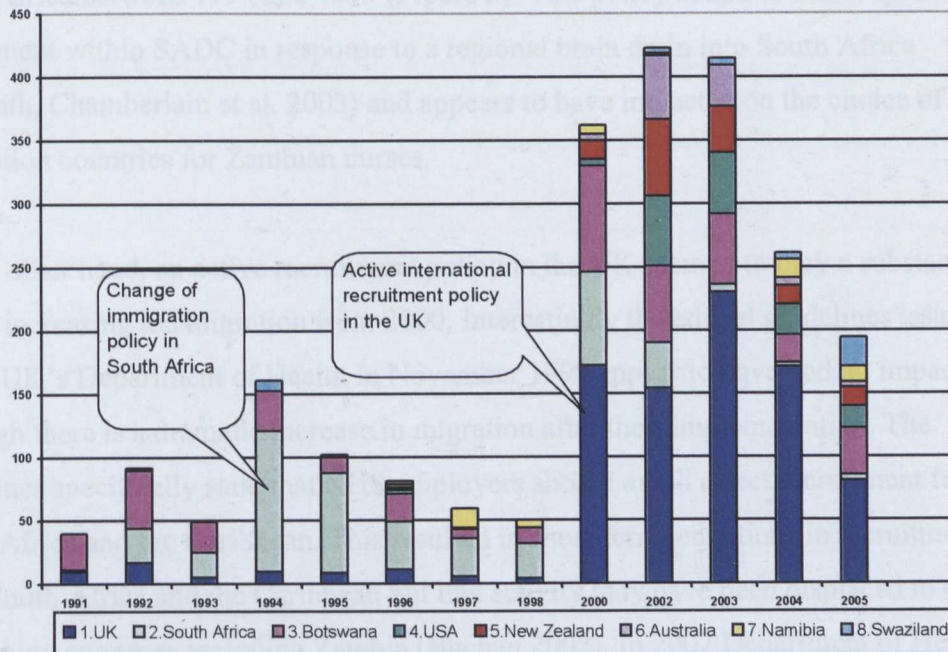
Source: GNC 2005

Figure 4 shows that the majority of nurses requesting verifications are RNs. However, it may be that these data lead to an underestimation of the number of ENs migrating from Zambia as they require neither verification nor registration to work abroad as care workers in elderly-care homes, underutilizing their nursing skills.

The substantial increase in migration since 2000 is attributable to access to new destination countries. According to the GNC, the downward trend since 2003 may be attributable to reduced activity from recruitment agencies caused by a backlog of overseas applications awaiting decisions due to the shortage of places for supervised practice in the UK. Other possible factors in the source country (Zambia) include the end of VSP and redundancies among civil servants. Zambian nurses may not be able to afford to pay the migration costs without the help of additional funds from VSP, recruitment agencies or friends overseas.

Figure 5 shows a further breakdown of the data from Figure 4, illustrating the number of Zambian RNs requesting verifications from the GNC for the top eight destination countries (UK, South Africa, Botswana, New Zealand, USA, Australia, Namibia and Swaziland).

Figure 5 Number of RNs requesting verifications from the GNC for top eight destination countries (1991-2005)



Source : GNC, 2005

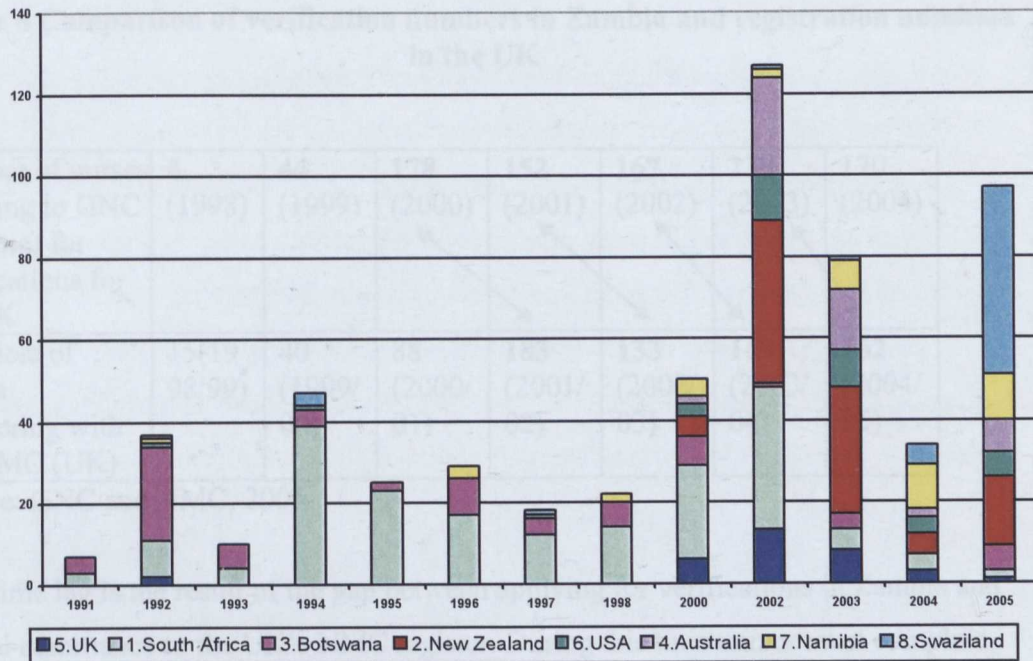
The substantial increase in migration since 2000, seen in Figure 4 and Figure 5, is attributable to access to new destination countries such as the UK, New Zealand, USA and Australia in addition to old destination countries such as South Africa and Botswana. Relatively wealthier countries than Zambia within Southern African region such as South Africa, Namibia, Swaziland and Botswana also had problems of nurse shortages especially in the public sector. Botswana is popular especially amongst RMs. As the interview data revealed later, some of the Zambian nurses were even willingly to take up rural postings in Botswana. A higher salary even after adjusting PPP, proximity to home, better housing even in the rural areas, provision of uniforms, belts and shoes were often cited in the interviews as attracting Zambian nurses. However these countries within Southern African region are also used as stepping stones to migrate to the UK. The UK has replaced South Africa as the most popular destination

country. The dramatic increase from 2000 is also attributable to the active recruitment policy of the UK's NHS and the VSP.

A new immigration policy introduced in 1994 may have led fewer nurses to migrate to South Africa between 1994 and 1999 (Figure 5). This policy aimed to limit regional recruitment within SADC in response to a regional brain drain into South Africa (Padarath, Chamberlain et al. 2003) and appears to have impacted on the choice of destination countries for *Zambian* nurses.

On the other hand, an active recruitment policy in the UK seemed to play a substantial role in increasing the migration from 2000. Interestingly the ethical guidelines issued by the UK's Department of Health in November 1999 appear to have had no impact although there is a dramatic increase in migration after their implementation. The guidelines specifically state that NHS employers should avoid direct recruitment from South Africa and the Caribbean. This resulted in short-term reductions in recruitment from South Africa and the Caribbean but this activity may have been displaced to other developing countries including *Zambia* (Buchan 2002). In 2002 Department of Health released more a detailed Code of Practice. In 2003 it added other countries to a list of less-developed countries to be avoided, which included *Zambia*. The Commonwealth also adopted the Code of Practice for the International Recruitment of Health Workers in 2003. However there is no direct evidence that these ethical guidelines were effective, although they may have been expected to have played an important role in the recent trend of reduction from 2004. However, the overall reduction in 2004 might also be largely attributable to the shortage of places for supervised practice in the UK, the most popular destination country.

Figure 6 Number of ENs requesting verifications from the GNC for top eight destination countries (1991-2005)



Source : GNC, 2005

Figure 6 shows the number of Zambian ENs requesting GNC verifications for the top eight destination countries (South Africa, New Zealand, Botswana, Australia, UK, USA, Namibia, Swaziland). The UK is the most popular destination country for RNs but ENs favour New Zealand and, more recently, Swaziland. New Zealand may be more popular amongst ENs because it retains their cadre, these no longer exist in the UK. RN verifications increased dramatically in 2000 and remained high but there was a decline in 2004 and 2005. EN verifications increased substantially in 2002 and more recently in 2005.

Table 8 compares the number of Zambian nurses applying to the Zambian GNC for UK verifications with those registering with the NMC in the UK. Zambia is ranked as the eleventh source country in the UK although verification numbers show the UK to be the most popular destination country for Zambian nurses. The numbers applying for

verifications were 178 in 2000, 152 in 2001 and 167 in 2002. This almost corresponds with the numbers of Zambian nurses registering with the NMC (UK): 183 in 2001-02, 133 in 2002-03 and 169 in 2003-04 with a one-year time lag (NMC August 2005).

Table 8 Comparison of verification numbers in Zambia and registration numbers in the UK

Number of nurses applying to GNC (Zambia) for verifications for the UK	4 (1998)	44 (1999)	178 (2000)	152 (2001)	167 (2002)	238 (2003)	170 (2004)
Numbers of nurses registering with the NMC (UK)	15(19 98/99)	40 (1999/ 00)	88 (2000/ 01)	183 (2001/ 02)	133 (2002/ 03)	169 (2003/ 04)	162 (2004/ 05)

Source: GNC and NMC, 2005.

This time lag is the result of the gap between applying for verifications in Zambia and formal admittance to the UK's NMC register. During this time nurses must complete paperwork, move to the UK and undertake 3-6 months of supervised practice. However, there are discrepancies between these two datasets, for example: 238 Zambian verifications in 2003 but only 162 UK registrations in 2004-2005 (Table 8). It seems that these 76 nurses did not register with the NMC in 2004-2005, despite having applied to the GNC for verification letters in 2003. Perhaps supply exceeded demand. The shortage of supervised-practice places may account for this failure to absorb the supply in 2004-2005 although demand remained. Some may register in 2005-2006 as the registration process is valid for two years. Furthermore, the lack of supervised places also might have reduced verification numbers in 2004.

The NHS's active international recruitment policy fuelled by the financial pressure in the UK, VSP and early retirement have impacted substantially on the migration trends of Zambian nurses although it is not clear which schemes have impacted most or when it happened (see section on environmental and policy factors of migration). It is difficult to disentangle push or pull factors from these migration trends. However,

given the prevailing poor work environment in Zambia and the increasing effects of migration inducement caused by seeing the achievements of friends, it seems that the current volume of demand from destination countries has a stronger influence in determining migration numbers.

This chapter has described the international flow of Zambian nurses using various primary data. Quantitative data provided the time-series trends of migration which provides a vital context for the qualitative data. It meant that this data could be collected at a specific point of time when migration was declining once the active recruitment policy has stopped. While quantitative data are able to answer questions of how many nurses are leaving Zambia and their destinations, qualitative data can provide the answers to the questions of why they are leaving and how they choose their destination countries. The following chapter presents findings from the analysis of the qualitative interview data.

Chapter 6: Qualitative interview data

The results of the qualitative interview data are presented in this chapter. Firstly, the environmental and policy factors which are likely to influence directly or indirectly the intention to migrate. Secondly, the influence of a demotivating work environment in terms of general push factors. General push factors are mentioned repeatedly as overall influential factors for all nurses' intentions to migrate. Thirdly, specific incidents of a demotivating work environment which made some nurses feel like leaving the hospital (critical push factors). Finally, the stick factors which made nurses stay within the hospital despite the demotivating work environment. The general motivation of Zambian nurses is also presented briefly in this section. All the nurses interviewed were from Hospital A.

6.1 The influence of environmental and policy factors – contextual push factors

Environmental and policy factors had indirect effects on the increasing migration trends of Zambian nurses by influencing their motivation. Nurses mentioned factors such as down-sizing of public-sector services, declining levels of funding for tertiary-level hospitals, high inflation rates, changes of disease patterns and privatization of the mining sector. These are presented in turn. It is important to remember that motivation is influenced by intertwining environmental and policy factors as well as those that relate to a demotivating work environment although they are categorized separately in this chapter (see Appendix VI). A few of the more experienced and reflective nurses highlighted that contextual factors indirectly affect the intention to migrate.

6.1.1 Down-sizing public sector services

Despite substantial staff shortages in government health facilities, policies driven by macroeconomic concerns limit the level of workforce in the public health sector. Three

policies that have had a direct impact on staffing levels are the restrictions on the level of spending on public servant personal emoluments, VSP and early retirement. The level of spending on personal emoluments is agreed at 8.1% of GDP across the public sector, including health. These restrictions are imposed to meet the Poverty Reduction Strategy Papers (PRSP) and Heavily Indebted Poor Countries (HIPC) targets which led to a temporary freeze on hiring new staff in the public health services 2003-04. This affected the work motivation of a few young nurses amongst the participants, but did not affect older nurses or younger nurses coming after them. The few who experienced this identified it as a demotivating experience. Despite being employed and paid by the hospital board, this 26 year-old RN felt like leaving the hospital when she was not on the payroll as a permanent member of staff because there was a freeze on hiring new staff:

I first started working in November last year...in March that's when we appeared on the payroll...when I became a permanent nurse here at Hospital A. Now, can you imagine, starting work from November, then you appear on the payroll in March, that was a long period of time and, certain times you would feel like you would stop work you know, and just relax at home...(26 year-old RN, ID29)

VSP and early retirement may also have played important roles in facilitating migration; some used the generous lump sums provided by the Government to cover migration costs. A Nursing Service Manager who started work in 1992 is most vocal on this issue as she could observe the overall impact of these exercises. She reflected on the impact of VSP on the hospital and on her work motivation:

I can even recall the time now when this voluntary separation came... being in administration I was actually very, very demotivated because now nurses were going in bunches. If you can just imagine, there are about 15 nurses in the ward and then ten, they go away at one go. You don't know how to patch, you know, that hole. And you just get frustrated. I think that's when I started losing interest in my work.(Nursing Service Manager, ID32)

VSP aimed to reduce the size of the public sector as part of the PSRP. It is estimated that it led to 1487 public health workers leaving government service in 1999. It is not known how many nurses were in this group, but the rapid increase of verification requests since 2000 is attributable in part to the combination of VSP and international recruitment as both provided sufficient funds for migration.

The same nurse manager reflected on early retirement:

And then there was another issue where they said ‘eeeh’ early retirement. If you want to retire early fill these forms and go. Everybody because of the delayed salaries, because of the conditions in the wards, most nurses wanted to leave...they left at one time so we did not know how to run the wards. (Nursing Service Manager, ID32)

Although the recruitment freeze, VSP and early retirement were one-off exercises which took place at different times, they all contributed substantially to the decrease in staffing levels of the public-sector health workforce. Redundancy packages such as VSP and early retirement in particular facilitated nurse migration.

6.1.2 Declining levels of funding at tertiary-level hospitals

The overall resource envelope amounts to health expenditure of US\$ 22-24 between 2001 and 2005, the actual funds available to the Government for health care amounted to only US\$ 10.11- 10.75 per capita during the same period (MoH Zambia 2005b). This is far below the estimated US\$ 22 minimum required to finance the Basic Health Care Package (excluding HIV/AIDS treatment) and the US\$ 34 calculated by the WHO Commission for Macroeconomics and Health (MoH Zambia 2005b). Tertiary-level care was especially hard hit by the budget cuts. Table 9 shows the change in the ratio of expenditure per capita (US\$) between primary and tertiary health care since 2000 (MoH Zambia 2005b).

Table 9 Health expenditure by level of care (%)

	1999	2000	2001	2002
Primary health care	44.9%	53.4%	69.9%	67.1%
Secondary	8.0%	11.4%	10.2%	9.9%
Tertiary	47.1%	35.3%	19.9%	23.0%
Total	100%	100%	100%	100%

Source: (MoH Zambia 2005b)

Inevitably, declining overall resources require levels of care to be prioritized. However, the declining level of tertiary-level funding had a number of indirect effects on nurses' motivation. Limited funding created few professional development opportunities and

reduced access to essential equipment/drugs; lower allowances caused lower salary levels; low staffing increased workloads and caused a higher risk of infections through a lack of protective measures. Thus the declining level of funding contributes to a demotivating work environment.

Declining levels of funding may be one of the major causes of high turnover rates. The limited data and reports available (CBoH Zambia 2004; MoH Zambia 2004c) report higher turnover rates amongst tertiary-level nurses compared to those at primary and secondary levels within Zambia. At Hospital A, some nurses were transferred to the District Health Management Team (DHMT) although it is not clear exactly where (see Appendix XV). Hospital B, another tertiary-level hospital, has more data on the destinations of nurse transfers amongst terminations (see Table 10).

**Table 10 Breakdown of total nurse termination numbers and percentages
(Hospital B)**

	Deaths (%)	Transfer (%)	Resignations (%)	Retire ments (%)	Total termina tions (%)
2002	7 (35%)	7 - 6 DHMT B, 1 Bank of Zambia (35%)	4 - UK (20%)	2 (10%)	20 (100%)
2003	8 (21%)	4 - DHMT B (11%)	22 - UK, Australia, Zambian Flying Doctor Services (58%)	4 (11%)	38 (100%)
2004	4 (17%)	13 - DHMT B (54%)	7 - UK, Malawi, mines (29%)	0 (0%)	24 (100%)

Most terminations are attributable to deaths, transfers and resignations although the ratios for each vary from year to year. For Hospital B the number of transfers to DHMT within the same district is quite high. In 2004, the number of transfers is higher than the number resigning to work overseas. Although transferred nurses might not migrate overseas, it is worth examining why they move to health institutions within the same district as turnover rates at DHMT generally are lower than those at tertiary level.

Overwhelmingly, nurses reported that DHMT offered more professional development opportunities; higher levels of allowances such as outreach or transportation allowances; and fairer allocation of opportunities to attend workshops. Some nurses added smaller workloads. The following example is a typical case:

In the district ... of course the salary could be very little. In the districts there are seminars which are going on there...our friends have got a lot of certificates at these workshops which they have. And even the knowledge, they are so advanced. There are a lot of things which we don't know what they do in the districts... we are left behind ...you don't even know what are the changes going on. But when you are in the district you are exposed to these things...I don't get an allowance for transport...Our friends who are in the district are being given transport money, because they can't give them a bus to ferry them. All those things, you see they make you, you would rather go somewhere, where they will give you transport money, because I can't afford... if you can attend two or three workshops in a month... maybe she will get KW 100 000. It's a plus to her salary...(RN, Operating Theatre Department, ID04)

Although DHMT and the tertiary level pay the same salary scales, one RN reflected that small extra financial benefits such as transportation allowances or workshops tend to attract nurses to the district health services. Workshops provide additional incentives by providing opportunities to improve professional knowledge.

6.1.3 High inflation

Despite recent declines, Zambia experienced a long period of high inflation which decreased the real wages of nurses. The high inflation rate caused basic commodity prices to rise while salary-levels remained the same. For example, the cost of basic items for a family of six living in Lusaka (food basket) was KW 6 375 in March 1991. By January 2005 it was 77 times higher at KW 492 940 (Jesuit Centre for Theological Reflection 2005). Thus, high inflation rates are the indirect cause of the decline in real wages for civil servants. While most of the nurses cited low wages as a demotivating factor in the work environment, some reflective nurses also noticed the link between low salary levels and high inflation rates. Even if there was a salary increase, it did not catch up with persisting inflation as a clinical instructor remarked:

Since I started working, there have been one or two salary increments. But it's nothing to talk about because it comes after a long struggle by the union. A lot of years pass by then your kwacha you know has been losing value. By the time you get it, it's actually worse than the time... it was fought for. It does not change anything. (Clinical Instructor, School of Nursing, ID20)

High inflation affects not only wage levels but also the expected levels of time-deferred incentives such as pensions. If high inflation continues, in-kind incentives such as housing, uniform etc. might have more real value than cash. For example, in Zambia government-housing has always involved a substantial element of subsidy compared to housing allowances. In 1975 the net rent benefit for those in government houses amounted to 12% of the salaries of the most senior officers, and over 50% of those for the most junior grades (Colclough 1997). The value of these subsidies relative to salaries has risen consistently since 1975 - salaries have fallen in real terms and rents in the private sector have increased sharply. By 1990-1991 in almost all cases the subsidy was worth considerably more than basic salaries, in some cases more than double.

Between 1975 and 1991 the Government allowed a real decline in the value of housing allowances, almost equal to the decline in government salaries. This affected civil servants including nurses as only about 40% are housed by the Government, most of the remaining 60% received housing allowances. Thus a high inflation rate is an indirect cause of declining real wages for civil servants when there are no adjustments to salaries or related allowances.

6.1.4 Changes in disease patterns

Disease patterns in Zambia have changed since the mid 1980s. The arrival of HIV/AIDS has had a substantial impact on nurses' work environments: increasing the workload, risk of infection and demands from their extended family; and possible death due to HIV/AIDS. Greater numbers of sick patients increase nurses' workloads and patients tend to stay longer in the hospital or return after being discharged. Increased contact with HIV/AIDS patients creates more exposure to infection and consequently increases stress. Table 10 showed that 17-35% of total terminations during the period 2002-04 are attributable to deaths. It was impossible to know the causes of deaths, but given the high prevalence nationwide it is likely that some of these are attributable to HIV/AIDS. Most of the nurses interviewed were taking care of not only their biological

children but also adopted children from their sisters or brothers who generally had died of HIV/AIDS.

A few reflective senior nurses (aged 40-50) with long experience of working in the hospital noticed how changes of disease patterns affected their job satisfaction and workload. A ward manager noted that treating more chronically-ill patients involves more work coupled with poorer staffing but less job satisfaction because patients do not recover:

Initially, the patients were not as many, the disease patterns were different there are more complicated cases now in terms of not recovering. Patients come you treat you give this, you do ABCD they are not getting better... it's like you are working for nothing, you are not getting any recoveries. Most of them, they just go down. And again in terms of the actual work, it's more strenuous. There are few people to work. So there is too much workload. It doesn't satisfy. Job satisfaction is not there. (Ward Manager, High-cost ward, ID15)

Hospital A responded to the influx of chronically-ill patients by introducing home-based care and by allowing relatives to stay in the hospital to undertake some housekeeping and care. A nursing service manager reported that the resulting congestion on the wards is now declining although the current workload in terms of the patient-nurse ratio remains abnormal compared to the international level (see Appendix XVI). Push factors for migration should have been even stronger before the hospital introduced home-based care and allowed relatives to stay but there is no direct evidence to prove this.

6.1.5 Privatization of mining sector

The retrenchment of Zambia Consolidated Copper Mines (ZCCM) as a result of privatization also facilitated nurse migration in Hospital A. Redundant miners often asked their wives, who were nurses, to migrate. This site-specific component of migration does not apply to other parts of Zambia. Only a few nurses who were close to the process of ZCCM's retrenchment reported this link. A nursing service manager, who had overseen this event, recalled that husbands asked these wives to migrate in order to improve the financial status of the family:

P: Yes, for the nurses who were married to miners, it was now the husbands who were actually asking the wives to go and get money...For the children's education.

I: So, the husbands would encourage their wives to go because of financial reasons?

P: Yes, and those who were retrenched, you know miners usually if you were trained as a geologist there is nowhere else... after they closed ZCCM, these private companies came in, they also brought in their own staff...From overseas, yes.

I: They don't recruit here?

P: No, and maybe the conditions are different from what they used to have. So they could not be employed. So they would rather have the wife go and get a bit of money (Nursing Service Manager, ID32).

A minority of remaining nurses recalled that most nurses who were married to miners left the hospital after the retrenchment of ZCCM. A human resource manager recalled that unemployed husbands used to come to the hospital to negotiate resignation on behalf of their busy working wives. According to her, the husbands actively searched for nursing vacancies overseas and found the necessary information for migration through the internet.

6.1.6 Impacts of the health reform on patients' attitudes

Patients' attitudes can also influence nurse motivation and are included here in environmental and policy factors. Overall, nurses reported that attitudes towards nurse migration vary from patient to patient. Some patients are sympathetic about poor working conditions and sometimes encourage nurses to migrate. Others complain about long waiting times and lack of attention due to staff shortages. Patients' complaints are reported to have intensified since the health reforms started due to the increasing role of the consumer or the introduction of user fees. Many nurses on high-cost wards highlighted the pressure to provide higher quality nursing care⁷. For example, an RN working on a high-cost ward perceived such patients to be more demanding as a result of paying service fees:

⁷ The hospital provides a two-tier service: free-of-charge medical services on low-cost wards and fee-paying medical services on high-cost wards. Patients on high cost wards pay KW 25 000 for consultation fees and KW 200 000 for the admission of adults for up to three days plus any expenses incurred such as drugs, investigation fees, meals etc.

...like where I am working at the high cost there. When they take long, they will start insulting you as a nurse... "You are not doing anything, you're just seated here, you are not attending to us...Here you are useless nurses" ... there are a lot of patients who come, and since they pay a lot of money...they want to be seen as quickly as possible (RN, High-cost ward, Outpatients Department, ID08)

This pressure to provide higher-quality services is demanded by management too. For example, an RN working in theatres feels that there is no support for nurses, only rights for patients:

(If) something happens, (our administrators) blame you to say you are being irresponsible. I mean it really puts you off you know...they say a patient is always right, as a nurse you have no word. Whether you are right or not, they will always say "no, the patient was right". Because that's what it is. (RN, Operating Theatre Department, ID04)

One study explored the influence of workplace trust on health-workers performance at primary-care level in South Africa. This reported similar findings about the impact on nurses' motivation caused by increasing patients' rights (Gilson, Khumalo et al. 2004). In South Africa, public sector workers have a widespread view that patients' rights have been established but nurses' rights have been ignored; public expectations of care have increased but nurses' ability to provide that care has been restricted (McIntyre and Klugman 2003; Gilson, Khumalo et al. 2004; Walker and Gilson 2004). While increasing public expectations of care per se is welcomed, in Zambia this acted as a demotivator for frustrated nurses whose inadequate work environments failed to meet patient expectations. The next section explores the influence of more directly demotivating work environment.

6.2 A demotivating work environment and context – general push factors

The influence of a demotivating work environment is examined under two headings: general and critical push factors. General push factors are mentioned repeatedly as overall influential factors for all nurses' intention to migrate; critical push factors are more specific incidents or moments which made nurses feel like leaving the hospital. General push factors are explored first.

6.2.1 Unfulfilled extended family demands

All nurses interviewed were extremely frustrated about the low salary levels which are below a living wage in Zambia. The Basic Needs Basket estimated the cost of essential food and non-food items for a family of six living in Lusaka to be KW 1 340 840 as at January 2005 (Jesuit Centre for Theological Reflection 2005). This price index can be applied to nurses in Hospital A as the living standard there is almost the same as in Lusaka. The nurses interviewed had an average family size of 6.3, almost the same as that used for the Basic Needs Basket. However, nurses' average monthly salaries are around KW 600 000 – less than half the cost of the Basic Needs Basket. The Basic Needs Basket allocates KW 600 000 for housing (the most expensive item) and KW 492 940 for basic foods. Even if these housing costs are deducted, as some nurses live in government housing, the remaining living costs of KW 740 840 are still higher than a nurses' average salary. It should be noted that education fees for children are not included in this Basic Needs Basket and not all nurses are accommodated in government housing. In this study 11 out of 32 interviewees are breadwinners, living without husbands or with unemployed husbands.

One typical breadwinner was a 43 year-old EN, widowed and living with 3 biological and 4 adopted children. She felt frustration at being unable to fulfil basic needs such as providing adequate food or paying school fees for the children. She described how this impacted on her work performance:

... a frustrated nurse, now how can you look after the patient like that? You are frustrated coming home with an empty stomach, you have got problems, the child from the school, you haven't paid the fees, they have chased the child, you haven't eaten, the child doesn't eat. Do you think you can give proper nursing care to the patient?! (43 year-old EN, widow with 7 dependants, ID09)

The number of dependants amongst interviewed nurses ranged from none to 13. Dependants, with no income, included adopted children, nephews, nieces, sisters, brothers, parents, grandparents, wives and husbands. One interviewee had the highest number of adopted children (9) and four children of her own. The number of dependants among interviewees increased as nurses aged. Older nurses had more biological children and also more adopted children following the death of their sisters or brothers, most likely from HIV/AIDS. Local custom treats all children equally,

regardless of whether they are biological or adopted, consequently quite senior nurses in their 40s or 50s are more exposed to financial pressure due to the demands of their extended families.

Many nurses expressed particular concern about their ability to pay for their children's education. Some nurses, like the widow quoted above, even failed to send children to government primary schools. Others with a slightly higher economic status felt frustrated that they could not afford to send children to private schools.

Overwhelmingly, nurses in their 40s or 50s reflected on their difficulties in sending children to university. This concern appeared to trigger some nurses to think of migration. A 37-year-old clinical instructor with 7 dependants, a typical nurse, suggested that he might migrate as he could not afford to send his children to university:

You know my family is very important. At the moment, I am more concerned about my children's education. My first daughter is in grade nine, my nephew and niece are in grade eight and the others are following behind. And very soon they will be finishing their education. I mean secondary education they will be getting to college. But as I am now I can never dream of sending any of children to college... So because of such pressures, "ya" maybe given an opportunity and if things will not work I cannot say I am a very unique person. I want to provide for my children and I may take an opportunity as it comes. (37-year-old Clinical Instructor with 7 dependants, ID20)

The custom of caring for an extended family, combined with higher financial pressure for older nurses with children at university level, may be one of the reasons why more 'older' sub-Saharan African nurses are working in London. Of the nurses from sub-Saharan Africa, 60% were aged 40 or older (Buchan, Jobanputra et al. 2005a). However, it is not possible to draw firm conclusions as it is uncertain whether the custom of extended family provision can be applied to other sub-Saharan African countries in the survey.

6.2.2 Malfunctioning pensions – low and late payments

Although low and late payment of pensions is common for all civil servants, the lack of a functioning pension system is undoubtedly one of the biggest driving forces for attrition of the nursing workforce in the public sector. Overwhelmingly, nurses reported

their concern about low and late pension payments. Many nurses also compare their small pensions, a reward for working for 30 years, with higher foreign wages gained in a shorter period of time. One ward manager provided a typical example:

Unnnng, it's very little. Though I don't know the actual figures... but for those who have retired...to get that pension, it's a hassle. It takes long, and you have to fight and fight at Lusaka ... You might even spend months and months there, for little money, which will not even buy you a house....It's a very, very slow process, most people die even before they get their benefits...That's why even people who have gone away they say "That pension, even if I don't get it it's OK. After all I will get the whole total of what I should have got at 55 years within 2 months, I will recover it.(Ward Manager, ID15)

The literature examining labour economics and new institutional economics suggests that an adequate pension provides an extremely powerful incentive not to quit before retirement. This kind of deferred compensation is especially important for the retention of skilled employees such as health workers, at least in the context of developed countries. However, a properly functioning pension system requires a functioning administrative system and stable inflation rates. Poor administration of the government system such as late and cumbersome procedures for the payment of salaries, allowances and pensions were reported repeatedly as demotivating factors for many nurses in this study. It is not only the level of payment but also the failure to keep basic promises such as paying the salary on time that affects nursing turnover, attrition and migration. For example, an RN describes well the frustration felt by most nurses when salaries are paid late:

The other thing, which discourages most is, like right now today is third June. We have not gotten our salaries. It's very discouraging....We usually get maybe after, 7th, 11th... we feel discouraged. How come our friends get money exactly when its 1st or 30th the end of the month they get. Us we don't even know the actual date. (RN, Paediatrics Department, ID16)

One 32 year-old RM noted that a pension is no longer attractive due to high inflation rates coupled with the long process of obtaining the pension due to the bureaucratic administrative system. In common with many others she observed that nurses leave the public sector in order to prepare for their lives after retirement:

That pension I can say is it's not enough, because if I retire today, when will I get that money may be seven to ten years. By that time that money has even lost value. So to me it's not even attractive. That's another reason why I cannot keep on working in the government to wait for the pension, because that's another disaster, so to say. We have people who have retired from here and have become destitute. They retired a long time

ago and they have not been given their benefits. So that's also another thing discourages us especially as young people. (32 year-old RM, ID18)

Nurses have a rational response to the malfunctioning pension system, but it sends the message that it is not worthwhile remaining in the public sector. Inadequate pensions, poor administration and high inflation have made public-sector pensions unattractive.

6.2.3 Low or lack of allowances

With very low salary levels, allowances (such as those for housing, transportation or part-time work) assume greater importance. Overwhelmingly, nurses suggested that the level of housing allowances is too low and complained about the lack of transportation allowances. In addition some nurses reported low, or a lack of, allowances covering part-time work, uniforms, tea and risk.

Housing allowances

Housing is the biggest expense for nurses and most suggested that housing allowances are not enough to rent a house. The level of housing allowances is declining in real terms as rents in the private sector have increased sharply (Colclough 1997). Many nurses reported that low salaries and inadequate housing allowances drive them to take loans from lending companies as government loans are not available. An RN reported that she needs to work extra hours in order to pay her rent:

... I don't have a house. The amount of housing allowance they are giving me K150,000, I don't know where I can get that house which will cost K150,000, which means I have to work extra hard for me to be able to feed my children and have accommodation. Actually you know, there are... lending companies whereby they pay you almost double the amount. That's how we end up going, so that you can solve your problems... Our government or... our ministry, whereby you cannot even have a loan... if I can be given a house loan... I will stop crying over accommodation. But such things are not happening. (RN, ID04)

Indeed many nurses suggested that purchasing a house is one of the major objectives of migration. An EN suggested that nurses leave the country in order to buy a house in Zambia:

The reason why we want to leave Zambia is not that we hate this country. We love this country so much, it's financial problems. How can I raise the money to buy a house? Here you will try all angles, but you will find it impossible. (EN, ID19)

However, there is one instance of a nurse reporting a more positive experience with the housing allowance. Most of the nurses complained about the lack or inadequacy of housing allowances but this nurse felt encouraged and motivated by the same amount:

I remember this time, just here. I never expected to receive a housing allowance...I was so surprised to find my name there that I should get the housing allowance. I felt so encouraged, because I never expected the money that I got. And I was very much in need of the money that time...It made me like trust everybody here...though the amount can't be the amount that you can pay for the house, reasonable house.(RN, Medicine Department, ID24)

It has to be acknowledged that she had moved from a different district which paid lower housing allowances. Nevertheless, she was encouraged by receiving something unexpected, despite its low level.

Transport allowances

Increasing transport fares also matter to nurses, especially in the context of recent oil price increases. At the time of the interviews, nurses at Hospital A had to spend between KW 144 000 (KW 6 000 minibus price × 24 days) and KW 240 000 (KW 10 000 minibus × 24 days) per month on fares, depending on distances. The average salary for an RN is KW 600 000. Nurses also have to spend KW 240 000 (KW 10 000 × 24days) for their lunches at the hospital. Thus, 64-80% of their salary disappears on fares and lunches in the workplace before spending on accommodation, school fees, food for the family, utility bills or uniform.

Lack of access to transport allowances is observed to have a direct impact on lateness and absenteeism amongst nurses in Hospital A, or makes them move to the district services or the private sector. A ward manager is in a good position to observe the overall impact of the lack of these allowances. One noticed that some nurses arrive late as they cannot afford the fares and have to walk, this lateness became the norm:

As a result these nurses now walk long distances. Their pockets are strained. There is no transport allowance so they come late for work. Now that has even spilled over to the people who stay within (walking distances).(Ward Manager, ID15)

High fares do not encourage nurses to come to work. Another RN felt that coming to work was a waste of time and wanted to leave the hospital for the mining hospital where transport is provided:

You have to keep transport money and at the end of the month you find that you don't get paid on time...As a result you find that you don't have enough money. So it's like coming for work, it's just a matter of wasting time. Because you come, you work hard, you sacrifice maybe you don't even eat anything, you work, you work and at the end of the day you find that you have no money for coming from work. So you think of going, somewhere, where they will be able to pay you enough money...I want to go somewhere where I am able to have transportation. (RN, ID08)

Although transport allowances might not be the strongest determinant of migration compared to housing or children's education, their lack has negative impacts. Hospital productivity is reduced by lateness and absenteeism, and turnover increases as nurses move to other workplaces within the country. Many nurses reported the availability of transport as one reason for moving to the mining hospitals and DHMT within the country. In the past transport was provided for all nurses through an executive director's initiative. A nursing service manager recalled that nurses showed their appreciation by naming the buses after him (Dr D bus).

6.2.4 Perceived low status of the role

There is a close link between low salary-levels and perceived low status. Some reflective nurses commented on the link between respect and pay levels. Although a 43-year-old EN widow with 7 dependants is an extreme case of nurses with low economic status, she reflected that nurses had lost public respect as nurses are beggars now:

But now even someone who is selling vegetables can even insult you, "Who are you? I can even give you my salary, double my salary nurses"...We have lost that respect. Because they know that what we get is nothing. Someone who is selling tomatoes can even feed you. You can even go and beg tomatoes, beg for some fishes, beg for something. We have now turned into beggars. (EN, widow with 7 dependants, Paediatrics Department, ID09)

Begging was adopted by 31% of the urban population in Zambia as one of their coping strategies for meeting the costs of sudden unforeseen events (Central Statistical Office 1997). Although not all nurses beg, some with low socio-economic status reported that

they had done so. An EN, breadwinner for 7 dependants, adopted this coping strategy in order to survive.

It is necessary to improve salaries for all nurses to improve retention, even though this option is politically and economically difficult. This should include correcting the injustice of wage disparities with other sectors in the country (Kingma 2006). The literature suggests that the relative income of nurses within their home countries is a critical influence on attrition and migration (Gage, Pope et al. 2002). This study shows that not all nurses compare their wages with foreign wages. Data from this study support the importance of relative wages. Some nurses with low socio-economic status reported that they might leave not only their jobs but also their profession if the relative salary is better than nursing. An EN, breadwinner for 11 dependants, reported that she might leave nursing for a higher salary elsewhere despite underutilizing her nursing skills:

Because even today you can find somebody, for example, if you are told like today, leave nursing you go maybe to a company, there you just be an office orderly, you know, somebody maybe who makes tea, cleans the office, then we are going to give you 2 million, you think I would stay as a nurse getting this little salary? I would rather go and do that work to get enough money.(EN, Paediatrics Department, ID21)

Many nurses living in the hospital compound⁸ complained about the poor accommodation. Overwhelmingly, nurses felt that their level of education is not reflected in the status of their accommodation:

...there is a hospital compound that was built at the same time as the hospital but it's not being renovated. So you find the toilets are not flushing, there are no showers, somewhere where you cannot imagine that qualified nurses stay.(Clinical Instructor, B group, ID10)

The dress code was also associated strongly with receiving respect or esteem from other people. A well-kept uniform is important to Zambian nurses but many regard the uniform allowances as insufficient. The importance of clean and ironed uniforms should not be underestimated as Zambian nurses feel this helps to maintain the dignity of the profession. An EN recalled the period when civil servants were generally more respected by the public as a result of their higher relative salaries:

⁸ The compound is located on the hospital premises and has 98 houses for some hospital staff including nurses.

You find how nurses are dressed like, me who can know that I am a nurse. I've got no cap only this white thing, if I remove my pen and my scissors, nothing. Those days we used to put on a chain, all the budes, cap white shoes. Just from far people could recognize "Oh, that is a nurse", giving all the respects. Even if there is a shortage of a commodity in a certain shop, if a nurse is there, you do not have to queue. You just go. Respect that one, she is a nurse, that's a policeman because of our uniforms. But these days you find a nurse is queuing for something, that respect has finished. (EN, Paediatrics Department, ID09)

Nurses were highly respected during the socialist regime when there were few job opportunities for women outside the public sector. Although the formal sector still has limited job opportunities for ordinary women, women in the informal sector (such as tomato-sellers) can earn a higher salary than nurses in the public sector. Thus nurses' self-esteem is damaged by the perceived low status of the role as a result of the decline in real wages.

6.2.5 Hazardous working environment

Although not all nurses mentioned a hazardous working environment, some working in specific areas such as low-cost wards, theatre departments and labour wards perceived that they were exposed to a higher risk of infection. Low-cost wards generally have unhygienic conditions and there is higher exposure to HIV in labour wards due to frequent needle-stick injuries and a lack of protective measures. Although the supply of gloves seems adequate, basic protective equipment such as goggles, gowns and shoes are not provided. Some nurses reported that they have weak immune systems due to insufficient food, this might contribute to a higher risk of infection. The hazardous working environment needs to be addressed. While none of the nurses working in high-cost wards reported poor hygiene, conditions are generally poorer on the low-cost wards and the nurses compare not only salary levels but also working environments within the country:

Like if somebody starts work there, the environment if you go to B Mine Hospital, just nearby, the environment is so good. You can accidentally touch anything. But here you just can't. Just looking at the environment that holds you back. If by accident you touch, definitely you will go and look for soap to wash your hands." (RN, Medicine Department, low-cost ward, ID24)

A clinical instructor described the psychological stress suffered by a nurse following needle-stick injuries. Free access to ART is not regarded as sufficient compensation for the risk and psychological burdens experienced in their work:

... a lot time I used to donate blood freely because I knew my status...but since a year or two ago I have not been donating, why? Because of the risks in labour ward, I happened to prick myself, I think twice. When trying to stitch up a mother after delivering and the other time...a mother jumped around and in the process I pricked myself and from that time on I stopped donating and I have never been again to have myself tested for HIV because I don't know my status now. And that is the pain that actually I have and many other nurses have...I may die today, tomorrow. People...will never think about the risks that I undergo. People have been talking about at least an allowance though I know it can not pay for a life, it's far from okay. But there should be recognition to say the person is working in a hazardous environment. (Clinical Instructor, Obstetrics and Gynaecology Department, ID20)

Nurses' psychological burdens should be recognized by financial compensation. Although a hazardous working environment may not be the strongest determinant of migration, it affects staff performance and turnover within the country.

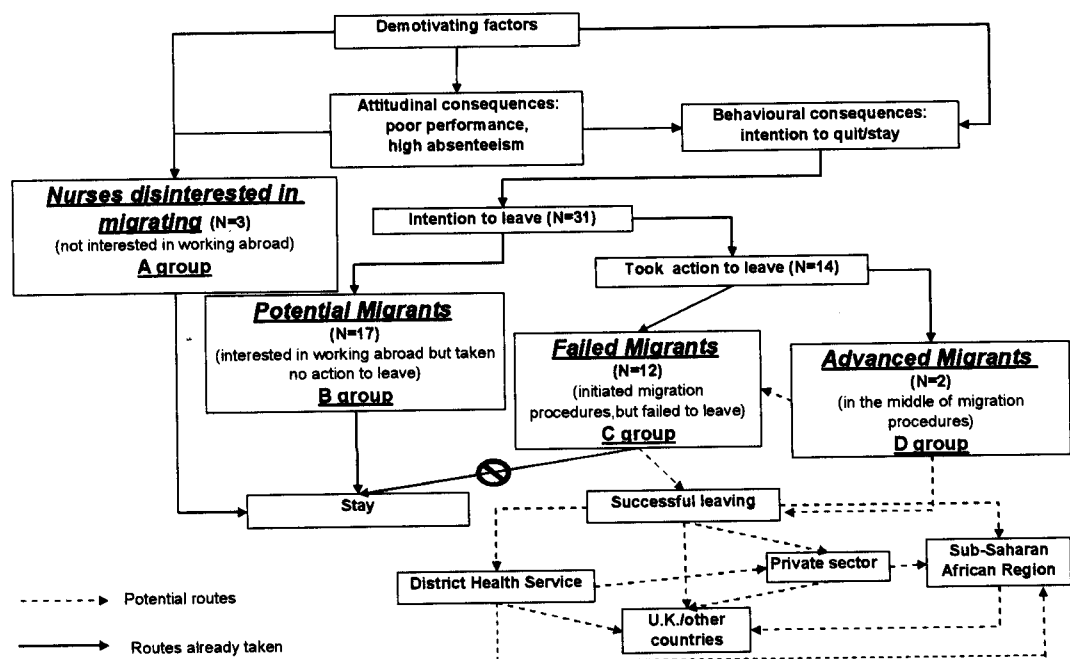
So far this thesis has examined a generally demotivating work environment including environmental and policy factors which are likely to influence the migration of Zambian nurses. While these general push factors are embedded, they constantly influence nurses' intentions to migrate. There are also more critical incidents which made nurses feel like leaving the hospital. The next section examines the critical push factors by group in order to identify the key to the retention of Zambian nurses.

6.3 A demotivating work environment – critical push factors

There is a long route to successful migration for many nurses working at Hospital A (see Figure 7). Due to the small number of interviewees (N=34), the possibility of generalization from smaller subsets of this cohort is limited. The objective of this categorization is to identify any specific factors affected by any specific group. Due to the small number of interviewees, these numbers may not generalize the pattern of Hospital A. From a total of 34 interviewees, as many as 31 nurses mentioned their

intention to quit in the past, now or in the future, although the level of seriousness varies considerably between individuals. Of the 14 who took action to quit, 12 had failed for various reasons. Close examination of the data across interviews revealed that nurses have different attitudes and experiences relating to potential migration. Figure 7 illustrates the routes for successful migration at Hospital A, illustrating four main groups of nurses: disinterested migrants (A); potential migrants (B); failed migrants (C) and advanced migrants (D).

Figure 7 Route to successful migration at Hospital A (N=34)



Disinterested migrants (A) are more interested in working in their own country and not interested in working abroad. Potential migrants (B) are interested in working abroad or in the private sector within the country, but have not yet taken any action to leave. Failed migrants (C) wanted to leave the hospital and had initiated the migration

procedure, but failed to leave. Advanced migrants (D) are in the middle of the migration process and likely to succeed if all conditions for migration are met.

By examining the data from interviewees according to these four classifications, this section seeks to address an important question: What were the most critical incidents that made nurses feel like leaving the hospital or initiating migration procedures? Critical push factors are examined within these four groups, as well as age, socio-economic status and qualifications. Appendix VII illustrates general push factors which have been examined in 6.2 above and the critical push factors in the four groups. Analysing marital status in Appendix VIII highlighted that breadwinners are concentrated in group C. They wanted to leave the hospital and had initiated the migration procedure but failed to leave.

General push factors identified in 6.2 were unfulfilled extended family demands, malfunctioning and late pension payments, low or lack of allowances, perceived low status of the role and hazardous working environments. General push factors constantly influence nurses' intentions to migrate, but critical push factors are more crucial incidents which make nurses feel like leaving the hospital or initiating migration procedures. The data identified critical push factors such as lack of empathy, recognition and support from supervisors; seeing the achievements of friends; unfair organizational practice; lack of professional development opportunities; lack of sufficient food; poor quality care; and little recognition of additional qualifications. Each critical push factor is examined in turn.

6.3.1 Lack of empathy, support and recognition from supervisors

While most nurses expressed the need to be appreciated, supported and cared for, these feelings are particularly strong among nurses in groups B and C (potential and failed migrants) who are breadwinners. This is especially true for group C as breadwinners are concentrated in this group (see Appendix VIII). These nurses cited the low levels of trust and empathy from all levels of management in terms of looking after workers' interests in order to provide quality care. They perceived that supervisors focus only on

completing tasks and patients' perspectives, without considering the constraints on nurses. Many breadwinners suggested that their supervisors seemed to have substantial effects on nurses' motivation. For example, an RN in group C, a breadwinner with 7 dependants, felt frustrated by a lack of support from administrators:

You may be alone on duty with a lot of patients to attend to. Now... so called leaders, our administrators, when something goes wrong in a ward, always one would look at the bad part or would want always call you to say, "Why didn't you do this? Why did this happen?" Not looking at the cause that this thing happened. Maybe because this nurse was alone...instead of someone taking into consideration to say, "How can we solve this problem?" Now someone tells you "Can you write a statement why this has happened?"... even the people who are supposed to be supporting us...don't even support you. (RN, breadwinner with 7 dependants, C group, ID04)

A study of health workers, including nurses, in Kenya also confirmed a strong demotivating effect when health workers feel neglected by their supervisors or the health administration (Mathauer and Imhoff 2006). Nurses who are breadwinners experienced a lack of empathy and support for both work-related issues and personal problems. Particular personal problems such as funerals, sickness, family discord and divorce, affect nurses' work performance and their intention to migrate. Divorcees, widows and breadwinners in B or C groups expressed strong feelings of resentment against the hospital management due to a lack of support when they were going through difficult personal times. For example, an EN in group C, a breadwinner for 11 children with an unemployed husband, lost her work motivation when the hospital provided no emotional support when she was sick:

I do work those basic things but not with open heart... since 1997 up to date...In 1997...I was sick. Then, what I discovered, I didn't get enough support during that hard time I was going through. They didn't appreciate what you have done for them in the past, or they will look at the moment, because you are not putting in much since you are sick. They don't care about you... That was the saddest moment I have had at this hospital... Not necessarily financial support, but psychological support, you know, feeling sympathy...but at this hospital you find that there is nothing like that. Once, maybe you are sick or something happens then, you are no more of use to them. (EN, a breadwinner for 11 children and unemployed husband, C group, ID21)

She has been supporting her family of 11 dependants single-handedly since her husband was made redundant by ZCCM in 1981. All her relatives have died and she has been left with their children. While bedside nurses, especially breadwinners, feel unsupported by their supervisors and managers, managers themselves feel that the Government does not care about nurses' work. A nursing service manager felt that by

ignoring current problems the Government sends the message that it is not bothered by nurse migration at this hospital:

I can foresee in the future, there will be no nurses left. Because right now, the nurses these who are remaining who have no intentions of going abroad, they feel that the government is not actually bothered in the way nurses are going...If... they would want a few nurses to remain let them then get certain incentives that they can give to these remaining ones so that they stick and are happy as they work. But we look as if nobody is caring. (Nursing Service Manager, Administration, A group, ID32)

A few nurses who had felt motivated by supervisors in the past, were also widows or breadwinners with many dependants. An EN, a widow and breadwinner for 7 children, had felt motivated when her immediate supervisor sympathized like a mother. A heavy workload or poor working conditions can be offset by a positive attitude in immediate supervisors:

They (the sister in charge) were putting themselves in the boots of the workers. If you have got problems we were going to them freely and you ask. Then problems solved just like that, just as a mother...That was the only motivation. ..despite having plenty cases, you can work freely you can't even say no sister I am tired I want to rest...Despite getting the little money, we were just participating volunteering ourselves for our patients, for our people. (43-year-old EN, widow and breadwinner for 7 children, Paediatrics Department, B group, ID09)

Overwhelmingly, nurses who had worked at Hospital A for over 12 years recalled the period when Dr.D ran the Hospital Board (1993-1996). Almost all of these nurses commended Dr.D's management style including his supportive supervision and sympathetic attitude towards nurses, and reported greater motivation at that time. He reportedly ran the hospital as if it was his family, using phrases such as: "Oh my children you are suffering."

Good working relationships with supervisors and colleagues emerged as an important motivational determinant in many studies that examined nurses' motivation in developing countries (Bennett, Gzirishvili et al. 2000; Gilson, Khumalo et al. 2004; Walker and Gilson 2004; Mathauer and Imhoff 2006). A recent UK survey on the profile of internationally-recruited nurses in London confirms that most reported that they were the sole or main contributor to family income (Buchan, Jobanputra et al. 2005a). Among nurses from sub-Saharan African countries, except South Africa, about 75% were contributing more than half the household income, some were providing all. This is the highest contribution among migrants from source countries. Thus, it could

be said that nurses with a low socio-economic status including widows, divorcees or those with many dependants (especially C group - failed migrants) are vulnerable to migration if they meet the necessary conditions.

This study shows that nurses need both financial and psychological support. Emotional support from family and friends is well-documented in the nursing and economics literature in developed countries. Dialysis facilities in the USA experienced a 43% turnover rate among staff who reported no social support for emotional concerns but only 17% for those who reported some emotional support from family and friends (Tai 1996). It has been reported that being able to discuss work problems with the family significantly reduced work pressures on nursing assistants in nursing homes (Chappell and Novak 1992). Their study indicated that social support, particularly from supervisors and spouses, was associated with low levels of burnout and mental health problems resulting from stress.

Managers should note that these studies suggest that nurses who may not have adequate support at home (such as divorcees or widows) might need or expect higher emotional support in the workplace. It has been reported that employee-assistance programmes to help employees with personal problems decreased turnover rates, at least in developed countries (Akabas and Akabas 1982). Literature from new institutional economics also suggests that a familial relationship causes parties to internalize each other's welfare and curbs their instincts to act opportunistically (Kreps 1997). Although supervisors in health facilities do not control support for nurses' personal problems, it could be worth considering similar programmes tailored to the needs of Zambian nurses as these factors affect work performance, turnover and intentions to migrate.

As the level of staffing and quality of care deteriorates nurses receive less recognition for their hard work from supervisors and patients, despite their increased workload. This affects their attitudes to work and (sometimes) indirectly their intention to leave. Many nurses wanted to be praised and appreciated for their hard work. An EN (ID01) in A group is a deviant case regarding the intention to leave. She stated that she is motivated overall and has no intention of leaving even though the majority of nurses

are demotivated. She is one of three who have no intention to leave the hospital (A group) despite low economic status and being the breadwinner for 13 dependants. Careful analysis of her interview reveals that her work seems to be recognized more often than that of other nurses. Firstly, she is one of a minority who received the Hardworking Midwife award in this hospital. Secondly, her good work has been recognized by the public and the management through a thank you letter. Thirdly, she has been promoted and given her own office despite her EN qualification.

Consequently she gained greater trust in management:

For instance, in 2004, I was awarded a gift to say 'Hardworking Mid-wife'. We are so many, we work as a team, but people recognized that I was putting more effort, than others, like putting too much commitment and I was given an award. So out of that award, it motivated me. It made me work really hard...in 2002, one, Mrs A gave me a letter of appreciation because there were some cards on the suggestion box written and appraising me by the public. So she wrote me a letter that "you are painting a very good picture for the hospital." To me that was a motivation,...and then that very year I was given an award for a hard worker. So in 2002, there was a vacancy for Client Relations Officer, so I applied and went for interviews and I was taken...With my humble education, I have my own office where I see patients come to complain, the public they come to complain, so to me, I think I have got job satisfaction in this hospital. (EN, Client Relations Officer, ID01)

Obviously, other factors affected her thinking and decision-making. For example, she values being with her extended family in Zambia more than living alone in the UK. Her high level of patriotism is reflected in her interview when she uses phrases such as: "our country patients", "serve mother Zambia" and "I would love to work for Zambians".

Recognition of good work does not always need to take the form of awards, at least for some nurses. EN (ID01) remembers her recognition of good work in a simple thank-you letter from the administration. Recognition of good work should not be underestimated as it may affect the intention to stay or quit. Managers should not miss the chance to praise good work especially given the current work constraints and increased pressure from patients.

6.3.2 Seeing the achievements of friends

Seeing the achievements of former fellow nurses who left the hospital for overseas can be a means to weigh the pros and cons of migration and stimulate remaining nurses to leave. Evidence of their achievements includes buying a house in Zambia, sending children to private schools, sending money to relatives, buying a car and even improved appearance. Overwhelmingly nurses, especially failed and advanced migrant (C and D) groups, reported envying former colleagues especially those who buy a house within a short time of leaving the country. An EN in C group (failed migrants) is one of the majority who would like to follow former colleagues who used to live in the same nurses compound. She compared what her friend can do with her UK salary with the limited possibilities on a Zambian nurses' salary:

P: I think I can support them because I have seen those who are gone and are really supporting their families. Some have even bought houses...just a year she has bought a house...in Zambia. and she is even supporting the family here.... Even the children are going to private school, while me, I have worked for 17 years I can't afford to take my child to a private school. Even at the government school I have not finished paying the fees because of the money which I am getting... I can follow. If chances come, I can fly (laughter).

I: Could you tell me how you contact your friends who are living in U.K.?

P: No, not really but because we are staying in the same compound...Those kids she left. We are communicating with the kids. The kids even bought the house. A very big house, a nice house." (EN, a breadwinner with 6 children, C group, ID06)

An RN in C group (failed migrants) also envied the achievement of former fellow nurses. The ability to buy a house sends her the message that their services are appreciated overseas:

It's like you are even seeing those people that have gone what they have achieved. This one goes, comes back, buys a house. At least you can see the things they are achieving where they are. You can see their services are being appreciated where they are working from. (RN, C group, ID11)

Higher overseas salaries sometimes improved even the nutritional status of nurses with low socio-economic status. An EN, a breadwinner with 7 children, noticed a difference in the appearance of her friend who left to work in a hospital in the USA:

She went there almost a year. And when she came back within another year, she was a changed person. She was fat and nice looking. Here she was looking like as if she has

not finished TB treatment (laughter), the skin everything. (EN, a breadwinner with 7 children, B group, ID09)

A clinical instructor with experience of a rural posting noted different attitudes to migration between urban and rural settings. She reflected that nurses in rural areas are not as exposed to migration because there are limited stimuli from seeing the achievements of friends:

You know when you are in a place like this (urban area) ...before I came here, I was in North Western Province (rural area). There the pressure is not so much because we are not seeing people are leaving. But when you came to the place like here.... that one she is gone, she is gone, she is gone. When they come to visit, they look different, they tell you what they have achieved. So, you feel you are also losing out, maybe you can run against time, maybe you should do something... in the rural area so people are not enticed... (Clinical instructor, B group, ID10)

The neoclassical micro theory of migration says that Zambian nurses weigh the foreign wages of nurses with various factors within their current conditions and make decisions to stay or leave. However, usually they do not use the salary scale of foreign wages to compare their current salary. They see the achievements of fellow nurses who left for overseas and make comparisons which tend to induce remaining nurses to consider migration. They see what they can achieve in Zambia even after deducting the high cost of living overseas. This is also explained by network theory. The migration network plays a role in inducing migration through demonstration effects. It is argued that networks are the main mechanism for making migration a self-perpetuating phenomenon (Arango 2000).

6.3.3 Inefficient and unfair organizational practices

Inefficient organizational practices such as failure to pay expected allowances and late pay, and unfair organizational practices such as unfair allocation of workshop places or hard work awards are mentioned repeatedly by most nurses, especially those in groups C and D (failed and advanced migrants). These are seen as demotivating incidents which made them feel like leaving the hospital.

Critical incidents stopped a motivated nurse from working hard and made another feel like leaving the hospital when expected allowances were not paid. It should be noted

that failure to pay an expected allowance signals that their services were not needed. An RN in C group (failed migrants) stated that cumbersome procedures and failure to give an expected payment were enough reason for her to leave the hospital:

...I was written to act as a night manager, night superintendent... I wasn't paid my money on time. I worked a long time but I had to push for my money to be paid. When I was about to be paid, I was told I am not being paid the money, which I expected....It was supposed to be acting allowance. So, I was supposed to be paid the difference between the person who I was working to replace on leave and my salary scale. Then I was told they can't pay me that because I am in a lower notch than the person I was working for ... That was the most frustrating point whereby I thought, it's like my services were not needed. But I had worked a long time. ...I just felt like stopping at any time. If I could find a job anywhere I just go where things are straightforward not where you have to be pushing things...(RN, Theatre Department , C group, ID11)

Thus failing to keep basic promises due to poor administration substantially affects nurses' performance and eventually their intention to migrate.

Overwhelmingly, nurses perceive that the few workshop participants are selected in an unfair manner with no consultation:

At this hospital, whenever there is a seminar or workshop, us the nurses who are working are not taken to attend those seminars. It is the bosses, the managers, the matrons are the ones who go for those workshops especially if there is money. If there is money involved they are the ones who go and then they come back. They pack the knowledge, they do not even disseminate the information to us. So it's very frustrating. Us nurses we remain, the same people go.(RN, Obstetrics and Gynaecology Department, C group, ID31)

These perceptions echo findings from a study of health worker motivation in Kenya and Benin (Mathauer and Imhoff 2006). Exactly the same concerns were raised by a nurse working in a government facility in Kenya (Mathauer and Imhoff 2006).

Workshops provide dual incentives: some nurses attend to gain professional advancement; some attend to receive additional financial benefits. Nurses also feel frustrated when those who attend workshops neither practise nor disseminate what they have been taught. In contrast to the majority of these frustrated bedside nurses, most interviewed nurses in management positions understandably did not complain about unfair selection for workshops.

Other reported unfair practices relate to the selection of awards. Labour Day Awards provide financial incentives for “hard-workers”. However, many nurses do not understand the criteria for selection and many of those who are not chosen feel demotivated. It might be better to do nothing. Badly-programmed financial incentives for hard work can reduce overall staff morale despite increasing the motivation of the selected minority. A ward manager is one of the majority of interviewed nurses who felt frustrated by the lack of clear criteria for the Labour Day Award. She is in the process of leaving the hospital to go to the UK:

... even after that patient died in my ward a relative even wrote a letter you know thanking us for what we did for that patient and that letter was even put on the notice board. But you will find when it comes to giving labour awards you are never recognized. I do not know how they choose...we don't know what criteria they use, what a view... It's also disheartening, a lot of people have complained about it. (Ward Manager, high-cost ward, Paediatrics Department, D group, ID35)

This study confirms Herzburg's theory that fair practices create just neutral feelings: unfair management demotivates nurses but fair practices do not motivate them. Unfair organizational practice was also cited as the most demotivating factor of work motivation amongst Zambian employees representing 5 occupational groups from 11 organizations (Machungwa and Schmitt 1983).

6.3.4 Lack of professional development opportunities

Many nurses across the groups felt frustrated by the absence of training opportunities such as workshops in this hospital. Close examination of the patterns of the interview data has revealed that many young nurses (25-40 age group) perceive workshop places as good incentives for professional advancement as it is important to update their knowledge in order to meet patient needs. Although some senior nurses (40-55 age group) see the workshops' financial benefits, some nurses appreciate both aspects. An RN in B group (potential migrants), typical of these young nurses in B group, felt frustrated by not being able to update her clinical knowledge in order to give correct information to her patients:

When there are workshops in this hospital, same people go... They don't give chance to other nurses to go. Why we are interested in going for these workshops is that we want to improve the knowledge. We want to learn more. Like where I work in high cost, patients there are learned people. They will come and they would want to find out

something. Let's say on ARV drugs, they will come and ask you. Now if I don't know anything, I am not able to give them information. But at least if I attend a workshop, I know something. Even when a patient comes to me, I will be able to explain something correctly, yes. Not necessarily that they will give us a sitting allowance, no! (30 year-old RN, high-cost ward, B group, ID08)

An EN in D group (advanced migrants) is a frustrated nurse who initiated the migration procedure because he was unable to upgrade from EN to RN and he lacked the money to buy a house. He describes how staff shortages and high competition act as constraints on nurses' formal training:

Let me apply for an RN, Registered Nurse (Training)...I applied 3 times here at the Hospital A. Unfortunately I was not picked. I had the qualifications that they needed but they did not pick me. So it demoralized me...I said no you can not be working for an institution where they don't consider you...They said competition is too high. There are so many nurses who are applying for Registered Nursing. And the hospital has a shortage of nurses so they cannot release the staff. So they just pick maybe one out of 20 or 15 who apply.(34-year-old EN, D group, ID19)

This nurse moved from a mission hospital in a rural area to the public hospital in an urban area. He moved closer to the schools in the expectation that this would increase his chance of being admitted. Some nurses reported that those working in rural areas are disadvantaged in gaining professional advancement due to a lack of information about training opportunities or affordable transportation to urban areas. Initially this EN (ID19) was motivated by a short blood-donor recruitment course but decided to commence the migration process after several failures to obtain sponsorship for upgrading to RN.

Another RM also failed to get sponsorship from the hospital. This sends nurses the message that their services are not needed. She felt like leaving the hospital after upgrading from RN to RM as the hospital refused to pay part of the tuition fees for her studies:

If you want to go for some more courses like me I went for midwifery. I just paid myself. The hospital did not pay for me. So if I wanted to leave at that time, I could have left the hospital because they did not want my services...We pay on our own... I went to school, I paid and when I came back, I just felt like going. I even started applying...At that time yes I felt like leaving the hospital. And I wanted to go just anywhere else, other than here. (34-year-old RM, C group, ID31)

The experience of failing to obtain sponsorship can be a critical push factor for younger nurses as they expect these training opportunities almost as a basic entitlement for workers in the public sector.

6.3.5 Lack of sufficient food

Overwhelmingly, nurses in C group and some in B - especially breadwinners, reported that generally they do not have sufficient food. Many of these nurses suggested that lack of sufficient food, or even tea and snacks, resulted in a poor attitude towards workmates or patients and reduced performance. The following examples are typical of these nurses. An EN suggested that a lack of sufficient food, combined with a heavy workload made it impossible to work productively:

Because you have come from home and you have left your home with nothing. You come here at work; at least you are provided with a cup of tea. And you are working say in M ward, you are on an empty stomach how can you work? Over 70 patients. Maybe bathing, say, critically ill patients, they are 10 and you are 2 nurses on duty, can you manage? You can't. (EN, divorced breadwinner with 6 children, C group, ID06)

An RN suggested that even tea or snacks on the ward could motivate nurses who do not generally have sufficient food at home. She described how hunger affects attitude:

...as a nurse the amount of money which you get, you cannot even afford a snack... even from home you had no breakfast... One, you come with an empty stomach, of course you are not expected to perform. Tea is just seen in the offices, not in the wards...All those, just small, small things. You see when someone is hungry he will be angry (laughter), it's true. (RN, breadwinner with 7 children, C group, ID04)

An RN articulates how hunger affects nurses work performance. She felt no strength to work and this affected her performance:

...when you come here you are working up to 16:00hrs, lunch hour. We used to eat something, so you have to keep some money for your drink. So as a result you will find that you have no money to buy that lunch. So you end up working without eating, it's quite difficult. Sometimes you want to work but when you are hungry, you've no strength to work, you just sit or you go home. (RN, Operating Theatre Department, B group, ID08)

In 1998, 73% of the Zambian population were considered extremely poor, suggesting that they did not have the economic means to meet their basic nutritional requirements (Ministry of Finance and National Planning/UNDP 2003). Most nurses, especially the

breadwinner majority in C group (failed migrants), were not an exception to this poverty trend. The most popular coping strategy to meet the costs of sudden unforeseen events was to reduce food intake (56%) (Central Statistical Office 1997). Nurses or their families have to reduce their food intake in order to pay for other essential non-food items such as water, housing and electricity.

In this context, the provision of lunch, night meals, snacks and tea on wards might have a direct impact on some nurses' performance at this hospital and can be an additional incentive to come to work. The resulting improved performance will contribute to overall higher productivity in the hospital to some extent. However, it is unsure whether the provision of snacks and meals can reduce nurse migration when other important needs are not met e.g. housing, children's education and food.

6.3.6 Poor quality care

Nurses felt a sense of failure because they could not deliver the quality of care they wanted to provide, constrained by poor staffing levels and lack of access to essential equipment and drugs. It is beyond the scope of this study to examine details of Zambian nurses' ideal quality of care. The following guidelines were displayed in a ward. They can be regarded as the ideal for Zambian nurses:

Guidelines on attitude towards patients and their relatives

1. Be sympathetic and empathetic with patients and relatives.
2. Treat patients as individuals.
3. Treat patients the way you would like to be treated if you were in their situation.
4. Do not challenge or argue with patients...Be prudent.
5. Be humble and ready to listen to, and understand, patients.
6. Patients needs must always come first.
7. Always ensure safety and security of the patients during their admission.

Many nurses across the groups were frustrated by the constraints they faced when trying to deliver the quality of care according to these guidelines. Poor staffing levels and lack of access to essential equipment and drugs are not in themselves demotivating factors, but become demotivators if they are linked to the failure to deliver high quality care.

Every nurse interviewed talked about poor staffing levels and consequent heavy workloads in their practice areas. Indeed, many reported a direct link between heavy workload and failure to deliver high-quality care which makes them feel like leaving the hospital. Three critical incidents of poor quality of care which made them feel like leaving are given here. A clinical instructor ceased working as a bedside nurse to work in the school of nursing due to the poor staffing levels on the ward. She felt frustrated when she was unable to meet patients' expectations:

I haven't considered leaving the nursing school to go back to the service area, because of the same staffing levels. It's a bit better at the school than being in the ward where you are made to work alone at the end of the day you can't meet their expectations. Whatever you wanted to do for this patient you can't do it because you are all by yourself...When you were on wards, you are one against forty patients against thirty patients. You would have loved to bath that one but you can't, because you are too busy. You just start depending on the relatives. (Clinical Instructor, School of Nursing, B group, ID10)

The most extreme case of poor staffing levels was a shift when an RM worked alone on a busy labour ward. Patient safety was compromised and staff shortages reportedly caused avoidable deaths:

..there was a day when I worked alone...I had to go to theatre, people were delivering here and there so I was just jumping from one bed to another... it's the low cost (ward) and this girl came in with a breech presentation...The baby is about to come out....Unfortunately, she did not open the bladder and it was full so the baby couldn't come out. So I was there struggling with the baby, in the end it died. So there when I am alone in the ward what do you expect me to do? I'd want to help this or that one...but I can't manage. So that baby was lost. So I just said no one is going to question on anything because I am not supposed to work alone...when she came in I was with a patient delivering another patient. I couldn't leave that patient! I had to finish! By the time I am finishing that side it's already too late...(RM, Obstetrics and Gynaecology Department, C group, ID18)

Nurses inevitably feel frustrated and guilty in situations such as this. More than 50 research studies have documented the link between inadequate staffing and adverse

patient outcomes and mortality. For example, the standard allocation of patients per nurse on a medical or surgical unit tends to be 4:1 in the USA. Each additional patient assigned increased the risk of burnout by 23% and the risk of job dissatisfaction by 15% (Aiken, Sean et al. 2002). According to Aiken: "There is a threshold level of staffing below which it is not going to be possible to retain other nurses". The staffing situation at Hospital A is far below this threshold level.

A shortage of nurses is a universal problem in both developed and developing countries, but the level of shortage experienced by nurses in this study is abnormal compared to international standards. The average nurse to patient ratios on the wards ranged from 1:2 in the Intensive Care Unit to 1:75 in Outpatients. This is presented in Appendix XVI in order to give some sense of the workload compared to international standards. Nurse migration has contributed to overall poor staffing levels to some extent as the number of leavers substantially exceeds the number of recruits in Hospital A (see Appendix XV). As a result, the quality of nursing care has been compromised in many ways including avoidable deaths, lack of time to talk with patients, longer working hours and using student nurses to staff the wards. Nurses leave the hospital as they feel frustrated and guilty.

Many nurses felt frustrated or demotivated by failure to deliver good quality care due to lack of access to essential equipment and drugs. Sometimes this has caused avoidable patient deaths within the hospital. The most extreme case resulting from lack of access to equipment was a shift experienced by an RM just two weeks before the interview. She felt extremely frustrated by the avoidable death of a patient in her care because she was constrained by the lack of equipment:

Just some two weeks ago. I was on duty and there was this patient. There were two patients... Yes, now they were breathless... They had respiratory infections... so they were on oxygen therapy since they were admitted. Now this other one was very bad. She really needed to be on oxygen then unfortunately around... 12:30 the oxygen finished and then she changed her breathing. I went, I wanted to get an ambubag... Unfortunately I couldn't find the mask to connect in the ambubag so that I could at least... give her the oxygen... The other one (nurse) went to call the porters so that they can come and bring the oxygen for her. Unfortunately there was no oxygen in the hospital and then the porters had to go and get the oxygen cylinder from another ward by the time they were coming, the patient had already collapsed. You know I felt like stopping, I really wanted to help her but there was no way. There was no oxygen

and there was no mask for me to give her so that at least I can give her to live. That how she collapsed and that's how she died. And then the relatives cried and said this is negligence. And they said, how is it possible that in a high cost ward...I felt so discouraged on that day and I felt like I couldn't just go on...(RM, high-cost ward, C group, ID31)

Nurses were frustrated and felt like failures because they could not deliver the quality of care they want to provide. Recent research on health worker motivation in Africa argued that incentive systems should be built firstly upon the professional ethos of nurses in order to address the professional goals which they have been taught or have in their mind (Mathauer and Imhoff 2006). The value systems of professionals are major determinants in the provision of good or bad service to the public (Van Leberghe, Conceicao et al. 2002). Therefore, nurses need adequate support when they face constraints in achieving their professional goals.

6.3.7 Little recognition of additional qualifications

The current wage structure provides no incentives to retain highly-qualified nurses. In this study, this is partly reflected in the fact that the highest resignation rates were amongst highly-qualified nurses: 68% of RMs, 67% of RTNs but only 12% of ENs at Hospital A resigned during the period 2001-2004 (Table 4). While most nurses complained about their low salary levels, only some nurses with higher qualifications mentioned the lack of differential between the salary levels of RNs and RMs and between RNs and RTNs which made them feel like leaving the hospital.

The interview data highlight three factors that contribute to the high turnover rates amongst RMs: (1) Higher market value in other places (2) Undervalued skill and experience (3) Perceived higher workload on obstetric wards. Many RMs working on the labour wards considered that they have heavier workloads than nurses on other wards. This RM was typical amongst interviewees from obstetric wards, suggesting that her additional midwifery qualification is not recognized in the level of part-time allowances despite the greater workload. This makes her feel like leaving the hospital:

...we are being given the same amount as the general nurses. But if you compare the work load for us it's too much. At least there should be a difference...The workload...obstetrics is actually the worst...We are few and there so many patients. So these other

departments are better. They sit, but us we do not sit even at night you will be there until morning...So it's too much, when you compare the amount of money you are getting and the work that you are doing and you are not gaining anything. The last thing that you have to do is to go.(RM, Obstetrics and Gynaecology Department, C group, ID18)

A clinical instructor with work experience on the labour wards also noticed that nurses can become frustrated and feel like leaving if their additional education is not recognized. He added that an RM's higher market value is another reason why midwives leave the public hospital:

The reasons for midwives leaving may not be so different from the nurses in general, but in addition to what I have said maybe other reasons could be such additional qualifications, like midwifery, are not really recognized, to say, because you are a midwife you are going to have a little bit more money and better conditions than a general nurse. A midwife and a general nurse are just treated almost the same except that a midwife is working from a labour ward or obstetrics and a general nurse is working from a general ward. That actually puts people off and people tend to question why, why have I done this any way...generally as a midwife, it's easier for somebody to go because their demand is higher. They are marketable and they can go anywhere and work. (Clinical Instructor, School of Nursing, B group, ID20)

It is suggested that the amount of discordance a person experiences is directly proportionate to the effort they have invested in the behaviour (Aronson 1973). Managers' attitudes towards nurses with additional qualifications can affect their leaving decisions. An RTN reported that just such a lack of appreciation had triggered her decision to leave the workplace as the private sector recognizes or appreciates qualifications in the form of a better salary:

...the supervisors that we have, they don't really recognize the theatre nurses. It's like when you do theatre nursing, and people will just say, "Ah, but why did you do theatre nursing, you should have done midwifery", that's what they tell us... You would just feel like no I just go somewhere, where we are appreciated. That's why in government hospitals you find a lot of theatre nurses have left for private hospitals, because in a private hospital they are respected... Yes, they are respected as a theatre nurse, they give me a better salary and they are recognized for their qualification. (RTN, Theatre Department , C group, ID28)

This RTN had been frustrated constantly by the failure to recognize her additional qualification within her salary, but a manager's thoughtless attitude was the critical incident which made her feel like leaving the hospital.

The influence of a demotivating work environment has been examined in sections 6.2 and 6.3. The push-factors have been examined so far, but there are also stick factors which actually made nurses stay within the country. The next section examines stick factors by groups in order to identify the key to the retention of Zambian nurses.

6.4 Reasons for immobility – stick factors

Thus far this thesis has explored only the general and critical push factors for intention to migrate. These demotivating factors might trigger migration but demotivated nurses cannot migrate unless other conditions are met. What made nurses stay within the hospital despite the demotivating work environment? Stick factors identified in this study include family constraints, formal training opportunities, hope, patriotism, migration costs, lack of availability of intermediaries and demand-side conditions. The general motivation of Zambian nurses is also presented briefly in this section.

Nurses conduct a cost-benefit analysis by weighing these components against the benefits of foreign wages using different scales according to their personal values. This section examines stick factors within the four groups (A, B, C and D) identified in 6.3, as well as age, socio-economic status and qualifications. The summary of findings is given in Appendix IX.

6.4.1 Family constraints

Family-related factors can be both barriers and facilitators to initiate the migration process. Fulfilling extended family demands such as paying for food or school fees for children are mentioned overwhelmingly as influential factors for migration. Yet, family constraints could also be a barrier. Nurses in A and B groups (disinterested and potential migrants) in particular gave heavy weighting to family considerations while nurses in C and D groups (failed and advanced migrants) consider family to a lesser extent, or try not to think about it.

Nurses with young children may find it particularly difficult to leave them behind to follow overseas job opportunities. The problem of finding people to look after children or elderly parents can also prohibit migration. Nurses may find better-paid job opportunities in neighbouring sub-Saharan African countries. These enable them to see their children more frequently than if they are employed in the UK. A spouse's employment also influences the migration decision. Thus, family constraints can be an indirect social cost of migration and are the major stick factor for the A and B groups (disinterested and potential migrants) as shown in Appendix IX. They are concerned about the negative psychological impacts of living separately, especially if the children are still young or not emotionally stable.

Many nurses face the dilemma of benefitting their children through the higher salaries paid abroad or by living closer to their family but with extremely low salaries. An EN is one of three exceptional nurses who are not interested in working abroad (A group in Appendix IX) because of the strong ties of her extended family. Her top priority is to stay close to her extended family rather than sending remittances or living with only her biological children in the UK:

I am not encouraged by going to U.K because if I am in U.K and my mother or child is sick, the distance to come and give them the care is quite a lot. My happiness is giving the help to the patients, as well as to my family. Even if I have to go to U.K with my family it won't be possible for me to take my extended family. I will only take my children, the nuclear family, that's all. So in Africa, and Zambia, in particular, we are very much concerned about extra extended family. You say cousin, my uncle, they all come for help from me...I would love to work for Zambians...Because even if I earned a lot of money there, it would not solve whatever I have at hand. Because you know if I come to visit you, or I sent you money there are two different things. You will consider me a concerned person if I came to see you, than if I just gave you the money and I didn't show up. (EN, A group, ID01)

Of course, all would prefer better pay and the presence of family members. However, confronted with the need for tradeoffs, some nurses who have left the country might have sacrificed this presence of family, at least for a while, in order to provide greater financial support. Some nurses make interesting choices when confronted with tradeoffs. One RM would like to work in Botswana because she knows she would be able to visit her children in Zambia more often from there:

I haven't considered so much the U.K. it's too far... Botswana is not too far at least I can manage to come every after a short while. To come back here to come and visit.

Yes. So right now I am considering going to Botswana not the U.K...I prefer to stay here (in Africa) because of the distance. That's the only factor I am considering, Yes. Because if I leave my two children here it can be easy for me to be coming here... Yes, we have got friends who are staying there...After three months she comes back, yes...Unlike in the U.K where you have to stay there the whole year because you have to raise more money for transport.(RM, Obstetrics and Gynaecology Department, C group, ID18)

The low cost of migration to Botswana is another advantage of working there. Although this RM's ideal pay level is that in the UK, she compromised, preferring lower migration costs and closer proximity to her family. Although she wanted to stay with her children in Zambia, she compromised in order to gain better working conditions in Botswana. Interviewees often mentioned the higher salary scale, especially for RMs, and the twice-yearly provision of uniforms, shoes, belts and caps as advantages of working in Botswana. The Zambian Government should be aware that some nurses will stay in Zambia if the conditions of service equal those in Botswana, even if wages are far lower than UK levels.

Faced with a tough choice other nurses, especially in C group (failed migrants), decided to live separately from their family members in order to assist them financially. One of these is an EN - a 48 year-old married woman with 11 dependants, including her unemployed husband. However, the absence of people to look after her family became a barrier to migration:

As Africans, (laughter) we are not like you people, whereby, you don't really consider extended families, us here in Zambia, we really depend on extended families... if maybe my sisters, my brothers were alive,... I was not going to have a lot of problems...we help each other extended families, not confined with the husband, children just like that, no...I should have left for greener pastures...You know, just go, bring the family, meantime while you are away, until when you settle, come. But, now with me the problem that I am all by myself. So nobody will ever come to me, you know, try to assist me taking in the family while I am away.(EN, C group, ID21)

Nurses' migration decisions are affected considerably by the ages of their children. One nursing sister has started to consider leaving the hospital as her children are now old enough to be left in Zambia if she migrates:

P: I have had family constraints that have kept me...but now, I have reached a stage where I feel I can go ahead, and look for employment elsewhere.

I: What are you going to do with your family at home?

P: My first-born has finished grade 12 then the last-born is 9 years. So it's an age where I feel I can leave them now at that level. (42-year-old Nursing Sister, B group, ID03)

Another ward manager (D group) who is in the process of migration also thought that her children were old enough to leave behind:

One is 21, she is at Copperbelt Secondary School Teachers Training College. She is almost finishing by December. The other one is 17, finished last year. The third one is in grade nine at a boarding school... I sent her specifically for that...I did not want any constraints. (44-year-old Ward Manager, D group, ID35)

Other nurses decided to stay because their children were too young to be left in Zambia or to be taken abroad:

At the moment I haven't thought of leaving the hospital A because I have two children who I have to see them grow because me going to a foreign land my children won't even know where to start from even me as a mother it will be difficult to adjust to that life. (38-year-old RN, B group, ID12)

Nurses over 40 have fewer family constraints than younger nurses. This could be one of the causes of the older age profile of sub-Saharan African nurses working in London (Buchan, Jobanputra et al. 2005a). As mentioned in 6.2.1, unfulfilled extended family demands, higher financial pressure for older nurses caring for orphans and those who have to send children to university might also have contributed to the older age profile of sub-Saharan African nurses working in London.

The role of the spouse also affects the decision-making process. Unemployed husbands sometimes encourage nurses to migrate but others can act as stick factors, especially if they have responsible positions. Some nurses follow their husband's postings – this RN is married to a medical doctor:

There is no way he can follow me. You know why he can't follow me, one, where he is going he wouldn't have that position because those positions are not transferable ... So it's better he remains at a place where he thinks he is comfortable. (38-year-old RN, B group, ID12)

To summarize, family constraints including family ties, the lack of people to look after family members, young children and husbands' employment can be stick factors in the migration process.

6.4.2 Formal training opportunities

As mentioned in 6.3.4. the lack of training opportunities acts as a push factor.

Conversely, the expectation of sponsored formal training opportunities is regarded as a stick factor, especially among many young nurses in group B. For example, one RN felt that formal training provided and sponsored by the government is a good incentive to stay as it provides job security during the study period:

If I really wanted to upgrade myself to go ahead...I feel secured when I am in government. Because when I am in government then I am at least assured that at least I can progress, I can go ahead, unlike in the private sector because, if I had to join private sector, and if I really want to go to school, then the private sector has to terminate my contract. (27-year-old RN, B group, ID26)

The combination of future training opportunities and the intention to have children keeps this RN within the public sector:

I worked at a clinic in the district...for two years...And I have worked here for two years, at least I should work for another year or so and then I have to do my midwifery...When I do my midwifery, maybe by then I will have 2 children or so. And then I can decide from there (laughter). (30-year-old RN, B group, ID08)

It is acknowledged that working conditions and pay levels in the public sector compare badly with those in the private sector or overseas postings. Yet these data reveal that the public sector has its own comparative advantage for attracting nurses by providing opportunities to attend workshops and sponsoring formal training such as registered nursing and midwifery schools. These findings echoed those of a study conducted in Kenya (Mathauer and Imhoff 2006). However, shortage of funds and understaffing are reducing these opportunities for government sponsorship for the majority of nurses working at the tertiary level. Many of the young nurses interviewed had plans or expectations for future professional advancement. If these expectations are not met, they will become demotivated and consider leaving the hospital (see 6.3.4.).

6.4.3 Hope

Many nurses in B group (potential migrants) have decided to stay because they hope that matters will improve. An EN decided to stay because of the recent change of

leadership at the hospital. She has hopes that a new director will improve the current poor conditions:

I decided to stay because you know sometimes this changes of directors, those people who look after the hospital, if they change those people in the administration, they change this one and that one, I thought maybe the one who came Mr.C because this man works nicely. Maybe we will benefit. Maybe he will do something. Even maybe the houses he will look into it...Maybe if he comes in, all these things maybe will change... (EN, B group, ID09)

A clinical instructor describes well the process of weighing the pros (family demands) and cons (patriotism, hopes) of migration before reaching a conclusion. This process leans steadily towards the pros as family demands increase, or the Government does nothing:

I like the country.. and moving out has always been my last thing... I have colleagues who have left even those who came here after I did. But you know I have always hoped that things can work even within here. I have never really strongly thought of moving out of that hospital or out of the country. My dream has been and still is that things should be able to work for me within. But sometimes that dream appears very, very blurred you know, because the way things were 2, 3, 5 years ago, are basically the way they are now if not worse...We live from hand to...I don't know how long this hope is going to be sustained...But you know you cannot stop people from going if they are in poverty...Maybe some of us will just die here of this hunger hoping that things can change. But I do not want to keep on hoping, this hope sometimes can be dangerous isn't? Because as I hope my children are dying at home. They have malnutrition. They are not able to get good education, they are not dressed properly. It is cold now I cannot buy them jerseys...So that is what is sending people away. So as some of us are hoping, there are people who cannot keep the hope too long.(Male Clinical Instructor, School of Nursing, B group, ID20)

Quite a number of nurses, especially those in B group (potential migrants), are still hoping for positive responses from the management and the Government, but they remain potential migrants. If these hopes are betrayed, even these nurses may shift to group D (advanced migrants) and will be lost to Zambia if migration conditions are met.

6.4.4 Patriotism

A sense of patriotism affects most nurses' intention to migrate across the groups although the degree varies from nurse to nurse. It seems to be a weaker influential factor than pay levels, working conditions, migration costs or family components. Nurses in A and B groups (disinterested and potential migrants) mentioned patriotism

more often than those in C or D (failed and advanced migrants). This client relation officer is one of the few nurses who have never thought of leaving Zambia (A group).

Her case might have been affected, at least partly, by her strong patriotism:

It is the conditions in the salaries for nurses, it is really quite low – it is not motivating. That is why mostly, those people who have got no nursing at heart – because when you join its either, you put yourself that “I am going to serve mother Zambia” or “I will work for money”. So if you are working for money and you find that things are not working, you go where it is really convenient for you...so going to U.K. To me, if everything was done possibly to my favour, I would love to work for Zambians.(Client Relations Officer, A group, ID01)

This feeling of patriotism is also found amongst the nurses who are leaving. A ward manager is one nurse in the process of leaving (D group), but she values home. She wants to return when she has raised sufficient money:

Okay, even if we intend to go some of us we saying we want to go and learn new cultures, interact with people of different cultures. But we won't make those place our homes, me I would definitely love to come back...(Ward Manager, D group, ID35)

On the other hand, a student nurse explicitly mentioned that she values pay levels above patriotism:

Now imagine, if I am aiming the high salary, then at the end of the month you get little money. And somewhere maybe outside the country they offer to be giving you a lot of money, should you honestly say I won't go because it's my country? (Student Nurse, Nursing School, ID34)

Some degree of patriotism affected most of the nurses regardless of their intention to leave or stay. However, often this is pushed aside at the final stage of their migration decision by stronger influential factors such as pay levels or demand-side conditions.

6.4.5 Migration costs

Most of those who failed to leave the hospital (C group) cited financial or psychological migration costs as the biggest barriers (Appendix IX). The majority of nurses in this group are breadwinners with many dependants who could not afford to pay the high migration costs due to their low socio-economic status.

Direct migration costs were calculated in order to understand the financial burden of migration for Zambian nurses. If a Zambian nurse applies directly to the NMC in the UK, these direct migration costs include:

1. Application (£140) and registration fees (£129) to NMC in the UK
2. Verification fee of KW 100 000 (£12)
3. English language exam fees - IELTS (£88)
4. Supervised practice at UK hospital (£800-£1800) (Mensah, Mackintosh et al. 2005). The actual cost of the adaptation period might be higher than this estimation. A Zambian RN, in the process of leaving in 2006, suggested that the cost of the adaptation period is estimated at £2500 in addition to living costs of £1000.
5. Air ticket (£700)
6. Visa and miscellaneous expenses.

This migration cost totals £1875-£4575, the equivalent of 26 to 64 months average salary for Zambian nurses (applying average monthly salary KW 600 000= £71 at the time of data collection).

Yet these are only the economic costs of out-migration. Some of the social costs (e.g. the loss of parenting care for children or the additional burden of childcare for other family members) have been explored above. A nurse may use a recruitment agency to help with these migration costs but still has to pay the initial fees to hire this agency. As the level of economic status varies from nurse to nurse, they become stuck at different stages of the migration process, as the following examples suggest. One nurse failed to migrate because she could not pay even the initial fees for the recruitment agent:

P: There are many agencies, mostly, what is hindering us nurses from going it's the money maybe which you have to pay that person to process the papers for you... Some may tell you maybe you pay K100,000 just when you are filling in forms... it's like a commitment fee... you have to pay something so that they can see that you are serious... you are told next you have to pay maybe registered fee.

I: So in total how much do you have to prepare to pay for these agents?

P: Until the time you go or just for the paper work to be done? Some agencies maybe they can tell you, you pay maybe you pay K800,000, K1 million yes.(RN, Theatre Department, C group, ID11).

An RM in the process of leaving (C group) tried to apply directly without using recruitment agents. She quickly realized that she had not enough money even to begin the process:

Even the money matters. If I have to consider going to the U.K right now, first I applied to the nursing midwifery council they sent me forms. They told me that I had to pay £140...and I was stuck. Where will I get the money from? (RM, Obstetrics and Gynaecology Department, C group, ID18).

The cost of the adaptation period is often mentioned as the biggest burden of migration costs for Zambian nurses. Although RN (ID16) below thought of leaving the hospital, she did not take action (B group) because she knew she could not afford these costs. Many nurses or civil servants generally live from hand to mouth and it is very difficult to save money for migration unless they have some assistance from friends or relatives overseas, for example. An RN noticed that some nurses save for these migration costs by joining the private sector in Zambia:

Maybe adaptation period only costs something like K20,000,000 and I can't afford that...and its very difficult for a civil servant to raise such kind of money. That's why some of the nurses definitely most nurses would love to go out but because of the money problem that's why they have decided to stay. They have got no money, they have no people to assist them...That's why some, what they do is they first join the private sectors within the country. Maybe if they are getting something like K1,500,000 they will be able to save at least slowly by slowly they will save up to a certain amount. Then move to the U.K or other countries... (RN, Paediatrics Department, B group, ID16).

An RM also failed to leave for the UK because the NMC two-year registration period had expired before she could raise the money for the adaptation period. She also failed to leave for New Zealand or Canada due to lack of funding for the migration costs:

I applied (to U.K.) but I couldn't raise the money that I was supposed to pay. The money for adaptation course... Such that the registration expired after 2 years... You have to find employment. You have to be there at least within 2 years... I also applied to New Zealand and Canada, but I did not have the money to pay. (RM, high-cost ward, C group, ID31)

Thus the requirement to undertake an adaptation course is likely to influence substantially the overall levels of migration of internationally-recruited nurses to the UK. Nearly all the nurses from sub-Saharan Africa reported the necessity to undertake a period of adaptation but nurses from South Africa reported that this was not required

(Buchan, Jobanputra et al. 2005a). If nurses from sub-Saharan Africa were not required to take the adaptation course, the number of immigrants from these countries would have been much higher.

6.4.6 Intermediaries

Intermediaries facilitate the migration process. They include recruitment agents; friends or relatives overseas; and communication technology such as the internet and mobile phones. Indeed, their lack sometimes hinders the migration process. Some nurses, including ID29, reflected that the availability of recruitment agencies made it easier for nurses to migrate, playing two important roles in the migration process. Firstly, they match the supply of nurses to demand from hospitals overseas, screening prospective migrants and introducing them to employers. Secondly, they issue loans for migration costs following a small initial commitment fee:

Okay long time it used to be very hard because nurses had to find money for air ticket and all that. But this time there are agencies, there are agencies who are coming, they are coming to Africa, to Zambia in Lusaka, in Kitwe. There are lot of agencies, so you go there, you attend the interviews. Then when you pass they start looking for employment for you in UK. When a place is found there, they pay everything for you even though you have to pay some money to them, but it is not a lot. They will pay for your air ticket and everything and then they will make you to go there. When you start work from there, that's when you will pay back. So it hasn't been so difficult, that's why you find that a lot of nurses have really managed to go because of the same agencies. (RN, C group, ID29)

The Nursing Service Manager describes well the process of migration using recruitment agencies. A recruitment agent plays the role of matchmaker between the UK demand side and the Zambian supply side:

Yes, there is one white man who comes. I have never seen him...but I hear there is this "Frank" man. He comes with air tickets for U.K..So he will come around maybe in the evening when the nurses are off, then start asking "Is there nobody who would want to go to U.K. I want this type of rank"...So those who are already itching to go, they just say "Put me there. When can you go? When are you ready?" So they understand each other and then she continues working. But she will not mention to anybody. Then when the time is about to come she will just take about a ten days urgent leave....And then she flies off. (Nursing Service Manager, ID32)

The migration process of some nurses in C group was hindered by a lack of reliable recruitment agents. One RN found it difficult to distinguish between genuine and fake agents:

It's a bit tricky because these days you don't know who is a genuine agent or not... Some are fake. So it's a bit difficult sometimes because you will find that...you may just end up being swindled, but there are some who are genuine. Of course those agents where you have seen others going through you can get involved, but I have not come across one (laughter). (RN, C group, ID04)

Recruitment agents' high commission fees deterred some nurses:

I didn't (use recruitment agents) because somebody said, when you go through the agents then they deduct a lot of money such that at the end of it all you don't get enough money. So that's how I was discouraged. (RM, C group, ID31)

Friends or relatives overseas, often called diasporas, sometimes play the same role as recruitment agents. Some nurses reported that financial assistance from relatives or friends helped to pay the necessary migration costs. Friends who have left can match supply and demand by providing information on vacancies overseas or in the private sector:

The way they start to leave the hospital, if somebody has got a relative outside whether abroad, or to any private sector knows somebody, then that particular person will start negotiating with that person. And that person, if there are any vacancies they will communicate and that one will apply. (EN, C group, ID21)

Many Zambian nurses have started the registration process at the NMC via the internet. Information about vacancies and applications can be communicated easily in many ways – by telephone, e-mail and SMS. A clinical instructor, with experience of rural posting, considered that nurses in rural areas are not exposed to migration because access to agents or the internet often are limited in rural areas:

It's in the rural area so people are not enticed but when you come here (urban area) there are agents who are recruiting people to go abroad, there are agents...There are internets...There (rural area) there is nothing like that. (Clinical Instructor, B group, ID10)

This lack of communication technology in rural areas might also restrict information on overseas registration or vacancies in other workplaces. The higher turnover rates among nurses in urban areas of Zambia can be explained partly by the conducive environment for migration in these areas.

6.4.7 Demand-side conditions

A final barrier to migration is demand-side conditions. This involves a lack of working opportunities in private *Zambian* hospitals or hospitals in the UK. Only nurses in C and D groups have been affected by demand-side conditions as these barriers usually become apparent at the final stage of the migration procedure. An RN described well how overseas employment or political situations affect employment at the private hospitals in Zambia and, eventually, turnover in the public hospital. She also reported that nurses usually leave the hospital only when they have secured new work. Some nurses continue to work in the public hospital while awaiting vacancies in other places:

I: Have you also ever considered leaving Hospital A?

P: Yes, I have to be honest, (laughter) I have, I also wanted to join the private sector. We have private hospitals just within A... a mining hospital, but it's like that this time they are not carrying out interviews anymore. Because they had a lot of nurses, who are supposed to go out to UK. Now, the elections that were happening in UK have been suspended so those nurses haven't left for UK. So as soon as they leave for UK, they will leave a vacancy there, then that's when those people would be able to conduct interviews... So, immediately they start employing that's when I will consider moving from here. You can't first move from one place, when you don't find a job somewhere else, so you only have to leave when you have a job somewhere. (RN, Surgery Department, C group, ID29)

Thus, in practice, demand factors override influential factors in the final stage of the migration process due to strong push factors on the supply side. This was confirmed above (Table 8). Failure to absorb the supply of *Zambian* nurses in 2004-05, a demand-side component, might have affected the supply in the following year. A nurse with a relatively low salary will be pushed out of the public sector and pulled toward the *Zambian* private sector or overseas. However, most nurses who do not find vacancies stay in the public hospital, despite their frustration, so demand-side components do affect their behaviour.

The data from Fiji suggest that no matter how strong the pull factors of the destination country, no significant migration takes place without substantial push factors in the source country (Kingma 2006). Any sign that conditions will improve can delay or eliminate the need to migrate. The number of nurses leaving the country declined

dramatically when the Fijian Government announced that it would soon evaluate public-sector jobs and thus reclassify nurses and improve their working conditions (Kingma 2006).

If this case is applied to Zambia, migration could be reduced by addressing push factors before pull factors. Public hospitals do not need demotivated nurses waiting for vacancies in the private hospitals or overseas. This is another reason why the Government should not be concerned solely with the number of nurses migrating overseas - this is a symptom of the larger problem. Demotivated nurses waiting for vacancies will not affect migrant numbers but their lower performance will affect overall productivity of the hospital and of other nurses. On the demand side, destination countries are expected to support sending countries that want to stop the exodus of nurses, but this is not their responsibility alone.

This section has examined the stick factors which actually stopped the process of nurses' migration. The next section is a brief examination of the general motivation of Zambian nurses in order to understand not only their demotivation but also their motivation to create effective incentives for improving their work performance.

6.4.8 Motivation of Zambian nurses

Zambian nurses' general motivating factors (see summary in Appendix X) are examined briefly here although they may be weak stick factors compared to those examined above.

The nature of work and the client relationship are the most frequent sources of job satisfaction in service professions such as teaching, nursing and sales (Herzberg, Mausner et al. 2002). This is echoed in this study. Overwhelmingly, nurses reported that they were motivated to work hard by love of the work itself. Many reported that they wanted to be nurses for altruistic reasons such as a desire to help vulnerable people. In this case, the creation of an environment conducive to good relationships between nurses and patients will be the key to motivating nurses.

Some nurses also cited motivators such as supportive supervision, lots of work and the provision of high-quality care. Heavy workloads were considered demotivators but, interestingly, lots of work was mentioned as a motivation to work hard. The Zambian workload is much higher than the international standard (see Appendix XVI) but it should also be noted that workload can be an issue of perception rather than fact (Gilson, Khumalo et al. 2004). Gilson et al's exploration of the influence of workplace trust in South Africa found that high workload was cited as a demotivating factor in facilities where nurses had lower workloads.

In Herzberg's past studies, the quality of performance was the most frequent factor leading to job satisfaction, but not a demotivating factor (Herzberg, Mausner et al. 2002). This study found that those who cared about quality of care were concentrated in C group (those who have tried to leave). Therefore, although quality of care can be a motivation to work hard, its lack can act as a demotivator. Only a few nurses, especially in C group, named financial incentives as a motivation to work hard, but their absence was mentioned overwhelmingly as a demotivator.

6.4.8.1 President Kaunda's era

The motivating environmental factors during the time of President Kaunda will be examined briefly to contrast with the current situation. A few nurses who experienced this regime (those aged 43-54) recalled feeling more motivated during this era, from the beginning of the 1970s until the late 1980s. This conducive work environment and context included adequate staffing levels; timely payments; a living wage; a strong currency; availability of equipment; enough time to talk to patients and relatives; enough time for breaks; more responsive government; more respect for nurses from patients and the administration; the ability to provide high-quality nursing care; and the provision of sugar and tea for breaks. All these components of an environment conducive to work are missing now although caution is needed in interpreting these motivating factors as they have been reported retrospectively. At that time these circumstances might have been taken for granted and not regarded as motivators.

A 54 year-old nursing service manager is one of a few nurses to recall greater motivation in the 1970s:

...my mind was to assist the sick... and look after them the best I can. I was motivated because everything was available. In 1973, the atmosphere was very, very conducive...and the staff was available, you could do night duty you know that you are going to rest, and after taking your nights off you are fresh you come back and the payments were on course. Exactly 30th your money is in the bank you find it... little as it was but if you visit the bank, you will find it. As time went on, I think starting around nineties...equipment in the wards also started deteriorating...It (salary) was about K150 (in 1973), but it was very strong. From that money I used to buy food, I used to even send to my mother in the village. It used to sustain us (54 year-old Nursing Service Manager, ID32)

A 43 year-old RN also recalls a better working environment at the time of President Kaunda:

That time I started work it was in the 2nd Republic, Dr. Kaunda was our President... we used to get our salaries in time by 30th ... at least economy was okay. Things were not as expensive as they are, you can manage to buy what you want. You should look smart, you should look clean, you need... nice lotion, as a working class I should be different from others who are not working. And then when you come to work we used to have some, at least a provision of having sugar so that you can have a cup of tea, and the patients were few, you have time to chat with the doctor, you discuss about your patient, the treatment, the recovery, the follow up...each time we ask our government to give us something they were listening... You explain your hardship to them and then they will really respond. Yes, yes, not at the moment where you never see a Minister of Health here. I have never seen him at Hospital A. (43 year-old RN, Infection Control Manager, ID02).

Although the past provision of a living or relative wage implies greater extrinsic incentives, it also helped to give nurses higher status as their appearances differentiated them from ordinary people. During this period there were limited job opportunities for women in the formal sector apart from government roles as nurses or teachers. While the majority of Zambian women were working in informal sectors such as agricultural production, the status of nurses was higher than other occupations. This fostered a higher level of self-esteem which is an intrinsic incentive.

Another 43 year-old EN misses the respect from patients and the administration, higher staffing levels, a living wage, time to talk to the relatives and patients and being able to provide total nursing care:

In 1986, okay that time even if we were getting little, there was that respect for a nurse from the patient and from the administration itself...we were pumping a lot of

manpower and we used to have more patients in the ward, more than we are having these days...and we used to give total nursing care.... those days we used to come and talk to the relatives and patients, we ask all sorts of questions, but these days whereby lots of job is on you...because some of this sickness is due to social problems, some psychologically. So, you can find out those things, but you have got no time to do that. (43 year-old EN, Paediatrics Department, ID09)

These recollections served to highlight that the current experience of nursing in Zambia is demotivating. During the 1970s and 1980s the reported positive work environment produced a higher quality of total nursing care. Nurses maintained their professional pride by providing high-quality nursing care which gained respect and gratitude from patients and the administration. In addition, the higher relative wage of nurses helped to maintain their higher status in society, as did the limited job opportunities for women in the formal sector. It appears that nurses are more frustrated during this era of liberalized economy as they cannot afford to buy things even if a greater variety of goods is available.

6.5. Chapter Summary

This chapter presents the results of the analysis of the qualitative data. The factors likely to influence the out-migration of Zambian nurses were presented under four headings: environmental and policy factors, general push factors, critical push factors and stick factors.

Firstly, several policies potentially influence the increasing trend of migration. These include the down-sizing of public-sector services, declining levels of funding at tertiary-level hospitals, high inflation rates, privatization of the mining sector and health reform's impacts on patients' attitudes. Environmental factors such as changes of disease patterns have also influenced nurses' work environment and eventually their intention to migrate.

Secondly, general push factors were mentioned repeatedly as overall influential factors of migration for all nurses' intending to migrate. These included unfulfilled demands of

the extended family, malfunctioning pensions, low or lack of allowances, perceived low status and hazardous working environments.

Thirdly, critical push factors were more specific incidents which made nurses feel like leaving the hospital. These were identified as a lack of support from supervisors, seeing the achievement of friends, unfair organizational practices, lack of professional development opportunities, lack of sufficient food, poor quality care and lack of recognition of additional education.

Finally, stick factors made nurses stay at the hospital despite the demotivating work environment. These were identified as family constraints, formal training opportunities, hope, patriotism, migration costs, lack of intermediaries and demand-side conditions.

It is important to bear in mind that all these factors intertwine to influence motivation and intention to migrate.

Close examination of the data revealed four main groups of nurses concerned with potential migration:

1. Disinterested migrants: not interested in working abroad
2. Potential migrants: interested in working abroad but yet to take action
3. Failed migrants: initiated the migration procedure but failed to leave
4. Advanced migrants: in the process of migration.

Critical push factors and stick factors have been examined through the patterns of perspectives and experiences of the four groups in order to identify the keys to the retention of Zambian nurses. In the next chapter, the findings of this study are discussed in relation to previous research and conclusions are drawn.

Chapter 7: Discussion and recommendations

This chapter begins with a review of the factors identified in the flexible framework. This is followed by an examination of the key findings of this study in relation to previous research, providing an opportunity for reflection and discussion of factors likely to influence out-migration from the perspectives of nurses in Zambia.

7.1 Revised framework of out-migration of nurses

In Chapter 2 the review of the literature gave rise to a flexible framework which synthesized many factors that may influence the migration of nurses. This exploratory framework was used to influence both data collection and analysis of the data in this study and has been revised in the light of the findings (Figure 8 - with additions underlined). While confirming the importance of all the factors from the original framework (see Figure 3), the data from this study have enabled the addition of different aspects of economic and stick factors and a deeper investigation of the contextual factors for Zambia. These important new additions are the key contribution of this thesis and add substantially to the body of knowledge regarding the migration of nurses from a developing country. Although this framework was used as an exploratory tool, it could be used as an analytical tool in future studies examining the out-migration of nurses.

This study demonstrates that *contextual factors* of migration are a key direct influential factor in the out-migration of nurses or these factors sometimes indirectly influenced migration via motivation/demotivation. The literature had identified their importance but they received little exploration in the previous model of nurse turnover and conventional push-pull analysis in developing countries, and few data identify these important factors. If these contextual factors are not addressed they will continue to undermine the efforts of narrowly focused human-resource management within the health sector.

The wider socio-economic context in Zambia is particularly important and includes the economic stagnation that started in 1975 and consequent measures of the SAP which led to privatization. The implementation of public sector reform downsized public-sector services and directly influenced out-migration substantially. Health sector reform began in 1991 but focused exclusively on primary health care. Subsequently declining resources in referral hospitals have demotivated nurses, especially those in tertiary-level hospitals. Although the health reform anticipated an effective referral system, the intended overall shift in outpatient case-load from hospitals to health centres did not happen and the workload increased for nurses in the higher referral hospitals. In addition the HIV/AIDS epidemic indirectly had a pervasive impact on nurses' work and family life.

Economic factors examined different aspects of wages which have been neglected. The concepts of living and relative wages, wage structures and seeing the achievement of friends were new aspects of economic factors added as a result of my data analysis.

This study found the concepts of living and relative wages, and the lifelong wage structure, to be as important as the difference between foreign and domestic wages. The lifelong wage structure is discussed in more detail in section 7.2.4. The concept of a lifelong wage structure for skilled labour stressed the importance of a long-term view of the financial incentives which had been neglected by donors and the Government. Various forms and levels of supplementary payments provided by international development partners tend to remunerate nurses' specific activities in disease projects without considering their professional lives in the longer term. This study confirmed previous findings that malfunctioning pensions are strong disincentives for nurses to stay within the public sector (Becker, 1965).

Seeing the achievement of friends has a strong inducing effect on migration in line with Arango's (2000) assertion of the importance of the migration network. Training was also found to be important, especially early in professional lives. The higher market value of RNs and RMs is reflected in the turnover rates and the number of verification letter requests by these nurses, even if nurses of all grades wish to migrate.

Organizational factors which contributed to the demotivation of nurses include poor administrative systems, lack of support from supervisors, unfair organizational practices, poor quality care, lack of professional development opportunities and hazardous working environments. These findings roughly confirm the existence of the two-factor of Herzberg's theory (see more in 7.2.5.). Analyses of much of the existing literature on human resource practices concentrate on organizational factors.

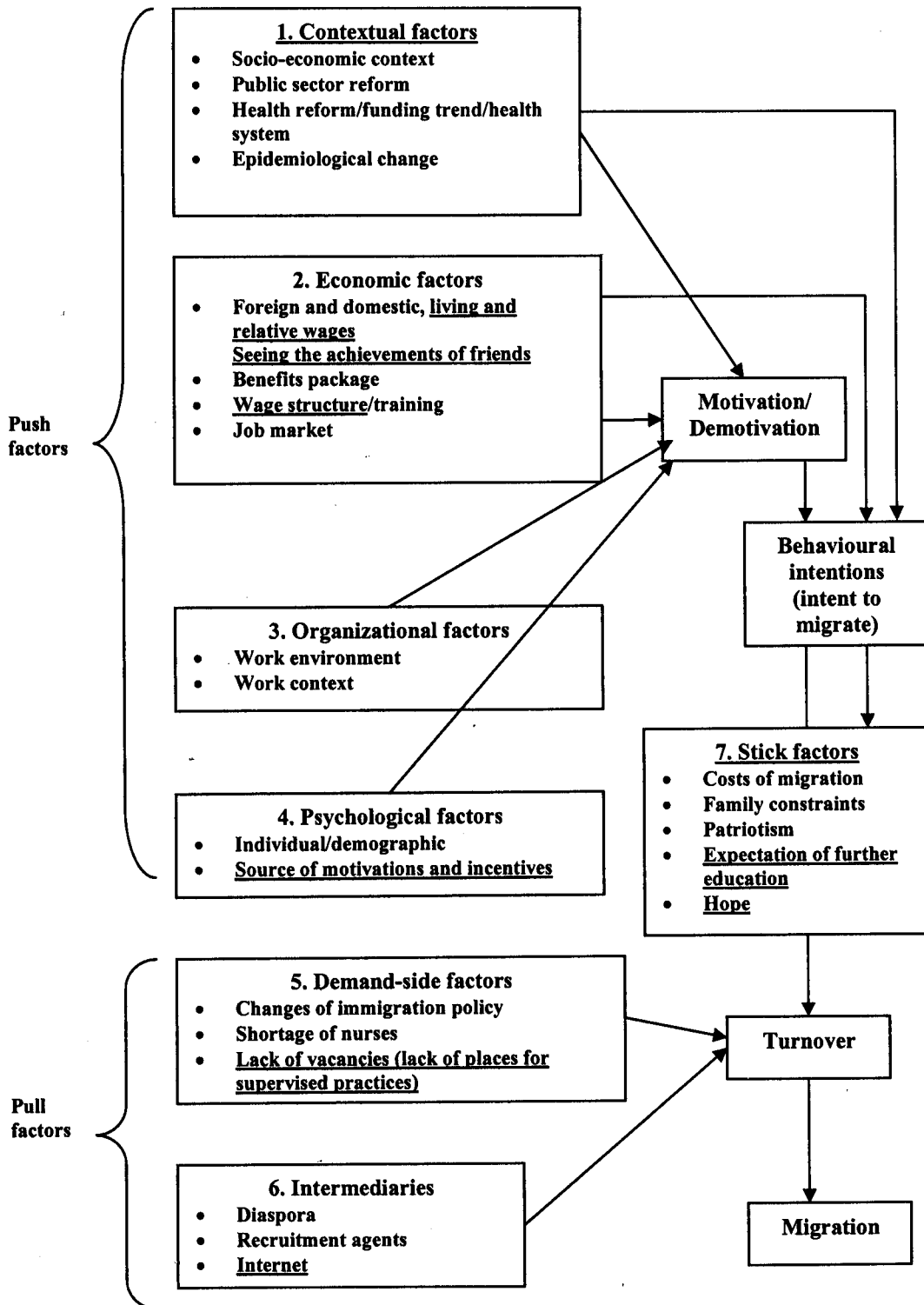
Psychological factors identified that widows or breadwinners supporting many, usually HIV orphans, have more intention to migrate. The older age profile of nurses who attempt migration is due to the financial pressure of school fees and also because older children need less parental care. This finding contrasts with those of many nurse turnover studies in developed countries where there is an inverse relationship between age and turnover of nurses (Hayes, O'Brien-Pallas et al. 2006). Shader et al. found that higher turnover rates amongst young nurses are associated with lack of job satisfaction and high stress (Shader, Broome et al. 2001). These findings differ from those in nurse turnover studies in developing countries. This may be due to the fact that younger nurses in developed countries can afford to move, have fewer caring responsibilities and more job opportunities outside the profession. This study found a strong link between extrinsic and intrinsic incentives.

Demand-side factors identified that migration may be influenced by changes in immigration policy, nursing shortages or a lack of vacancies. This study showed that the existence of alternative employment opportunities (e.g. vacancies in the private sector within Zambia, in other sub-Saharan African countries or in developed countries) can encourage nurse turnover particularly when there are massive push factors in the context of migration. Alternative employment opportunities have been neglected in the discussion of nurse turnover in both developed and developing countries. *Intermediaries* such as diasporas, recruitment agents and the internet also facilitate migration. Finally, the case-study revealed the importance of *stick factors* such as migration costs, family constraints, expectation of further education, patriotism and hope. These have not previously been considered in the nurse turnover model.

This study's revised framework (see Figure 8) has several strengths. It combines the model of nurse turnover previously applied in developed countries with stick factors from the migration literature. Many studies use intention to leave rather than actual turnover as the outcome variable (Mor Barak, Nissly et al. 2001) on the grounds that intention to quit is the single strongest predictor of turnover (Alexander 1998; Hendrix, Robbins et al. 1999) as there is limited evidence on migration from developing countries. However, Mor Barak et al. (2001) point out that the relationship between intention to leave and actual turnover in the nurse turnover model is worth examining. The framework used in this study to examine stick factors in the migration literature has identified barriers to actual turnover despite nurses' intention to migrate. This makes a key contribution to theory by highlighting the importance of migration costs, hope and the expectation of further education – with important implications for current practice in retaining health workers. Thus the research added to the body of knowledge by bringing together hitherto unrelated fields such as new institutional economics, nursing, human resource management and migration.

This section briefly reviewed the factors in the framework used in this study. In the next section, key findings of the study is discussed in relation to previous research and theoretical perspectives.

Figure 8 Framework of out-migration of nurses



7.2 Discussion of key findings

The key findings of this study are discussed in sections 7.2.1. to 7.2.3. This is followed by an examination of theoretical perspectives (7.2.4. - 7.2.6.) in relation to the existing literature included in the literature review in Chapter 2.

7.2.1 Influences of policy context: increased hardships for nurses

Nurses experienced increasing hardship through the influence of policy issues outside the health sector coupled with the increasing HIV/AIDS epidemic - important contextual factors (Figure 8). Economic stagnation began in 1975 and the harsh economic environment meant that meeting basic needs was a struggle for most nurses who cared for many children including AIDS orphans. This study highlights the SAP's impact on the everyday lives of nurses. Two particular measures - monetary austerity and the privatization of the public sector - increased the struggle to access basic commodities and services including water, fuel, gas, electricity, health care and education (Kingma 2006). Many demotivated nurses in this study wanted to migrate but were unable to do so because of financial constraints.

Privatization of the mining sector also led to widespread unemployment as the privatized companies could not absorb all the workers. Many nurses at this study site were married to miners, so their retrenchment impacted directly on already harsh lives and facilitated consideration of out-migration. High inflation also contributed to a decline in real wages of public servants as salaries were not adjusted accordingly.

The social and economic deprivation resulting from SAP led the Zambian Government to embark on the Public Service Reform Programme (PSRP) in 1993 (Valentine 2002). Two important elements of the PSRP directly facilitated the out-migration of nurses (1) exclusive focus on reducing the size of public services (2) no explicit objective of achieving a living wage. Redundancy packages such as VSP and early retirement played a significant role in facilitating migration. In some cases the generous lump sum payments provided by the government were used to cover migration costs. It could be

argued that the shortage of nurses caused by restrictions on the number of personnel in the public and health sectors was exacerbated by the recent increased trend of migration.

Valentine (2002) compared the Zambian PSRP with that of other African countries. While the Zambian PSRP focused initially on reducing the size of the public service, the Ugandan PSRP included the objective of achieving a living wage (Valentine 2002). This is periodically updated and adjusted for inflation although Uganda also experiences high inflation like Zambia. Although inflation per se cannot be controlled easily, wages can be adjusted for inflation if there is the objective of achieving a living wage.

The almost unbearable strain on breadwinners or widows caring for AIDS orphans in an already harsh economic environment was reflected in this study by the concentration of breadwinners in the failed migrants' group – those who attempted to migrate but whose failure was due mainly to high costs. Migration is an impossible dream for the poorest nurses without any financial support. This failed migrants' group complained most frequently about the lack of sufficient food compared to other groups of nurses. While most nurses felt the need to be cared for, supported and recognized by matrons in their workplaces, the need was especially strong among breadwinners and widows who lacked even family support.

7.2.2 Implications of the health reform: resource redistribution from tertiary to primary-care level and the effect on nurses and patients

Policy issues outside the health sector affected all nurses working in the public sector, but policies within the health sector (part of contextual factors in Figure 8) also impacted on the turnover behaviours of specific groups of nurses. This study highlighted that declining levels of funding for tertiary-level hospitals had broad implications for the motivations and turnover of their nurses. Although it is neither possible nor desirable to reduce out-migration to zero, it may be possible to achieve at least the levels experienced in the primary health-care sector by comparing these two

environments and improving nurses' working conditions by increasing the level of funding to that for primary health.

Nurses at tertiary-level health facilities reported fewer professional development opportunities, lower allowances, fewer staff and less access to essential equipment/drugs than nurses in primary health-care settings. These reported differences in working conditions potentially contributed to higher turnover rates at tertiary level within the same urban districts. While policy-makers and donors focused exclusively on primary health care, less attention was paid to tertiary-level hospitals generally and the process of how to downgrade or close them due to the budget constraints (Blas and Limbambala 2001b). Budget cuts downgraded tertiary-level hospitals without decreasing or redistributing their functions. This is morally reprehensible - section 6.3.6. reports how failure to achieve quality of care was responsible for several accidents in the study-site hospital (e.g. the baby's death experienced by ID18 working alone in a busy labour ward; ID31's patient dying through lack of equipment). Considering the small number of interviewees, this is a serious and worrying finding.

7.2.3 Beyond the policies of restricting migration in destination countries

Policies restricting migration in destination countries (demand-side factors in Figure 8) influenced the number of migrants. For the first time the quantitative data in this study have confirmed the declining trend in Zambian nurses migrating to South Africa. Changes in South Africa's immigration policy limited regional recruitment within southern African countries in response to a regional brain drain in 1994. This is in line with Arango's assertion that restrictive entry policies are currently much more influential than differential wages in determining migration (Arango 2000).

Although migration to South Africa was reduced, one destination country's change of immigration policy does not have much impact on the numbers of migrants from a specific country as long as substantial push factors remain and there are other

destination countries. In 2006, the UK removed entry-level staff nurses and senior staff nurses from the shortage-occupation list which allows employers to hire overseas staff more easily (O'Dowd 2006). After this rule change, about one-third of the UK members of the Philippines Nurses Association said they were applying for jobs elsewhere, e.g. Australia. This has implications for the Zambian Government's proposal to agree a limited quota of nurses with the main destination countries. Despite the potential effects of restricting migrations through multilateral agreements, this kind of control-oriented policy does not address the micro-level issues which are the root causes of migration. Kingma argues that restrictive immigration policies violate an individual's rights to make international moves while neglecting the root causes of migration (Kingma 2006).

This study also questions the effectiveness of forcing nurses to stay. The failed-migrant group wanted to leave the country but had to stay because they could not pay migration costs. The resulting poor work morale could impact significantly on their work performance and the productivity of a hospital even if they stay in the home country. The ultimate goal of any retention strategy should be to hold on to motivated nurses rather than demotivated nurses forced to stay because of restrictions. Migration incentive strategies should be evaluated on their effect on motivation rather than just the number of migrants.

Using different theoretical perspectives, this study has highlighted an extremely complex set of influential factors and processes experienced by Zambian nurses before initiating the migration process. These theoretical perspectives are discussed below in relation to the existing literature on financial incentives, motivation and migration outlined in the literature review in Chapter 2.

7.2.4 Benefit packages and the lifelong wage structure

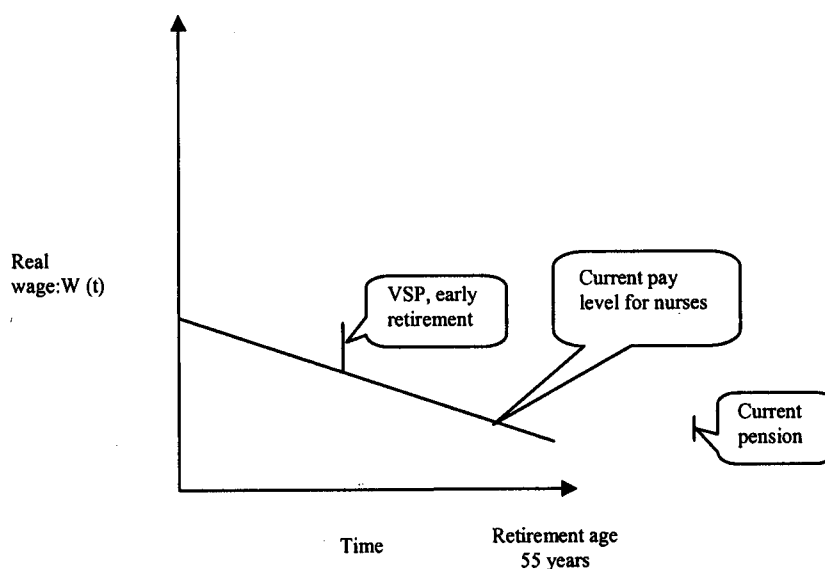
Benefit packages and the lifelong wage structure are examined as aspects of economic factors (Figure 8). This study confirms Zambian nurses' frustration with government payments, especially the living wage, housing, pension and training components of a

compensation package for civil servants identified by Mukherjee and Manning (2000) (Table 1). This suggests that the availability and level of these forms of compensation are crucial for a retention strategy in the context of migration. This study also highlights the role of inflation in the compensation package. The Government allowed substantially different levels of compensation between monetary and in-kind provision (e.g. housing allowances) without adjusting for high inflation rates over the years. This also affected the value of time-deferred compensation (e.g. pensions).

The current low level of nurses' salaries, even lower than a living wage in this study, negatively affects their performance. Although WHO (2006) reports the importance of a living wage that arrives on time, other literature on non-financial incentives does not stress the living wage or financial incentives per se (Franco, Bennett et al. 2002; Van Leberghe, Conceicao et al. 2002; Mathauer and Imhoff 2006). Despite the significant financial implications these issues will continue to undermine the efforts of narrowly-focused human resource management.

The lifelong wage structure in this study demonstrated a complete lack of incentives for nurses to stay in the long term as shown in Figure 9.

Figure 9 Lifelong wage structure for skilled workers



The existing literature stresses the importance of a steeper wage profile of seniority-based pay model (Figure 1) to produce lower turnover rates among skilled workers (Becker, 1964; Milgrom & Roberts, 1992; Mincer & Higuchi, 1998). This steepness justifies a salary level below productivity during the early stages of nurses' careers because employers are investing in training which will raise workers' salaries above productivity (Figure 1).

This study also confirmed the perceived importance of training and further education for many younger nurses (aged 25-40) which could be incorporated into the wage structure. It is important to note that nurses contemplating migration consider not only contractually-provided monetary compensations such as salary, housing and pension but also non-contractual compensation such as training - confirmed as both push and stick factors in this study. However, the real wage profile for the Zambian nurse is far from ideal not only because of the different structures between unskilled and skilled workers (Figure 1) but also because of the absolute levels (Figure 9). Figure 9

summarizes the gap between the ideal and actual wage structures for Zambian nurses, taking account of the high rates of inflation. Wages that are constantly decreasing in real terms over their professional lives neither recognize nor reward senior nurses' experience, skills, clinical judgement or in-depth knowledge. Lack of incentives over their professional lives coupled with increased financial pressures for their older children might have placed senior nurses, especially breadwinners and widows, at risk of out-migration. The high age profile of African nurses working in London reported in Buchan et al. (2005a) supports this finding.

The literature examining labour economics and new institutional economics also stresses that an adequate pension provides an extremely powerful incentive to stay until retirement (Becker 1965; Williamson 1985). However, this was not the case for Zambian nurses in this study because the pension is perceived overwhelmingly as unattractive due to late and low levels of payment. Nurses also compare their small pensions, a reward for working for 30 years, with higher foreign wages gained in a shorter time. High inflation also contributes to make deferred compensation in cash, such as pensions, unattractive. In addition, advance payments like VSP or early retirement were perceived to be more attractive for nurses who wanted to use these funds for migration costs rather than waiting for retirement allowances constantly eroded by high inflation (Figure 9). Advance payments like VSP or early retirement act as incentives to leave the country while deferred compensations for skilled labour such as pensions require strengthening.

Mincer and Higuchi (1988) stressed that the key to retaining skilled labour is not only the volume of training provided by employers but also the nature of informal training. However, this study found that nurses value highly not only informal training such as workshops but also formal training such as further education with additional qualifications (RN, RM, RTN). Many Zambian nurses perceive the opportunity for further training to be almost an entitlement for remaining in the public sector. At the tertiary-level hospitals in this study fewer training opportunities for younger nurses contributed partly to higher turnover rates. Conversely, formal training opportunities

were seen to have contributed to higher turnover rates for highly-qualified nurses, reflecting their increased marketability.

The Zambian Government has promoted the reduction of pay differences between skilled and unskilled employees. The current wage structure has no incentives for retaining highly-qualified nurses such as RNs, RMs and RTNs, as noted in the work on pay reform in Zambia (Valentine, 2002). Although senior nurses of all grades feel generally more frustrated with the salary level, it is easier for RMs, RTNs and RNs to migrate as they are in higher demand than ENs in developed countries.

7.2.5 The source of incentives and Herzberg's Motivation Theory

This study found a close link between extrinsic and intrinsic incentives reported in the existing literature (Thompson and Buchan 1990; Flannery, Hofrichter et al. 1996; Wiley 1997; Kingma 1998). There is a close link between the commonly-accepted extrinsic incentive of pay and the intrinsic incentives of public recognition and self-esteem. This link is neglected in the discussions of non-financial incentives (e.g. Franco et al., 2004, Mathauer and Imhoff, 2006) and pay reform. Nurses' self-esteem was damaged by public perception of the lower status of their role, partly as a result of the decline in wages and the financial constraints that limit their ability to provide quality care. On the other hand, this study did not find the phenomenon of a "crowding-out effect" identified by Frey and Osterloh (2002), suggesting that extrinsic rewards undermine intrinsic motivation under certain conditions.

Some hygiene factors were associated with motivating factors - the absence of motivating factors was found to be important in hygiene factors. For example, poor quality care and lack of supportive supervision were cited as demotivating factors while high quality care and supportive supervision were cited as motivating factors in this study. These results echo Lawler's claim that both motivators and hygienes can affect motivation and demotivation, contradicting Herzberg's two-factor theory (Lawler 1973). This means that some motivating factors and their absence can affect both motivating and hygiene factors, hence both staff retention and staff performance. These

issues of poor human-resource management, including lack of support by supervisors and poor quality care, are shown to have affected the Zambian nurses in this study and acted as critical incidents of intention to leave (see 6.3).

Dieleman et al. (2003) asserted that if the problem is staff retention, hygiene factors will be improved by attending to salary levels and working conditions; problems with staff performance require attention to motivator factors. This study found that while poor-quality care and lack of supportive supervision affect staff retention, high-quality care and supportive supervision also affect staff performance. Therefore it is essential to identify not only the hygiene factors but also the absence of motivating factors when addressing staff retention. Some factors were cited more often on one side than another - roughly confirming the existence of the two-factor of Herzberg's theory. Poor pay, lack of training opportunities, unfair organizational practices and personal problems (e.g. hunger, family demands) were mentioned more often as demotivating factors in this study. Work itself was the most frequently mentioned motivator. This is a common finding regarding Herzberg's theory.

These findings are very similar to the results of a motivation study that targeted various occupational groups in Zambia during the socialist regime of the late 1970s (Machungwa and Schmitt 1983). However, this study made fewer mentions of the demotivators: failure to achieve quality care, lack of further training and hunger. The feelings of frustration at failing to achieve good quality care or further training may be due in part to nurses in this study having a stronger sense of professional conscience than other professions. A study in Benin and Kenya found that health workers are guided strongly by their professional consciences (Mathauer and Imhoff 2006). Interestingly, more nurses in this study mentioned hunger to be demotivating which may be attributable to their much reduced standard of living, poorer working conditions and late payment due to poor administration. Consumer goods had greater availability in the 1990s compared to the shortages of essential commodities during the socialist period - the frustration now is affordability not availability.

7.2.6 Migration theories: the importance of seeing the achievements of friends

Most recent research on the migration of health workers carried out by international organizations has used mainly the push-pull framework of analysis based on neoclassical economic theories. The stick factors stressed by Padarath et al. (2003) were added to the analytical framework in this study. This is in line with Arango's assertion that the push-pull analysis should incorporate the notions of retention (Arango 2000)

Vujicic et al.'s (2004) equation of the neoclassical microeconomic theory of migration applied to health workers generally was used to highlight how Zambian nurses weigh foreign nursing wages against various factors and decide whether to leave. However, Zambian nurses in this study used neither foreign salary scales nor foreign working conditions as comparisons. This study found that seeing the achievement of fellow nurses who have migrated plays the effective role of comparisons, inducing migration through "demonstration effects" (Arango 2000) in line with the acknowledgement of the role played by networks.

This consideration of the equation of neoclassical microeconomic theory of migration in the decision-making process of migration highlights demonstration effects' potential importance in inducing further migrations - a key contribution to current theory. It is important to note that nurse migration is becoming a self-perpetuating phenomenon, to some extent independent of the status of human-resource management at the organizational level.

7.3 Strength and limitations of the research

The strengths of the thesis is rewritten as follows: "One of the strengths of this study lies in the effective use of the mixed methods of quantitative and qualitative in order to understand the issue more comprehensively. While quantitative methods at the macro-level were useful to answer the questions of how many and where nurses are leaving, in-depth qualitative interviews at the micro-level were appropriate to investigate why

nurses were leaving and how they were choosing their destination countries. The richness and the insights gained from both data, which has not been widely available from sending countries, are valuable for a deeper understanding of the issues of migration. Another strength of this study is its broad explanatory approach based on a multi-disciplinary rather than a uni disciplinary approach in order to illuminate societal concerns in the real world. This multi-disciplinary approach was possible through the use of the framework and the mix of inductive and deductive analysis. The use of a framework which synthesized many potential factors suggested by the broad literature was appropriate to highlight the complex factors surrounding the out-migration of nurses. The mixture of inductive and deductive analysis produced some unexpected results reflecting critical issues in the real world while utilizing and, at times, challenging the flexible framework.

While this framework is appropriate for analysing potential factors that influence the out-migration of nurses, the subject of the study, it should be noted that other important factors influence the number of health workers in a country. These include stay factors which hinder migrants from returning home and non-migratory attrition including HIV/AIDS deaths, as well as inflows of health workers from training institutions.

The most important constraint of a shortage of nurses in Zambia ultimately may be caused by slow economic growth within this poor country. This has limited resources in the health sector and caused restrictions on personnel numbers in the public and health sectors. This is beyond the scope of this study, but these issues will be major constraints to achieving the Millennium Development Goals even if the country successfully retains the existing numbers of Zambian nurses. In addition, this study did not address internal distributional problems between urban and rural areas although it is acknowledged that these are equally important. The complex issues of skill mix between doctors and nurses; RNs and ENs; and nurses and auxiliaries should also be revisited as changes will affect nurses' overall workloads which, in turn, affect turnover.

This study focused on the international distribution problems which so far have been completely neglected in Zambia, addressing a complex topic with limited data. For

example, it was difficult to disentangle the push and pull factors in the quantitative data on the international flow of Zambian nurses. It was impossible to determine the impact of potential major push factors such as VSP or early retirement on the quantitative data as these were taken up several times over many years. Cross-sectional design of the qualitative component of the study from a fixed time point is a potential weakness – a longitudinal research design might produce a more robust understanding of nurses' turnover over their professional lives in the context of migration. The sampling strategy excluded nurses on long leave which might potentially have decreased the number in the advanced migrants group (D group in figure 7) as the nurses on long leave might be undertaking the time-consuming preparations for the migration. Some of them may have already gone abroad and migrated.

While it was appropriate to interview nurses remaining in a sending country in order to investigate stick factors, it might have been more appropriate to interview nurses who have migrated in order to investigate the actual push factors on their behaviour. These points are addressed in the recommendations for future research.

7.4 Summary and recommendations

This chapter examines the key findings of this study in relation to previous research, providing an opportunity for reflection and discussion. Policy issues such as SAP, PSRP and health reform and their effects on Zambian nurses' motivation and turnover at the tertiary level are discussed with particular relevance to the experience of failed migrants. These, mainly widows and breadwinners, constituted almost one third of the nurses interviewed in this study. They could not afford to migrate despite the wish to escape harsh economic and work environments. The importance of taking the perspective of the lifelong wage structure was stressed, especially the important role of training, living wages and pensions. While younger nurses tend to give higher value to training opportunities, senior nurses with kinship responsibilities need more financial support.

Expectation of further education was one major stick factor for staying within the country but a push factor without it. Effective retention strategies should take account of the nature of government-provided formal or informal training while meeting the demands of professional advancement. Increasing pay differences between skilled and unskilled employees are inevitable although all nurses regardless of their level of skills or civil servants generally require at least a living wage that arrives on time. Advance payments (e.g. VSP) and malfunctioning deferred compensation (e.g. pensions) facilitated out-migration.

While most of the nurses considered it important to meet a minimum standard of living, they are also guided strongly by professional conscience. Therefore any incentive strategy should be aware of both financial and non-financial incentives, especially the financial implications of most intrinsic incentives (e.g. public recognition, self-esteem). Demonstration effects - the achievement of friends who have migrated - escalate migration but have been neglected within human-resource discussions to date.

The following potential policy interventions are suggested to the Government of Zambia as well as donor countries considering effective incentive strategies for retaining public sector nurses in Zambia. Although some of the suggested interventions might be low feasible due to a number of constraints, advocacy activities might change this situations bearing in mind the accompanying risks. In the potential migrant group many nurses have not yet taken action to leave as they are hoping for positive responses from management and government. Zambia will lose a vital resource if they continue to be ignored.

Potential policy interventions:

Table 11 Potential policy interventions

Key overall Problem	Specific problems	Policy interventions to address the problems	Feasibility of the intervention	Risks
1. Lack of attention to nurses' wage structure over	1-1 Declining value of time-deferred compensation (e.g. Pension and wages) –	Set explicit objective of achieving a living wage in the PSRP and adjust inflation rates accordingly.	Medium	Constraints of total government budget might

their professional lives.	means lower pay than a living wage	Adequate provision of housing and pension.	Low	limit the increase of civil servant salary, housing and pension.
	1-2 Late payments make even low payments less attractive.	Promote effective administrative system to provide timely payment in the whole public administration.	Medium	Need for reforming extensively public sector administrative system
	1-3 Higher migration rates amongst senior nurses and higher attempts to migrate amongst breadwinners and widows	Recognizing senior nurses' experience and financial needs, especially through providing more emotional and financial support to breadwinners and widows.	Medium	Constraints of civil servants pay system and total government budget. Financial support alone can be used for migration costs.
	1-4 VSP or early retirement as incentives for leaving	Exemption of nurses from civil servant redundancy targets in the PSRP	High	-
	1-5 Higher migration rates amongst nurses with higher qualifications	Greater need for the differentiation of wage structures according to qualifications	High	Implications to the level of morale of nurses in the lower cadres
2. Lack of focus on providing supportive work and policy environment as a retention strategy	2-1 Exclusive government's focus on restricting migration as a retention strategy	More focus on addressing push and stick factors (policy environment, working conditions and human resource practices) on the retention strategy and less focus on restricting migration.	Medium	Higher costs of intervention through push and stick factors than those of restricting migration.
	2-2 Lack of effort to eliminate barriers to the provision of quality of care.	Managers should address barriers to the provision of the quality of care for front line workers. This would include appropriate staffing levels; access to essential equipment and drugs; providing mental support and recognition, fair organizational practices, providing appropriate training opportunities; improving hazardous working environment; provision of snacks and meals; and adequate transportation fees. Senior managers should make efforts to provide financial support for those managers	Medium	Many interventions incur considerable financial implications.

		responsible for the activities identified above.		
	2-3 Constraints to increase staffing levels: Restrictions of the level of personal emoluments against GDP. 8.1% of GDP	Reconsideration of this restriction for the health sector.	Medium	Financial constrains by the government and willingness to allocate more resources to the health sector.
3. Lack of attention on how to mitigate the negative implications of resource redistribution from the tertiary level hospitals to primary care level.	3-1 Higher turnover rates amongst nurses working at tertiary level hospitals than those at primary level	Provide an equal level of working conditions for all nurses taking account of donors funding	Medium	Substantial financial implications Lack of transparency of donors funding flow at the individual level
	3-2 Budget cuts without decreasing the functions at tertiary-level hospitals - Decreasing the level of the quality of care	Pay more attention to the process of how to downgrade or redistribute the tertiary level hospitals according to their declining funding levels	High	Expected resistance from politicians

7.5 Dissemination plan

It is essential to translate research findings effectively to relevant audiences, especially in a DrPH thesis. The most important aspect of this research is its policy focus and ability to address the current concerns of policy-makers in Zambia, providing relevant and timely information. Timeliness is very important to this kind of applied research and already a series of dissemination strategies has been undertaken. These helped to disseminate the research results effectively and ensure that were taken seriously by policy-makers.

The ultimate test of the credibility of applied research is the response of its intended users. First, the findings were disseminated amongst high-ranking government officers and directors in the public hospitals in Zambia in order to draw wider political commitment. At the Sub-Regional Conference on Human Resources for Health (5 April 2006), held by the MoH Zambia, Sida and WHO, the research findings were

presented to the various stakeholders including the Minister of Health; Permanent Secretary; human-resource and executive directors in the public hospitals; GNC and the Nursing Association of Zambia; and bilateral and multilateral aid agencies (Appendix XVII). This presentation was used to check users' reactions to the data and confirm the face validity of the research. Feedback from some participants confirmed that the findings were welcome and meaningful. As the researcher was not Zambian, presenting the research results through Zambian nurses' own voices was an effective dissemination strategy as they had face validity and credibility. Presenting the research at a WHO conference also enhanced the acceptability of the research results to the Zambian medical establishment given WHO's reputation in the health sector.

The detailed research results were shared and discussed with the Executive Director at Hospital A where the interviews were conducted. The research has been presented to research peers at a LSHTM workshop and at international conferences (Appendix XVIII and Appendix XIX). These opportunities were used to check the quality of research with peers - comments were positive. The research papers have also been accepted at other international conferences: A Call to Action: Ensuring Global Human Resources for Health, 22-23 March 2007 (Appendix XX); the International Council of Nurses Conference 27 May -10 June 2007; and the International Health Economics Association 6th World Congress 8-11 July 2007.

7.6 Recommendations for future research

The findings of this study have identified the following recommendations for future research:

- Determine the relative importance of factors affecting the retention of Zambian nurses using a discrete choice experiment based on the variables in this research. Especially to investigate the minimum level of salary (e.g. living wages or relative wages in comparison with the private sector) necessary for the majority of nurses to remain in the country.

- Replicate the study in private hospitals, district hospitals and health centres in rural and urban Zambia in order to identify common features and differences across the health institutes.
- Investigate the status of nurses who have returned from the main destination countries.
- Validate this study's findings by means of a retrospective study of migrant Zambian nurses working in the UK.
- Investigate nurse turnover during their professional lives using a longitudinal research design.
- Investigate the effect of poor administrative procedures on motivation in Zambian nurses using procedural justice of equity theory or expectancy theory.

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Appendices

Appendix I Interview schedule

1. Firstly, I would like to know a bit about you.

- **How long have you been working at the given site? (years, months)**
- **If you are married, could you tell me what your husband is doing?**
- **Your birth place in Zambia?**
- **Do you supervise any health workers? (yes, no)**
If yes - what type of workers? How many?

2. I'd be interested in knowing about your work motivation, specifically factors encouraging hard work and factors discouraging hard work. Let's begin with factors encouraging your hard work. Think of a time when you worked very hard on your job. (pause) Please describe to me exactly what happened as you remember it. What specifically led to the incident?

- **What can the organization do for you to encourage hard work?**
- **What can you and your colleagues do to encourage hard work?**

3. Now, think of a time when you did not feel like working hard and when you felt like leaving the hospital. (pause) Please describe to me exactly what happened as you remember it. What specifically led to the incident?

- **What can the organization do for this incident not to happen again?**
- **What can you and your colleagues do for this incident not to happen again?**

Prompts:

(Only to ENs) Explore the impact of the decision to phase-out Enrolled Nurses.

You have given us a lot of information about your work motivation. Now, I'd like to ask you about factors facilitating the migration of nurses in Zambia.

4. Many nurses or your colleagues left this hospital in recent years for mining hospitals, private clinics or the U.K., Botswana and South Africa. Can you give me any insights into how this migration or leaving happened?

Prompts:

Explore the experiences of your friends who left the hospital.

5. What do you think have been some of the factors causing nurses to migrate?

Prompts:

Explore wider economic factors specific to the town that has promoted this migration.

Explore the role of peer pressure or the prevailing norm among the nurses.

Explore the model to be followed as a nurse.

Explore the impact of high tuition fees at the School of Nursing, especially for RNs who have to study longer.

Explore documents regarding fees for the School of Nursing (obtain if available).

6. Some of the nurses left for district services. What was it about district services that attracted the nurses?

Prompts:

Explore the role of specific incentives such as transportation allowances, seminars and workshops.

Explore what exactly is attractive in seminars and workshops (professional advancement through training or accompanied sitting allowances for attendances)

7. Have you also ever considered leaving Hospital A? (pause) If yes, can you tell me the reasons for wanting to leave? If no, can you tell me the reasons for wanting to stay?

Prompts:

Explore the possibility of experience in different cultures.

Explore the role of peer pressure.

8. If you are planning to work abroad, how are you going to manage to find the money for necessary costs of migration such as air tickets and adaptation period?

Prompts:

Explore the role of recruitment agents.

Explore the impact of lump-sum payments accompanied with VSP (Voluntary Separation Packages) and retrenchment of ZCCM.

9. If you considered leaving Hospital A, why have you stayed?

Prompts:

Explore any specific barriers to go or any facilitators to stay – e.g. family or financial considerations.

10. Could you tell me how you contact your friends who have left Zambia and are working abroad?

Prompts:

Explore the role of information technology such as text messages from mobile phones and the internet.

11. How does the work environment differ from the previous one? Are things getting better or worse?

Prompts:

Explore the impact of abolishing top-up salaries. Hospital A used to attract health workers from Lusaka due to exclusive top-up salary till 1991 (especially to senior nurses with professional experience of over 20 years).

Explore the impact of health reform on the hospital sector.

12. What do the patients say about the migration or leaving of nurses to you?

Prompts:

Explore any appreciation or discouragement from patients.

13. What could the Government do differently in order to prevent nurses leaving?

14. What do you think needs to be done at the hospital management level in order to prevent further migration of nurses?

Prompts:

(only to managers) Explore resource factors that have hindered effective human resource management practices.

Explore measures taken by the human resource management (e.g. recognition, providing training opportunities, staff consultation, fair organizational practices, fair promotions etc.)

Explore the roles of leaders.

Explore any strategy documents (obtain if available).

15. Although it is difficult to increase the basic salary as they are civil servants, improved benefit packages are often used as effective incentives in other countries. Are there particular in-kind benefits that are especially valuable?

Prompts:

Explore the perception of currently provided benefit packages in terms of both **financial benefits** and **in-kind benefits** – such as medical fees, free access to ARVT, uniform allowance, night duty allowance, over time allowance and **especially the role of pensions**.

Explore other benefit packages – such as risk allowance, responsibility allowance for managers, rural hardship allowance, **housing loan or housing ownership scheme**, transportation allowance, training allowances, sitting allowances to attend workshops and seminars.

16. (RNs only) The Government wants to see more RNs in rural areas, while the staff shortage is also affecting urban areas. However, the distribution of RNs is concentrated along the rail line in Zambia. What do you think are the barriers for nurses to work in rural areas?

Prompts:

Explore the role of peer pressure or the norm among the nurses.

Explore the limited possibilities of finding partners (some nurses arrange fake marriage certificates in order to move from rural to urban areas).

Explore the quality of children's education, availability of water and electricity.

17. What do you think are the facilitators for nurses to work in rural areas?

18. Would you work in a rural area if working conditions improved? (pause) Can you tell me the reasons for this?

O.K. - you've been very helpful. Are there other thoughts or feelings you'd like to share with us? Anything at all you'd like to add before finishing this interview?

Thank them again and give my contact number and address – please contact me if you have any future questions.

Appendix II Information on interviewees

Interview code number	Title/cadre of respondent	Department	Age	Gender	Marital Status	Number of dependants	Duration of interview
1	Client Relation Officer/EN	Public Relations Unit	54	Female	Widow, breadwinner	13(4 biological + 9 adopted children)	1:02
2	Infection Control Manager/RN	Infection Prevention & Control Unit	43	Female	Widow, breadwinner	3 biological children	1:05
3	Nursing Sister/RN,RM	High-cost ward (male)	42	Female	Married	3 biological children	0:45
4	RN	Operating Theatre	39	Female	Married, breadwinner (unemployed husband)	7 (2 biological +2 adopted children + 1 young sister + husband)	1:07
5 (Tape recording was rejected)	Clinical Instructor/RN, RM	School of Nursing	42	Female	Married	4 (3 biological + 1 adopted child)	N/A
6	Infection Control Nurse / EN	Infection Prevention & Control Unit	40	Female	Divorced, breadwinner	6 (2 biological + 4 adopted children)	1:02
7	EN	Paediatrics Department	45	Female	Widow, breadwinner	8 (5 biological + 3 adopted children)	0:38
8	RN	High-cost ward/ Out-patient Department	30	Female	Married	1 (young sister)	1:25
9	EN	Paediatrics Department	43	Female	Widow Breadwinner	7 (3 biological + 4 adopted children)	1:28
10	Clinical Instructor/RN, RM	School of Nursing	48	Female	Married	5 (4 biological + 1 adopted child)	1:15

11	RN	Theatre Department	34	Female	Married	2 (sister + brother-in-law)	0:52
12	RN	Intensive Care Unit	38	Female	Married	5 (2 biological children + 3 nephews & nieces)	0:55
13	RTN	Theatre Department	35	Female	Married	6 (3 biological children +3 nieces)	0:45
14	Acting Ward Manager/ RN,RM	Paediatrics Department	33	Female	Married	4 (2 biological children + sister + niece)	1:03
15	Ward Manager/RN,RM	High-cost Department	46	Female	Married	9 (3 biological +6 adopted children)	1:17
16	RN	Paediatrics Department	25	Female	Single	None (but supposed to look after young brother & sisters.)	0:55
17	RN	Paediatrics Department	30	Female	Married	6 (biological child + 4 brothers + mother)	0:42
18	RM	Obstetrics & Gynaecology Department	32	Female	Married	5 (2 biological children +3 young brothers)	1:02
19	EN	Paediatrics Department	34	Male	Married	1 (brother-in-law)	0:57
20	Clinical Instructor/RN, RM	School of Nursing	37	Male	Married, breadwinner	7 (4 biological children + 3 other dependants)	1:15
21	EN	Paediatrics Department	48	Female	Married, breadwinner (unemployed husband)	11 (5 biological + 4 adopted children + grandchild + husband)	1:05
22	EM	Obstetrics & Gynaecology Department	54	Female	Married, breadwinner	10 (7 biological children +3 other dependants)	0:50
23	RN	Outpatient Department	36	Female	Married	3 (2 biological children + niece)	0:51
24	RN	Medicine Department	28	Female	Married	6 (1 biological child + 2 brothers + 2	0:55

			(low-cost female ward)				nephews + niece)	
25	Acting sister in charge/RN	30	Outpatient Department	Female	Married	4 (2 biological children + niece + brother-in-law)	0:30	
26	RN	27	Medicine Department (female ward)	Male	Single	1 (biological child)	1:03	
27	RN	38	Medicine Department (male ward)	Female	Married, breadwinner (unemployed husband)	8 (3 biological children +5 nieces & nephews)	0:58	
28	RTN	35	Theatre Department	Female	Widow, breadwinner	3 (2 biological children + dependant)	0:55	
29	RN	26	Surgery Department	Female	Married	3 (biological child + 2 dependants)	1:17	
30	RN	27	Intensive Care Unit	Female	Married	9 (biological child + 8 sisters & brothers)	1:12	
31	RM	34	Gynaecology, Medical, Surgical female high-cost ward	Female	Single	4 (3 young brothers & sister + 1niece)	1:07	
32	Nursing Service Manager/RN,R M, Diploma in Management	54	Administration	Female	Married	6 (3 biological children + nephew + 2 nieces)	1:23	
33	Student Nurse	26	School of Nursing	Male	Single	0	0:32	
34	Student Nurse	23	School of Nursing	Female	Single	0 (but 5 young brothers already waiting for her support as she is first-born.)	0:35	
35	Ward Manager/RN,R M	44	High-cost Paediatrics ward	Female	Married	3 (biological children)	0:53	

Appendix III Sample information sheet for interviewees

You are invited to take part in interviews on the

.....
The interview will last no more than one hour and with your permission will be tape recorded – just to help me remember what was said later on. Before deciding whether or not to attend, please read the following information about the project. If anything is unclear, or if you would like more information, please don't hesitate to ask. Your participation in this study is entirely voluntary. You can decide not to participate in this study at any time. You do not have to answer any individual question you do not want to.

This study is being conducted by researchers from the London School of Hygiene and Tropical Medicine and funded by the Swedish International Development Agency.

The purpose of this interview is to help understand better the reasons why nurses leave the hospital and go to the private sector and abroad. We also want to know what conditions of service nurses would like to be offered in order to retain them within the public sector.

The results of this study will help to inform government planning in Zambia. The results will also help international cooperating partners to understand the issue of the exodus of nurses in Zambia. This study will contribute to the process of reviewing human resource management practice by providing information on health worker perspectives. Thus, your cooperation with this interview will be highly appreciated.

You will not be identified in any report through not writing your name and the name of hospital. Only your title will be shown on the report if the researcher quotes from you. However, if you are easily identified from your title due to the limited number in that professional group, the researcher will inform you of the difficulty of maintaining confidentiality and ask your permission by showing the written results. If you do not agree with this, you can ask the researcher to delete your title or quoted part completely. You can withdraw from participation in this study even at this stage. Thus, your privacy will be carefully protected. You can also contact the University of Zambia Research Ethics Committee about any participants' rights.

We will provide drinks and snacks at the venue as a token of thanks.

Appendix IV Initial process of forming labels and categories

The process of initial data analysis is described only partially due to limited space, using excerpts of text taken from the first stage of analysis. Only the highlighted words are used as examples to show the process of forming part of a label or category, although other phrases and words included in the excerpt are not ignored.

In the first example, the interviewee (ID04) described an incident when she felt demotivated by the supervisor's lack of empathy and support despite an excessive workload with poor staffing:

Like the way we are working at the moment, you have got **few nurses in the ward**. You may be **alone on duty with a lot of patients to attend to**. Now whereby these, the so called **the leaders, our leadership, our administrators, when something goes wrong in a ward, always one would look at the bad part**. Or would want always call you to say, "**why didn't you do this, why did this happen.**" **Not looking at the effect that this thing happened maybe because this nurse was alone**. Because there are times when even the phone, the extensions were not working. So if the patient changes condition, I have to go down, look for the doctor. You go this ward he is not there, you run to this ward he is not there, meanwhile **you have left the ward unattended to...**(if something happens,) **blames you** to say you are being irresponsible. I mean it **really puts you off** you know. (ID04)

The text was broken down and labelled for each particular concern. Highlighted examples were labelled as follows:

- excessive workload
- poor staffing
- lack of empathy and support

Leading to

- a demotivating work environment

Leading to

- facilitators of migration.

These labels were clustered under the larger category of "a demotivating work environment", and finally placed under the "facilitators of migration" heading (see summary of results below). The causal relationships between categories were shown with "Leading to".

Another example expands the theme of a demotivating work environment. The interviewee (ID20) felt like stopping work and leaving the hospital when he failed to achieve his objective of satisfying his patients due to constraints such as excessive workload and poor staffing:

You feel you should not do anymore and you feel you should just maybe stay away. But usually in my case what makes me feel that way, sometimes is **the failure to achieve. Failure to achieve basically due to work overload.** Okay, when you have

too much to do you know and you find **you cannot cope because you are very few**. Yes, and because that definitely **results in failure to satisfy the patient and that's what sometimes puts me off**, if you **fail to achieve an objective** because of certain constraints. So some of these constraints include things like I have already mentioned, **under-staffing**. (ID20)

The text was labelled similarly as follows:

- excessive workload
- poor staffing

Leading to

- failure to satisfy patients

Leading to

- lack of achievement

Leading to

- a demotivating work environment

Leading to

- facilitators of migration.

These labels were clustered under the larger category of “a demotivating work environment, and finally placed under the “facilitators of migration” heading. A summary of the overall findings, and the labels and categories developed from this initial stage of the analysis are shown below. Please note that this is the result of the first stage of analysis, not the result of final analysis.

Summary of findings – labels and categories developed from the first stage of analysis

1. Facilitators of migration

1-1 A demotivating work environment

- Lack of empathy
 - lack of caring task demands
 - lack of caring personal problems
- Low remuneration
 - low or lack of allowances (accommodation, uniform, night duty, transportation, financial incentives for attending workshops, top-up salary and responsibility allowances)
 - when expected allowances are not paid
 - late and low level of salary/poor conditions of services
 - late and low level of pension
- Poor administration
 - bureaucracy – late payment

- unfair organizational practices (unfair selection of training opportunities, lack of transparency in choosing hard work awards and unfair distribution of resources)
- Uncoordinated policies
 - ban on hiring new staff
 - reducing the number of civil servants – VSP/early retirement
 - focus on district health services rather than tertiary-level hospitals
- Environmental factors
 - change in disease patterns/more chronically ill patients
 - high inflation rates
- Factors in personal life
 - not fulfilling extended family demands
 - not enough food
- Poor working conditions
 - lack of access to equipment/drugs/consumables
 - lack of availability of drinks and snacks
 - higher risk of infection
 - poor staffing
 - excessive workloads
- Perceived low status of the role
 - low status symbols – accommodation, uniform and transportation
 - lost respect from the public/patients/administration
 - lost reputation of the government hospital among the public
- Lack of professional development opportunities
 - lack of opportunities for schools/workshops
 - lack of incentives after midwifery course
 - lack of dissemination of technical/medical knowledge
- Lack of recognition
 - lack of recognition of hard work
 - complaints from patients
 - lack of appreciation from the Government
- Lack of achievement
 - failure to satisfy patients
 - failure to deliver quality of care
 - unable to see the results of work
 - vindication

1-2 Other facilitators

- Network effects
 - implication of Zambian nurses working overseas
 - financial assistance from relatives/friends/NGOs
 - communication technology (e-mail/Internet/SMS)
 - information on vacancies
- Lack of income from husband
- Availability of recruitment agents

2. Barriers to migration

- High migration costs
- Patriotism
- Hope things can be improved
- Lack of vacancies
- No availability of recruitment agents
- Family ties
- Being in rural areas

3. Others

- Better perception of other working places
- Incentives to work longer

**Public health workers incentives
and motivation in Zambia**

Interviews conducted with nurses
at Hospital A in Zambia,
June 2005

Interviewer: Naomi Toyoshi-Hamada

Interview Number: 9

I: Firstly, let me start by knowing a bit about you. Which department do you work for?

P: Paediatrics, K ward

I: Is it different from high-cost ward?

P: Anyway with that ward, it's the combination of both high cost and low cost. Yes it is a malnutrition ward.

I: Can I have your title?

P: I am an Enrolled Nurse.

I: How old are you?

P: At the moment I am 43 years old.

I: And you are not married, yah?

P: My husband died some time back.

I: When did your husband die?

In 1997

I: For how long have you been working at Hospital A?

P: I started to work at the hospital in 1986.

I: 1986, Okay. You said you are now widow. How many dependants do you have?

P: I've got my own three children and four dependants, children of my young sister who was died and her husband was died. So, I am looking after about seven altogether.

I: Seven, ya?

P: Yes

I: Can you tell me your birthplace in Zambia?

P: I was born in Ndola, Ndola Central Hospital.

I: Do you supervise any health workers here?

P: Yes, anyway I can say I do supervise because I am a senior nurse at the moment. You know after working for so long. So sometimes we do supervise, even some of the intern doctors. If they have just come. You know working on books does not mean working on the patients. So when they come you supervise them. You tell them what to do in the service how they have started so you can supervise them how this work is like this. Students can supervise them, the workers you can supervise them like cleaners, hygiene technicians.

I: I am interested in knowing about your work motivation, specifically factors encouraging your hard work and factors discouraging your hard work. Think of time when you worked very hard on your job. Please describe to me exactly what happened as you remember it. What specifically led to the incident?

P: Can I remember those days? I don't think I can remember the date. (laughter) I think I have been a hard-working nurse starting from the time I came to this hospital. I remember the time I worked at

the theatre, I worked in the theatre for more years than the years I have been working in the wards and those days when I was working in the theatre, the only interests I had was that we were working as a team. Despite getting the little but motivation from the sister in charge and the way we used to work at least was motivating us.

I: How exactly did she motivate you?

P: If you are working, you have a problem. You go to the sister in charge. At least she can solve that problem; equally she can't refuse, because some they do refuse. Despite working very hard, if you have a problem maybe instead of signing an urgent leave for you to go, she can just give you mother's day and the day off. And maybe she can even, if you are in nursing owing the sister in charge a day off she can include so that you go and solve that problem. Then you come back. They (the in-charges) are not having that heart of refusing. They were putting themselves in the boots of the workers. If you have got problems we were going there freely you ask. Then problems solved just like that just as a mother.

I: Oh...Oh that was a motivating...?

P: That was the only motivation. Because of a sister in charge who was very good, and the working conditions even the doctors when we were working with here were very stimulant despite having plenty cases, but you can work freely you can't even say no sister me I am tired I want to rest. No, you volunteer yourself just because of the good of the people you are working with. Despite getting the little money, we were just participating volunteering ourselves for our patients, for our people.

I: That was your big motivation?

P: Yes that was our big motivation.

I: Now think of a time when you did not feel like working hard and when you felt like leaving the hospital. Please describe to me exactly what happened as you remember it. What specifically led to the incident?

P: I remember when I had a case in the theatre we had that case and at the moment I was just alone. We had two caesarean cases and at that moment we had no porters to lift the patient and to bring them to the ward. So I had to rush as a nurse to the ward, to go and collect the patient and I had to, the doctor had to help me lifting the patient to put her on the stretcher we completed that patient caesarean we completed very fast because the other one was waiting. So we wanted to lift that patient to put her in another stretcher so that the other one can come to the one who was bleeding. So the doctor said sister if you can be very fast assist me, meaning I have a nurse to assist the doctor to lift the patient to the stretcher. Now when we were lifting the patient, was very fast, double time. I felt as if something happened on my back electricity like, part of me was paralysed. So we just went with the stretcher and every down the floor the patient. So the doctor asked, what has happened sister. I said the whole of this lower part is paralysed, no lying down, I don't know what is happening the whole of this lower part, doctor, is paralysed. So what I am going to do he asked

again. The doctor had to call the sister in charge, they lifted me put me on the stretcher so they have said there is this third and fourth vertebra bones have been fused together. So they had to take me to the patient to the ward as an admission patient in uniform. So I was taken there and the doctor came to see me. I even left those things because I did not know what had happened, yes, so I was in the ward now feeling how the physiotherapist. At the Hospital A we did not have a machine which can pull my back so they had to take me back to a mining hospital where the hospital had to pay a certain amount of money. So, from there I came back. I couldn't lift now as a nurse any heavy things. Up to this time I am talking the ward where am I, I don't lift heavy things and I don't go in the stairs. I can't work night shift now. I don't work more than eight hours now that pain comes back so I went to the specialist who told me that you can't do heavy work. You have to move from the theatre to down the theatre, minor theatre. So, even there in minor theatre I felt that I couldn't work. If we have a R.T.A comes I couldn't lift the patient, I could not do anything. Immediately I lift the patient, the back starts, so I went to the specialist and that specialist who came to see me was Executive Director who was transferred to Ndola. He was the one who was seeing me and I said doctor, I think I can't work discharge me under medical grounds if a nurse can't lift anything if I can't bend what job I am going to do? The hospital had to take me for treatment here and there and the x-ray what so they said they are not going to discharge me under medical grounds. We will keep you. You will be doing right, writing or just talking giving the mothers' health talk. So instead of you going inside the ward you will be down in malnutrition ward. Yes, giving health talks to mothers talking to the kids, feeding the kids, just like that, don't lift things. Don't even go and assist in many wards so that's what happened, but as I am like this I used to work hard. But this time if I have got this problem, and now I can't move, I am a worker whereby I cannot earn a lot of money. I am just given just peanuts and I can't work severely for my kids. I can look for other things to assist my family. Now if you ask from where I am working, please assist me I can apply today for an advance which will come out maybe two months later or after three months later, which is so painful. That time when I was in need they were using me, they wanted my services. But this time when I can just give them a bit of my services if I'm asking for something they can't give me. Salaries, good salaries from the government we cannot have it.

I: Is it demotivating you?

P: Yes, they can't motivate us. So, here am I up to this time right now I've got this problem. My finger I don't know what is happening and now I can't buy the right uniform with the money we are earning. I don't have even a cap. What do we do as a worker? At least if you are motivated. That could be good.

I: Okay

P: When they see that this worker now she can't work any more, she cannot do anything. If they can assist us in any ways, just to motivate us even those other nurses who are coming. So, others see

that in this sector at least, even if you work a lot, you have got this and you come out like this. More will come in, but we are pumping more. I don't think we are appreciated. Why I said I don't think we are appreciated because most of these high-ranked people, they can't bring their children to the government hospitals. They cannot come here if they are sick, they cannot come here. Most of them, they fly to other countries. So that means they can't appreciate our services, you see.

I: Thank you so much for your information. And another question is that many nurses or your colleagues left this hospital in recent years for private clinics, the U.K, Botswana or South Africa. Can you give me any insights into how this happened? Any experience of your friends who have left this hospital?

P: You know I have a friend who was the sister in charge she had a problem with the husband. She was coming from Kalulushi working to this place, commuting with a minibus. And if she's got no money she couldn't come for work. And the time she comes for work they start now shouting at her or talking to her as if she has made something bad. Telling her why she did not come for work the other day, but me I haven't got my salary. Today is what date? 5th day. I haven't got my salary. How do we expect me to move? You don't give me transport. How do I move? You want me to walk from Kalulushi to this place. It is very distant place. I can't walk so I had no money. So from there she was acting as a sister in charge and then from there she had some problems at home. Now she sat down she told me Mrs.K. have you got any idea of these people who lend money or those groups or women's lobby groups who lend money, when you go outside. Immediately you start working outside, you give them the money. So I went to ask at my bank place, there was a certain man who had that sister in that group where they lent money. So, he told me that lady come, I take her to Ndola so that she goes and talk to those people, these people who had money. It's a group a NGO group. So that she gets more money. Because she said I can't leave this country. Look my friend at home I got problems, I can't meet all the needs.

I: What kind of problems are these exactly?

P: With the husband, yes she's got some problems, they wanted for divorce. But they had children. How can you divorce? Even at working place, I cannot work nicely in that environment. The matrons are saying A.B.C D. How am I going to stay? Look sometimes back I was a patient, a TB patient I was on the TB treatment. Now here am I. I am feeling much better. They want me to work more and where I am staying my husband can't keep me nicely now here he has got another lady. So what do I do? So, I've got no-money to travel and do the interviews in South Africa. So I said no, you just go and see those people. They will assist you. If they will assist you with the money, then ask those people who are going to that place so that you go with them or you ask for the papers first because you are supposed to enter with the papers you sign in the papers. And then after the papers come they will tell you what they want at those certain places where they want nurses. So, they even indicates everything the air tickets, the amount they want and the papers which the education

papers which they want. So it's what she did and when she did that she went to those NGOs they gave her money, that is how she went for interviews for South Africa. From there she rung me at night, "My friend, at least now I am settled. I am at a hospital in America now."

I: America?

Yes, from South Africa she paid for working I don't know certain amount money. Now she had to go now to America. Now is where she is at a hospital, children's hospital yes, and there now she came for holidays. "My dear, you are just wasting your time. (laughter). Here you are just wasting your time."

I: "Is that what she is saying to you?"

P: Look here I can assist you with money so that you follow me. Because here, despite your working, you putting in a lot they will not appreciate. Neither appreciating your working, the hard working they won't appreciate. So, money they won't give you according to the way you are working, accommodation they won't accommodate you the way they want, working conditions will just remain like this and you die like this, but you went to school for five years. You have completed your form five, these papers you have done but you die poorly as you are. Where we are if you are putting, you are getting a lot. So, why are you wasting your time? See how I am looking. She went there almost a year. And when she came back within another year, she was a changed person. She was fat and nice looking. Here she was looking like as if she has not finished TB treatment (laughter), the skin everything. But immediately she travelled where she was working now she's saying... I have a letter from her, unfortunately, I wish I had known, I couldn't have come with the letter so that you see it where it says every Friday they are getting 3.5 million. Every Friday and how many Fridays have we got in a month? And that is why in one clinic and if she wants and she doesn't want to rest she wants to work more hours. Maybe she goes to old people's homes at that place also they give her some money. More money, and then at night she rests. From 7:30 to I don't know what time she works at the clinic and then from that time to sunset she goes to look after those old people's homes. Then from there she gets two salaries. You can't change that way, you can't feed yourself well. So she came to tell me, my friend you are welcome I can assist you with money for air tickets and everything which they want because in our country they don't, I don't know if they will appreciate us so...

I: So, are you planning to follow her?

P: At the moment I can't because of my condition. My back and she says there are good machines where they will treat you nicely. The mother says "Don't follow what your friends are saying may be they can neglect you and leave you just like that. So please just be where you are. Maybe as there goes on the way you've come, maybe you are good some other time, maybe you do something good, even us one day we say good, we are happy once this day."

At the moment, me I can't. I just stick here and God one day will do miracles, will do wonders, because some of us have got families to look after. With the time you get settled there, who will remain with our families here? Who will look after our parents who are already old?

I: Some of the nurses left this hospital for the district services. What was it about district services that attracted the nurses?

P: You know why nurses are mainly moving out of the government hospitals, it's because even if they cry, nothing will come up since the government is not doing anything not even the hospital can sustain you.

I: What about district services?

P: In district, if a nurse moves from here, sometimes if you visit that nurse, there is that change. Why I am saying this that change, maybe you can go in the house, you find that she furnished the house, now she is well-dressed, now she is looking nice. Now why? If you ask, they say here in district there are a lot of meetings, seminars and workshops. Whenever you go there, you have money for sitting. You have money to participate. And that money or those meetings, they do it equally, they share it equally. They don't take those meetings, seminars and workshops to the same people as it is done at this hospital, because this hospital you find even those meetings whereby you are supposed to get K 2 million or K 1.5 million is only stuck to the same people, same old old workers like matrons, the executives, the doctors, the same people who are getting at least that much. The same people is putting on that amount. You find that some of the nurses like me, I've never I've never, god is my witness, attended seminars or workshops whereby give me K2 million. I will attend the seminars or meetings whereby I just have drink or lunch, that's all. But in clinics they do it equally. If today this group of nurses who went for that meeting, next group is other nurses, but here we don't share the cake equally.

I: Is that the biggest reason?

P: Yes, even at the mines, some are going to the mines, some now have started to going to these surgeries, big surgeries like Care Well. Here in A there is a Care Well clinic. Recently two nurses from labour ward joined this private clinic because here the amount we are getting is just less than a million. Enrolled Nurses are getting K600,000 and K700,000 but thereby she is going to getting K2.5 million as a sister in charge or as a RN, and Enrolled Nurse is going to get K 1.5 million.

I: Almost double the salary?

P: Yes, doubled. Can't you go where at least they sustain you instead of remaining? So, two have already gone to the C clinic.

I: Have you also ever considered leaving Hospital A?

P: Sometime back I used to.

I: If yes, can you tell me the reasons for wanting to leave?

P: Why I said sometime back I used to think of leaving? Because of the same thing I am saying about money. You know money solves everything these days and I had a problem of housing when my husband died. Now, the hospital offered me one bedroomed house in the hospital compound. That house, if you happened to just leave your chair and see where the house where I am living in. The condition how the house is you cannot think OK, thinking this is an accommodation for a nurse, an educated person who is rendering at least something to the public. So, accommodation we are not getting, housing allowance, that amount which they give to those people who have got their own houses to pay for electricity, water bills, rentals just like that. Us, we are not given that amount. So despite not having that amount, the houses are old houses. At least if the hospital can make. We have got a big room, a big surrounding whereby maybe the hospital can make flats and make nurses move to those flats, they feel much better. Instead, we are just living there in the house in which you look at it, doors are broken, the toilet's itself where me as a health educator going you can't even like it.

I: So poor accommodation makes you feel like going?

P: Let me maybe leave for the district or somewhere where at least can give me a good house and what am I going to do? I thought but housing allowance is coming. Maybe they will start giving us housing allowances. We start now renovating these houses. We thought of that, but when they started to give housing allowances, they don't even considering us!

I: What do you mean? Did they start to give housing allowances only to selected people?

P: To those people who got own houses, but us they don't give us who have got hospital houses. We are not benefiting too. We don't renovate those houses, they don't renovate up to that level whereby a person who gives health render to the people. The type of accommodation she can have.

I: If you considered leaving Hospital A sometime back, why have you decided to stay?

P: I decided to stay because you know sometimes this changes of directors, those people who look after the hospital, if they change those people in the administration, they change this one and that one, I thought maybe the one who came Mr. R because this man works nicely. Maybe we will benefit. Maybe he will do something. Even maybe the houses he will look into it. Even us people who wouldn't benefit in getting, because some of us, even if you apply for a loan, you can't have it. Maybe if he comes in, all these things maybe will change. So he has just got in that office not more than a year.

I: You wait and see?

P: We wait and see.

I: You said if you are planning to work in US, probably you are going to ask your friend there to support you with some money. You are not planning to use these agents to introduce you the job?

P: At that moment, since she is the one who when I wanted to start those business of going out, when I thought of those agents. Now when my friend went there she is the one who said if you want please you can always inform me I can assist you. So, I said with my own condition anyway, first my mother said "No don't go." My friend keeps on working, days are numbered.

I: Could you tell me how you contact your friend in the USA?

P: She calls me.

I: How does the work environment at Hospital A differ from the previous one? Are things getting better or worse? You worked quite a long time.

P: Okay sometime back, in fact, these days I can say nursing is changing and we are changing. Why we are changing because of these frustrations here and there when we just started work. In 1986, Okay that time even if we were getting little, there was that respect for a nurse from the patient and from the administration itself. Yes, there was that respect as a nurse, and we were pumping a lot of manpower and we used to have more patients in the ward more than we are having these days. We used to care more patients, like I can give you an example. If you work in M ward, it is a medical ward, we used to have maybe, these days if I go there I found the number of less than 50 or less than 60. Those days we used to care about 120 to 160 patients but cared four or five nurses. And we used to give total nursing care. That amount which we are getting at least you can sustain yourself, you can sustain the family, you can't come in with an empty stomach. You see. You can't come in with an empty stomach. You know when you have the spirit of working and when you have the power at least you can look at the patient, you can do for the patient you can have that love then even pumping in good nursing care, you see. But these days whereby you can find sixty patients in the ward against three or two nurses maybe just one nurse. A lot of work on you. On top of that, a frustrated nurse now how can you look after the patient like that? You are frustrated coming home with an empty stomach, you have got problems, the child from the school, you haven't paid the fees, they have chased the child, you haven't eaten, the child doesn't eat. Do you think you can give a proper nursing care to the patient?! Then the patient also will start saying all sorts of rubbish to the nurse.

I: Could you tell me more about what the patients say about the nurses?

P: Sometimes, "Sister I started some time back calling for you to bring me a chamber but you don't want to come and do it. Why? It's your duty, why are you seated there?" Then if that patient stops doing that the matron comes in. The matrons know that you have got problems. And then look, I've got no money no A.B.C.D. She can't give in those things it's up to the administration how to act. Their administration can't act. The matron even can't act. Now the matron hears what the patient is saying, again the matron will come to you again. How can you work like that? Otherwise, minus solving our problems, every time they will be saying nurses of these days are bad. Those are the patients and the society too. You can attend to the relatives because those days we used to come and

talk to the relatives and patients, we ask all sorts of questions, but these days whereby lots of job is on you. Nursing care you can't do it. You can't have that time of talking to the relatives if they come you find out about that patient, because some of this sickness is due to social problems, some psychologically. So, you can find out those things, but you have got no time to do that.

I: Sure, sure.

P: Plenty of job on you, pressure of work on a nurse whereby that nurse cannot even do anything. That nurse has his/her own problems whereby they are not solving your problems and expect you to work nicely. How? You can't! Now nursing is changing, instead of doing the proper things, they are doing other things. When you have a problem. Look here matron. Me, I did not have my lunch. Why didn't you have your lunch? No I haven't got any money, look here A,B,C,D, but sometimes got to the accounts and talk A,B,C,D if you can give you A,B,C,D, we will deduct at the end of the month. So that they sustain you, you look after the patient. Immediately these things solved very fast, nothing. If they have that heart of saying go and getting money may be from our petty cash. Maybe you have a funeral, a relative passed away you are a nurse you are a worker anything should come from here. But here unless you yourself, your children and your husband have passed away is when they can give you the money to help yourself, but the extended family, they can't assist you. When you apply for a loan or advance it will come out maybe a month or more when you have already suffered a lot.

I: Okay, so things are getting worse?

P: Things are getting worse even in nursing care. The standard of nursing care is going down.

I: What do the patients say about nurses leaving ?

P: They even feel for us. They have the feeling for us. Yes, they are sympathising with us even the society. The society knows that doctors and nurses are going out of the country. But why can't the Government do something which the nurses are going to? I understand there was BBC news where they said Zambian nurses are very hard-working, but in our own country they can't see that we are hard-working but outside they are seeing that, you see? So people are seeing that, patients are feeling for us but our own government can't see that. I do not know if it means they don't have money, but what we think is that money they have which they can give us so that our nursing changes and goes back to old nursing.

I: So you think those kinds of things could be done by the Government?

P: Yes, they can do it.

I: What could the Government do differently in order to prevent the nurses leaving?

P: I think if they can just increase our salaries. If they increase our salaries that is very very important thing because you know money can solve all the problems even those who do not have houses, they can do anything from that money, they can buy houses from that money. If they can find nice accommodation for us nurses and doctors whereby if you go somewhere, there you find

the house of a doctor who is somebody seven years sitting in accommodation whereby you can feel bad. So if they can find our accommodation for those nurses and other workers much better if they can change the working conditions things can be better. We can go back to square one.

I: What do you think needs to be done at the hospital management level in order to prevent further migration of nurses?

P: Management you know, they can do something as we were saying they can have projects whereby if they have, like what I mean is, what I said at first that. We have got a lot of room. If they make flats there. Sometimes if they have got no nurses to go to these flats, because now nurses are few, if you have no nurses to go to the flats they can start renting those flats and that money they can motivating their nurses. They are making a lot of money in the high-cost places, wards there they are making a lot of money. If that money is shared equally, if they are topping up to our salaries. If they top up half of our salaries because honestly speaking its like as if they are giving that top up to a kid not a grown-up person. Topping up the salary because our salary is K700,000 and then someone is giving you less than K70,000. What is that? As if they are teasing you. That is total mockery. Giving you K60,000 is the topping up honestly?

I: Even the level of top-up matters?

P: Yes, it matters at least if they can increase that top up and then it comes to the half of your salary they can motivate us.

I: But not like that K 70,000?

P: That is mockery, totally mockery. Sometimes if they can make more money and start giving us uniforms. We are not supposed to buying these uniforms, we are government workers. Government should be making the uniforms for us. You are earning a little that little you have to buy a uniform, you have to sustain yourself, you have to find transport from that, honestly speaking.

I: Okay. Although increasing the basic salary for the nurse is difficult as they are civil servants, improved benefit packages are often used as effective incentives in other countries. Are there particular benefits that are especially valuable for you? You mentioned uniform provision, housing and transport. What else can you think of?

P: Working conditions because us as nurses pay our medical fees. Us we are workers. Why should we pay?

I: When you had an accident on your back, did they ever pay for you?

P: They paid for me at the mining hospital yes.

I: Did you get any compensation?

P: Compensation? They refused.

I: How come?

P: They said she is a nurse she is not supposed to.....That is not in our condition paper.

I: But it happened when you were on duty?

P: Yes, I was on duty. If I had refused that patient died. I put myself in that boot of the patient. Even if I am not a porter because there are some porters who were supposed to lift the patient for sure. But I did it from my own heart, just to serve those patients but here I am now. They can't feel for me. It's really bad.

I: If it happened in other countries?

P: They could have compensated me. Yes, yes, even taking me out of the country where I can be fit again. So now they are just telling me to reduce the weight so that this problem is not giving me (laughter).

I: Okay, you've been very helpful. Are there any thoughts or feelings you'd like to share with me before finishing this interview?

P: No other things, it's jus eh...eh. I can say that let's hope as you have come with the interest, let's hope things will change. I'd like that to happen and you can just put us in player with our government or if you emphasize to the health departments with our health leaders to emphasize our cry for all the benefits, the better the better, because in our country people have lost interest with going to this, even if something has come up at the hospital so I doubt, I don't know maybe they'll come in numbers but you know we have now lost interest because whatever comes in nothing fruitful is coming up next.

I: Alright

P: Yes, you can come today and interview us, you do A,B,C,D but you go and go for good no communication, nothing comes up. So next time when somebody come, no they want to hear your problems we won't come because nothing fruitful is coming up after, you know?

Even where our friends are going, they are saying all the civil servants in countries where we are going civil servants are nicely paid than these white jobs, people in these offices, because they know that this is health they are looking after life of people so they pump in a lot, they give them a lot but our country, I don't know. We have tried to cry in many languages nothing. So people are not even saying ABCD after getting all the papers even go for advancement from Enrolled Nurse, you go to RN and from RNs to Midwifery. From Midwifery, you just go quietly out of the country. You see, now the Government is losing a lot after educating you they just remain like that looking for other nurses again after. Instead nurses can be, I don't know, like flowers but if you in the ward you find nothing and those nurses who we have home, they are panicking themselves working maybe double shift but the hospital is supposed to pay other shifts. But instead of paying there and then, they are paid maybe two or three months later, you see after straining themselves there is totally no motivation, just frustrations. You find how nurses are dressed like, me who can know that I am a nurse. I've got no cap only this white thing, if I remove my pen and my scissors, nothing. Those days we used to put on a chain, all the badges, cap, white shoes. Just from far people could recognize "Oh, that is a nurse", giving all the respects. Even if there is a shortage of a commodity in

a certain shop, if a nurse is there, you do not have to queue. You just go. Respect that one, she is a nurse, that's a policeman because of our uniforms. But these days you find a nurse is queuing for something, that respect has finished. They can find you on the road going, moving from town to the place just walking. Nobody can give you transport or a ride to this place. From there footing up to this place. But sometime back not even a government vehicle moving, "Sister come come. You will be late. Let's go. I'll drop you there." But now even someone who is selling vegetables can even insult you, "Who are you? I can even give you my salary; double my salary nurses, nurses who are no even. We have lost that respect. Because they know that what we get is nothing. Someone who is selling tomatoes can even feed you. You can even go and beg tomatoes, beg for some fishes, beg for something. We have now turned to beggars. If your neighbour is selling fish, you go and beg. "Please give me some fishes. I will give you the money when I get paid." Tomorrow you go and beg from there. So we have lost that respect because now we are beggars. We are not workers, you see. People prefer even to go to the surgeries instead of coming to the hospital. Yes they go to surgeries.

I: Why is it like that?

P: Because they know the situation in the hospital. They know now how we work because we work under frustration and things are not going smoothly and you cannot look after patients. Now they think the hospital is somewhere to go and die, which is bad. They are extending the mortuaries instead of doing something. So people in the village where they say now the hospital is somewhere to go and die.

I: Really, that's what it is called?

P: So what is making that? Now we have lost our respect. Sometime back if a nurse is passing, when I just started nursing even my neighbours used to say "Sister tomorrow I will come to the hospital, what is A.B.C.D?" I think I'll just follow you, because the hospital is somewhere where you can get well. But these days they can even go to the private thing they can get well more than what they get from the hospital.

I: So, people now see the hospital as a place where they die?

P: Yes, a mortuary because even when they come here maybe the doctor will come after an hour. Somebody will maybe die on the stretcher without even seeing the doctor without even the nurse to attend to that patient. What is that, our country? Now those people who go to South Africa for medication, they can't feel for those people who are dying just like that. They have got money, even manage to go to South Africa, but what about those poor people who can't manage? What are they going to do? That's why we are saying we can't all go to South Africa or America to other countries. Some of us have to remain here and look for our people. Maybe one day God will answer our prayers, because we can't migrate all of us. God has an appointed time for everyone. Maybe you people, well-wishers will do something for us.

I: I really do hope so.

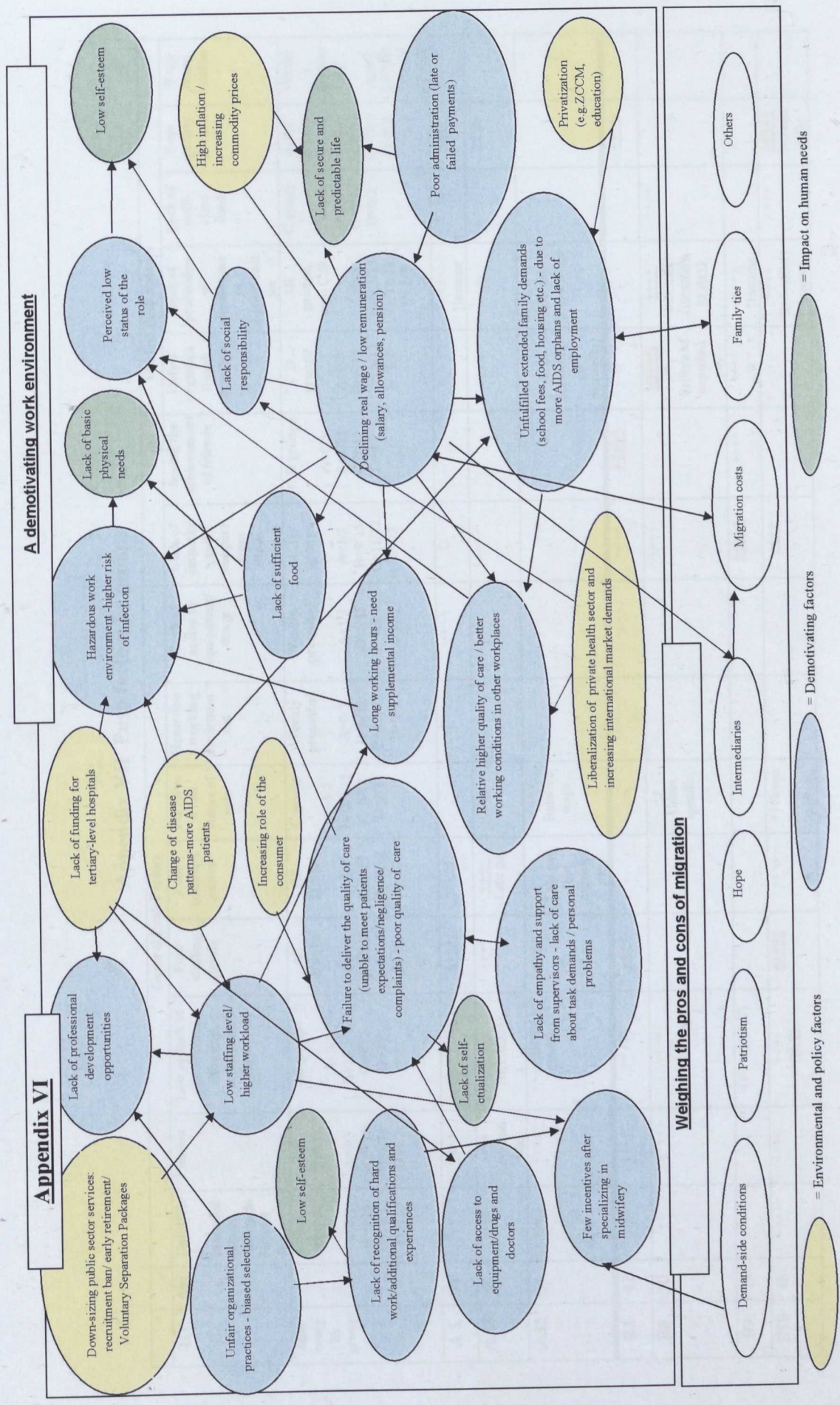
P: We hope so ah. Ah it's so bad even if we had that nursing care where you sit with the patient maybe the patient can get well because of reassuring. But you are seeing the patient dying without even talking to the patient. I have got to talk to this one, you have to talk to the other one, you have no time. The patient will just die like that. Now nursing has changed, medicine has changed. Now the hospital is not the place where to get well. It's just a place to go and die. You see, you can't find all the medicine there. Most of the medicine you just go and buy. If you don't have money you just go and die just like that.

I: What about the district hospital. Do you know anything about the district hospital? Do you find any difference from Hospital A?

P: District hospitals at least because they just deal with ambulant people. They see the patients, if they are bad they refer them to the hospital and they move place to place seeing their patients especially those HIV/AIDS patients they even move from house to house. They are people counsellors going around. So, us we are the people who got that burdens we are the people looking after the patients who are bedridden who are doing A,B,C,D. So the load is on us. That heavy duty is on us.

I: Thank you very much it's really been a pleasure.

P: I have really taken long.



Appendix VII Push factors by groups

ID	Age	General Push Factors										Critical Push Factors					
		Unfulfilled extended family demands (school fees)	Pension	Low or lack of allowances (housing, transport, uniform, tea)	Poor staffing levels	Poor administration	Perceived low status of role	Hazardous working environment	Lack of access to equipment/drugs	Lack of empathy and support from supervisors	Seeing the achievement of friends	Unfair organizational practice	Lack of professional development opportunities	Lack of sufficient food	Poor quality of care	Wage compression	
Summary by group		All groups A=3/3 B=9/15 C=10/12 D=2/2	A,B groups A=3/3 B=9/15 C=5/12 D=1/2	All groups A=3/3 B=13,5/15 C=9/12 D=2/2	All groups A=3/3 B=11/15 C=9,5/12 D=1/2	All groups A=3/3 B=9/15 C=10/12 D=1/2	C group A=1/3 B=2,5/15 C=6/12 D=1/2	Weakly presented A=0/3 B=6/15 C=4,5/12 D=0/2	C,D groups A=1/3 B=9/15 C=11/12 D=1/2	C,D groups A=0/3 B=5/15 C=7/12 D=2/2	C,D groups A=0/3 B=6/15 C=6,5/12 D=1/2	All groups, esp. C,D A=2/3 B=9,5/15 C=11/12 D=2/2	C group A=1/3 B=6/15 C=9/12 D=0/2	A,B,C groups A=2/3 B=8/15 C=7/12 D=0/2	Weakly presented A=0/3 B=2/15 C=3/12 D=0/2		
A 1	54	++++	++++	++++(H)	++++	++++	++++	++++	□	++++	++++	++++	++++	++++	++++		
A 15	46	++++	++++	++++, (H,T,U,tea)	++++	++++ Late pay	++++	++++	++++	++++	++++	++++	++++	++++	++++		
A 32	54	++++	++++	++++ (H,T,U, travel)	++++	++++ Late pay not expected pay	++++	++++	++++	++++	++++	++++	++++	++++	++++		
B 3	42	++++	++++ Low	++ (T)	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++		
B 8	30	++	++++	++++ (T)	++++	++ Urban specific	++++	++++	++++	++++	++++	++++	++++	++++	++++		
B 9	43	++++	++++	++++ (H,T,U)	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++		
B 10	48	++++	++++	++++ (H,T)	++++	++++ Housing, uniform,	++++	++++	++++	++++	++++	++++	++++	++++	++++ Reasons for		

B12	38					++++ (H,U)						++++							quitting bedside nurses to the nursing school	++++		
B13	35	++++	++++	++++ (H,T)	++++	Late pay	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++		
B14	33		++++	++++ (T,U)	++++	Late pay	++++*	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	
B16	25	++++	++++	++++ (H,T,U)	++++	Late pay	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	
B17	30	++++	++++	++++ (H,T)	++++	Late pay	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	
B20	37	++++	++++	++++ (H,T)	++++*	Late pay	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++*	++++ (Labour ward)
B22	54	++++	++++	++++ (T)	++++	Late pay	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
B23	36			++++ (H,U)	++++*		++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
B24	28			++++ (T, tea)	++++		++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
B25	30	++++	++++	++++	++++		++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
B26	27	++++	++++	++++ (H,T)	++++		++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
C2	43	++++	++++	++++	++++		++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++

C4	39	++++	++	(H,T,U, tea)	++++	Late pay	Civil servants	++	++++	++++*	++++	Miss- assessment of performance. W	++++	↑Income+↑ knowledge	++++		
C6	40	++++		(H,T,U, tea) (H,T,U)	++++ ++	Housing Housing	++ ++	++ ++	++++ ++++*	++++* Personal problems ++++*	++++ ++++*	++++ ++++*	++++ EN→RN	++++ EN→RN	++++		
C7	45	++++	++++	(H,T,U)	++++	Late pay			++++	++++*	++++*	++++	↑Income+↑ Knowledge	++++	++++		
C11	34		++	(H,T,U)	++++	Late pay			++++	++++*	++++*	++++	↑Income+↑ Knowledge	++++	++++		
C18	32	++++	++++	(H,T,tea) Housing-migration	++++	Late pay	++++	Relative wage	++++	++++	++++	++++	↑ Knowledge youth	++++	++++	++++*	No difference: RN, RM) and ward management)
C21	48	++++	++++	(H,T,U)	++++	Late pay	++++	Relative wage	++++	++++*	Trying not to contact them	++++	↑Income+↑ Knowledge	++++	++++	++++	
C27	38	++++	++++	(H,T,U,tea)	++++	Late pay			++	++++	Stop work hard (personal problem) Labour day award	++	↑ upgrading	++++	++++		
C28	35	++++	++++	(H,T)	++++	Late pay	++++	Relative wage	++++	++++*	++++*	++++	↑Income+↑ Knowledge	++++	++++	++++*	Theatre nurse
C29	26	++++	++++	Setting	++++	Late pay	++++		++	++++*	++++*	++++	↑Income+↑ Knowledge	++++	++++	++++	

C30	27	++++					++++	++++								++++				++++	
C31	34						++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
D19	34	++++					++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++
D35	44	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++	++++

++++* Critical incident for deciding to leave, ++++ Strongly present, +++ Present, ++ Weakly present, □ Deviant case

Appendix VIII Interviewees' information by four groups

ID	Title/cadre of respondent	Department	Age	Sex	Marital status	Number of dependants
A 1	Client Relations Officer/EN	Public Relations Unit	54	F	Widow breadwinner	13(4 biological + 9 adopted children)
A 15	Ward Manager/RN, RM	High-cost Department	46	F	Married	9 (3 biological + 6 adopted children)
A32	Nursing Service Manager/RN, RM, Diploma in management	Administration	54	F	Married	6 (3 biological children + nephew + 2 nieces)
B3	Nursing Sister/RN, RM	High-cost (male) ward	42	F	Married	3 (biological children)
B8	RN	High-cost ward/ Outpatients Department	30	F	Married	1 (young sister)
B9	EN	Paediatrics Department	43	F	Widow breadwinner	7 (3 biological + 4 adopted children)
B10	Clinical Instructor/RN, RM	School of Nursing	48	F	Married	5 (4 biological + 1 adopted child)
B12	RN	Intensive Care Unit	38	F	Married	5 (2 biological children + 3 nephews & nieces)
B13	RTN	Theatre Department	35	F	Married	6 (3 biological children + 3 nieces)
B14	Acting Ward Manager/ RN, RM	Paediatrics Department	33	F	Married	4 (2 biological children + sister + niece)
B16	RN	Paediatrics Department	25	F	Single	None (but supposed to look after young brother and sisters.)
B17	RN	Paediatrics Department	30	F	Married	6 (1 biological child + 4 brothers + mother)
B20	Clinical Instructor/RN, RM	School of Nursing	37	M	Married, breadwinner	7 (4 biological children + 3 other dependants)
B22	EM	Obstetrics & Gynaecology Department	54	F	Married breadwinner	10 (7 biological children + 3 other dependants)
B23	RN	Outpatients Department	36	F	Married	3 (2 biological children + niece)
B24	RN	Medicine Department (low-cost female ward)	28	F	Married	6 (biological child + 2 brothers + 2 nephews + niece)
B25	Acting Sister in Charge/RN	Outpatients Department	30	F	Married	4 (2 biological children + niece + brother-in-law)

B26	RN	Medicine Department (female ward)	27	M	Single	1 (biological child)
C2	Infection Control Manager/RN	Infection Prevention & Control Unit	43	F	Widow, breadwinner	3 (biological children)
C4	RN	Operating Theatre	39	F	Married, breadwinner (unemployed husband)	7 (2 biological + 2 adopted children + young sister + husband)
C6	Infection Control Nurse / EN	Infection Prevention & Control Unit	40	F	Divorced, breadwinner	6 (2 biological + 4 adopted children)
C7	EN	Paediatrics Department	45	F	Widow, breadwinner	8 (5 biological + 3 adopted children)
C11	RN	Theatre Department	34	F	Married	2 (sister + brother-in-law)
C18	RM	Obstetrics & Gynaecology Department	32	F	Married	5 (2 biological children + 3 young brothers)
C21	EN	Paediatrics Department	48	F	Married, breadwinner (unemployed husband)	11 (5 biological + 4 adopted children + grandchild + husband)
C27	RN	Medicine Department (male ward)	38	F	Married, breadwinner (unemployed husband)	9 (3 biological children + 5 nieces and nephews + husband)
C28	RTN	Theatre Department	35	F	Widow, breadwinner	3 (2 biological children + dependant)
C29	RN	Surgery Department	26	F	Married	3 (biological child + 2 dependants)
C30	RN	Intensive Care Unit	27	F	Married	9 (biological child + 8 sisters and brothers)
C31	RM	Gynaecology, Medical, Surgical female high-cost ward	34	F	Single	4 (3 young brothers and sister + niece)
D19	EN	Paediatrics Department	34	M	Married	1 (brother-in-law)
D35	Ward Manager/RN, RM	High-cost Paediatrics Ward	44	F	Married	3 (biological children)

Appendix IX Stick factors by groups

ID	Title/cadre of respondent	Department	Age	Sex	Marital Status	Number of dependants	Stick factors
A 1	Client Relations Officer/EN	Public Relations Unit	54	F	<u>Widow, breadwinner</u>	13 (4 biological + 9 adopted children)	<ul style="list-style-type: none"> Strong patriotism**** (21-22) Her personal character Strong family ties (79-86) Close to retirement age (77-79) Letter of appreciation from patients and management (185-195) Promotion Love of the work (29-40) Husband's job related to mining
A 15	Ward Manager/RN,R M	High-cost Department	46	F	Married	9 (3 biological + 6 adopted children)	<ul style="list-style-type: none"> Close to retirement age Already experienced UK life (361-373) Family ties, husband's job – MD for miners (always follows her husband's posting 375-377)
A32	Nursing Service Manager/RN, RM, Dip. Management	Administration	54	F	Married	6 (3 biological children + nephew + 2 nieces)	<ul style="list-style-type: none"> Close to retirement age Already experienced UK life (361-373) Family ties, husband's job – MD for miners (always follows her husband's posting 375-377)
Stick Factors							
B3	Nursing Sister/RN,RM	High-cost (male) ward	42	F	Married	3 (biological children)	<ul style="list-style-type: none"> Age of children (prevented migration before, but now they are old enough – 9 and 18 years-old) Family constraints (taking care of father) No children yet Midwifery training
B8	RN	High-cost ward/ Outpatients Department	30	F	Married	1 (young sister)	<ul style="list-style-type: none"> Hope Looking after parents Patriotism****
B9	EN	Paediatrics Department	43	F	<u>Widow, breadwinner</u>	7 (3 biological + 4 adopted children)	<ul style="list-style-type: none"> Hope Looking after parents Patriotism****
B10	Clinical Instructor/RN, RM	School of Nursing	48	F	Married	5 (4 biological + adopted child)	<ul style="list-style-type: none"> Hope Job security Patriotism****
B12	RN	Intensive Care Unit	38	F	Married	5 (2 biological children)	<ul style="list-style-type: none"> Age of children (too young to adjust to foreign culture)

B13	RTN	Theatre Department	35	F	Married	+ 3 nephews & nieces)	<ul style="list-style-type: none"> Family ties (husband (MD) does not want to lose his position in Zambia) Knows situation in the UK "Still there is choices" (144) Patriotism** Age of children Higher salary of husband
B14	Acting Ward Manager/ RN, RM	Paediatrics Department	33	F	Married	4 (2 biological children + sister + niece)	<ul style="list-style-type: none"> Family ties, Ages of children (cannot live separately from the family) Hope
B16	RN	Paediatrics Department	25	F	Single	None (but supposed to look after young brother and sisters.)	<ul style="list-style-type: none"> High cost of adaptation period Midwifery course Not enough experience to work outside (at least 2 years needed) Patriotism**
B17	RN	Paediatrics Department	30	F	Married	6 (biological child + 4 brothers + mother)	<ul style="list-style-type: none"> Hope Ages of children (too young)
B20	Clinical Instructor/RN, RM	School of Nursing	37	M	Married, breadwinner	7 (4 biological children + 3 other dependants)	<ul style="list-style-type: none"> Hope Patriotism****
B22	EM	Obstetrics & Gynaecology Department	54	F	Married, breadwinner	10 (7 biological children + 3 other dependants)	<ul style="list-style-type: none"> Unable to find someone to look after the extended family (including financial costs)
B23	RN	Outpatients Department	36	F	Married	3 (2 biological children + niece)	<ul style="list-style-type: none"> Ages of children Migration costs
B24	RN	Medicine Department (low-cost female ward)	28	F	Married	6 (biological child + 2 brothers + 2 nephews + niece)	<ul style="list-style-type: none"> Formal training opportunities (advanced nursing) with job security
B25	Acting Sister in Charge/RN	Outpatients Department	30	F	Married	4 (2 biological children + niece+ brother-in-law)	<ul style="list-style-type: none"> Improve knowledge and skills
B26	RN	Medicine Department (female ward)	27	M	Single	1 (biological child)	<ul style="list-style-type: none"> Sponsored formal training with job security Patriotism****

										Stick factors (Barriers)
C2	Infection Control Manager/RN	Infection Prevention & Control Unit	43	F	Widow, breadwinner	3 (biological children)				<ul style="list-style-type: none"> Lack of migration costs Ages of children Fair response of ED – critical incidence Patriotism**
C4	RN	Operating Theatre	39	F	Married, breadwinner (unemployed husband)	7(2 biological + 2 adopted children + young sister + husband)				<ul style="list-style-type: none"> Lack of reliable recruitment agents Lack of migration costs Hope Patriotism**
C6	Infection Control Nurse /EN	Infection Prevention & Control Unit	40	F	Divorced, breadwinner	6 (2 biological + 4 adopted children)				<ul style="list-style-type: none"> No migration costs No recruitment agents Government-funded accommodation
C7	EN	Paediatrics Department	45	F	Widow, breadwinner	8 (5 biological + 3 adopted children)				<ul style="list-style-type: none"> Failure to leave during VSP exercises – costs Too many extended family cannot be left – (including financial costs)
C11	RN	Theatre Department	34	F	Married	2 (sister + brother-in-law)				<ul style="list-style-type: none"> Failing to pay recruitment agents
C18	RM	Obstetrics & Gynaecology Department	32	F	Married	5 (2 biological children + 3 young brothers)				<ul style="list-style-type: none"> Failing to pay registration fees (NMC) Family tie (preference for Botswana)
C21	EN	Paediatrics Department	48	F	Married, breadwinner (unemployed husband)	11 (5 biological + 4 adopted children + grandchild + husband)				<ul style="list-style-type: none"> Government-funded accommodation (340) Lack of availability of people to look after family members (including financial costs)
C27	RN	Medicine Department (male ward)	38	F	Married, breadwinner (unemployed husband)	9 (3 biological children + 5 nieces & nephews + husband)				<ul style="list-style-type: none"> Demand side – lack of information on vacancies Failure to pay registration fees for NMC Lack of reliable recruitment agents
C28	RTN	Theatre Department	35	F	Widow, breadwinner	3 (2 biological children + 1 dependant)				<ul style="list-style-type: none"> Lack of migration costs Not reliable agents Emotionally unstable children cannot be left behind (155-161)
C29	RN	Surgery Department	26	F	Married	3 (biological child + 2 dependants)				<ul style="list-style-type: none"> Patriotism** Demand side – Lack of vacancy in the private sector

C30	RN	Intensive Care Unit	27	F	Married	9 (biological child + 8 sisters & brothers)	<ul style="list-style-type: none"> • Lack of experience (2 years) • Patriotism** • No migration costs • Patriotism**
C31	RM	Gynaecology, Medical, Surgical female high-cost ward	34	F	Single	4 (3 young brothers and sister + niece)	<ul style="list-style-type: none"> • Demand side – lack of vacancies in private sector • Recruitment agents: high commission fees • Failure to pay adaptation course
D19	EN	Paediatrics Department	34	M	Married	1 (brother-in-law)	<p>Rural → urban (more informal or formal training opportunities) Private → public (job security from permanent contract)</p> <ul style="list-style-type: none"> • Saving migration costs for agents • Waiting for vacancy • Patriotism**
D35	Ward Manager/RN, RM	High-cost Paediatrics ward	44	F	Married	3 (biological children)	<ul style="list-style-type: none"> • Patriotism**

Patriotism, Family constraints, Formal training opportunities, Migration costs, Hope, Demand-side conditions

Appendix X Motivation, President Kaunda's era and Dr A's management by groups

ID	Motivation	Kaunda	Dr Bola's management technique	Years at Kitwe Central Hospital
A 1	Love for work	XXXX access to essential drugs and equipment	XXXX Empathetic management, top-up, recognition of good work	13
15	Interaction with patients		XXXX Tea & sugar, top-up	25
32	Good staffing, timely pay, strong currency	XXXX	XXXX Transportation, top-up	13
B 3	Love for work		XX Top-up	21
8				2
9	Supportive Sister-in-Charge	XXXXX Respect		18
10	Lots of work			3
12			XX	12
13				12
14	Lots of work + support from supervisor			7
16	Bonus			0.5
17	Love for work			6
20	Love for work			12
22	Love for work		XXXX Empathetic management, recognition of hard work, supportive supervision	29
23	Lots of work			9
24	Housing allowance			1

	25					3.5
	26					2
C	2	Recognition of good work by supervisor Token of thanks by patients	XXXXX Timely pay, strong currency, sugar & tea, enough time for nursing, responsive government	XX Mid-month top-up		15
	4			XXXXX Praise for good work, workshops, tea for each ward		15
	6			XXXXX Tea, top-up		17
	7			XXXXX, Mid-month top-up, workshops		13
	11	High quality of care		XXXXX Top-up		7
	18	Love for work		XXXXX Top-up, night meal (Nshima) and tea, free access to the management,		12
	21	Fair and supportive supervision				25
	27	Quality of care				11
	28	Lots of work				9
	29					8 months
	30	Love for work				4
	31	Quality of care				10
D	19	Training				3
	35	Love for work		XXXXX Top-up, seminars		19

**LONDON SCHOOL OF HYGIENE
& TROPICAL MEDICINE**

ETHICS COMMITTEE

APPROVAL FORM

Application number: 2068



Name of Principal Investigator **Naomi Toyoshi-Hamada**

Department **Public Health and Policy**

Head of Department **Professor Gill Walt**

Title **Public health workers' incentives in Zambia.**

Approval of this study is granted by the Committee.

Chair
Professor Tom Meade *T. W. Meade*

Date *21 December 2004*

Approval is dependent on local ethical approval having been received.

Any subsequent changes to the consent form must be re-submitted to the Committee.



THE UNIVERSITY OF ZAMBIA

RESEARCH ETHICS COMMITTEE

Telephone: 260-1-256067
Telegrams: UNZA, LUSAKA
Telex: UNZALU ZA 44370
Fax: + 260-1-250753
E-mail: unzarec@zamtel.zm

Ridgeway Campus
P.O. Box 50110
Lusaka, Zambia

Assurance No. FWA00000338
IRB00001131 of IOR G0000774

28 April, 2005
Ref.: 006-04-05

Ms Naomi Toyoshi-Hamada
1222/M Great East Road
SCDP Housing Complex at Chainama
P.O. Box 34383
LUSAKA

Dear Ms Toyoshi-Hamada,

RE: SUBMITTED RESEARCH PROPOSAL

The following research proposal was presented to the Research Ethics Committee expedited meeting held on 5 April, 2005 where changes were recommended. We would like to acknowledge receipt of the corrected version with clarifications. The proposal has now been approved. Congratulations!

Title of proposal: **“Public Health Workers’ incentives in Zambia”**

CONDITIONS:

- This approval is based strictly on your submitted proposal. Should there be need for you to modify or change the study design or methodology, you will need to seek clearance from the Research Ethics Committee.
- If you have need for further clarification please consult this office. Please note that it is mandatory that you submit a detailed progress report of your study to this Committee every six months and a final copy of your report at the end of the study.
- Any serious adverse events must be reported at once to this Committee.
- Please note that when your approval expires you may need to request for renewal. The request should be accompanied by a Progress Report (Progress Report Forms can be obtained from the Secretariat).

Yours sincerely,

Prof. J. T. Karashani, MB, ChB, PhD
CHAIRMAN
RESEARCH ETHICS COMMITTEE

Date of approval: 28 April, 2005

Date of expiry: 27 April, 2006

Appendix XIII Ethical approval from Ministry of Health in Zambia

All correspondence should be addressed to the
Permanent Secretary
Telephone: 253040/5
Fax: 253344



In reply please quote

No.

REPUBLIC OF ZAMBIA

MINISTRY OF HEALTH

NDEKE HOUSE
P.O.Box 30205
LUSAKA

November 2, 2004

Naomi Toyoshi-Hamada
Research Degree Student
London School of Hygiene and Tropical Medicine
Keppel Street, London, WC1E 7HT
UK

Re: Ethical Approval for the Research "Public Health Workers' incentives in Zambia"

I would like to thank you for writing to my office on the above-indicated subject. Before referring specifically to your request, allow me to briefly highlight the human resource problem in the health sector in Zambia.

Lately in Zambia, we have been recognised the human capacity constraints to achieve MDG's, especially for Health and HIV/AIDS. The Health Sector Mid Term Review undertaken in November 2003 confirmed the Human Resource Crisis in the public health sector. To this end the Ministry of Health (MoH) has instituted a Human Resource Taskforce and embarked on fundamental review of its institutional and organisational arrangements. I wish to assert that the Ministry of Health's efforts are in line with renewed vigour in the Zambian Public Service Reform Programme (PSRP) and its Medium Term Pay Policy (MTPP).

I have to emphasise that Zambia today is highly burdened by HIV/AIDS and other killer diseases. In the recent past investors in Zambia have been keen to see the health service delivery system improve (both public and private) in order to get more value for their money. And to this end, Investors have come to realise that they can not continue to turn their back to human Resource issues.

We acknowledge that this issue can not be dealt with in isolation without tackling the public health worker incentive. Were as we all agree that we need to address the public health worker incentive, we do not have empirical evidence on what will work in the Zambian setting. We believe that research such as yours will provide us with

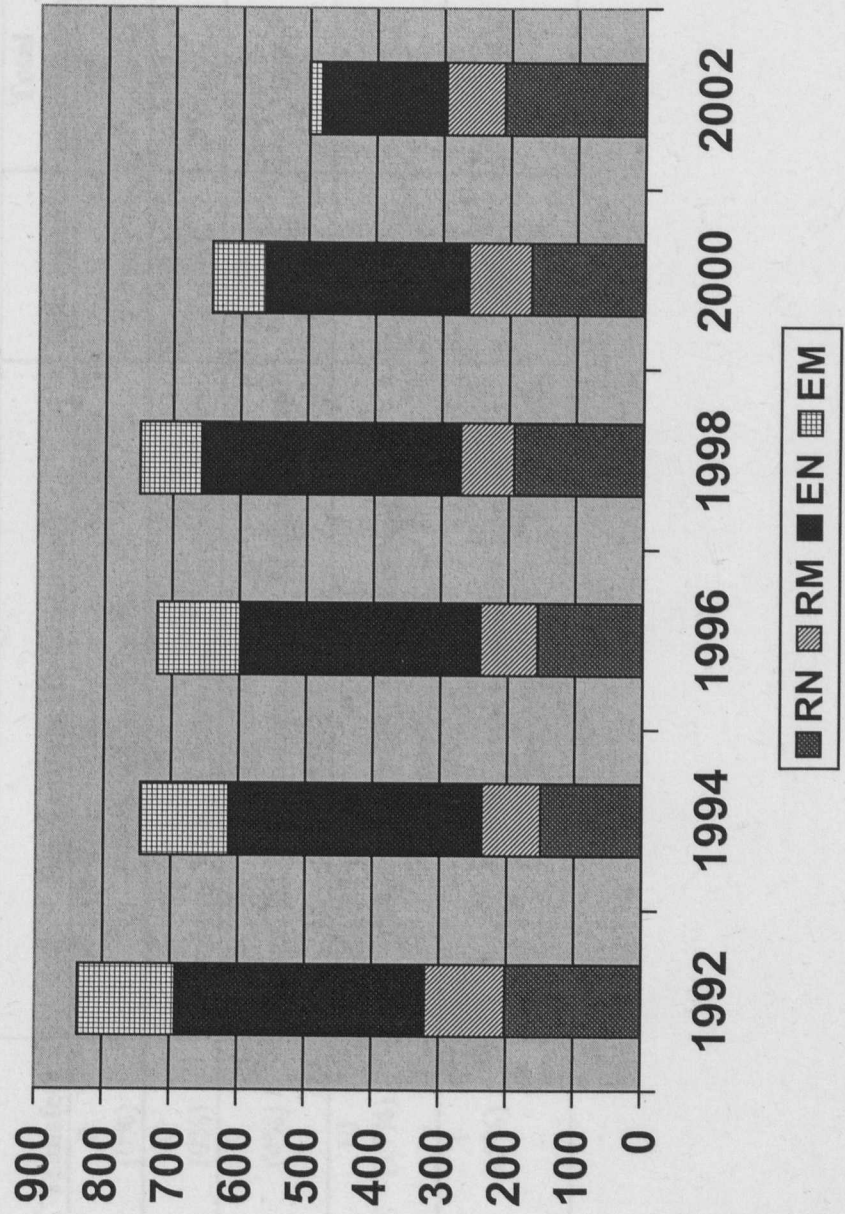
the information that will help us improve our health worker productivity. It is against this background that we find your study not only to be appropriate but also extremely very timely. Ethically, we find your study very acceptable and appropriate.

You may therefore proceed to undertake this study in Zambia as appropriate to your schedule.

A handwritten signature in black ink, consisting of a large, stylized letter 'P' with a horizontal line through it, enclosed within an oval shape.

Dr S.K. Miti
Permanent Secretary
Ministry of Health

Appendix XIV Trend of number of graduates from Zambian Nursing Schools



Appendix XV Breakdown of total nurse terminations at Hospital A

Year	Deaths	Transfers	Resignations (Destinations)	Retirements	Total terminations	Intake
2001	15 (68%)	0 (0%)	7 (Not known)(32%)	0 (0%)	22 (100%)	-
2002	4 (18%)	0 (0%)	18 (11 mines, 3 UK, 2 Botswana, 2 Namibia) (82%)	0 (0%)	22 (100%)	-
2003	8 (17%)	2 (4%)	37 (9 mines, 22 UK, 4 private, 1 New Zealand, 1 South Africa)(79%)	0 (0%)	47 (100%)	6
2004	5 (9%)	10 (17%)	41 (10 mines, 25 UK, 5 New Zealand, 1 Botswana)(71%)	2 (3%)	58 (100%)	5
2005 as at April	0 (0%)	1 (5%)	17 (1 mines, 9 UK, 5 not known, 1 Namibia, 1 army)(94%)	0 (0%)	18 (100%)	39

Appendix XVI Workload information from participants

Interview code number	Title/cadre of respondent	Department	Number of beds for each ward or department	Average number of patients in this ward	Average number of nurses in this ward per shift (RNs, ENs)	Average ratio nurse/patients	Number of assistants per shift	Total nurses on this ward including long leaves	Standard nurse/patient ratio for this ward
1	Client Relations Officer/EN	Public Relations Unit	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2	Infection Control Manager/RN	Infection Prevention & Control Unit	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3	Nursing Sister/RN, RM	Male ward (high-cost) ¹	23	15	Morning: 2 Afternoon: 2 Night Duty: 2	1:8	0	13	1:2
4	RN	Operating Theatre	-	-	Morning: 3 Afternoon: 2 Night Duty: 1	-	0	14	1:4
5	Clinical Instructor/RN, RM	School of Nursing	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6	Infection Control Nurse/EN	Infection Prevention & Control Unit	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7	EN	Paediatrics Department (low-cost)	64	50	Morning: 3 Afternoon: 3 Night Duty: 2	1:17	0	13	1:6 for RN 1:4 for EN
8	RN	High-cost ward/ Outpatients Department	3	150	Morning: 2 Afternoon: 2 Night Duty: 2	1:75	0	15	1:15
9	EN	Paediatrics	20	10	Morning: 2	1:5	0	10	1:4

¹ The hospital provides two-tier services: free-of-charge medical services on low-cost wards; fee-paying medical services on high-cost wards. Patients on high-cost wards pay KW 25 000 consultation fees and KW 200 000 admission fees for adults for up to three days plus any expenses incurred for drugs, investigation fees, meals etc.

10	Clinical Instructor/RN, RM	Department (high-cost) School of Nursing	N/A	N/A	Afternoon: 1 Night Duty: 1	N/A	N/A	N/A	N/A	N/A
11	RN	Theatre Department	N/A	-	Morning: 3 Afternoon: 2 Night Duty: 1	0	14	1:2	1:2	
12	RN	Intensive Care Unit	4	2	Morning: 1 Afternoon: 1 Night Duty: 1	0	7	1:2	1:1	
13	RTN	Theatre Department	N/A	-	Morning: 3 Afternoon: 2 Night Duty: 1	0	14	-	1:2	
14	Acting Ward Manager/ RN, RM	Paediatrics Department (low-cost)	64	50	Morning: 3 Afternoon: 3 Night Duty: 2	0	14	1:17	1:4	
15	Ward Manager/RN, RM	High-cost Department	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
16	RN	Paediatrics Department (low-cost)	64	50	Morning: 3 Afternoon: 3 Night Duty: 2	0	14	1:17	1:4	
17	RN	Paediatrics Department (high-cost)	22	10	Morning: 2 Afternoon: 1 Night Duty: 1	0	10	1:5	1:2	
18	RM	Obstetrics & Gynaecology Department (high-cost)	15	4	Morning: 2 Afternoon: 2 Night Duty: 2	0	6	1:2	1:2	
19	EN	Paediatrics Department (low-cost)	64	50	Morning: 3 Afternoon: 3 Night Duty: 2	0	14	1:17	1:4	
20	Clinical Instructor/RN, RM	School of Nursing	N/A	N/A	N/A	N/A	N/A	N/A	N/A	

21	EN	Paediatrics Department (high-cost)	20	10	Morning: 2 Afternoon: 1 Night Duty: 1	1:5	0	10	1:4
22	EM	Obstetrics & Gynaecology Department (low-cost)	29	10	Morning: 2 Afternoon: 1 Night Duty: 1	1:5	0	5	1:2
23	RN	Outpatients Department	-	500	Morning: 4 Afternoon: 3 Night Duty: 3	1:125	0	-	1:15
24	RN	Medicine Department (low-cost female ward)	61	50	Morning: 3 Afternoon: 2 Night Duty: 2	1:17	0	12	1:6 for RN 1:4 for EN
25	Acting Sister-in-Charge/RN	Outpatients Department	-	150	Morning: 4 Afternoon: 3 Night Duty: 1	1:38	0	10	1:15
26	RN	Medicine Department (female ward)	61	50	Morning: 3 Afternoon: 2 Night Duty: 2	1:17	0	12	1:4
27	RN	Medicine Department (male ward)	61	50	Morning: 3 Afternoon: 2 Night Duty: 2	1:17	0	12	1:4
28	RTN	Theatre Department	-	-	-	-	-	14	1:2
29	RN	Surgery Department	36	40 (Floor Beds)	Morning: 3 Afternoon: 2 Night Duty: 1	1:13	0	11	1:6 for RN 1:4 for EN
30	RN	Intensive Care Unit	4	2	Morning: 1 Afternoon: 1 Night Duty: 1	1:2	0	7	1:1
31	RM	Gynaecology, Medical, Surgical (female high-cost ward)	22	15	Morning: 3 Afternoon: 2 Night Duty: 2	1:5	12	12	1:4
32	Nursing Service Manager/RN, RM, Diploma in Management	Administration	N/A	N/A	N/A	N/A	N/A	N/A	N/A

33	Student Nurse	School of Nursing	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
34	Student Nurse	School of Nursing	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
35	Ward Manager/RN, RM	Paediatrics Ward (high-cost)	22	10	Morning: 2 Afternoon: 1 Night Duty: 1	-	0	10	1:2	

Appendix XVII Dissemination of results (1)

Technical Sub Regional Conference on the Global Health Workforce
Alliance and Evidence Based Human Resource Planning
– What Works Where and Why?

In conjunction with the commemoration of the World Health Day in Lusaka the 7th of April 2006 the Ministry of Health in Zambia in collaboration with WHO, GHWA, Sida and USAID invite to a Sub Regional Conference on Human Resources for Health. The conference will be held at Pamodzi Hotel in Lusaka the 4-5th of April 2006.

The Technical Sub Regional Conference on the Global Health Workforce Alliance and Evidence Based Human Resource Planning will bring together a number of international HRH experts, policy makers at different levels and other stakeholders. But first and foremost it will bring together decision makers from a number of countries in the region; people with hands on experience of HRH strategies in their respective countries. Challenges and experiences in HR planning will be discussed and commented on by HRH experts as well as global and regional stakeholders. Roles and responsibilities, best practices and success stories, as well as unexpected and unwanted effects of implemented activities will be among the topics.

The objectives of the conference are:

- Global and Regional Trends in HRH Development
- Presentation of the World Health Report
- Learning from Country Experiences – lessons from the Zambia Case
- The Way Forward – Country Leadership

The conference should give the participants an understanding of global trends in HRH, it will also give policymakers insight into how to translate evidence into practical policies, finally it will present evidence as to what seems to work in terms of HR management and planning, where does it work and why?

Tuesday 4th

- 09.00 – 10.00 **Opening Ceremony**, PS Dr S Miti, MoH Zambia.
Introduction and objective of the meeting. Chair: Dr Lincoln Chen,
GHWA and Special Envoy on HRH of the DG WHO
- 10.00 – 10.20 **Key note address**; HRH in Africa Region: the status and perspectives,
Dr Luis G Sambu, RD WHO AFRO
- 10.20– 10.40 **The World Health Report 2006**,
Mr Norbert Dreesch, Technical Officer HRH; WHO Geneva
- 10.40 – 11.00 **The GHWA; A global actor for HRH**
Dr Francis Omaswa, Executive Director GWA and Special Adviser
HRH
- 11.00 – 11.20 **The African Platform**
Dr Akpa R Gbary, Secretary, Steering Committee African HRH
Platform
- 11.20 – 11.45 **Coffee and tea**
- 11.45 – 12.00 **Introduction to topics**; Dr Francis Omaswa

Making the best of Existing Workforce,
Skill Mix Priorities
Training,
Migration,
- 13.00 – 14.00 **Lunch** (By invitation)
- 14.00 – 16.00 **Break out session**, Chair Dr Francis Omaswa
Challenges
Response
Implementation and lessons learned
- 16.00 – 16.30 **Coffee and tea break**
- 16.30 – 19.00 **Seminar on HIV and AIDS as a workplace issue in the health
sector**
(See separate program)

Wednesday 5th of April

- 09.00 – 09.15** **Recap from day one** and the objectives for day 2,
Dr Francis Omaswa
- 09.15 – 10.30** **The Zambia Case**
Chair: P Eriksson/M Kapiya
- HR Challenge in Zambia,**
Naomi Toyoshi, LSHTM and Jere Mwila MoH Zambia
- The Zambian HRH Strategic Plan**
MoH Zambia
- 10.30 – 11.00** **The role of the private sector,** the CHA HRH regional strategy,
Dr Godfey Biemba, CHAZ
- 11.00 – 11.30** **Coffee and tea**
- 11.30 – 12.00** **Country Leadership on HRH: What does it mean?**
Prof Eric Buch, Univerisy of Pretoria
- 12.00 – 13.00** **Panel debate on Global Health Initiatives and HR**
Introduction by Dr Stewart Tyson, Head of Health, DFID
Panellists;
Barbara Hughes, USAID,
Marco Gerristen RNE
Francis Omaswa, WHO
Juan Augilar, Unicef
- 13.00 – 14.00** **Lunch (By invitation)**
- 14.00 – 15.00** **The Way forward: Panel discussion**
Moderator; Tim Evans
- Panelists: Dr Simon Miti, PS MoH Zambia
 Dr Francis Omaswa, WHO Geneva
 Dr Dzingai Matumbuka, World Bank
 Prof Lincoln Chen, Harvard
 Dr Stella Anyangwes, WR WHO Zambia
 Dr Alimata Diarra-Nama, DSD WHO AFRO
- 15.00 – 15.30** **Concluding remarks,** Tim Evans, WHO

Appendix XVIII Dissemination of results (2)

The Global Healthcare Workforce: Migration, Motivation and Experiences

Wednesday 14th June 2006

**Room 364, London School of Hygiene and Tropical Medicine
Keppel Street, London WC1E 7HT**

10.00. Welcome and overview of the programme.

10.10. "Migrant nurses: motivation, integration and contribution" Dr Andrea Winkelmann-Gleed, Research Fellow, Working Lives Research Institute, London Metropolitan University.

10.30. "The experiences and career plans of nurses from South African and sub-Saharan African countries living and working in the UK: a proposed study". Jacqueline Fitzgerald, Research fellow and PhD student, Health Services Research Unit, Public Health and Policy Department, LSHTM.

10.50. "Expectations, experiences and plans of internationally-recruited nurses (IRNs) in the UK: a case study in a London Acute Trust (preliminary results)". Alvaro Alonso-Garbayo, DRPH Student, Public Health and Policy Department, LSHTM.

11.15. Discussion & coffee break.

12.00 "The image of nursing: an obstacle to increasing numbers of indigenous nurses in the Gulf?" Kasem Al-Thowini, PhD student, Health Services Research Unit, Public Health and Policy Department, LSHTM.

12.20. "The retention of doctors and nurses in Ghana: a policy report". Gabriele Fontana, MD, MSc PH from LSHTM, vice-president of Amicus onlus NGO, Italy.

12.40 "Public health workers incentives in Zambia: how to retain Zambian nurses?" Naomi Toyoshi-Hamada, Health Services Research Unit, Public Health and Policy Department, LSHTM.

1.00. "Nurse migration pathways from Jordan to the UK". Ahmed Al-Nawafleh, PhD student. School of Nursing, Nottingham University.

1.30. Lunch.

2.00. Further discussion.

3.00. Close.

THEME: **MIGRATION**

TITLE: **PUBLIC HEALTH WORKERS INCENTIVES IN ZAMBIA: HOW TO RETAIN ZAMBIAN NURSES?**

TIME & LOCATION: WEDNESDAY 7 JUNE - FRIDAY 9 JUNE 2006 IN THE ARC

PRESENTER/AUTHOR: **NAOMI TOYOSHI, UNITED KINGDOM**

ABSTRACT

In Africa, attrition of civil servants including health workers has reached critical rates in recent years. However, many countries have implemented incentive programs without an empirical base to guide their choice of intervention. Facing the recent problem of exodus of health workers in African countries, a need to investigate their perception stimulated this study.

This research explores the perceptions and underpinnings of Zambian nurses migration in order to create effective incentives for retaining them within the public sector, especially in rural areas. Qualitative methods using the framework of agency theory and motivation theories were used, including interviews with nurses working at a public hospital which has the highest turnover rates in Zambia in recent years.

This research finds various de-motivating factors to work at the public hospital. This includes unattractive remuneration and working conditions, less opportunities for professional development, failure of achievement, lack of recognition of hard work, unfair management practice, unfulfilling demands of extended family, lack of respect from the society and malfunctioning administration.

Intention to leave does not necessary mean actual leaving. In addition to these de-motivating factors, this study investigates the migration conditions which play critical facilitating or hindering factors for migration. Facilitators include the role of recruitment agents, implications of returned nurses from overseas, the employment status of the partner and early retirement packages. Migration costs, patriotism and family components, such as distance to the family, age of children hinder nurses them to migrate. Perceptions regarding other working places such as private clinics are also investigated. Identifying these factors are critical in investigating what kind of components are taken consideration in their decision making process of migration.

Zambian nurses weigh the foreign wages of nurses with various factors. Even if they are frustrated, they cannot leave the country if migration conditions are met. This study demonstrates complex factors and mechanism influencing nurses to leave the public hospital from nurses perspectives.

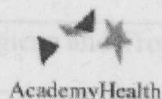
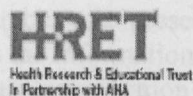
KEYWORDS:

INCENTIVE, MOTIVATION, MIGRATION, NURSES, AFRICA, HUMAN RESOURCE

WORLD HEALTH ORGANIZATION COLLABORATING CENTRE (WHOCC) FOR NURSING & MIDWIFERY DEVELOPMENT POSTER DISPLAY

As well as the posters presenters, we have included for your interest the posters of our WHO Collaborating Centres depicting their work in pursuit of the WHO goal of "Health For All". These posters were prepared for the biennial Global Network of WHOCC General Business meeting which took place on 5th and 6th June 2006. A flyer giving general information relating to the Global Network has been included in your conference pack.

Appendix XX Dissemination of results (4)



January 17, 2007

Naomi Toyoshi-Hamada:

On behalf of the scientific committee we are delighted to formally confirm your participation as a presenter at the International Health Workforce conference. The conference will be held March 22-23, 2007 in Geneva, Switzerland.

The conference, *A Call to Action: Ensuring Global Human Resources for Health* will bring together a broad spectrum of health care disciplines and organizations that are both experiencing and contributing to the global shortage of health care workers. With a multidisciplinary focus and convening of global stakeholders, this meeting will stimulate discussion and help identify the action steps that can be taken based on evidence, to build, retain, and sustain a workforce. While much has been written about shortages of doctors and nurses, this conference will mark the first time that the discussion will acknowledge the role of hospitals and other providers in solving the workforce problem.

The format of the conference is designed to take advantage of the growing interest in this issue across the globe. It will include plenary keynotes as well as six parallel sessions per day, poster sessions, and topic-specific discussion groups. The discussion groups will provide a voice for the conference attendees. These facilitated sessions will allow for interactive discussion among the attendees for sharing the latest research, experiences and practices. The discussions will be synthesized and presented to the entire conference in plenary session at the end of the meeting.

Presentation Information:

Parallel sessions will be 90 minutes each. *Please come prepared to present for 15 minutes 20 minutes maximum*, this will depend on your specific panel. Some panels have more speakers and we ask each presenter to be respectful of fellow panel presenters when preparing their presentation. Please click here <http://www.hret.org/hret/publications/intprogram.html> to view the full conference brochure. We want to allow time at the end of each session for questions

and answers. Additional requirements for your powerpoint presentation: font type minimum of 16 points, text should be in a dark font, background should be light to highlight the text and lastly number your presentation slides.

Below is the information for your parallel session. Please verify your information (name, credentials, organization), if you have any changes or additions please notify me immediately at (312) 422-2635 as this is the information we will be using in all our printed documents.

Your Information	Naomi Toyoshi-Hamada, London School of Hygiene and Tropical Medicine
Presentation Title	Zambian Public Sector Nurses Incentives And Motivation In The Context Of The Migration: How To Retain Zambian Nurses?
Date	Thursday, March 22, 2007
Time	4:00pm – 5:30pm
Track Title	The Role of Foreign Aid and Government

There are several attachments to this letter. They include:

1. Preparation checklist
2. Faculty disclosure statement and quality guarantee. This document describes our mutual responsibilities as sponsor and faculty for the conference.
3. Audio/visual equipment and travel, speaker information form.
4. Logistical information sheet

In addition we would like to compile a bibliography from the conference as a reference tool for conference attendees. If you would like, please send 2-3 citations to be included in the bibliography in addition to what you will be presenting at the conference.

We look forward to working with you on this exciting educational program and appreciate your efforts to ensure that it is a great success. Please contact me with any questions.

All materials must be returned by February 9 to Debbie Pierce via fax at (312) 422-4568 or (312) 422-4566 or via e-mail dpierce@aha.org. If you need to mail any materials please use the following mailing address:

Debbie Pierce
HRET
One North Franklin, 30th Floor
Chicago, IL 60606 USA

Best Regards,
Debbie Pierce, Project Manager