UNIVERSITY OF CAPE COAST

EFFECTIVENESS OF MEASURES AIMED AT CURBING BRAIN DRAIN OF NURSES IN THE ASHANTI REGION

BY

MARGARET MARY ALACOQUE DAPILAH

Dissertation submitted to the Institute for Educational Planning and Administration, Faculty of Education of the University of Cape Coast, in partial fulfilment of the requirements for award of Master of Education degree in Educational Administration.

FEBRUARY 2011

DECLARATION

Candidate's Declaration

I hereby declare that this dissertation is the result of my own original research and that no part of it has been presented for another degree in this university or elsewhere.

Candidate's Signature…… Date: ……

Name: Margaret Mary Alacoque Dapilah

Supervisor's Declaration

I hereby declare that the preparation and presentation of the dissertation were supervised in accordance with the guidelines on supervision of dissertation laid down by the University of Cape Coast.

Supervisor's Signature…… Date: ……

Name: Dr. A.L. Dare

ABSTRACT

The main objective of the study was to assess the effectiveness of measures aimed at curbing the brain drain of nurses. The descriptive survey method was used, and a sample of 150 respondents was drawn from the four sub-metropolitan hospitals in Kumasi namely; South Suntresu Hospital, Tafo Government Hospital, Manhyia Hospital, and Kumasi South Hospital (Chirapatere).

The study revealed that 5 out of the 7 incentive interventions that were implemented by the government to curb the brain drain of nurses are effective. Notwithstanding this achievement, majority of the respondents, 68(51.5%) still expressed their desire to work outside Ghana. Only (44(33.3%) of respondents would like to work for mother Ghana no matter the circumstances. The other 20(15.1%) were not yet decided.

Among a list of reasons why nurses travelled to work abroad, respondents ranked ordered dissatisfaction with remuneration as an outstanding reason why nurses migrate from Ghana to work in other countries. Second and third on the list were intentions for further studies and to learn new skills.

Since some nurses in Kumasi were not satisfied with the incentive packages aimed at curbing the brain, restrategization of policy interventions could be effective in stemming the brain drain; For instance, an option is the registrion of migrant nurses and signing an agreement with receiving countries to repatriate an agreed percentage of the nurses' earnings to Ghana. Such money could be used to increase the level of incentives for nurses who remain to work in Ghana.

ACKNOWLEDGEMENTS

My major compliments go to Dr Albert L Dare, my supervisor, who was ever ready to read, critique, and make suggestions on this study. Indeed, but for his scholarly guidance this dissertation would not have been at this level.

I offer my sincere acknowledgements to the hospital management teams of South Suntresu Hospital, Tafo government Hospital, Manhyia Hospital, and Kumasi South Hospital (Chirapatere), and the principal of Komfo Anokye Nursing and Midwifery Training School for giving me access to their institutions for this academic exercise. To the respondents, I wish you God's blessings for accepting to be involved in the study despite your tight schedules.

Many thanks to my husband (Mr. Anthony Sienkaah) and my children; McAnthony, Michael and Maxwell, I am indebted to my family for the motherly vacuum that I created during the period of this programme. It has been a long winding tunnel however; the light seen at this end is a great achievement for the entire family. My colleagues; especially Mr. Joseph Labatika and Mr, Dramani Tampuori for urging me on to finish this project. Eunice and Vivian for assisting me to shape this work, I say thank you.

Finally I am grateful to everyone who contributed in diverse ways for the successful completion of this study.

DEDICATION

To my late father, Oscar Dapilah

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ACRONYMS AND ABBREVIATIONS

ADHA	-	Additional Hour Duty Allowance
BMCS	-	Budget Management Centre's
CHN	-	Community Health Nurses
CHPS	-	Community-based Health Planning Services
DM	-	Direct Midwifery
GHS	-	Ghana Health Service
GOG	-	Government of Ghana
IMF	-	International Monetary Fund
IOM	-	International Organization for Migration
MIDA	-	Migration and Development for Africa
MOH	-	Ministry of Health
MSLC	-	Middle School Leaving Certificate
MTEF	-	Medium Term Expenditure Framework
NEPAD	-	New Partnership for Africa's Development
NCHS	-	National Catholic Health Service
NHIS	-	National Health Insurance Scheme
OECD	-	Organization for Economic and Co-operation Development
POW	-	Programme of Work
RGN	-	Registered General Nurse
RMN	-	Registered Mental Nurse

SSS/GCE	-	Senior Secondary School/General Certificate Examination
SPSS	-	Scientific Package for Social Sciences
UNFPA	-	United Nations Population Fund

CHAPTER ONE

INTRODUCTION

Background to the Study

The purpose of this chapter is to introduce the problem that was studied, discuss its significance to the discipline of nursing, and suggest the contributions its findings may make to programmes that aim at circumventing the brain drain of health workers in Ghana. The problem statement, research questions, summary of the background, significance, overview of the study's methods and sampling strategies, delimitations and limitations that influenced this study are presented.

It is normally said that a healthy nation is a wealthy nation. This realization has been championed by previous government such as H.E John A. Kufour, president of the Republic of Ghana. Therefore, his vision of moving the country into middle- income status of $1000 per capita by 2015 is a wake-call to the ministry of health and other collaboration sectors. This was re-echoed by his then minister of health of blessed memory (Major (Rtd) Courage Quashigah.) In his new paradigm shift on health care, the then minister stated that a healthy, strong, intelligent and active human capital will be more productive, creating more wealth and thus increasing the Gross National Income. This puts the health sector right at the centre of economic growth: hence our vision slogan *creating wealth through health*, Quashigah (2005).

In a bid to provide impetus for realization of the former president's Vision 2015 the MOH has undergone several reforms since the last decade as part of Ghana government's response to structural adjustment programme. Key components of the reform include:

1. Regular policy review.
2. Inauguration of five year Programme of Work (POW) in 1997. Thus POW I from 1997 to 2001, POW II from 2002 to 2006 and POW III from 2007 to 2012. The POW is a guide to the process of planning and programme implementation by Budget Management Centres (BMC) in the context of the Medium Term Expenditure Framework (MTFF).This provides a strategic framework for the realization of Government's vision and commitment for improving the health status of people living in Ghana. These strategies are targeted at reducing at inequalities and increasing access to quality health services.
3. Implementation of the National Health Insurances Scheme (NHIS) as enshrined in Act 650 in the year 2003 to replace the out-of-pocket fees at point-of-service. Thus, reducing financial barriers and increasing access to health care.
4. Other reforms include exemption policies. Creation of Community Health Programme (CHPS) compounds of which the Community Health Nurse is the front line worker and upgrading of health centers to hospital
5. The Act 525 (Ghana Health Service and Teaching Hospital Act. 1196) which creates the GHS as an executive agency responsible for health

service delivery in Ghana. Other service delivery partners are the teaching hospitals, Christian Health Association of Ghana (CHAG), quasi government health facilities and private health care providers (GHS report 2005). This report further enumerated the core objectives of the GHS as:

i. Implement approved national policies for health delivery.
ii. Increase access to improved health services.
iii. Manage prudently resources available for provision health services.

In line with the provisions in Act 525, the MOH remains responsible for the formulation of overall sectoral policy, determining national health priorities, resources mobilization, performance and policy monitoring and allocation of resources to the various health service providers (Ministry of Health, 2005). The split of MOH\GHS therefore groups health training institutions under MOH which supplies human resources to the GHS. In an effort to beef up the needed workforce, the health training institutions have been subjected to numerous reforms notable among which is upgrading of some schools to diploma-awarding institutions, creation of new schools, increased student intake and introduction of new cadre of health workers such as Health Assistants/Health Aids/Ward Aids/ Health Extension Workers (Zoom Lion nurses), Diploma in Midwifery and Community Medicine. In fact, it is now a common thing to see that every district is raising a nursing school or feverishly nursing the vision of starting one. Table I shows nursing training institutions in Ghana.

Table 1: Nursing Institutions in Ghana (2007)

Region	Location	Programme
Upper East	Bolgatanga	Registered General Nursing (RGN)
	Bolgatanga	Registered Midwifery (RM)
	Navrongo	Community Health Nursing (CHN)
Upper West	Jirapa	Registered General Nursing (RGN)
		Registered Midwifery (RM)
		Community Health Nursing (CHN)
Northern	Tamale	Registered General Nursing (RGN)
		Community Health Nursing (CHN)
Brong Ahafo	Sunyani	Community Health Nursing (CHN)
	Berekum	Registered General Nursing (RGN)
	Berekum	Registered Midwifery (RM)
	Tanoso	Community Health Nursing (CHN)
	Kintampo	Community Health Nursing (CHN)
		Medical Assistants programme
Ashanti	Kumasi	Registered General Nursing (RGN)
		Registered Midwifery (RM)
		Ear, Nose & Throat Nursing Anaesthesia
	Agogo	Registered General Nursing (RGN)
	Mampong	Registered Midwifery (RM)
	Maase-Offinso	Registered Midwifery (RM)

		B.Sc Nursing
		M.Sc. Public Health
		M.Sc. Reproductive Health
Volta	Hohoe	Community Health Nursing (CHN)
Eastern	Koforidua	Registered General Nursing (RGN)
	Nkwakaw	Registered Midwifery (RM)
	Atibie	Registered General Nursing (RGM) Post Basic
Midwifery		
	Akim Oda	Community Health Nursing (CHN)
Central	Cape Coast	Registered General Nursing (RGN) Registered
		Midwifery (RM)
	Ankaful	Registered General Nursing (RGN)
		Registered Mental Nursing (RMN)
	University of Cape Coast	B.Ed.Health Sciences Education
		B.Sc Nursing
		M A. Educational Administration
	Winneba	Community Health Nursing (CHN)
Western	Takoradi	Registered General Nursing (RGN)
		Registered Midwifery (RM)
	Esiama	Community Health Nursing (CHN)
Greater Accra	Korle-Bu	Registered General Nursing (RGN)

		Ophthalmic Nursing
		Critical Care Nursing
		Peri-operation Nursing
		Public Health Nursing
	Pantang	Registered Mental Nursing (RMN)
	37 Military Hospital	Registered General Nursing (RGN)
	Ofankor Western Hills	Registered General Nursing (RGN)
	University of Ghana	B.Sc. Nursing
		M.Sc. Public Health
		M.Phil Nursing

The government has invested so much in the health ministry. As reported in the review of GHS sector 2005 POW (Ministry of Health, 2005), there has been a substantial increase of nearly 400% in the financial resources available for health care since the beginning of the POW 11. The health sector had the third largest share of the government Budget for 2006 (after education and economic affairs). Some of this expenditure was on personal emoluments (PE) such as Additional Duty Hour Allowance (ADHA) and infrastructural development.

Overall, the health sector budget has grown beyond expectation and is well beyond the Abuja Declaration target of 15% of Government expenditure devoted to health. Shares of total GOG budget for 2006 for the health sector was 17%. It is well noted that the growing expenditure on PE has continued and is unlikely to reverse in the near future. This is largely due to ADHA which have grown from seventeen billion Cedis (¢17,000,000) when they were first introduced in 1999 to seven hundred and twenty billion Cedis (720'000'000'000) in 2005 and projected to rise to nine hundred and thirty six billion Cedis by the end of 2006. MOH/GHS Cedar Care Trust Int. in (Ministry of Health, 2005).

As deduced from the above statistics the government through the MOH has made efforts to increase both in quality and quantity of health workers especially nurses who will ensure a wealthy nation through a healthy nation. However brain drain has continued to thwart government's efforts. Records show that the health sector has a work force of about 43.000 people. The public sector employs approximately 41,000 of which 4.8% are medical doctors, 34.7% are nurses (including midwives), 3.3% are pharmacists and 57.2% are non-clinical

staff. (Ministry of Health, 2005). Table 2 shows the health sector professional staff to population ratios as at 2005 and the ratios targeted for 2010.

Table 2: Staff Population Ratio

Health Sector Professional staff	2005	Target for 2010
Doctors	1:10000	1:5000
Nurses	1:14286	1:1000
Pharmacists	1:14286	1:10000

Statement of the Problem

Health systems function effectively when they have adequate number of health workers with the requisite skills, properly motivated and in the right locations. However, the key problem facing the management of the sector's human resources is the level of demand for fine skills coming from international sources.

Efforts at curtailing emigration have included provision of car loans, enhanced salaries, housing schemes, and loans for pressing personal needs, extended houseman ship for doctors. Extended rotation for nurses and reinforced bonding with a near doubling of the bonding sum, ((Ministry of Health, 2005). Some regional health directorates such as Ashanti Regional Directorate have acquired land for individuals to put up their own houses. Again, career paths have been redefined in the nursing sector to facilitate promotion, job satisfaction and

further studies. With all these in place and some still in the mill, how can one describe brain drain? *Is it stemming or it is sterming, and pruned to glow?*

In Ghana few studies have been conducted into the causes of migration of health professionals from rural to urban areas, and also from the public to the private sector and other countries. The few studies undertaken have not boldly addressed the effectiveness of retention of health professionals in the country. It is therefore necessary to conduct further research in order to validate and come out with specific measures to retain health professional especially nurses who form the bulk of human resource of the MOH/GHS.

Purpose of the Study

The purpose of the study was to ascertain the effectiveness of measures taken to stem the brain drain of nurses in the Kumasi metropolis. In particular, the study's objectives were:

1. To examine factors that contribute to retention of nurses in Kumasi metropolis.
2. To unravel issues that militate against retention of nurses in the region.

Research Questions

The following questions were formulated to guide the study:

1. How effective are government's efforts at curbing brain drain of nurses?
2. What are the problems facing the nurses working in the Kumasi metropolis?

3. What are the factors that make nurses to migrate to other countries for the purpose of working there?
4. What does the nurse consider as motivating factors that ensure;
    a. Retention of nurses in Ghana?
    b. The return of nurses who have migrated?

Significance of the Study

In line with its aim of creating wealth through health, the government has invested so much in the health sector. Despite its efforts a topical issue is the decision of thousands of health workers who have voted with their feet and sought greener pastures elsewhere, '*rupture*' as the buzz word in Ghana. Various attractive packages have been put in place for health workers therefore; the policy makers as well as the tax payer are keen on seeing positive change in the attitude of health workers. Thus the overall aim of this study is to understand the effectiveness of measures aimed at curbing brain drain of nurses in the Ashanti region of Ghana. Findings are expected to contribute to the body of knowledge on the issue of brain drain. It will also provide useful information to the MOH on the effectiveness of the huge investment. Furthermore, it will serve as reference material for research on related topics and similar studies in other locations.

Delimitation of the Study

The study was interested in all calibers of nurses working in public sector health facilities. It delineated nurses in the private sector due to variations in service conditions. The spot light was on Kumasi because, despite its relatively

attractive factors, brain drain of health workers seems rampant there than other regions. For instance, Kumasi is Ghana's second biggest city (150sq.km in size) and 300km from Accra. There are numerous markets of which the central market is the largest in West Africa; houses the second largest airport (presently used for domestic flights); good road network with improved transportation, good electricity supply; availability of public and private sector health facilities which offer side job opportunities just like how nurses swing among jobs abroad to earn money; favourable climate; and better opportunities for nurses to further their education. Indeed, there are lots of western goods there that, it is often said in akan that, *abrokyereh aba Ghana.* This is literally interpreted as; western life is lived or felt in Ghana. Therefore the study centred on the effectiveness of curbing the brain drain of nurses in Kumasi metropolis.

Limitations of the Study

Number one limitation is that, the researcher is a nurse with preconceived ideas about the measures taken by government to curb brain drain of nurses. Therefore, her personal views may impose some limitation on the objectivity of interpretation of information. However much effort and self discipline was employed to achieve a true picture of the situation.

Secondly, access to accurate and classified information was a devastating factor. There is the issue of poor record keeping in Ghana and it is compounded in terms of travel documents on nurses. Again, others go through dubious means which may not be captured. In fact, a retrograde study on available statistics since

the implementation of those measures would have given a clearer picture of the situation.

Thirdly, the researcher would have loved to cover a wider area however; this was largely constrained by limited time and financial resources. The brain drain issue may not necessarily be the same in other regions. Therefore, a regional or nationwide study would have given a better understanding of the issue.

Organization of the Study

The dissertation is organized into five chapters. The introductory chapter states the general problem that the paper deals with. It goes further in stating what the paper will contribute to the understanding of the problem. The second chapter reviews other studies both theoretical and empirical that are relevant to the topic. Chapter Three focuses on the selection of the research design, the target population, sample technique and the sampling procedure adopted. Chapter Four presents an analysis of the data collected in the field, while the concluding chapter gives a summary of findings, draws conclusions and makes recommendations.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

The purpose of this chapter is to present a brief review and critique of published works that are representative of research studies that have explored the realities of brain drain of health workers. The review is expected to facilitate the identification of gaps in the issue of brain drain. The literature review is organized under the following headings:

1. The concept of brain drain
2. The Push and Pull factors of brain drain
3. The extent of brain drain of health workers
4. Effects of brain drain
5. Effort to address brain drain of health workers
6. Summary of reviewed literature

Concept of Brain Drain

According to *Dictionary.com* (cited in Shah, 2006), the term 'brain drain' originated in the 1960s, when many British scientists and intellectuals emigrated to the United States for a better working climate. However, Shah noted that in recent years the problem of brain drain has been acute for poorer countries that lose workers to wealthier countries. He pointed out that it is ironic that England is now a country where many such workers end up. Another source defines brain

drain as the loss of skilled intellectual and technical labour through the movement of such labour to more favorable geographic, economic, or professional environments. (http://www.thefreedictionary.com/brain drain, accessed on 24/04/09). With reference to health workers, Dodani and Laporte (2005) explained the term as the migration of health personnel in the search of better standard of living and quality of life, higher salaries, access to advanced technology and more stable political conditions in different places worldwide.

Push and Pull Factors of Brain Drain

The literature shows that the trend in recruiting and employing all types of foreign educated professionals from developing countries has increased dramatically in recent years due to human resource shortages in many developed countries, the aging workforce, an overall increase in the globalization of economies and the ease of international travel. These trends are believed to contribute to an escalation of debates about ethics of the recruitment of foreign health care professionals (Kingma, 2007; Loefler, 2001; Martineau et al., 2004; Ross et al., 2005; Smith and Mackintosh, 2006; Xu and Zhang, 2005). And many developing countries have voiced concerns about the strains on their health care delivery system created by the losses and shortages of healthcare professionals, explained (Bundred and Lewitt, 2000; Chikanda, 2005; Perrin et al., 2007).

Discussing the issue, Loefler (2001) argued that the motivating factors for medical migration are not always financial gain but there are three reasons for doctors to migrate: one is to learn; the other to seek professional satisfaction

combined with the opportunity to make a decent living; and the third one is to escape political oppression and professional stagnation.

There are varied and mixed factors involved in international migration and several theorists have tried to analyse and put them into the typology of 'push and pull' factors, (Iredale, 2001; Kline, 2003). In this fashion, the World Health Report (2006) from the WHO summarized a number of reasons why health workers moved to richer countries. These reasons arising from concerns are described as "push factors" because they push people away, and those factors that offer prospects for better circumstances are known as "pull factors." Thus, the push factors include workers' concerns about: lack of promotion prospects; poor management; heavy workload; lack of facilities; a declining health service; inadequate living conditions; and high levels of violence and crime. In the same vein, the "pull factors" comprised prospects for: better remuneration, upgrading qualifications, gaining experience, a safer environment, and family-related matters (Shah, 2006).

The Department of Health of the National Catholic Health Service in 2005 conducted a research entitled *Staff Mobility Factors in NCHS* to ascertain the issue of brain drain and find possible solutions to address it. The target population comprised doctors, nurses and other paramedics from all the 32 hospitals and 40 of the 66 NCHS clinics nationwide. The study identified a number of factors which either acting together or in isolation are responsible for staff attrition in the NCHS.

The push factors were that most Catholic health facilities are located in rural areas which do not provide standard schools for employees' children. Other reasons were: movement to join family/spouse; disparities in reward packages across the NCHS; poor resources and equipment; weak finances to support development; work related stress due to inadequate and improper staffing; weak collaboration between the GHS and the NCHS institutions; as well as the inability to honour retiring benefits and conditions of service. Other reasons for staff turnover had to do with management style in dealing with different categories of staff, poor communication and harsh policies.

The study further revealed some pull factors which derailed workers from NCHS to GHS and even abroad. The main reason was perceived better service conditions and work organization of GHS such as housing loans, car allocations, internal locum, arrangements, better ADHA rates less volume of work with relative less stress, as well as brighter opportunities for further studies, both locally and abroad. An interesting thing that was raised in the study was that, others saw the NCHS as a stepping stone to realizing their ambitions. For instance, people joined the NCHS to gain experience, pursue a course of study after which they leave. (NCHS, 2007).

The Extent of Brain Drain of Health Workers

In his work titled *Global Justice: Tipping the scales*, Young (2008) indicated that by the mid 1990s, it was estimated that between two and four million Ghanaians were living abroad. Skilled workers and professionals dominated early flows from Ghana but, by the 1980s, many semi-skilled and

unskilled workers chose to leave as well. A worrying trend in Ghanaian emigration is the loss of high level students and skilled workers. Citing a study of the brain drain by the IMF Young estimated that by 1990, 15 percent of Ghanaians with tertiary education had migrated to USA and a further 10 percent to other OECD countries. The study further revealed that between 1995 and 2002, 482 of the 602 medical officers (69.4%) that trained in Ghana left to practise in other countries, and 1553 nurses and midwives (19.7%) also emigrated. The situation escalated when in 1998, the United Kingdom enacted the National Health Service (NHS) Plan, which included the recruitment of foreign health care workers.

Barka (cited in Tebeje, 2005) warned that: "In 25 years, Africa will be empty of brains." This dire warning by Barka of the UN Economic Commission for Africa (ECA), reflects the growing alarm over Africa's increasing exodus of human capital. Tebeje bemoaned that data on brain drain in Africa is scarce and inconsistent; however, statistics show a continent losing the very people it needs most for economic, social, scientific, and technological progress. The ECA estimated that between 1960 and 1989, some 127,000 highly qualified African professionals left the continent. According to the International Organization for Migration (IOM year) , Africa has been losing 20,000 professionals each year since 1990. This trend has sparked claims that the continent is dying a slow death from brain drain, and belated recognition by the United Nations that emigration of African professionals to the West is one of the greatest obstacles to Africa's development (Tebeje, 2005).

Stilwell et al. (in Raufu; 2004) opined that about 20,000 health professionals are estimated to emigrate from Africa annually. However, they explained that data on health workers legally migrating overseas are scarce and unreliable, largely because most wealthy destination nations like Australia currently make it virtually impossible for overseas trained health workers to migrate to their countries primarily on the basis of medical skills.

Touching on a sensitive note, Schrecker and Labonte (2004) bemoaned that, the hemorrhage of health professionals from African countries is easily the single most serious human resource problem facing health ministries today. They mentioned that, the health sector strategy prepared under the New Partnership for Africa's Development (NEPAD) calls for an international agreement on migration, especially with regard to ethical recruitment of health personnel from Africa, while putting in place mechanisms to improve the value placed on health workers, to address the adverse conditions of service and to improve motivation and retention.

Schrecker and Labonte (2004) further explained that in contrast to the World Health Organization's recommended standard of one doctor per 5,000 people, most African countries have one doctor per 30,000 or more people. In 1998, vacancy rates for doctors in the public health service were estimated at 26% in Namibia, 36.3% in Malawi, and 42.6% in Ghana; for nurses, vacancy rates were just 2.9% in Namibia and Malawi, but 25.5% in Ghana and that, more recent Ghanaian figures show that vacancy rates for both doctors and nurses have increased since then. Schrecker, and Labonte recalled that when the Kenyan

government in 2001 advertised 100 doctor vacancies; only eight candidates applied. Still talking on the extent of brain drain of health workers, they said that between 1986 and 1995, 61% of the graduates of one Ghanaian medical school had left the country. On the part of nurses, requests for verification of credentials from Nurses' and Midwives' Council of Ghana – an indicator of migration intentions, more than doubled between 1997 and 2000.

Indeed, the extent of brain drain of health workers is ill documented. This is confirmed in a WHO (2005) bulletin which states that in the interim, WHO, IOM and the International Labour Organization planned to step up their collaboration to gather statistics and other information to gain a better understanding of the dynamics of health worker migration, which is often clandestine. "Once you know what is going on, you can find appropriate solutions," said Zurn (WHO, 2005).

There is growing concern worldwide about the impact of brain drain on the health systems in developing countries. These countries have invested in the education and training of young health professionals. It is well documented that this translates into a loss of considerable resources when these people migrate, with the direct benefit accruing to the recipient states who have not forked out the cost of educating them. The intellectuals of any country are some of the most expensive resources because of their training in terms of material cost and time, and most importantly, because of lost opportunity.

As reported in the journal of the *Royal Society of Medicine*, Dodani and LaPorte (2005) postulated that in 2000 almost 175 million people, (2.9%) of the

world's population, were living outside their country of birth for more than a year, of which about 65 million were economically active. This form of migration has in the past involved many health professionals notably nurses and physicians. International migration first emerged as a major public health concern in the 1940s when many European professionals emigrated to the UK and USA. In the 1970s, the World Health Organization (WHO) published a detailed 40-country study on the magnitude and flow of the health professionals, (Dodani and LaPorte). According to this report, close to 90% of all migrating physicians, were moving to just five countries: Australia, Canada, Germany, UK and USA.

The Effects of Brain Drain

Internationally there have been many discussions about the trends and policy implications of international recruitment and some of the studies looked at the issue comprehensively from the interest of all the stakeholders involved. For instance, Stilwell et., el (2004) analyzed the ethics of international nurse recruitment from the conceptual framework of stakeholder interests and they pointed out that some developing countries such as the Philippines and China greatly benefit from the international migration of nurses and so it is in their best national interests to have migration continue.

Young (2008) acknowledged that Ghana is often highlighted as a nation struggling with the effects of brain drain. He empathised that this loss of human capital is a great worry to those pursuing development and growth in Ghana. According to him, pressure to emigrate can have disastrous consequences with

people perishing as they attempt to leave Ghana for greener pastures. Particular example that comes to mind is the case of the two Ghanaian boys who died whilst stowing away on a flight to the UK in 2002, and that of the seven Ghanaian men which Kingsley Ofusu documented in the film 'Deadly Voyage'. However, he noted that emigration is not all bad news as many Ghanaians who chose to make the long journey abroad send their hard earned wages back to Ghana. Emigrants often return to Ghana with renewed energy and new skills for investment in both businesses and state sector work. In fact, Ghanaian workers are known for not forgetting their home land and are unique in the amount of time they continue to send money home for their families. Young (2008) quoted some data from the Central Bank of Ghana which estimated that $1.27 billion in remittances flowed into the country between January and November 2005. The remittances comprise about 15 percent of the Gross Domestic Product and more than 40 percent of total exports. Thus, Ghana has become highly dependent on remittance transfers. The Bank of Ghana report also noted that these remittances are often received in the poorer regions -and by women- helping to spread wealth to those who commonly miss out. Thus migration can be a form of poverty alleviation as migrants tend to return with more capital and education than they had on departure.

Furthermore, Young (2008) cited another benefit of migration with the notion that, return migration can also be a path to job creation. For instance, in 2001, researchers from the UK-based Sussex Centre for Migration Research interviewed 152 Ghanaian returnees. Over 55 percent of those surveyed were self-employed on return, and the vast majority of these individuals employed other

Ghanaians in their business. In conclusion, however, he sounded a note of caution that even though migration can promote development in the economy through remittances and through returning migrants skills, in areas like health care, any income flows to the country cannot compensate for the loss of those specific skills to the health of Ghanaian people.

In an article posted on the Ghana Free Thinkers Association from http://ghanaconscious.ghanathink.org/node/409 Dapaah (2007) stated that brain drain could potentially be a serious threat to economic growth of any nation because it distorts both the quality and quantity of human capital available for production. However, he associated Ghana's tortoise's growth to brain-waste rather than to brain drain. For him, Ghana is currently not using its human capital to full potential with the exception of a very few sectors like health. He argued that many Ghanaian graduates from tertiary institutions are not easily employed, so why worry about those abroad? Dapaah stated that the path-trajectory of the life of many graduates should at least send a message that controlling brain drain might not actually solve Ghana's problem. He concluded with this famous optimization rule in Economics that, 'if you cannot make good use of what you happen to have got, you never could have made good use of what you ought to have got'. Therefore, he claimed that unless, every graduate of Ghana is being used, there is no need to whine about brain drain. In his view, though brain drain exists, it currently does not pose a threat yet.

Talking about the devastating effects of brain drain, Shah (2006) cited a BBC report which states that a shocking one third of practicing doctors in the UK

were from overseas in mid-2005. Indeed, the British Medical Association and the Royal College of Nursing described this as ‘poaching’ because staff migration from developing nations is killing millions and compounding poverty.

Considering the replying effects of brain drain, Kirigia; Gbary; Muthuri; Nyoni and Seddoh (2006) stated that “When health professionals emigrate, Kenya loses far more than the cost incurred by society to educate them” page. They studied several other losses that are not usually captured in the education-costing methodology. Thirteen of those losses are: 1. loss of health services; 2. loss of supervisors; 3. loss of mentors for health sciences trainees; 4. loss in functionality of referral systems; 5. loss of role models; 6. loss of public health researchers; 7. loss of savings (investment capital); 8. loss of entrepreneurs; 9. loss of employment opportunities; 10. loss of tax revenue to government; 11. disruption of families; 12. 'Internal' brain drain; 13. loss of an important element of the middle class.

Loss of Health Services

Health professionals (especially doctors and nurses) contribute to health promotion, disease prevention, diagnosis, treatment and rehabilitation. Kirigia et al., (2006) has it that, the ratios of doctors and nurses to the population in Kenya are very low, and, as a result, medical practitioners and nurses are usually overloaded with work. Thus, the emigration of doctors and nurses (and other health professionals) exacerbates the human resource shortage within the national and district health systems and reduces their capability to perform their functions

(of stewardship, health financing, resource/input creation and health service production and provision) and achieve their goals of health improvement, responsiveness to client's legitimate expectations and fairness in financial contributions.

Loss of Supervisors

Secondly, Kirigia et al., (2006) explained that practising doctors and senior nurses normally play major roles in supervising staff in peripheral facilities (e.g. health centres, dispensaries and health posts) that serve the majority of populations. Thus, when such doctors and nurses emigrate, the supervisory capability is lost (or diminished), contributing to further weakening of the capacities of such health facilities to provide quality services to patients. This compels the staff left behind to assume greater responsibilities than they had been trained for, invariably leading to a decline in the quality of health services.

Loss of Mentors for Health Sciences Trainees

According to Kirigia et al., (2006), practising doctors and senior nurses train and counsel new employees and students during their internship. Thus the emigration of either cadre has negative inter-generational effect on the process of health-related human capital creation in the country.

Loss in Functionality of Referral Systems

Kirigia et al., (2006) talked about the loss of an ideal referral system. The hierarchical national referral system consists of tertiary hospitals (apex),

provincial hospitals, district hospitals, health centres, dispensaries, health posts and community services. It permits movement of patients from the base of the national health system to the apex and vice versa. Although the movement of patients should, in principle, be initiated by health professionals, in practice, patients move themselves up and down this system. Patients bypass the cheapest health units (health centres, dispensaries and health posts) mainly due to lack of doctors and diagnostic services. Those two factors create adverse incentives for patients to bypass the cost-effective health units and to seek care in more expensive hospitals. Thus, emigration of doctors contributes to inefficiency and weakening of the referral system.

Loss of Role Models

The authors stated that children often view doctors and nurses practising in communities as examples to be imitated and emulated. Thus, external migration not only robs such children of positive role models, it also negatively affects their dreams and aspirations and hence the number of children aspiring to become health professionals.

Loss of Public Health Researchers

The sixth loss has to do with loss of researchers. As indicated by Kirigia et al., (2006) many of the specialized health workers who emigrate are often among the very few active/published researchers that the country has. Emigration of such people stifles innovation and invention in persistent local public health problems, e.g. HIV/AIDS, tuberculosis and malaria.

Loss of Savings (Investment Capital)

In Kenya, health professionals are among the relatively better-paid persons, and thus they contribute to accumulation of national savings. Those savings are eventually loaned to entrepreneurs for investment. Thus, emigration may lead to loss of such savings, except where persons who emigrate remit their savings back to the country for investment, Kirigia et al., (2006)

Loss of Entrepreneurs

Kirigia et al., (2006) further stated that, health practitioner by virtue of their education and earnings, quite often set up health-related (e.g. private clinics, hospitals, pharmacies) and non-health-related businesses (e.g. retail and wholesale shops). Thus, emigration reduces the growth of entrepreneurship in affected countries and the prospects for economic growth.

Loss of Employment Opportunities

The 9th loss according to Kirigia et al., (2006) is that, doctors and nurses usually provide job opportunities for housekeepers, gardeners and security guards at their places of residence. Thus, emigration of practising health professionals usually results in loss of employment opportunities and income for those poor workers and their families.

Loss of Tax Revenue to Government

The 10th loss affects tax revenue Kirigia et al., (2006). Given the fact that health professionals are among the relatively well-paid persons in Kenya, they are also major contributors to the country's income-tax collection. Since the incomes

of emigrants are not liable to tax administration systems of Kenya, emigration leads to a net loss in tax revenues.

Disruption of Families

Another major loss of brain drain is to the family unit. Kirigia et al., (2006) stated that in some instances emigrating health professionals are not allowed to take along their families due to immigration restrictions. This creates spatial distance and loneliness, some of those emigrants may choose to get new marriage partners in their countries of work. This may bring psychological and economic suffering to family members left behind in Kenya.

'Internal' Brain Drain

Another key revelation by Kirigia et al., (2006) is that, the brain drain not merely reduces the supply of vital health professionals in Kenya, more seriously, it diverts the attention of those who remain from important local problems and goals. These include provision of primary health care services and promotion of problem-oriented training and research on important domestic public health issues. Such needs are often neglected as training and research get dominated by rich-countries' ideas as to what represents true professional excellence. In their observation, those highly educated and skilled Kenyan health professionals who do not physically migrate to developed countries 'migrate intellectually' in terms of the orientation of their activities.

Loss of an Important Element of the Middle Class

The last point by Kirigia et al., (2006) centred on social stratification. Arguably, physicians comprise an important segment in the social and economic make-up of the middle class. They are generally respected as being above corruption, they advocate for quality public schools, they provide a market for consumer goods, and they contribute to political, social and economic stability. Furthermore, they create demand for democratic institutions. Thus loss of them to brain drain means loss of an important element in the middle class.

Efforts at Addressing the Brain Drain of Health Workers

Reporting on the issue of migration of health personnel in Zimbabwe, Hodzongi (2004) stated that the Zimbabwean government put in measures aimed at ensuring the availability of adequate number of health professionals but some of these measures have not been effective in addressing the existing problems. These measures were;

1. Increase in the capacity of universities and nursing colleges in Zimbabwe to train health professionals.
2. Introduction of bonding system for newly qualified nurses. The Zimbabwean Nurses Association, however expressed its disapproval and rather urged the government to improve the working conditions of the nurses.
3. The government contracted Cuban doctors but realized that such arrangements bled the country of the little hard currency available.

4. On-call allowances and car loans and other incentives could not be sustained due to little budget allocated to the ministry of health This called for work stoppages and strikes by health professionals to press for better conditions. Such a working environment is not conducive to the retention of workers and so they leave.
5. The government introduced a system allowing some doctors to attend to their private patients during certain hours in addition to conducting their work in public hospitals. However, this system was abused by some doctors and had to be abandoned because of serious short comings.
6. The appeal by the Zimbabwean government requesting other countries not to target their nationals for recruitment fell on deaf ears.

Concerned about the migration of physicians, Brunded and Lewitt (2000) argued that the ethics of national polices that allow developed countries to recruit en-masse the most qualified physicians at no cost or penalty to them should be challenged. The authors appealed to the World Health Organization (WHO) to convene an international meeting for the purpose of establishing an international code of ethics for recruiting physicians from less developed countries to more developed ones.

In a related development, Pearson (2005) cited Malawi's effort to salvage its collapsing health service with a master plan in the fight against brain drain. The key parameters included:

1. Retaining current staff and preventing further staff haemorrhage.

2. Developing a tutor incentive programme, to increase the number of staff in training.
3. Securing a number of essential specialists physicians to try to attract back into the system those who had left but were still in the country.
4. Providing support for regulatory bodies.
5. Giving technical assistance in human resource management.
6. Providing basic diagnostic sets for clinical health personnel.

In an effort to keep staff at post, the Malawian government then decided to triple the allowances of all health staff. Pearson (2005) conceded that the plan was expensive, but noted that it was a necessity if the jobs were to become attractive again and vacancies filled with skillful and motivated human resources. Pearson wondered whether the plan would achieve the desired results on a sustainable basis. He however noted that much of the rest of Africa would be watching with interest and anticipation in the hope that rational health delivery would be possible despite the huge competing interest from within the global society.

Stillwell; Diallo; Zurn; Vuljicic; Adams and Dal Poz (2004) conducted a survey on managing brain drain and brain waste of Nigeria's health workers. They provided a summary of three major factors that motivate Nigerian doctors to migrate and work overseas or demotivate them from returning, and suggested some strategies for managing the encumbrances in the interest of Nigeria's health system.

The first issue identified by the study of Stillwell et al (2004) was that were doctors trained to levels superior to local health realities. This provided

Motivation to migrate because the doctors complained of ‘brain waste’ and therefore sought better opportunities for professional development in countries with better medical infrastructure. In order to manage the problem identified, Stillwell et al (2004) suggested that the health sector should:

1. Develop basic minimum standards for all district hospitals.
2. Equip hospitals to standards that make medical practice rewarding for patients and staff. Set up private clinics and hospitals.
3. Encourage private training for ‘export’.
4. Training of allied health staff such as medical assistants, community health officers whose skills and competencies are likely suitable for Nigeria’s current level of health care delivery.

For Stillwell et al (2004), the second major motivating factor for health worker migration had to do with poor remuneration. According to the study, Nigeria-base doctors typically earn about 20% of what they would have earned in Europe, North America or the Middle East. Thus emigration was viewed by under paid doctors as the most effective strategy to address such disparities. To manage this second problem, Stillwell et al (2004) suggested the following management strategies to the government/health sector:

1. Increase public sector salaries.
2. Special allowances for those working on underserved diseases such as tuberculosis, and in underserved areas.
3. Sponsorship for overseas training and conferences.
4. Subsidized housing and transport.

The third issue identified by Stillwell et al (2004) was that, there were limited incentives for overseas-based Nigerian doctors who were willing to relocate and work in Nigeria. Those doctors were frustrated in their attempt to return. To address this challenge, Stillwell et al. proposed that the Nigerian government should develop incentives enhance the smooth return of those doctors and other skilled professionals. Furthermore, there should be a stimulating environment for intellectual growth such as ready access to computers, internet and learned journals.

Stillwell et al (2004) retreated that the above strategies would cost about $US 140 million to commence, and another $US 90 million annually for maintenance which are over and above current expenditures in the health and public sectors salaries. In conclusion they echoed that these substantial costs should be weighed against the cost of loss of skilled health workforce, currently estimated at about $US 4 billion per year. Thus investment in addressing the above primary causes of brain drain and brain waste of medical professionals in Nigeria has favorable cost-benefit ratio. It is also ethically sound, socially responsible, and politically sensible.

Another laudable measure of turning the brain drain around is reported in a WHO - MIDA bulletin (2004). In this issue, the International Organization for Migration (IOM) has a programme on Migration and Development for Africa (MIDA), which tries to encourage mobility of people and resources. Launched in 2001, it encourages temporary and long-term return of skilled workers in general as well as "virtual returns" through video link-ups to allow skilled members of the

diaspora to teach at home. These MIDA projects which aim to capitalize on the resources of the diaspora have been launched in a number of countries including Burundi, Democratic Republic of the Congo, Ghana, Somalia, the United Republic of Tanzania and Zimbabwe. The USA, which is the single largest market for migrant health workers, has many active diaspora communities anxious to help transfer knowledge and technology through such projects, the paper said.

The Ghana-Netherlands Healthcare Project is one of such initiatives, and its objectives are to transfer knowledge, skills and experiences through short-term assignments, projects and practical internships for Ghanaians abroad and to develop a centre for the maintenance of medical equipment in Ghana. It is meant to allow Ghanaian health professionals in the Diaspora to offer services conduct research and implement projects in their home country.

Xu and Zhang (2005) told all stakeholders wishing to curb the brain drain that, "The nurses' self-determination and their rights to move about freely must be honoured and protected, especially when worsening socioeconomic and working conditions threaten their safety, livelihood, and survival" (P.9). The authors concluded that a *'one size fits all'* approach to the ethics of international nurse recruitment remains too simplistic and is merely an illusion in this complicated and imperfect world. At the professional front, similar ethical concerns have been raised by the American Nurses Association (ANA) and the American Organization of Nurse Executives (AONE) in their *Position Statement on Recruitment of Foreign Nurses* (ANA, 2002 & AONE, 2003).

Summary

Upon examining the vast literature, it has emerged that much has been done on the issue of brain drain however the researcher did not come across any work on the effectiveness of measures aimed at curbing the brain drain of health workers in Ghana. It is therefore the conclusion of this investigator that more descriptive studies are needed in this area. Basic knowledge in this development will support brain circulation and improve the overall quality of health services in Ghana. It is essential to undertake research in this area to understand the issue better so that solid interventions can be planned to facilitate health delivery. The present study was, therefore, designed to fill this gap.

CHAPTER THREE

METHODOLOGY

This chapter describes the research design, the sample size, sampling technique, sampling procedure, the instrument and how the data was collected and analyzed. It also explains the rationale for the design and the choice of sample size.

Research Design

This is a descriptive survey on the effectiveness of measures aimed at curbing the brain drain of nurses in the Kumasi Metropolis. Gay (1987) explained that descriptive survey is a useful method for investigating a variety of educational problems including assessment of attitudes, opinions, and demographic characteristics. It fits well for this study since it aims at eliciting nurses' opinions, and demographic characteristics on the effectiveness of measures aimed at curbing the brain drain of nurse in the Kumasi metropolis. Descriptive data are usually collected through questionnaires, interviews and observation. Plgar and Shane (1995) also explained that selection of survey ensures a group of respondents whose characteristics may be taken to reflect the larger population. Furthermore, the use of carefully constructed standardized questionnaire in survey enables the researcher to provide data in the same form for all respondents, thus increasing reliability.

However, there is the possibility of careless responses given in an offhand manner which are sometimes at variance with the serious opinions that are expressed as actual decision. Since interview and questionnaires are the main instruments used in survey method, Plagar and Shane (1995) noted that there is the tendency for errors such as asking questions, probing, motivating respondents and how to record the responses. Despite these limitations the descriptive survey design was used because it was assumed to be the most appropriate design that would lead to drawing meaningful conclusions.

Population

The population for the study consisted of all qualified nurses of the Ghana Health Service in the Kumasi metropolitan area who were in public sector employment and were deployed in hospitals, clinics, health centres as nurses or as nurses-administrators (hospital matrons) in offices of the Directorate of Health. Eligibility criteria included that the respondent nurses were from South Suntresu Hospital, Tafo government Hospital, Manhyia Hospital, or Kumasi South Hospital (Chirapatere). Nurses of all specialty areas were inclusive of the population namely; general nurses, midwives, psychiatric, ENT, PHNs, nurse-educators, and anesthetists. As at 2009, there were **575** nurses in the Kumasi metropolis. The population of nurses was distributed by specialty area as in Table 3.

Table 3: Distribution of Population of Nurses by Specialization in Kumasi metropolis as at December 2009

Specialization	Number
General Nurses	302
Community Health Nurses	81
E.N.T nurses	3
Midwives	133
Ophthalmic nurses	8
Psychiatric nurses	7
Nurse anesthetists	9
Medical assistants	23
Public health nurses	9
Total	**575**

Source: Regional Health Directorate Ashanti Region.

With regard to table 3 above, there were a total of 575 GHS nurses working in the Kumasi metropolis. Majority among them were the general nurses 302 (52.5%), followed by the midwives who constituted 133 (23.1%). Community health nurses and medical assistants were the 3rd and 4th largest groups. They formed 81(14.1%) and 23 (4%) of the population of nurses respectively. All the other categories of nurses were of single digits indicating a possible shortage.

Table 4: Categories of Nurses at Study Areas as at March 2010

Study Area Manhyia District	Kumasi south	Suntresu	Tafo Govt.	
Categories of nurses	Hospital	Hospital	Hospital	Hospital
General Nurses	79	54	40	24
Community nurses	20	19	21	14
E.N.T nurses	2	1	1	1
Midwives	22	29	32	31
Ophthalmic nurses	1	1	2	1
Psychiatric nurses	0	1	2	1
Nurse anesthetists	3	2	2	2
Medical assistants	5	3	4	1
Public health nurses	4	3	2	2
Total	**136**	**84**	**106**	**77**
Grand Total	**403**			

Source: Compiled from the various study hospitals.

Data from table 4 gives a total number of 403 GHS nurses working in the Kumasi metropolis. This is somehow different from the data that was obtained from the Regional Health Directorate Ashanti Region, (see table 3 above). The reason could be that, records of the numerical strength and categories of staff at the various sub-metropolis were not yet reflected at the regional level. The total number at the region was 575 whilst the actual number at work was 403. It could be that some had gone for further studies or left their post for varied reasons.

In a similar fashion, number of nurses from the various specialty areas (categories) did not tally with those of table 3 above.

Sample and Sampling Procedure

The sample comprised 151 nurses, made up of 146 nurses, 4 nurse-administrators (hospital matrons) and 1 principal of a nursing and midwifery training school in Kumasi. The study centred on only nurses from government facilities because their condition of service differs from other nurses. For instance it is often said that nurses at the Komfo Anokye Teaching Hospital which is autonomous, are better cared for than other nurses who do not work there. Again the many private and quasi hospitals owned by individuals, corporate and religious bodies were not included because some do not employ qualified nurses. Since they do not have nursing certificate, they may find it difficult to join the brain drain wagon. It will also be difficult to identify the qualified nurses for the purpose of this study since I will be delving in personal issues which will not meet the ethical requirements of research. Even if there is a way of identifying the qualified nurses from the group, it will merely be a repetition of respondents since it is these same nurses from the GHS that are employed on part time bases at most of these hospital.

Sampling Technique

Kumasi Metropolis was selected purposively because nurses in Kumasi are more likely to get connections that enable them to migrate than nurses from the hinterland. There are instances when foreign based schools come to Kumasi and Accra to market their schools and prospects to work abroad which are not normally extended to other regions. Again the US green card lottery also seems to be rampant in Kumasi than other cities apart from the greater Accra Region.

Simple random sampling (lottery method) was used to get the sample of nurses whilst purposive sampling was done for the nurse-administrators and the principal of the nursing institution due to their limited number.

The sample was a disproportionate random sample selected from all nurses in the four government hospitals. A list of nurses excluding those who were on leave was obtained from the various Nurse-Administrators. Names of all the nurses in the four hospitals were assigned numbers. These numbers were then written on pieces of paper, folded up and put in a box. One piece of paper was selected at a time randomly and the name corresponding to the number was written down. The selected papers were placed back into the box, mixed up and another picked randomly. If a piece of paper was picked more than once, it was ignored and placed back into the box. The procedure continued until the required sample size obtained.

Research Instrument

A self-administered questionnaire was developed, validated and used in collecting data from the respondents (Appendix A). The questionnaire comprises both closed and open-ended questions. Initial questions touch on demographic data which are easily answered and serve as a warm-up to the factual and opinion questions which need reflection. The questionnaire is formatted such that questions are listed in a logical order, allowing for transition and flow that is, for a smooth passage from one topic to the next, and to avoid distortions and problems Sarantakos (2005). Questions are formulated in the order in which the research

questions are asked, and each test item relates to one of the research questions. One of the many formats *inverted funnel* outlined by Sarantakos is used. “The questions progress from specific to general, from personal to impersonal, and from sensitive to non-sensitive” p 242.

The questionnaire comprises five sections, the first of which elicit information on background characteristics such as respondent’s age, gender, religion, rank, specialty area, and experience. Section B seeks information on traveling plans whilst Sections C & D enquire of the effectiveness of measures aimed at curbing the brain drain of nurses. Other questions which are general but of utmost importance to the study are tackled in section E, (the widest part of the inverted funnel). Here, questions invite respondents’ recommendations on the return and retention of nurses in Ghana.

This format of writing ensures face, content and construct validity of the questionnaire. Taking a glance at the questionnaire, one can easily tell that the items centre on the issue of brain drain (face validity). Test items are evenly spread to cover all the research questions (content validity). Questions are thoughtfully worded, clear, and easy to respond. It ensures variation of questions such as multiple choice, Likert type scale and supply answer to attract the respondent (construct validity).

Pilot Study/Pilot Testing of Instrument

The questionnaire was pre-tested on 50 nurses at St. Patrick's Hospital, Maase- Offinso. This made it possible to identify ambiguity in some of the items in the questionnaire and the necessary corrections made.

Administration of Questionnaire

Permission was sought from the Nurse-Administrators of the four sub-metropolitan hospitals and the Deputy Director of Nursing Services in-charge of the Nurses and Midwives training school, Kumasi. The data were collected by only the researcher within one week. I visited the study sites daily with the randomly compiled list. I introduced myself personally to the respondents. The objectives of the study were explained and the questionnaires administered to the selected nurses. Most of the questionnaires were collected later on the same day. However, a few could not finish filling in the responses due to work load so they were collected the following day.

Validity and Reliability

Validity means the extent to which a test measures what it is intended to measure while reliability implies the extent to which a test or measurement results can be reproduced. The validity and reliability of observation and measurements are fundamental characteristics of good research. As mentioned earlier, validation of the instrument was conducted through a pretest to avoid any biases, ambiguity or errors. Rewording of some of the questions was done before the final

administration. A reliability test was conducted using Scientific Package for Social Sciences (SPSS) to establish the liability co-efficient for the questionnaire items. The reliability estimates was 0.85. Warren (1979) indicated that an alpha of 0.6.0 and above was satisfactory for using that instrument.

Data Analysis

In this survey, descriptive statistics were used to analyse the data. This method uses the non-qualitative but systematic procedures to discover issues as they influence the apparent existing problems. Responses from the respondents were organized to provide answers to questions posed in the study. Descriptive statistics were used to illustrate demographic data whilst tables, pie charts and histograms were used to present the answers to the other research questions.

Research Question 1 was: *How effective are government's efforts at curbing brain drain of nurses?* For the purpose of easy analysis of the data, the following aspects were addressed:

a. Respondents were asked to provide information on the number of their colleagues who traveled outside Ghana to work since the inception of the ADHA and other incentive packages. Responses were computed in percentages and organized into bar chart for quick reference and better assimilation.
b. Secondly participants were asked of their travel intensions; given the chance would they prefer to work outside Ghana, and if 'yes' or 'no' to give reasons for their stand. The data obtained was put into percentages whilst their reasons were outlined

under '*push'* and '*pull'* factors.

c. Thirdly, the number of nurses that traveled outside Ghana since the inception of the ADHA and other incentive packages; and the number of students/nurses that asked for transcripts or testimonials to foreign countries were ascertained through the nurse-administrators. In a similar vein, percentage scores were calculated and further presented in a bar graph. Unfortunately there was no well documented information from the nurse administrators as to the number of staff/students who travelled within the period in question.

d. Fourthly, respondents were asked to rate the effectiveness of measures aimed at curbing brain drain of nurses. The information obtained was expressed in percentages and a frequency table.

e. The last consideration of the effectiveness of curbing the brain drain centred on the ADHA, a key pillar. Participants provided information as to whet consolidation of ADHA into salaries is more beneficial to workers or not. They provided reasons to support their say. Percentage scores were computed and their reasons were keenly read and outlined to avoid repetition since some of the responses where the same but expressed in varied styles.

Research Question 2 was: *What are the problems facing nurses working in the Kumasi metropolis?* The data collected from nurses were grouped under the following subheadings:

(i) Inadequate and obsolete equipment and logistics.

(ii) Inadequate motivation.

(iii)Accommodation and Transportation problems.

(iv) Shortage of staff and work load/high nurse-to-patient ratio.

(v) Poor administration.

(vi) Poor career progression.

(vii) Exposure to occupational hazards.

The third Research Question posed was: *What are the factors that make nurses to migrate to other countries for the purpose of working there?* Cues gathered from reviewed literature in Chapter Two was a source of a Likert scale for respondents to tick in order of magnitude the factors/reasons that account for the brain drain of nurses. Percentage distribution was created out of the given data.

The fourth and final Research Question was: *What does the nurse consider as motivating factors that ensure; a. Retention of nurses in Ghana? b. The return of nurses who have migrated?* Their opinions and suggestions were studied and grouped under motivators and demotivators.

CHAPTER FOUR

RESULTS AND DISCUSSION

The main focus of the study was to assess the effectiveness of measures aimed at curbing the brain drain of nurses in the Kumasi metropolis. This chapter presents and discusses the results of the study. The data were read, analyzed and described within the setting and the purpose of the research. In all 151 questionnaires were administered. However, 132 were retrieved and 19 could not be traced. Therefore a retrieval rate of 87.4% was obtained. Appropriate statistical tables have been drawn to facilitate the presentation of the findings. Frequency tables, percentages, histograms and pie charts are the major modes of presenting the data. The results and discussion are presented according to the requirement of the research questions.

Biographic Data of Respondents

Nursing is seen as a feminine profession and this was clearly revealed in the study, only 13(9.8%) were males whilst the majority were females 119 (90.2%). And this was closely related to their areas of specialization. The younger male nurses were general nurses and as they grew older or move up the career path they specialized in areas such as anaesthesia, psychiatry, and medical assistant programmes. These areas require more male qualities than feminine. The

female respondents on the other hand started with their male counterparts as general nurses, or started right ahead with feminine areas like midwifery and community health nursing.

Table 5: Ages of participants

Age as at last birthday	Frequency	Percentage
Less than 25 years	17	12.9
25 - 29 years	29	21.9
30 - 34 years	16	12.1
35 - 39 years	9	6.8
40 - 44 years	12	9.1
45 - 49 years	14	10.6
50 and above	35	26.5
Total	**132**	**100**

As shown in Table 5, respondents who were of age 29 and below formed 46 (34.9%) of the study. This increased number of the young professionals reflects the government's aim of increasing the intake of applicants into the nursing institutions, and the setting up of new nursing schools in almost all the regions. However, this increased and young breed of health personnel may not necessarily impact positively on the health delivery system. A personal interview with some clients and older nurses revealed that some of nursing, Florence Nightingale. Similarly, the researcher is a nurse - educator and her interactions with student nurses falls in line with report from clinical training sites

about student nurses during their clinical work.

Further explanation for this large representation could be that they had just graduated and were yet serving their bond; trying to acquire some experience; or still making travel plans. Ages 30 to 34 were 16 (12.1); 35 to 39 were 9 (6.8); 40 to 44 formed12(9.1) whilst those of 45 to 49 years were 14(10.6), indicating a possibility of brain drain of these age groups who have worked longenough and have gained a lot of experience. It is sad to note that those who were 50 years and above formed majority of the study, 35 (26.5%) an implication that within a decade all this bulk will go on pension with their rich experience. No wonder some people are of the view that retirement age for health professionals should attract an upward review of age 65.

Majority of the respondents 73 (55.3%) were married which is encouraging. This disproves the notion (phenomenon) that because the founder of nursing This disproves the notion (phenomenon) that because the founder of nursing. This disproves the notion (phenomenon) that because the founder of nursing This disproves the notion (phenomenon) that because the founder of nursing

However, 14(10.6%) did not disclose their marital status, this plus the 45 (34.1%) who where single still constitute a great number 59 (44.7%). Two scenarios could be deduced from this; some are of younger age and are still waiting to marry whilst those of higher ages could be due to the Nightingale's marriage phenomenon. Ghana is noted as a Christian dominated country and this was well replicated in this study. Only 15 (11.4%) were Muslims whilst the

majority 117 (88.6%) where Christians. No other religious affiliation was involved.

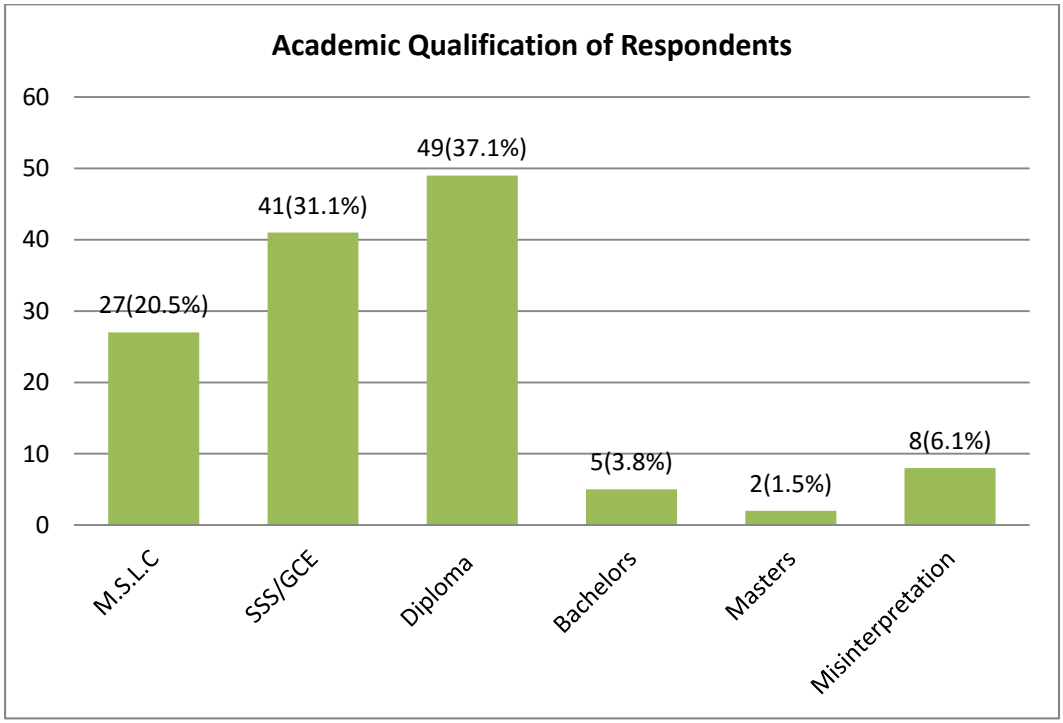

Figure 1: Academic Qualification of Respondents

Academic qualification of nurses has improved tremendously in line with the demands of society. As indicated in Figure1, only 27(20.5%) of them had MSLC whilst 41 (31.1 %) had SSS/GCE certificate and majority 49(37.1%) where diploma holders. Five (3.8%) and two (1.5%) had their first and second degrees respectively. Eight (6.1%) of the respondents misinterpretred their academic qualification as professional qualification. Most of the nursing institutions are diploma awarding institutions and these diplomats have the chance of progression to the university. Those of the MSLC where of advance age who will soon go on pension.

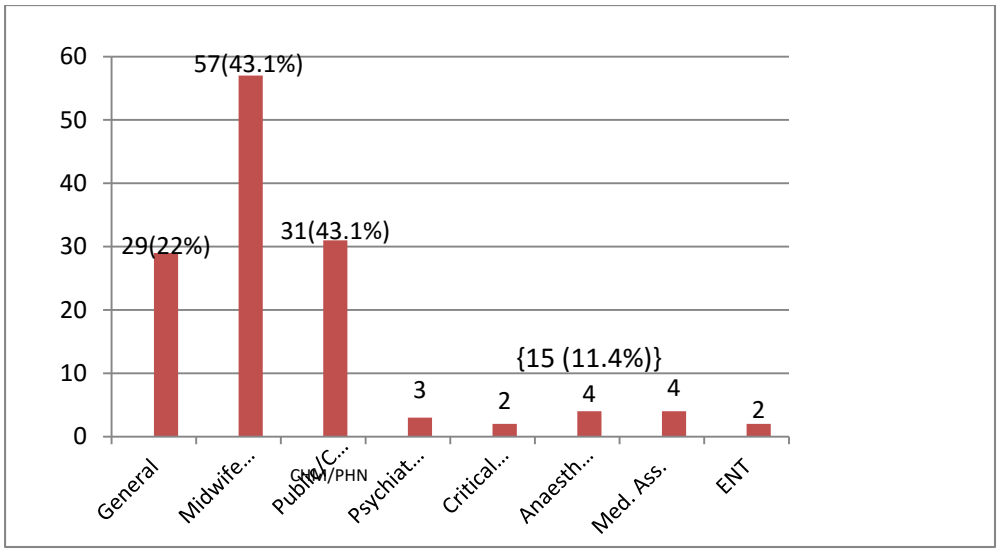

Figure 2: Distribution of Nurses by Specialization

Figure 2 shows that all the rank and file of nurses were involved; thus, rank was well represented. On the issue of specialization/category of nurses, midwives dominated the study with a representation of 57 (43.1%). This picture goes contrary with the cry of the ministry of health that midwives are in short supply. Indeed, the crust of the matter is that some are non practicing midwives. For instance, someone who is a public health nurse, anesthetist or a medical assistant might have specialized in midwifery prior to the current post. Secondly, this huge number of midwives in the study area testifies the challenge of mal-deployment of nurses that the government has to grabble with. Midwives who are valuable assets in the periphery to curb maternal and infant death prefer to work in urban areas where their services are less needed. Thirdly an interview with some visiting Ghanaian nurses from abroad revealed that general nurses who travel abroad easily get registered with their foreign nursing councils than midwives so it could

be that the general nurses have joined the brain drain wagon leaving the midwives because of bleach employment avenues for them. Another analogy could be that the government is using one stone to kill two birds. The current five-year development plan (POW III from 2007 to 2012) of the MOH/GHS embarks on revamping the human resources and vigorous efforts to maintain and retain them. In this vein the intake of midwife-trainees has doubled and there is the introduction of direct entry (registered/diploma) midwifery. Since a good number of them are being trained and they are not much needed by the international market, that pull factor is absent, compelling them to stay and serve mother Ghana. General Nurses, and public/community nurses contributed to 29 (22%) and 31(23.5%) respectively, whilst 15(11.4%) were of psychiatry nurses, critical care nurses, anaesthetists, medical assistants and ENT nurses all together.

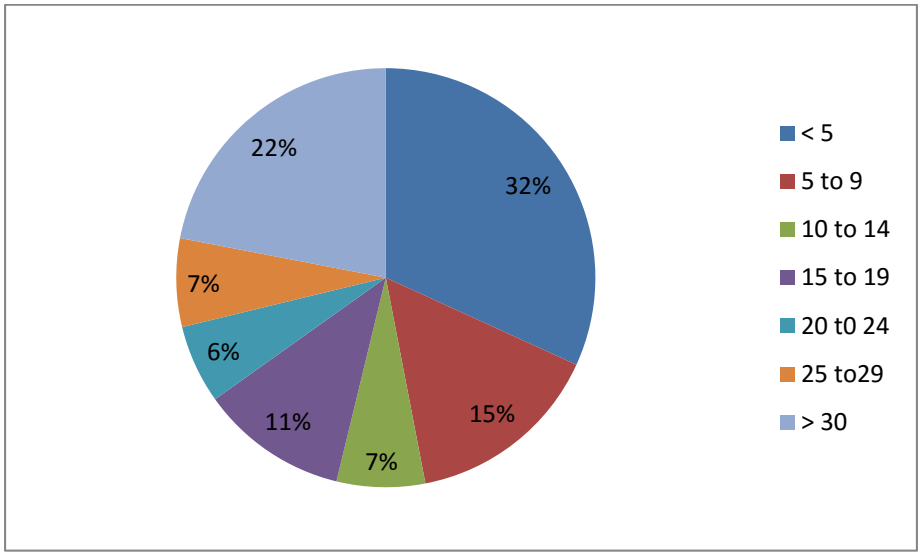

Figure 3: Years of Service as a Nurse

Figure 3 above summarizes the years of serves as nurses. 42 (31.8%) of them served less than five years and on the other extreme, 29(21.9%) served more than thirty years. This represents a large number of work force with little experience and unfortunately the experienced hands will soon lay off their tools for retirement. The number dwindled as they served longer (see figure 4.3 above), an implication that after serving their bond and gaining some experience they vote with their feet and leave for greener pasture.

Effectiveness of Measures to Curb the Brain Drain of Nurses

Researcher Question 1 was: *How effective are government's efforts at curbing brain drain of nurses?* The answer the question is presented under the following sub-headings:

1. Number of Nurses known to have left Ghana to work Abroad.
2. Travel plans of Nurses at post
3. Pull factors and their effects
4. Push factors and their effects
5. Motivators and demotivators
6. Perceived effectiveness of incentive packages

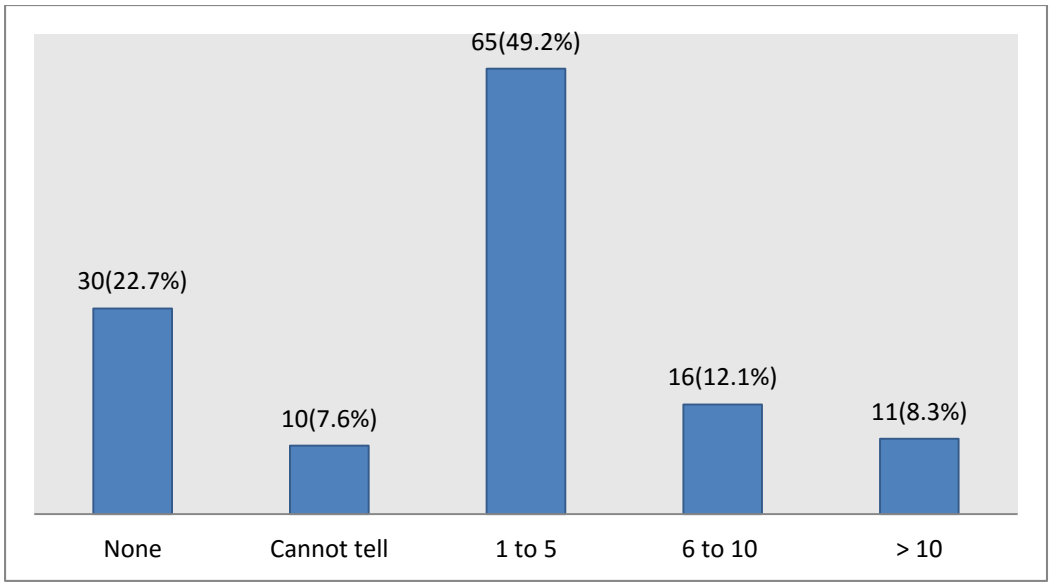

Figure 4: Number of Nurses who were known by Respondents to have Travelled to Work Abroad

In an effort to find out their travel plans and the number of nurses that traveled outside Ghana to work since the inception of the ADHA and other incentive none of their colleagues travelled within the said period whilst 10(7.6%) of them could not tell. The bar graph above gives a picture of known colleagues 11(8.3%) who said more than 10 of them travelled.

Travel Plan of Nurses at Post

Interestingly when asked about their own plans, 68(51.5%) of them expressed the desire to work outside Ghana if the chance comes their way.

Their reasons for this earnest desire were fuelled by push factors, pull factors, motivators and demotivators.

The push factors identified by respondents were:

1. Poor end of service benefits.
2. Lack of accommodation for nurses.
3. Delayed promotions.
4. Transportation difficulty for staff.
5. Because there is no more ADHA.

The pull factors were more than the push factors and include the following:

1. To know how nursing is practiced abroad. Advanced technology- improved knowledge and skills.
2. Better work condition such as insurance and free health care.
3. Availability of logistics and equipment to work with.
4. For recognition of their efforts and incentives.
5. To seek greener pasture.
6. For better salaries.
7. Better motivation over there.
8. Workers over there are well protected.
9. Just for a visit/pleasure.
10. Change of environment.
11. Learn new skills and knowledge.
12. “Because you earn what is due you”
13. For further studies.
14. To familiarize with others.
15. To satisfy financial commitments.
16. Less risk of infection/work related injury/risk allowance.

On the other hand less than 50% of respondents (44(33.3%) would like work for mother Ghana no matter the circumstances. Their motivating factors were the following:

1. They want to show their patriotism.
2. The government invested in their education so they in turn will have to serve Ghana.
3. To stay back home and take good care of family.
4. To share their rich experience with students and others.
5. “I love my country and home is always home”
6. The salary is manageable/there is salary increment.
7. Incentives are better now, so it’s worth working in Ghana e.g transportation, housing for staff.
8. To improve the health service in Ghana.
9. Working in Ghana earns me more respect especially in the neighborhood
10. Prospects for further studies are now better in Ghana.

Respondents however identified the following demotivators:

1. The process of acquiring genuine travel documents is tedious.
2. The climate over there is extremely cold.
3. Lack of interest to travel.
4. “I hate to over burden myself”
5. Because of age limit.

Those who sat on the fence were 20(15.1%). Some did not want to travel but did not give any reason. In a similar fashion, others expressed their desire of travelling

even though they could not accord any reason. The four nurse-administrators and principal of the only nursing school could not provide accurate statistics as to how many of their nurses had travelled to work outside Ghana. Most nurses who plan to travel do it under cover and mostly these things are not well documented.

This difficulty of obtaining classified information coupled with poor documentation practices have been expressed by earlier researchers. Also, the reasons given above are not different from findings on earlier studies by researchers such as Iredale, 2001; Kingma, 2001; Kline, 2003 & WHO 2006.

They can easily fit into the usual push andpull factors. Table 6 shows respondents' rating of the various measures taken to curb the brain drain of nnurses in terms of their perceived effectiveness of the measures.

Table 6: Perceived Effectiveness of Measures aimed at Curbing Brain Drain of Nurses

Measures	Ineffective	Can't tell	Effective
1. Additional Duty Hour Allowance (ADHA)	45(34.1%)	30(22.7%)	57(43.2%)
2. Cars for hire purchase	47(35.6%)	26(19.7%)	59(44.7%)
3. Housing scheme	52(39.4%)	19(14.4%	61(46.2%)
4. Improved promotion	39(29.5%)	37(28.0%)	56(42.4%)
5. Improved career path	35(26.5%)	45(34.1%)	52(39.4%)
6. Extended bond period	49(37.1%)	44(33.3%)	39(29.5%)
7. Withholding certificate	50(37.9%)	52(39.4%)	30(22.7%)

Table 6 above gives a statistical representation of their responses. With reference to the table, the first five incentives were rated as effective. In each case, majority of respondents rated Additional Duty Hour Allowance (ADHA); Cars for hire purchase; Housing scheme; improved promotion; and Improved career path as effective measures of curbing the brain drain of nurse. On the other hand, majority of nurses 49(37.1%) rated *extended bond period* as an ineffective measure of curbing the brain drain of nurses. Withholding nurses' certificates seems to be a dicey issue as respondents could not tell whether it is an effective measure or not. Apart from the seven item Likert scale question above, respondents were given the chance to suggest other incentives measures. They proposed the following incentives, the popularity of each proposed incentive being given by the number and percentage of respondents who suggested it:

1. Improved work environment 43(32.6%).
2. Planned exit and return schedule including further studies and exchange programmes 22(16.7%).
3. Creation of more opportunities for career development 14(10.6%).
4. 53(40.2%) of respondents did not propose any incentive measure.

One financial policy that cushioned health workers' pockets was the ADHA.

However, it had to be consolidated into their salary because of misappropriation and other operational problems. In line with this development, respondents' views were solicited as to whether consolidation of ADHA into salaries is more beneficial to workers or not. Majority 99(75%) were against its consolidation and below were their reasons:

1. The tax on it is too high so after all other deductions what is left is not sufficient.
2. Other workers compare it with their salaries and pass unhealthy comments.
3. When it was not consolidated it used to come in the middle of the month to
4. supplement the regular salary. Now that everything is collected in one piece, it finishes in no time.
5. Others even said that the ADHA was taken off totally. They do not see any difference in the ADHA and the actual salary.

The other 33(25%) were in favour of consolidation of the ADHA since it had good implication for them. For instance:

1. It enables them to source better financial assistance from the banks since amount of loan one can get depends on one's salary.
2. Whilst on leave one can still enjoy consolidated ADHA.
3. No more misappropriation or embezzlement.
4. The accountants, administrators, and institutional heads were taking the lions share to the disadvantage of those who really deserve it.
5. It also increases deductions for social security pension scheme.
6. No more discrimination.
7. No more inflation of extra duty hours.
8. No more delayed payment because it has been incorporated into the regular salary.

Work-Related Problems

The second Research Question was: *What are the problems facing nurses working in the Kumasi metropolis?* The following responses were gathered:

1. Poor administration; 52(39.4%).

i. Autocratic leadership which makes nurses timid and unable to voice their problems.

ii. Poor communication between nurses and management.

iii. Less respect from management.

iv. Lack/poor supervision by superior staff.

v. Sabotage from authority

vi. Unfriendly attitude of some senior staff.

vii. Poor interpersonal relationship within the various units.

viii. Discrimination among staff in terms of rank.

2. Inadequate motivation; 46(34.8%).

i. No incentives to boost morale.

ii. Irregular supply of uniform.

iii. Lack of certain amenities such as libraries at work place.

3. Poor career progression; 35(29.2%).

i. Difficulty in career advancement.

ii. Delayed promotions.

4. Shortage of staff/work load/high nurse-to-patient ratio; 21(15.9%).

5. Accommodation /Transportation problems; 17(12.9%).

i. Infrastructural problems, working in old buildings, congestion at work area.

ii. Lack of maintenance.

iii. Staying far from work place.

iv. No transport allowance.

v. Lack of transportation for outreach programmes.

6. Aged nurses with aging related problems; 16(12.1%).
7. Inadequate and obsolete equipment and logistics; 7(5.3%)

i. Modern technology is lacking.

ii. Frequent power outrages.

iii. Inadequate water supply.

8. Inadequate in-service training; 5(3.8%).
9. Exposure to occupational hazards; 4(3.0%).

i. Sexual harassment during home visits.

ii. Increased risk of infection e.g. tuberculosis, swine flu, hepatitis B.

iii. Work related injuries.

10. Ineffective security system; 2(1.5%).

i. Interference from visitors during work hours.

11. Inadequate doctors and specialist to attend to cases.2; 2(1.5%).

These findings fall in line with findings by Iredale (2001); Kline (2003) and WHO (2006). They summarized a number of reasons why health workers moved to richer countries. They described those reasons as "push factors" for they push people away, and those factors that offer prospects for better circumstances are known as "pull factors."

Thus, the push factors include: Workers' concerns about; Lack of promotion prospects; Poor management; Heavy workload; Lack of facilities; A declining health service; Inadequate living conditions; and high levels of violence and crime. In the same vein, the "pull factors" a safer environment, and family-related matters, Shah (2006).

Reasons why Nurses Travel to Work outside Ghana

The third Research Question posed was: *What are the factors that make nurses to migrate to other countries for the purpose of working there.* Thus participants were tasked to Identify in order of importance reasons for migration to work outside Ghana.

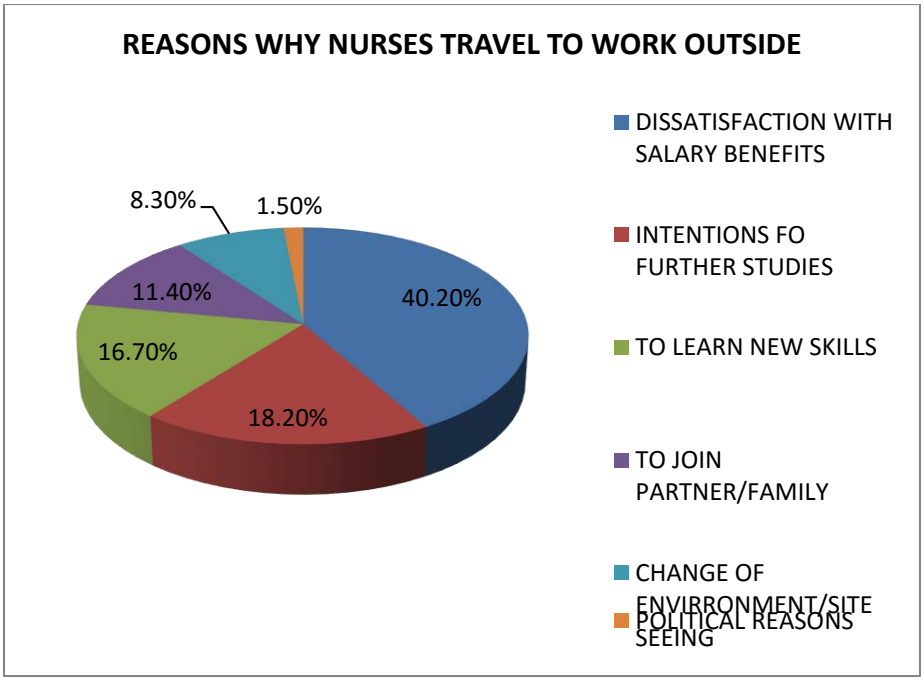

Figure 5: Reasons Why Nurses Travel to Work outside Ghana

Dissatisfaction with remuneration was an outstanding reason why nurses migrate from Ghana to work in other countries. Reading from Figure 5, majority of nurses (40.2%) ranked dissatisfaction with salary and other benefits as number one reason why nurses migrate to work outside. Second and third on the list were intentions for further studies and to learn new skills, which scored 18.20% and 16.70% respectively. Ghana is mostly said as the most peaceful and democratic among the West African countries, this was clearly depicted in the study as

political reasons was ranked last of the six reasons why nurses migrate to work out side Ghana. This however goes contrary to a study by Loefler (2001) who argued that the motivating factors for medical migration are not always financial gain but there are three reasons for doctors to migrate: one is to learn; the other to seek professional satisfaction combined with the opportunity to make a decent living; and the third one is to escape political oppression and professional stagnation.

Respondents' Views on How to Retain Nurses in Ghana

Research Question 4 sought answers for motivating factors that would facilitate retention of nurses in Ghana and the return of nurses who have migrated. The under listed points were raised from the questionnaire:

1. Nurses must be paid well; 54(41.0%).
    a. Satisfactory salary and benefits should be implemented.
    b. Provision of well packaged end of service benefits.
    c. Increase ADHA.
2. Solve accommodation problem; 41(31.1%).
    a. Rent deductions for nurses in government bungalows should be reduced.
    b. Nurses who do not reside in government bungalows should be given refundable financial assistance to rent accommodation.
    c. Low purchase/affordable housing scheme for nurses.
3. Provide the necessary tools to work with; 37(28.0%).
4. Good interpersonal relationship between management and staff; 30(40.0%).
5. Improve conditions of services; 22(16.7%).

    a. Educational policies for nurses' children.

6. Extension of bond period; 14(10.1%).
7. Regular in-service training; 14(10.1%).
8. Hire purchase cars should be extended to lower grades of nurses who are interested; 13(9.8%).
9. Study leave and sponsorship should be readily available for interested nurses; 12(9.1%).
10. Promotions must be given when due; 11(8.3%).
    a. Promotion interval should be reduced from 5 to 3 years.
11. Train more nurses to reduce work load; 10 (7.6%).
12. Further educational opportunities especially for the community health nurses; 8(6.1%).
13. Improve career path; 8(6.1%).
    a. They feel frustrated as it is not easy for them to progress academically and professionally because it is a certificate programme.
14. Plight of nurses should be looked at; 8(6.1%).
15. Early placement and mechanization; 6(4.5%).
16. Ghanaian nurses who work abroad should be taxed and that money channeled home for development; 5(3.9%).
17. Creation of distance education for nurses just as it's done for teachers; 3(2.3%).
18. Restructuring the health delivery system; 2(1.5%).
19. All health workers should have special treatment; 1(0.8%).

Respondents' Views on How to Facilitate the Return of Nurses Who have Migrated

Respondents made these suggestions which can enhance the return of migrated nurses. Improve salary towards the level paid over there; 34(25.8%).

1. Improve conditions of services; 32(24.0%).
    a. Nurses should be well motivated
    b. Risk allowance
    c. Accommodation allowance
    d. Uniform allowance
2. Provision of affordable houses for hire purchase; 26(19.7%)
3. Provision of good environment and work place; 25(18.9%)
4. Provision of modern logistics and equipment; 19(14.4%)
5. Process of reengagement should be made easy; 4(3.0%)
6. Good communication and lobbing with nurses working abroad; 3(2.3%)
7. The Ghana government should find out about the salaries and motivation over there and implement them in Ghana; 2(1.5%)

Respondents believe that if all the above conditions are met their colleagues in Diaspora will return to serve mother Ghana.

Findings from this study about the return and retention of nurses are similar to an earlier study by Stillwell; Diallo; Zurn; Vuljicic ; Adams and Dal Poz (2004). In their survey they provided a summary of factors that will enhance the return and retention of doctors in the interest of Nigeria's health system. Notable among their recommendations were to;

1. Equip hospitals to standards that make medical practice rewarding for patients and staff.
2. Increase public sector salaries.
3. Provide sponsorship for overseas training and conferences.
4. Subsidized housing and transport.
5. Develop incentives for return.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The challenge that motivated the researcher to undertake this study was that despite interventions put in place by the government to avert the brain drain of nurses, the public and the GHS and MOH officials keep mentioning brain drain as a contributory factor to problems of the country's health delivery sector. Therefore, the purpose of this study was to ascertain the effectiveness of measures aimed at curbing the brain drain of nurses in Kumasi.

A gap identified in the literature was that, though many studies had been done on the causes, effects and suggestions of turning brain drain round, there have been no studies to find out whether those interventions put in place are able to solve the problem. This provided the motivation for this study.

The descriptive survey design was used since it is the most appropriate design for such researches. The four sub-metropolitan hospitals (South Suntresu Hospital, Tafo government Hospital, Manhyia Hospital, and Kumasi South Hospital) were selected for the study because nurses in Kumasi seem to travel more than their counterparts in other places other than Accra. Simple random sampling was used to get most of the respondents (127), apart from five nurse-administrators who were all chosen because of their limited number. The

instrument used for the study was a self developed questionnaire. The data gathered was analysed and presented in frequency tables, pie and bar charts.

Summary of Findings

The study revealed that a large number of nurses are young with little experience; those of middle age and have much experience were few; and sad to note that those who will go on pension within the next 5 to 10 years were equally of a large number. The reasons why nurses in Kumasi migrate to work abroad were in congruence with what was seen in the literature review, they fitted well into the usually push and pull factors of brain drain. Among the seven measures put in place by government to curb the brain drain of nurses, five of them namely, Additional Duty Hour Allowance (ADHA); Cars for hire purchase; Housing scheme; improved promotion; and improved career path were rated as effective measures of curbing the brain drain of nurses. Even though these measures seemed to be effective, respondents still mentioned them under suggestions for the return and retention of nurses in Ghana. It could be that much as they are effective, nurses still need to see more of those kinds, or they were singing a song but dancing to a different tune. The other two measures namely, *extended bond period;* and *withholding nurses' certificates* were rated as ineffective. Another worry was that about half of nurses 68(51.5%) surveyed declared their intention to travel abroad if the chance comes their way.

Conclusions

It can be inferred from the findings that some nurses in Kumasi are not happy with their work conditions. This was clearly seen in the lengthy lists of things that militate against their work, and things that should be put in place to facilitate the return and retention of nurses. It is clear that majority of those measures embarked by the GHS and MOH to curb the brain drain of nurses are effective. However, nurses are still yearning for better incentives to boost their morale and beckon their colleagues in the diaspora to come and join them. This is a true instinct of humans as explained by human theorists like Abraham Maslow's famous theory of human needs. As basic needs are attained, one tends to look out for other needs.

Recommendations

Emanating from the data analysis, discussions and findings of the study, the following recommendations are made for perusal.

1. The MOH and GHS should conduct a large scale research into the effectiveness of the measures aimed at curbing the brain drain of nurses.
2. The various nursing groups should give suggestions as to what will prevent them from migrating to work out side Ghana. And those out there should suggest what will motivate them to come and serve their country.
3. That MOH and GHS should think about brain circulation (as embarked by other countries) alongside the drive to curbing the brain drain.
4. Government could register migrant nurses and enter into an agreement with receiving countries to repatriate an agreed percentage of the nurses'

earnings to Ghana. Such, money could be used to increase the level of incentives for nurses who remain to work in Ghana.

Suggestion for Further Research

There is something that baffles the mind of the researcher, which other readers may equally look out for. Management and human relations issues were mentioned as key obstacles to the work of nurses. However, it was never raised on things that will facilitate the return and retention of nurses in Ghana.

There is the need for further research to address these management and human relationship issues.

REFEREENCES

American Organization of Nurse Executives (2003). *Policy statement on foreign nurse recruitment*. Retrieved on January 13, 2008 from www.aone.org.

Bundred, P. E., & Levitt, C. (2000). Medical migration: Who are the real losers? *Lancet, 356*, 245–246.

Buchan, J., Parkin, T., & Sochalski, J. (2003). *International nurse mobility: Trends and policy implications*. Geneva; World Health Organization. Retrieved on January 13, 2008 from http://www.icn.ch/Int_Nurse_mobility%20final.pdf.

Buchan, J., & Sochalski, J. (2004). The migration of nurses: Trends and policies. *Bulletin of the World Health Organization, 82*(8), 587-594.

Chikanda, A., (2005). Nurse Migration from Zimbabwe: analysis of recent trends and impacts *Nursing Inquiry 12*, (3), 162–174.

Dapaah, (2007). *Is it brain drain or brain waste that perturbs Ghana (the appetizer)* Retrieved on 15/04/09 from http://ghanaconscious.ghanathink.org/node/409

Diallo, K. (2004). Data on the migration of health care workers: Sources, uses, and challenges. *Bulletin of the World Health Organization, 82*, 601-607.

Dodani, S & Laporte, R. E. (2005). Brain drain from developing countries: how can brain drain be converted into wisdom gain? *The Royal Society of Medicine, 98* (11) 487–491.

Dovlo, D. (2004). *Causes of health worker migration: perspectives from Ghana. Voices of health workers.* Paper presented at: Institute of Futures Studies Workshop on Global Migration, 13 June 2004 at Stockholm, Sweden. Available from: http://www.framtidsstudier.se/eng/ global/MobReg/Dovlopaper.pdf. (http://www.thefreedictionary.com/brain drain, retrieved on 24/04/09).

Hodzongi,H (2004). migration of health personnel in Zimbabwe. Retrieved on15/04/09 from http://www.queensu.ca/samp/guestbook/index.php

Iredale, R. (2001). *The migration of professionals: Theories and typologies. International Migration, 39* (5), 7-26.

Kingma, M. (2006). *Nurses on the move: Migration and the global health care economy*. Ithaca, New York: Cornell University Press.

Kingma, M. (2007). Nurses on the move: A global health overview. *Health Services Research,* 42, 1281-1298.

Kline, D. (2003). Push and pull factors in international nurse migration. *Journal of Nursing Scholarship,* 35, 107-111.

Kiriga, J. M; Gbary A. R; Muthuri L. K; Nyoni, J & Seddoh, A .(2006). *The cost of health professionals' brain drain in Kenya,* BMC Health Services Research. Published online 2006 July 17. doi: 10.1186/1472-6963-6-89. Retrieved on 26/6/2009.

Loefler, I. J. P. (2001). Medical migration. *Croatian Medical Journal,* 42, 504-505.

Martineau, T; Decker, K. & Bundred, P. (2004). Brain drain of health professionals: From rhetoric to responsible action. *Health Policy,* 70, 1-10.

MOH (2005) Review of Ghana Health Sector 2005 Programme of Work).Accra: MOH.

NCHS (2007). Staff morbidity factors. *Health concern*, *2* 0855-8795,6, 16.

Nurses and Midwives' Council of Ghana (2005, Jan -Dec) *News letter 2* (2),

Plgar, S Shane, A T (1995). Introduction to Research in The Health Sciences (3rd ed.) Edingburgh: Churchill Livingstone.

Perrin, M.E; Hagopian , A; Sales, A.; & Huang, B. (2007). Nurse migration and its implications for Philippine hospitals International Nursing Review (54) 3, 219- 226.

Quarshiga, C. (2005). *Creating wealth through health*. Accra: MOH

Raufu, A. (2002). Nigerian health authorities worry over exodus of doctors and nurses. *BMJ,* 325,64-65

Ross, S.J., Polsky, D., & Sochalski, J. (2005). Nursing shortages and international nurse migration. *International Nursing Review,* 52, 253–262.

Sarantakos, O. (2005). *Social Research* (3rd ed.) New York: Palgrave Macmillan.

Savaria, M.G., & Miranda, J.F. (2004). Plumbing the brain drain. *Bulletin of the World Health Organization,* 82, 608-615.

Shah, A (2006). *Brain Drain of Workers from Poor to Rich Countries,* retrieved on 16/04/09 at http://www.globalissues.org/article/599/brain-drain-of-workers-from-poor-to-rich- countries**.**

Stillwell, B; Diallo, K; Zurn, P; Vuljicic. M; Adams, O & Dal Poz, M (2004). Migration of health care workers from developing countries: strategic approaches to its management. *Bulletin of the World Health Organization;* (82), 595-600.

Smith, P., & Macintosh, M. (2007). Profession, market, and class: nurse migration and the re-making of division and disadvantage. *Journal of Clinical Nursing,* 16, 2213-2220.

Schrecker and Labonte (2004). Taming the Brain Drain:A Challenge for Public Health Systems in Southern Africa. Retrieved on 16/04/09 at www.ijoeh.com.

Tebeje, A**.** http://www.idrc.ca/en/ev-71249-201-1-DO_TOPIC.html 9/18/2009.

Warren, R.D., (1979). *Private communication. Department of statistics, Iowa: Iowa State University.*

WHO (2006). Managing exits from the workforce. *World Health Report* pp.98-112 New York:WHO.

Xu, Y & Zhang, J. (2005). One Size Doesn't Fit All: Ethics of international nurse recruitment from the conceptual framework of Stakeholder Interests. *Nursing Ethics*, 12(6), 571 - 581.

Xu, Y., & Zhanyeong, K. (2005). Characteristics of internationally educated nurses in the United States. *Nursing Economics*, 23, 233-236.

Young (2008). *Brain Drain in Ghana; Global justice: Tipping the Scales.* Retrieved on 15/04/09 from http://davostoseattle.wordpress.com

Zurn, (2005). Efforts Under Way to Stem 'Brain Drain' of Doctors And Nurses. *Bulletin of the World Health Organization, (83)* 2, 84-85.

APPENDICES

APPENDIX A

UNIVERSITY OF CAPE COAST
FACULTY OF EDUCATION
INSTITUTE FOR EDUCATIONAL PLANNING AND ADMINISTRATION

Tel. No. : 042-33824
Fax No. : 042-30588
E-mail : ucciepa@yahoo.co.uk

University Post Office
Cape Coast
Ghana

Our Ref. EP/90.1/V.2/82

27th May, 2010

……..
……..
……
……..

LETTER OF INTRODUCTION

The bearer of this letter, **Ms Margaret Mary Alacoque Dapilah** is a graduate student of the Institute for Educational Planning and Administration of the University of Cape Coast. She requires some information from your outfit for the purpose of writing a dissertation as a requirement of M.Ed degree programme.

We would be grateful if you would kindly allow her to collect the information from your outfit. Kindly give the necessary assistance that **Ms Dapilah** requires to collect the information.

While anticipating your co-operation, we thank you for any help that you may be able to give her.

Thank you for your co-operation.

Mr. Y.M. Anhwere
ASSISTANT REGISTRAR
for: Director

APPENDIX B

QUESTIONNAIRE

INSTITUTE FOR EDUCATIONAL PLANNING AND ADMINISTRATION

This questionnaire is intended to elicit information on the effectiveness of measures aimed at curbing the brain drain of nurses in the Kumasi Metropolis. This is purely an academic exercise and the information provided will be anonymous and kept confidential. Please, respond to the test items as frankly as possible.

SECTION A

BACKGROUND CHARACTERISTICS OF RESPONDENTS

Respond by ticking the appropriate box.

1. Gender.

Male ( )

Female ( )

2. Age as at last birthday.

Less than 25 years ( )

25 - 29 years ( )

30 - 34 years ( )

35 - 39 years ( )

40 - 44 years ( )

45 - 49 years ( )

50 and above ( )

3. Marital Status.

Married ( )

Single ( )

4. Religious Affiliation.

Christianity ( )

Islam ( )

Traditional Religion ( )

Others (specify)……

5. Academic Qualification.

M.S.L.C ( )

SSS/GCE ( )

Diploma ( )

Bachelor's Degree ( )

Master's Degree ( )

Others (specify)……

6. Rank

S.N ( )

SSN ( )

NO ( )

SNO ( )

PNO ( )

DDNS ( )

Others (specify)…….

7. Area of specialization

General ( )

Midwifery ( )

Public/Community ( )

Psychiatry ( )

Critical Care ( )

Anaesthetiology ( )

Medical Assistant ( )

Others (specify)……

8. Years of Service

Less than 5 years ( )

5 - 9 ( )

10 – 14 ( )

15 - 19 ( )

20 - 24 ( )

25 - 29 ( )

30 years and above ( )

SECTION B
TRAVEL PLANS

1. How many of your colleagues have traveled outside Ghana to work since the inception of the ADHA and other incentive packages?

2. Given the chance would you prefer to work outside Ghana? Yes ( ) No ( )

3. Give reason(s)……..

……..……

.....……

……

……..……

NB. Only Nurse-Administrators and Principal of school should answer question 4 and 5.

4. How many of your nurses have traveled outside Ghana since the inception of the ADHA and other incentive packages? ……..……

5. How many of your students/nurses have asked for transcripts or testimonials to foreign countries? …….

SECTION C

EFFECTIVENESS OF MEASURES AIMED AT CURBING BRAIN DRAIN OF NURSES			
How would you rate the effectiveness of these measures?			
Please tick the most appropriate column.			
Measures	**Ineffective**	**Can't tell**	**Effective**
1. Additional Duty Hour Allowance (ADHA)	( )	( )	( )
2. Cars for hire purchase	( )	( )	( )
3. Housing scheme	( )	( )	( )
4. Improved promotion	( )	( )	( )
5. Improved career path	( )	( )	( )
6. Extended bond period	( )	( )	( )
7. Withholding certificate	( )	( )	( )
Others (specify) ……..			

9 …….....	( )	( )	( )
10……..	( )	( )	( )
11would you say that consolidation of ADHA into salaries is more beneficial to workers? Yes ( ) No ( )			
Give reason(s)……			
…… ……..			

SECTION D

WORK RELATED PROBLEMS

State the factors which hinder your performance as a nurse.

1. ……
2. ……
3. ……
4. ……
5. ……

SECTION E

REASONS FOR MIGRATING TO WORK OUTSIDE GHANA

Identify in order of importance, reasons for migration to work outside Ghana.

Reasons/Factors Rank order (place 1st, 2nd. etc. in the bracket)

1. Dissatisfaction with salaries and benefits. ( )
2. Change of environment/site seeing. ( )
3. To join partner/family. ( )

4. Political reasons. ( )

5. Intention for further studies ( )

6. To learn new skills. ( )

7. Others (specify)…….. ( )

…….. ( )

SECTION F

RECOMMENDATIONS FOR RETURN AND RETENTION

OF NURSES IN GHANA

In your opinion, what other measures could be taken to facilitate;

(i) The return of nurses to Ghana

……

……

……

……

……

(ii) The retention of nurses in Ghana

……..……

……

……

……

……

Thank you very much for contributing to this study!!!