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MIGRATION OF HEALTH PROFESSIONALS IN SIX COUNTRIES: *A Synthesis Report*



WORLD HEALTH ORGANIZATION
Regional Office for Africa
Brazzaville

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A SYNTHESIS REPORT

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Executive Summary

There is growing concern about the migration of skilled health professionals in the Africa region. Occasional press reports have reported on the magnitude and effects of migration of health professionals, but research and information on issues relating to their migration has been scanty. It was therefore deemed necessary to undertake research to provide evidence of the magnitude of the problem so as to enable policy makers to plan ahead using accurate information.

This report presents findings of a study conducted October 2001 - July 2002 on the migration of health professionals in four Anglophone and two Francophone African countries: Cameroon, Ghana, Senegal, South Africa, Uganda and Zimbabwe. The report provides detailed information about migration patterns and numbers, reasons for migration, effects on the quality of health care and the policies being undertaken in the respective countries to reduce outward migration. These findings can contribute to the development of human resource policies and strategies to strengthen the capacity of health systems to deliver efficient and effective services.

Several ecological zones were sampled based on country-specific criteria. Policy makers and health professionals were interviewed and data was collected from available documents, through focus group discussions of community stakeholders and by in-depth interview of key informants. Data was processed and analysed using EPIINFO 2000. Diagrams and comparison of proportions were used for quantitative data, and qualitative and quantitative content analysis for qualitative data.

Because of information gaps and lack of proper information on staffing, it was not easy to establish the extent of migration of health professionals in the countries studied; it was also difficult to identify the trends in employment. However, useful insights were drawn from the data that was collected.

Contrary to popular opinion, the number of registered health professionals increased substantially or marginally in all the countries studied during the period under review (1991-2000), except in the nursing profession. The increases were more pronounced among doctors and dentists, but were less significant among pharmacists and midwives.

In the public sector, there were notable increases in the number of doctors employed in Cameroon, Senegal and Uganda, however notable declines were experienced in Ghana, South Africa and Zimbabwe. The number of dentists in the public sector increased in Senegal, South Africa and Uganda and was stable in Cameroon and Ghana. In all the countries studied, there were notable declines in the numbers of nurses and pharmacists employed in the public sector.

Internal migration, mostly from the public to the private sector and from rural to urban areas was pronounced, although international migration is also a problem. The reasons given for migration to the private sector included better salaries and better working conditions compared to the public sector. Furthermore, private health institutions were considered to have better supplies of drugs and better equipment. The factors cited for movement from rural to urban areas were lack of infrastructure and other facilities in rural areas; few opportunities for professional advancement; limited opportunities for private practice; and lack of basic equipment and drugs in health institutions located in rural areas.

The rural-to-urban migration of health professionals has led to a shortage of health professionals in disadvantaged areas. At the local level, the migration of health professionals has increased the workload of the remaining workers employed in disadvantaged health institutions. Evidence from the Ghanaian and Zimbabwean surveys show that health professionals employed in urban areas have lower workloads than those employed in rural settings. In addition, health institutions located in remote areas are poorly staffed, which means that those who opt to work in such locations have to endure the heavy workloads.

Substantial proportions of health workers, ranging from 26% in Uganda to 68% in Zimbabwe, are thinking of emigrating to other countries. While intention cannot be considered a firm indicator of future trends, it is nonetheless a cause for concern. The most popular destinations cited by the respondents are the United Kingdom (UK) and the United States of America (USA). In the Francophone countries surveyed, France and Canada also ranked high among the prospective destinations.

The reasons for the intention to migrate vary. Economic factors were the most frequently cited, but there are also institutional factors such as declining health services, professional reasons (e.g. upgrading professional qualifications) and political factors such as crime and political violence.

The migration of skilled health professionals from Africa has adversely affected the quality of care offered in health institutions. Quality, effectiveness, and equity of care are closely linked to the impact of migration from the public sector. The movement of health professionals to the private sector has seriously disadvantaged the poor, most of whom cannot afford the huge fees charged at private health institutions. The communities perceived the quality of care they receive from health institutions as being poor, as they have to wait for a long time before receiving medical attention, which is then hurried because of the patient load. In countries such as Zimbabwe and Cameroon, the migration of health professionals has made it necessary for non-qualified personnel to perform duties that are normally beyond their scope of practice.

Measures put in place by countries to mitigate the effects of migration include resorting to the use of foreign health personnel, bonding of newly qualified graduates, providing more opportunities for professional advancement and periodical salary reviews. However, these measures have largely failed to retain and attract new staff to the public sector, as the conditions have not improved significantly and piecemeal approaches have been implemented.

It is hoped that this report will generate interest in further study of the issues relating to the migration of health professionals in Africa. The report provides useful insights and details that can assist policymakers in making informed decisions. In view of the important effects of the migration of health professionals on Africa's largely rural populations, the report proposes comprehensive and integrated approaches that, if implemented, should be able to reduce the outward flow of professionals from the health sector.

1.1 Background

African countries are confronted with the growing problem of the mass exodus of health professionals to the more developed countries. Migration of personnel is defined as, “the voluntary movement of workers from one employment station to another in search of different working arrangements”. It occurs within and across national boundaries. The expression 'brain drain' refers to a situation where skilled persons move across national boundaries. Even though the phenomenon is not new to the continent, there is concern over the acceleration of the problem in recent years. Owing to a wide range of economic and political factors, health professionals have been leaving for destinations within the region and abroad. The advent of more efficient electronic communication networks since the 1990s has made the movement of health professionals much easier than before, as potential migrants are better informed of opportunities in other countries.

The Report of the Special Working Group on the World Health Organization (WHO) Constitution and the Brain Drain Problem in Africa (WHO, 1997) recommended that WHO request member countries to evaluate the magnitude of problems associated with the movement of health professionals. The resolution WHA54.12 on Strengthening Nursing and Midwifery was adopted in May 2001. In accordance with this resolution, Member States requested the Director General of WHO to provide support in setting up mechanisms for inquiry into the global shortage of nursing and midwifery personnel.

In Africa, the public health sector is arguably the most seriously affected by the migration of health professionals, as the sector plays an important role in providing health services to the bulk of Africa's population, most of whom are classified as poor. The private health sector is a relatively new development in most countries and typically operates on a for-profit basis. Health services run by non-governmental organizations (NGOs) and health-related organizations are, however, run on a not-for-profit basis. Since most private service providers charge high fees for health services, they tend to exclude the poor. The private health facilities are generally well staffed and have a good supply of drugs and equipment. On the other hand, funding for institutions in the public health sector is shrinking in most countries. Due to low budgetary allocations, public health institutions are experiencing shortages of protective clothing, basic equipment and drugs; they also have not been able to offer their staff competitive salaries, as governments have been put under pressure by multi-lateral lending institutions to reduce public expenditure and the wage bill.

Several studies that have been conducted on the brain drain phenomenon have primarily centred on migration from developing countries. Particular focus has been given to such aspects as the role of recruitment agencies; the permanent emigration of students who have studied abroad and chose not to return; the underlying causes behind the desire to migrate; and the overall effect that this has had on health care delivery. These studies have neither critically examined the causes of migration, nor have they quantified the migration of skilled health personnel in the Africa region and the effects thereof. The qualitative effects of migration on the delivery of health services have also not yet been examined thoroughly.

This report presents the results of surveys that were conducted in six African countries, namely Cameroon, Ghana, Senegal, South Africa, Uganda and Zimbabwe. It provides detailed information about migration patterns and numbers, the reasons for migration and its effects on the quality of health care. The study also examines policies being undertaken in the respective countries to reduce outward migration. The findings of this report can be used to develop human resource policies and strategies to strengthen the capacity of health systems to deliver efficient and effective services. It is a timely response to the expressed needs for better information in this area from within the World Health Organisation, the Member States and their development partners.

1.2 Statement of the problem

The International Organization for Migration (IOM) estimates that approximately 20 000 Africans in various professional occupations leave Africa each year for the western industrialized countries. This 'global movement' (in this case, the migration of health personnel) most commonly stems from the desire to achieve more both personally and professionally. This aspiration is combined with factors that emanate from the political, economic and general living conditions within each country (WHO, 1997).

Health care delivery is highly labour intensive. The quality, efficiency and equity of services are all dependent on the availability of skilled and competent health professionals where and when they are needed, and who are appropriately trained to deliver the required services at a high standard. Health sector restructuring is underway in many countries, and decentralization and privatization are influencing traditional patterns of work and health-sector financing. In addition, globalization is changing expectations about location and regulation of work (ICN, 2001). The migration of health professionals from one geographical area to another, from the public to the private sector, from areas of generalization to areas of specialization, from medical to non-medical fields, and from one country to another, affects the capacity of the health system to maintain adequate coverage, access and utilization of services.

The available literature consistently reports that many African health professionals are dissatisfied with their current situation. The common reasons for dissatisfaction are delayed salaries, delayed promotions, lack of recognition, and an inability to afford the basic necessities of life. Consequently, health professionals often migrate to seek more profitable situations, both financially and intrinsically.

There is a growing concern in the African region with regard to the effects of the 'brain drain' and the outside recruitment of health professionals, especially physicians and nurses, to posts in developed countries such as the United Kingdom (UK) and the United States of America (USA) (Mutizwa-Mangiza, 1998; Dovlo, 1999). The obvious solution is to develop policies and strategies that will help to retain and attract personnel in the health sector in the home country. The issues that influence retention and return of health personnel are not well understood; however, and therefore require a detailed study. This is an area of concern that has been echoed by most of the countries in the Africa region.

1.3 Research questions

In response to these concerns, a study was commissioned to be conducted in six countries within the WHO African Region, in order to find answers to the following questions:

- 1.3.1 What is the magnitude of the migration of skilled health personnel? What are the temporal and other patterns of this migration?
- 1.3.2 Why do health professionals decide to migrate, to stay, or to return to their home countries?
- 1.3.3 What are the effects and/or consequences of migration?
- What are the effects of migration of skilled health personnel on health care delivery?
 - What are the effects on other health professionals and on newcomers into the professions when their colleagues migrate?
 - What are some of the economic consequences of migration?
- 1.3.4 What can be done to retain skilled health personnel, or to mitigate the effects of migration?
- What policies or strategies have been successfully, or not successfully applied?
 - What are the reasons and determinants of successful application of policies and strategies?
 - What suggested strategies can be used to reduce outward migration of skilled health personnel from the African region?
 - What are the roles of governments, donors, partners and the communities in addressing the situation?

1.4 Basic hypotheses

The research was designed based on the following assumptions:

- Poor economic performance negatively impacts on job security of professionals.
- Unfavourable health sector reform processes negatively affect organizational factors, and consequently also the behaviour of skilled health personnel.
- Strong support from partners for the health system improves the organization of health services and therefore reduces the tendency of skilled health personnel to migrate.
- Adverse socio-cultural factors, socioeconomic factors and organizational factors increase the likelihood of younger skilled health personnel migrating.
- Migration of older skilled health personnel has a negative impact on the functionality of service delivery.
- Technical, professional support of senior colleagues encourages more junior health personnel to stay in peripheral institutions.
- High quality (international standard) training programmes that are country-specific positively impact on the retention of skilled health personnel.
- Continuing education increases self-esteem and professional pride, and results in a greater wish to remain in the health services, particularly for those in peripheral institutions.
- Negative relations between skilled health personnel and community members 'pushes' skilled health personnel out of the community.

1.5 Study aim and objectives

The aim of the six-country study was to assess the magnitude of migration of skilled health personnel, to analyse the consequences thereof on health care systems and to make recommendations on ways of retaining skilled health personnel in countries. The specific objectives of the study were to:

- 1.5.1 Determine the number of skilled health personnel who have migrated into, within, and out of the six countries (Cameroon, Ghana, Senegal, South Africa, Uganda and Zimbabwe) over the ten-year period 1991-2000.
- 1.5.2 Identify trends in migration of skilled health personnel in the Africa region from 1991 to 2000.
- 1.5.3 Identify factors that motivate skilled health personnel to migrate, to remain in their home countries, or to return to their home countries at a later stage.
- 1.5.4 Determine the effects of migration of skilled health personnel on health services delivery.
- 1.5.5 Identify human resource policies, strategies and practices that influence the deployment, retention or return of skilled health personnel.
- 1.5.6 Identify existing strategies to mitigate the adverse effects of migration of skilled health personnel.
- 1.5.7 Recommend appropriate strategies and policies to reduce the migration of skilled health personnel.

CHAPTER 2: LITERATURE REVIEW

Poor job satisfaction and low morale are endemic among health professionals in Africa (Bloom and Standing, 2001). Consequently, health professionals are leaving the continent in search of better opportunities elsewhere.

The six countries studied exhibit significant socioeconomic variations, and the patterns and magnitude of migration within the countries are also varied. Given the paucity of data on the extent of the problem in these countries, it is difficult for policy makers to make informed decisions.

A literature search conducted on the six countries in which the studies were conducted provided limited information on the migration of health professionals. Past migration research in all six countries has generally focused more on internal migration. The migration of skilled workers in general, and that of health professionals in particular, has been poorly reported in the literature. However, the data collected in this study provides some insights on the magnitude of migration in the countries in question.

2.1 Country surveys

In **Cameroon**, the migration of health professionals has been a cause for concern to health authorities over recent years. Whereas in 1990 there was one medical doctor per 11 407 inhabitants, the ratio had increased to one medical doctor per 14 730 inhabitants in 1997 (Ministère de la Santé Publique, Stratégie sectorielle de Santé, 2001). Although these figures have recently improved, they led the Ministry of Public Health to evaluate the status of the human resources in the entire health system. Salient features of the diagnosis include non-rational allocation of personnel, low productivity, and qualitative and quantitative shortage of health professionals caused by a number of factors: low recruitment in the health sector for the past ten years, voluntary and/or compulsory departures, emigration, retirement and deaths.

In **Ghana**, only a few research studies have focused on the factors leading to the migration of health professionals. Dovlo (1998), for instance, examined the issues of health sector reform and deployment, and on training and motivation of human resources. Dovlo and Nyanator (2001) examined the migration of medical graduates from the University of Ghana's Medical School. The effect of such losses has been largely negative on health care delivery in the country. The World Bank (1993) estimated that there was 1 doctor to 22 970 people in Ghana in 1990. The ratio was 1 to 420 and 1 to 810 in the US and UK, respectively, while it has been estimated that the minimum essential and public health interventions require about 1 physician per 10 000 population (World Bank, 1993).

In **Senegal**, most studies conducted on migration have focused mainly on internal migration. It has been demonstrated that most migrants end up in Dakar, the capital. However, a comprehensive study on international migration was conducted in Senegal by the Eurostat/NIDI in 1997/98 under the project *The Push and Pull Factors of International Migration*, and was also conducted in Spain, Italy, Egypt, Ghana and Morocco. The study conducted in the Dakar region and Touba in the Diourbel region showed that more than four households out of ten were affected by migration. The study also established that the search for suitable employment was the major cause of international migration (Robin et al., 2001). However, studies focusing on health professionals have been scanty.

The migration of health professionals from **South Africa** has attracted scholarly attention in recent works. While numerous studies have been conducted on the quality of health care in South Africa (Lee, 1996; Pick, 1996; Shisana, 1996), this has not been directly linked to the migration of health professionals. In South Africa, the causes and patterns of migration are complex, and are predominantly determined by political and economic factors. It has been claimed that a large percentage of South African doctors are leaving for overseas. For example, Ncayiyana (1999) estimates that as many as 30% of South Africa's doctors are leaving for greener pastures in Australia, Canada, Britain and the United States. The lack of official emigration figures has led to an under-estimation of the phenomenon of migration since many professionals do not formally emigrate but register with the professional councils using local addresses. Despite the number of doctors emigrating, many foreign doctors migrate to South Africa because they see the salaries and working conditions there as attractive (Kale, 1995).

The problem of maldistribution of health personnel in South Africa is well known and documented. In his article on the arrival of Cuban doctors in South Africa, Lee claims that the new democratic government's failure to advertise the availability of rural posts adequately is responsible for the lack of health professionals in rural communities (Lee, 1996). Pick suggests that the shortage is historical and that the *apartheid* regime, obsessed with racial discrimination, failed to address the problem of providing health personnel for the rural, largely black population, despite numerous publications illustrating the inequitable distribution of health personnel (Pick, 1996). Shisana writes that the South African government's restrictive registration process was to ensure that well trained doctors come to South Africa, largely facilitated by government-to-government agreements, thus ensuring an organized supply of doctors (Shisana, 1996). A study conducted at the University of the Witwatersrand in 1989 revealed that 32% of all senior medical students were considering emigrating. At that time, military service ranked highest as a reason for migration and students suggested that alternative community service as a civilian doctor would deter them from emigrating (Michelow et al., 1990).

In **Uganda**, only a few studies have been undertaken on the migration of health professionals. However, relevant literature points out that the country's brain drain started in the early 1970s during Idi Amin's regime when highly qualified staff (mostly doctors) fled Uganda. For instance, Whyte (1991) notes that the number of doctors dropped from 978 to 574 between 1968-74 while the number of pharmacists fell from 116 to 15 over the same time period. Consequently, the doctor-to-patient ratio rose significantly from 1: 9200 to 1: 27 600 over the same time period. By 1985 the state-run health services were seriously understaffed, underfinanced and poorly equipped (Nabuguzi, 1995). Rural health centres and dispensaries were the worst affected.

In **Zimbabwe**, research on migration issues has largely focused on internal migration (see for example Potts and Mutambirwa, 1990; Potts, 1995). However, more recent studies have been conducted on the emigration of health professionals from the country. Gaidzanwa (1999), for instance, examined the migration of nurses and doctors in the era of the Economic Structural Adjustment Programme (ESAP). Other studies have focused on the impact of health sector reform on the motivation of health professionals (Mutizwa-Mangiza, 1996; Republic of Zimbabwe, 1999; Ndlovu et al., 2001). Gelfand (1988) has documented developments in the profession during the colonial era, while Mutizwa-Mangiza (1996) has recently explored the nature and extent of medical practitioners' autonomy and the dominance of government-employed doctors in Zimbabwe.

Mutizwa-Mangiza (1998), in her study of the impact of health sector reform on the motivation of health professionals in Zimbabwe, states that because of staff leaving the public health sector, one hospital has a staff of 16, less than half of the 50 it should have. This situation is mirrored throughout Zimbabwe. In addition, the stresses caused by handling several HIV/AIDS-related deaths every day takes its toll on nurses, many of whose colleagues also suffer from the disease (Stilwell, 2001). Disenchanted by the poor working conditions and the government's indifferent response to their needs, public sector health professionals are moving to the private sector and to other countries where their skills are rewarded better. This has resulted in skeleton staff servicing the overburdened public health service sector. A number of rural health centres have no trained staff and are run by nurses' aides whose competency is limited.

2.2 Push and pull factors

The International Council of Nurses (ICN) states that in order to counteract migration, it is imperative to understand the patterns, underlying causes and the long-term consequences of migration on health care delivery. The pattern of migration is one that flows from rural to urban, lower income areas to the more affluent, and from less developed to industrialized countries. In addition, health professionals also move from the public to the private sector in the health service, and from the public to the private commercial sector (e.g. pharmaceuticals) as well. In the case of nurses, the main causes of migration ('push' factors) stem from the desire for more professional development opportunities, the need for greater wage compensation, and in some cases, the issue of personal safety in the face of political upheavals (ICN, 2001).

The International Development Network (IDN) also asserts that the developed or industrialized countries are the beneficiaries of the time and money invested by countries in Africa for the training and education of students in the health care professions. Many countries in the Africa region provide free education either in their own universities, or by financing education in neighbouring countries or abroad. Many of these students either leave their country of origin after training is completed, or do not return home after attending training in other countries. Therefore recipient countries reap the benefits of financial investments made by the less-developed countries (IDN, 1998).

Some of the most commonly cited reasons for departure from countries of origin are low wage compensation, which makes it impossible to afford the basic necessities of life; lack of continuing education opportunities and training institutions; salaries that are not realistic in terms of the risks and amount of work; lack of social and/or retirement benefits; lack of proper equipment to carry out the procedures professionals have been trained to perform and deliver; and an unsatisfactory or unstable political environment. Often doctors go abroad to pursue postgraduate training that is not available in their own countries. Upon their return, many of these doctors find that their skills are needed, but nonetheless useless without the proper facilities and medical equipment necessary to carry out advanced procedures (Bundred and Levitt, 2000).

Among the most frequently mentioned 'pull' factors of countries abroad are: stable socio-political environments; professional work environments that are more conducive to training and skills development; proper equipment, tools and facilities that are more conducive to advanced practice and procedure; more attractive salaries, social and retirement benefits; and sensitive employment policies that recognize good performance.

Nevertheless, some skilled health personnel choose to stay and continue to work in the public health sector despite the 'push and pull' factors that influence their colleagues to leave. Job security, career advancement, and opportunities for further training are all better in the public health sector, and particularly for older workers; these factors motivate them to stay. There may also be social and cultural factors which are influential, but no specific research has been conducted in this area (Cohen and Wheeler, 1997; Mutizwa-Mangiza, 1998).

CHAPTER 3: RESEARCH METHODS

3.1 Introduction

The criteria used for selection of the study countries were:

- Countries affected by at least one pattern of migration flow (migration out of country or from rural to urban areas);
- Countries that receive and lose staff, or have a high rate of migration, or have the migration trend reversed;
- Countries representing the four main geographical sub-regions – Western, Central, Eastern and Southern Africa;
- Availability of a suitable institution to undertake the research;
- Government agreement for the research to be undertaken.

From the seven countries proposed, only six countries eventually participated in the study. The study was conducted in Cameroon, Ghana, Senegal, South Africa, Uganda and Zimbabwe. Angola was identified for the study; however, the institution selected was not able to undertake the study.

The research methods for the study and the instruments to be used were discussed and agreed upon at a workshop in Harare, Zimbabwe held in November 2001. The workshop was attended by two researchers each from the country teams from the following institutions: Faculty of Medicine and Biomedical sciences, University of Yaounde, Cameroon; Department of Community Health, School of Medical Sciences, Kwame Nkrumah University of Sciences and Technology, Kumasi, Ghana; Centre Africain D'Etudes Superieures en Gestion (CESAG), Dakar, Senegal; Institute of Social Research, Makerere University, Kampala, Uganda; School of Public Health, University of the Witwatersrand, Johannesburg, South Africa; School of Medicine, University of Zimbabwe, Harare, Zimbabwe.

3.2 Sampling methods

Ecological/geographical zones

The ecological zones selected for the study were determined by researchers using country-specific criteria. In Cameroon, seven of the country's ten provinces were selected for study, covering the different ecological as well as socio-cultural settings of the country. In Ghana, all three ecological zones were selected. Senegal was divided into four agro-ecological zones and all were chosen. In Uganda, the research team divided the country into four geographic regions. In South Africa, three out of nine provinces were chosen, while Zimbabwean researchers chose all five agro-ecological zones. The zones selected are indicated under the countries in Section 3.5.

Sampling of health care facilities

During the preparatory meetings with countries, a consensus was reached on the ways to ensure representation by selecting areas in terms of ecological zones and provinces. This section summarizes the sampling methods used. The specific methods used in each country are described in Section 3.5.

Sampling was based on the type of facility and the ecological utilization pattern. The objective was to include, if possible:

- Tertiary Hospitals, at least one;
- Regional Hospitals, one per ecological zone;
- District Hospitals, one or two per ecological zone;
- Health Centers, two per ecological zone;
- Medical Schools, at least two where there are two or more;
- Nursing and Midwifery schools in a university/technician: 20% but not less than two of each where there are two or more;
- Nursing and Midwifery schools *not* in a university: 20% but not less than two of each where there are two or more.

These are summarized for the six countries in Table 3.1 below.

Table 3.1: Institutions sampled in six African countries, 2002

Country	Tertiary hospital	Secondary /Regional hospital	District hospital	Health centres	Faculties of Medicine	Nursing Schools
Cameroon	1	7	7	7	1	3
Ghana	1	3	6	6	1	0
Senegal	1	4	9	16	0	1
South Africa	4	10	9	0	1	1
Uganda	1	4	8	12	1	4
Zimbabwe	1	5	6	10	1	2

Sampling of key professionals

Purposive sampling of the following categories of professionals in key positions in the health system and other sectors and relevant partners was done:

- Originators of policy
- Policy makers
- Ministries involved with the employment of skilled health personnel (Health, Education, Public Service, Finance, etc.)
- Members of professional councils/associations
- Representatives of partner organizations/donors/NGOs
- Representatives of the private health sector.

Health personnel sampled

Sampling of individual health workers in the country

Random sampling was done, following the sampling approach used to identify health facilities in the public sector. The sample was selected from personnel in each of the following facilities mentioned under the section on 'Sampling of health care facilities'. About 5-20% of the total number of skilled health personnel in the public sector were selected for interview.

Sampling of refugees/migrants

This category includes skilled health personnel who migrated and are living outside of their home country. A purposive sample of between 1020 individuals was selected, representing any category of skilled health personnel. As many different categories as possible of skilled health personnel were included in this sample.

Sampling of returnees

This category included skilled health personnel who returned to their home country after a period spent in a host country. A purposive sample of between 1020 individuals was selected representing any category of skilled health personnel. As many different categories as possible of skilled health personnel were to be included in this sample.

Sampling in communities

Key community stakeholders for Focus Group Discussions (FGD)

Three Community Focus Groups were randomly identified for discussions regarding quality of care. Groups were homogeneous in terms of gender and age. Each group consisted of between 5-12 members who were users of services in identified catchment areas, and included the following: local Chiefs, religious leaders, headmaster/senior teachers, traditional healers/practitioners, representatives of community associations/clubs/societies and local government officials.

Key informants in the community

A random sample of between 10-20 key informants in the community was selected from the categories of health service users for individual interviews regarding quality of care.

3.3 Data collection

Eight different methods of data collection were employed in the study. These were:

- A1 - Questionnaire for Country Survey on Secondary Data on Trends of Migration
- A2 - Interview Guide for Professional Informants in the Health System
- A3 - Questionnaire for Individual Health Workers
- A4 - Guidelines for Focus Group Discussions with Key Community Stakeholders
- A5 - Guide for Interviews with Key Informants in the Community
- A6 - Questionnaire for Refugees/Migrants Living Outside their Home Countries
- A7 - Questionnaire for Returnees
- A8 - Interviews with Internal Migrants, viz. professionals who had moved to the private sector.

The questionnaires and guidelines used in the study were pre-tested in all countries and very few changes were made, as the instrument was developed at a workshop in which all six countries participated.

Both qualitative and quantitative methods were used in the study, and while the methods employed by the participant countries were similar, there was some variation, necessitated largely by country-specific differences in context and resources. Data were collected for the preceding ten years, from 1991 to 2000.

3.4 Data entry and analysis

The focus group discussions and in-depth interview data were recorded by hand. The rest of the data were entered and analysed country-by-country using EPIINFO 2000. Numbers and proportions were printed out and the accuracy of recording checked before analysis. Relevant variables were cross-tabulated. Diagrams and comparison of proportions by Chi-square were used to analyse quantitative data. Strict confidentiality was maintained in dealing with these data.

With regard to qualitative data, responses from questionnaires were coded before running frequencies. Where relevant the data was cross-tabulated by the health facility and health team. Qualitative content analysis (Pourtois and Desmet, 1989) was also used. The main messages from the key informants in the community and groups were retrieved and summarized according to key words. They were compared for consistency and a final list of main messages retained. The qualitative content analysis was used mainly for sensitive aspects such as push and pull factors for migration and effects of migration on access to and quality of health care.

3.5 Summaries of the country-specific methods

Cameroon

The research was carried out between October 2001 and July 2002 in seven (Nord, Center, Est, Littoral, Nord-Ouest, Sud, Sud-Ouest) of the country's ten provinces, covering the different ecological as well as socio-cultural settings of the country. The methods included postal questionnaires, personal visits and the use of electronic mail. Health facilities were selected as follows:

- One out of every five tertiary hospitals; the Faculty of Medicine; one provincial hospital in each of the seven provinces, plus district hospitals and affiliated health centres; one out of two university nursing and midwifery schools; two non-university nursing colleges (20% of the total); and 81 key informants drawn from various sectors; (the Ministry of Health; health managers from health institutions of key informants; members of professional councils; Ministries of Higher Education, Labour and Social Insurance; and managers in the private health sector and NGOs).

In all, 215 individual health workers were interviewed as well as 43 immigrant health personnel and 42 returnees. A total of 18 focus group discussions (FGDs) were held and included 96 participants of both sexes. The participants were drawn from both rural and urban locations, and included civil servants, teachers, religious leaders, traditional healers and students. In addition, individual interviews were held with 71 key community informants (53 men and 18 women) aged between 20 - 60 years.

Ghana

Three ecological zones were selected, namely Guinea Savannah, Rain Forest Belt and the Coastal Savannah. The methods of inquiry included personnel interviews and focus group discussions. The health facilities were as follows:

- Komfo Anokye Teaching Hospital and the School of Medical Sciences of the Kwame Nkrumah University of Science and Technology, selected as the tertiary health facility and the medical school, respectively.
- Three regional hospitals, viz. Tamale Regional Hospital in the Guinea Savannah, Sunyani Government Hospital in the Rain Forest Belt and Tema General Hospital in the Coastal Savannah.
- Two district hospitals and two health centres from each of the three regions, randomly selected from the available list of such facilities.

In each ecological zone, one of the two districts was randomly selected, and the social sub-committee members of the district assembly responsible for health issues were used for the focus group discussions. In all, three FGDs were held. Within the selected district, key community informants or members were identified for interviews. Professionals in key positions, refugees/migrants and refugees were sampled purposively. In addition, various professional bodies including the Ghana Medical Association, Ghana Pharmaceutical Society and Nurses and Midwives Council of Ghana were contacted for figures related to migration of their members.

Senegal

In Senegal, eight sets of questionnaires were used.

The A8 questionnaire was exclusively used by Senegal and was administered to internal migrants, i.e. professionals working in the private sector. Senegal was divided into four agro-ecological zones: Dakar, the capital; Central Zone (Thies, Diourbel, Fatick and Kaolack); Southern Zone (Ziguinchor, Kolda and Tambacounda); Northern Zone (Louga and Saint-Louis). The A3 questionnaire was administered to 300 people in Dakar, 120 in the Central Zone, 150 in the Northern Zone and 100 in the Southern Zone. The health facilities were selected as follows:

- One tertiary hospital; one regional hospital per ecological zone; referral (or district) centres: three selected for Dakar and two for each of the other zones; four health centres for each zone; one school of nursing and midwifery.

Participants for the focus group discussions were drawn from the community users of the health system in the four regions. Four FGDs were held with 15 participants each. The participants included community leaders such as chiefs, leaders of sporting and cultural associations for youth, and representatives of women's groups. Individuals who took part in the questionnaire interviews also took part in the focus group discussions.

In addition, 18 professional informants who occupy key positions in health delivery system were selected for individual interviews. The issues discussed were the causes of migration, effects on quality of care and retention policies. Sixteen internal migrants who have moved from the public to private sector were interviewed as well as 20 returnee health

professionals. Questionnaires were sent to 50 external migrants living in the USA, France, Canada and Belgium. However, only 20 questionnaires were returned and they all came from France. The professionals living in Canada and the United States were not willing to participate in the study.

Secondary data sources were also consulted on information relating to professionals who have left the country. Extensive use was made of data published by the Statistics Division of the Ministry of Health, as well as various reports published by the Ministry of Health.

South Africa

South Africa was divided into two zones, viz. a southern zone and a northern zone. Within these, three zones (Western Cape, Gauteng, Eastern Cape) provinces were purposively selected for inclusion, largely on the basis of the proportions of health professionals working in those provinces: Western Cape, Gauteng Province and the Eastern Cape. (The bulk of health professionals work in the first two provinces, while the Eastern Cape is one of the most under-resourced provinces in the country.)

Hospitals were divided into four types--academic, tertiary, provincial and district--and selected in a manner that ensured inclusion of all four types. Hospitals were also purposively selected in order to ensure that those with the largest staffing complements were included in the study.

Within each hospital alphabetical lists of all doctors, nurses, midwives, dentists, pharmacists, educators and therapists working therein were obtained, and a systematic 5% sample of each professional category was selected for interview. The questionnaires were administered during over a three-month period to 559 health professionals in three provinces.

Data on the following personnel categories were collected: general practitioners (Medical Officers) and medical specialists, dentists (specialists and therapists). Nurses were split into professional nurses, enrolled nurses and nursing assistants). Also included were pharmacists, occupational therapists, physiotherapists, speech and hearing therapists, radiographers, psychologists, medical and clinical technologists and medical physicists.

The choice of these categories depended on whether the category represented numerous professionals; professionals that are expensive to train; professionals that perform a key function in the health service; scarce professionals; and/or professionals that are emigrating in large numbers on the basis of anecdotal evidence.

The main datasets collected are as follows:

- Individual level data from the Health Professions Council, Pharmacy Council, Nursing Council, Board of Health Care Funders 1996-2001, and data on health personnel from SANSA (South African Network of Skills Abroad) dataset, 2002. In addition, data were obtained from the government's computerized salary system for the period 2000 to 2002.
- Summaries by the state agency Vulindlela of individual level data from PERSAL, 2000.

Uganda

Four regions of Uganda were considered: Central, West, East and North. Health facilities were selected based on the agreed generic proposal criteria. The health facilities were distributed as follows:

- One tertiary hospital; one regional referral hospital in each region; two district hospitals in each region; three health centres in each region; one medical school; one nursing and midwifery school in a university; three nursing and midwifery schools not in university.

Between 5 to 20% of the total number of skilled health personnel in the public sector were selected for interviews.

Three focus group discussions with the community members in the health centres' catchments areas were conducted. In all, 48 focus group discussions were conducted. The participants included local council representatives, members of community-based organizations operating in the area, religious leaders and traditional birth attendants (TBAs).

A sample of skilled health personnel who had left the country was selected and asked to complete a questionnaire relevant to their reasons for doing so and to their professional involvement in the host country. A sample of skilled health professionals who had returned to Uganda after a period of stay in a host country was identified and this group completed a questionnaire with regard to their motivation to return.

Zimbabwe

Random sampling was employed in selecting the health care facilities. The selection criteria were based on the type of facility and the ecological utilization patterns. Regional hospitals were selected by ecological utilization patterns based on land capability and rainfall reliability. Zimbabwe is divided into five agro-ecological regions from which the five regional hospitals were selected. The health facilities selected were as follows:

- One tertiary hospital; one regional referral hospitals in each region; six district hospitals; two health centres in each region; one medical school; one medical schools in a university; two nursing and midwifery schools.

Interviews were held with professional informants in key positions in the health system, other sectors and relevant partners. The professional informants who were interviewed included personnel from the Ministry of Health and Child Welfare; members of professional councils/associations; representatives of partner organizations/donors/NGOs and representatives of the private health sector.

Three focus group discussions (FGDs) were held in Epworth, a suburb located just outside the administrative boundary of Harare, the capital. The FGD guides were translated from English into the national language, Shona. The FGD participants were selected from among religious leaders, teachers, traditional healers and community health workers.

Emigrant health personnel were identified and questionnaires sent to them through the post. In the case of doctors, the questionnaire was sent to all Zimbabwean-trained doctors in South Africa (where most of them have migrated)

with a stamped return envelope. Most nurses who have emigrated from Zimbabwe have gone to the UK and to some extent, the USA. However, all attempts to contact the emigrant nurses were in vain since it was reported that there was suspicion on the intended use of the data. In view of this problem, it became necessary to interview the nurses who have migrated from the public to the private sector within the country since in general, the factors that work at the local level to drive the nurses into the private sector are similar to those that generate and sustain international migration. Returnee health professionals were also interviewed.

3.6 Characteristics of interviewees in the six-country study

A total of 2382 health professionals were interviewed in the six countries. Of these, 1483 were male and 899 female. These included nurses, midwives, doctors, pharmacists, lecturers, dentists and others. The breakdown per professional category varied from country-to-country, but the vast majority of the respondents were nurses with 49.8%, followed by midwives and doctors with 16.2% and 14.1%, respectively.

Most of the respondents were in the middle-age category, with 63.5% aged between 30 and 40 years. About a third (28%) of the respondents worked in provincial hospitals, with 23.6% in district hospitals, 17.5% in tertiary hospitals, 9.7% in rural health centers, while 21.1% were educators.

3.7 Limitations of the research

A number of limitations were experienced by the studies in general and at the stage of the data collection exercises. Some of these are listed below:

- Funding to undertake the research was limited.
- The A3 questionnaire in particular was very long and may have discouraged respondents.
- There was no readily available database on migration in the countries studied.
- Low return rates were experienced for postal questionnaires.
- Information on numbers of staff in some countries was lacking; in some cases, it appeared as if the information provided was based on estimation.
- It was difficult to find returnees' home and business addresses.
- There were inconsistencies in some of the data sets which were collected.
- Some respondents demanded payment for participating in the research.

These limitations made it difficult to estimate the true magnitude of migration in the countries, however for the institutions studied, it was possible to quantify migration. There is consistency about the importance and seriousness of migration across the countries. As regards factors for and effects of migration, the inconsistencies in some of the datasets were largely compensated by opinions of the main stakeholders and community key informants. The validity of the findings is further enhanced by the use of combined qualitative and quantitative methods of data collection and analysis.

Overall, the studies provide more facts and insights on migration than has been accumulated and assessed before in the Africa region. The findings can therefore be used to devise rational strategies to mitigate the migration of skilled health workers in the Africa region and to undertake more in-depth research.

Table 3.2: Characteristics of interviewees by country, 2002

	Cameroon		Ghana		Senegal		South Africa		Uganda		Zimbabwe		Total	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
<i>Profession</i>														
Nurse	103	47.8	137	31.5	322	51.3	335	60	153	48.7	137	59.3	1187	49.8
Midwife	9	4.1	120	27.5	113	18	39	7	85	27.1	20	8.7	386	16.2
Medical doctor	56	26	51	11.8	63	10	84	15	52	16.6	30	13.0	336	14.1
Pharmacist	5	2.2	27	6.2	18	2.9	17	3	4	1.3	10	4.3	81	3.4
Tutor/Lecturer	39	18	24	5.6	14	2.2	11	2	7	2.2	17	7.4	112	4.7
Dentist	4	1.9	10	2.2	14	2.2	11	2	1	0.3	5	2.2	45	1.9
Others	0		66	15.2	84	13.4	61	11	12	3.8	12	5.2	236	9.9
Total	215	100	435	100	627	100	559	100	315	100	231	100	2382	100
<i>Gender of respondents</i>														
Male	111	51.6	210	48.3	330	52.6	465	83.1	215	68.3	153	66.2	1483	62.3
Female	104	48.4	225	51.7	297	47.4	94	16.9	100	31.7	78	33.8	899	37.7
Total	215	100	435	100	627	100	559	100	315	100	231	100	2382	100
<i>Age of respondents</i>														
< 30			84	19.3			166	29.7	20	6.3	47	20.5	317	20.6
30 – 39			97	22.3			202	36.2	100	31.7	102	44	501	32.5
40 – 49			151	34.7			126	22.6	150	47.6	50	21.5	477	31.0
> 50			103	23.7			64	11.5	45	14.3	32	14	245	15.9
Total			435	100			559	100	315	100	231	100	1540	100
<i>Marital Status</i>														
Married	140	65.1	324	74.5	487	77.6	241	43.1	208	66.0	148.1	64.1	1547	65.0
Divorced	12	5.6	19	4.4	19	3	41	7.3	10	3.2	12.0	5.2	113	4.7
Single	55	25.6	80	18.4	117	18.6	249	44.6	71	22.5	58.0	25.1	630	26.4
Widowed	8	3.7	12	2.8	5	0.8	23	4.2	21	6.7	12.9	5.6	82	3.5
Not declared							4	0.7	5	1.6			9	0.4
Total	215	100	435	100	627	100	559	100	315	100	231	100	2382	100
<i>Place of work</i>														
Tertiary hospital	48	22.3	17	3.9	32	5.1	240	42.9	39	12.4	41	17.7	417	17.5
Provincial hospital	46	21.3	135	31.0	33	5.3	275	49.3	60	19.0	117	50.6	666	28.0
District hospital	72	33.5	137	31.5	101	16.1	41	7.3	172	54.6	39	16.9	562	23.6
Rural health centre	24	11.2	104	23.9	72	11.5	0	0	21	6.7	9	3.9	230	9.7
University nursing school	2	1.0	42	9.7	198	31.5	1	0.2	7	2.2	2	0.9	252	10.6
School of nursing, non-university	17	8.1		0	182	29.1	0	0	0	0.0	13	5.6	213	8.9
Faculty of medicine	5	2.5		0	9	1.4	2	0.4	16	5.1	10	4.3	42	1.8
Total	215	100	435	100	627	100	559	100	315	100	231	100	2382	100

N: Number
%: Percentage

CHAPTER 4: RESULTS

The data are presented and commented on by country to highlight country specificities. This is followed by a summary aimed at drawing the main lessons on the particular aspect of migration addressed.

4.1 Registered health professionals

Data was collected in order to establish trends in staffing at both the national and health institution levels. The information relates to five categories of health professionals: doctors, dentists, nurses, midwives and pharmacists. However, record keeping in most countries is poor, hence data could not be obtained for some categories in the six countries. In some cases it appears as if the data provided was based on estimates, especially in the case of Cameroon. In Ghana, no data was obtained on registration of the targeted categories of health professionals from 1991 to 2000. In Zimbabwe also, no data was available on registration of dentists and pharmacists.

Despite the incomplete data in the countries studied, there was a noticeable increase in the numbers of registered health professionals in each country. For instance, the doctors registered in Cameroon rose from 800 in 1991 to 1425 in 2000 (an increase of 78%). In Senegal, the number of registered doctors rose from 584 in 1993 to 712 in 2000 (an increase of 22%), while in South Africa, the total number of registered doctors increased from 24 696 in 1996 to 29 549 in 2000 (an increase of 20%). In Uganda, the number of registered doctors increased from 706 in 1996 to 1092 in 2000 (an increase of 55%), while in Zimbabwe, the number of registered doctors rose from 1575 in 1995 to 1626 in 1998 (an increase of 3%).

In Cameroon, the number of registered pharmacists increased by 79%, with Senegal and South Africa also registering increases of 52% and 8%, respectively. All the countries for which data was available experienced an increase in the number of dentists. In most cases, the increases were substantial. For instance, while Cameroon had only 50 dentists in 1991, the number had increased to 109 in 2000 (an increase of 118%). Senegal also experienced a significant increase in registered dentists, with the number rising from 69 in 1993 to 137 in 2000.

The number of nurses registered in the countries studied did not increase significantly, and in some countries, declined during the period under review. While Cameroon and Uganda experienced marginal increases in the number of registered nurses, there were notable declines in Senegal and South Africa. The situation was even more severe for Zimbabwe, which had as many as 15 476 registered nurses in 1997, but had only 12 477 registered at the end of 2001 (a decline of 20%).

Generally, the midwifery profession did not experience a significant change during the period under review. In Uganda, the number of midwives increased marginally, with net loses being recorded in Senegal. However, there was a notable increase in the number of registered midwives in Zimbabwe, where the total registrations grew substantially from 3314 to 3840 during the period 1995-1998 (an increase of 16%).

4.2 Health professionals working in the public sector

The public sector has been identified as the principal provider of health services in most African countries. In Cameroon, Senegal and Uganda, the number of doctors registered to work in the public sector increased, while in South Africa and Zimbabwe, the numbers have been declining. The number of pharmacists working in public hospitals declined significantly in three Anglophone countries for which data was available (Ghana, South Africa and Uganda) but increased substantially in the Francophone countries. Thus the number of pharmacists employed in the public sector in Cameroon increased by 77% from 1991-2000, and by 86% for Senegal from 1993-2000. While the loss was marginal in Ghana, in South Africa and Uganda it was substantial: South Africa lost 41% of its pharmacists during the period 1998-2002, while in Uganda, the number of pharmacists working in the public sector declined from 167 in 1993 to only 37 in 2000.

The number of dentists registered to work in the public sector increased considerably in Cameroon (97%) during the period 1991-2002. Other countries that witnessed an increase in the number of dentists employed in the public sector are Senegal (152% during the 1993-2000 period) and South Africa (110% during the 1998-2002 period). For instance, while in Senegal the number of dentists in the public sector rose from 21 in 1993 to 53 in 2000, the country had only nine dentists registered to practice in the public sector.

Nursing has probably been the profession worst affected by migration. Data collected in the six countries shows that the number of nurses working in the public sector declined in all the countries except Ghana and Uganda. Senegal experienced a decline of 11% in its nursing staff, while South Africa and Zimbabwe lost 12% and 7% of their nursing personnel respectively. However, there was a dramatic increase in the number of nursing personnel, employed in Uganda's public sector, where the number of nurses increased from 709 in 1993 to 3264 in 2000 (an increase of 360%). In Ghana, 57% more nurses joined the public health sector from 1991 to 2000.

The number of midwives employed in the public sector has remained largely unchanged in all study countries, except in Uganda. Over the period 1990-1999, the number dropped from 347 to 226, respectively. However, the number of midwives working in the public sector in Uganda increased to 1782 in 2000.

4.3 Health professionals working in the private sector

Data on health professionals working in the private sector was difficult to obtain. Useful data was collected in Cameroon, Senegal and South Africa, and was scantily available in Uganda. However, evidence from the data collected point towards an increasing trend in the prominence of the private health sector in Africa. The private sector has been attracting health professionals from the public sector, as they offer competitive salaries and other fringe benefits. There was a notable increase in the number of doctors working in the private sector in Cameroon, where the number increased from 100 in 1991 to 175 in 2000 (75% increase). In Senegal and South Africa, there were marginal increases (6% in either case) in the number of doctors employed in the private sector. The number of pharmacists moving to the private sector has also been increasing.

In Cameroon, the number of pharmacists working in the private sector increased from 50 in 1991 to 90 in 2000, while

in Senegal the number increased from 210 in 1993 to 306 in 2000. The number of nurses working in the private sector rose substantially during the period under review. The number increased by 75% in Cameroon, 20% in Senegal and 73% in South Africa. Note that the available data for South Africa only includes professional nurses who run their own private clinics; data on other nurses working in private hospitals was not available. Data on midwives working in the private sector was scanty and was available only in the Francophone countries.

4.4 Public sector share of health professionals

The public sector is often considered the most critical in health service delivery in Africa, thus an in-depth assessment of the share of health professionals working in this sector was examined.

Cameroon

Figure 4.1 shows that the public sector remains the principal employer of doctors in Cameroon. While the number of new registrations increased tremendously during the 1990s, the number of doctors employed in the public sector rose proportionately. The public health sector employs nearly 88% of all the doctors registered to work in Cameroon.

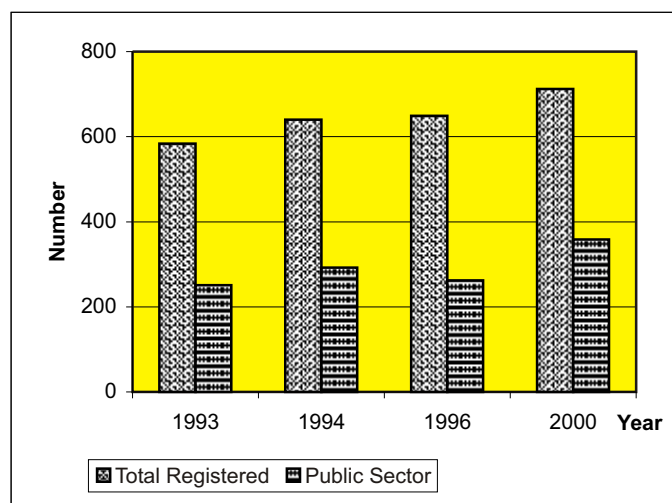


Figure 4.1: Public sector share of doctors in Cameroon, 1992-2000

The public sector share of dentists in Cameroon has fallen marginally (Figure 4.2). While the public sector share of dentists in 1992 was 67%, the figure had fallen to 54% in 2000.

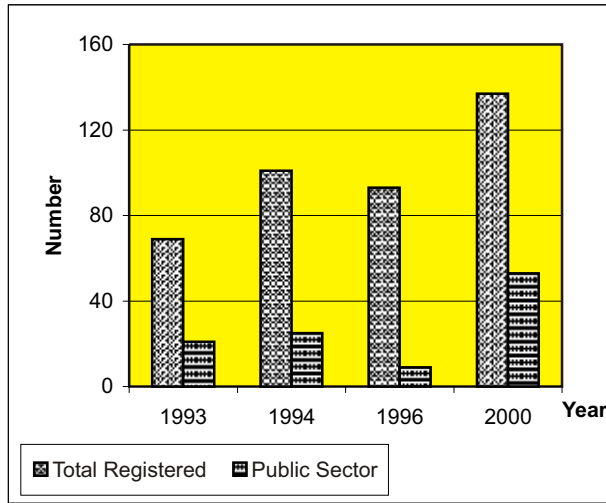


Figure 4.2: Public sector share of dentists in Cameroon, 1992-2000

The number of nurses in the public sector fell marginally in Cameroon during the period under review (Figure 4.3). While the public sector employed 91% of all nurses in 1992, the share had dropped to 86% in 2000.

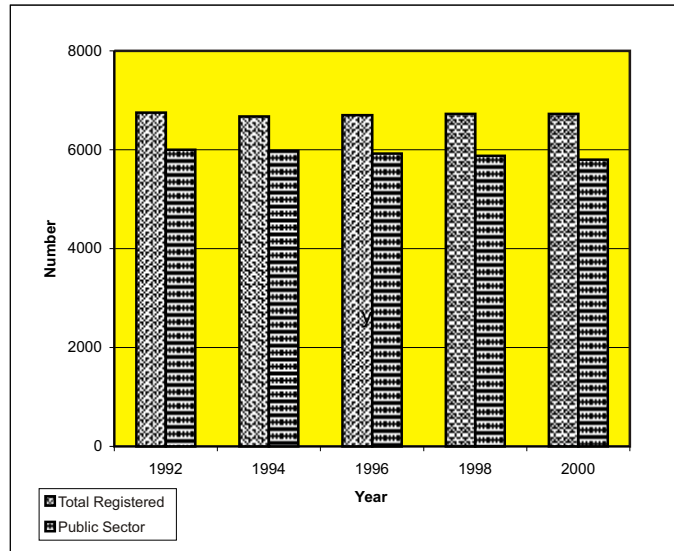


Figure 4.3: Public sector share of nurses in Cameroon, 1992-2000

The number of midwives working in the public sector in Cameroon remained static at 400 in 1992-2000 (Figure 4.4). However, the total number of registrations increased marginally to 515 in 2000. Thus, the public sector share of midwives declined by 2% from 80% in 1992 to 78% in 2000.

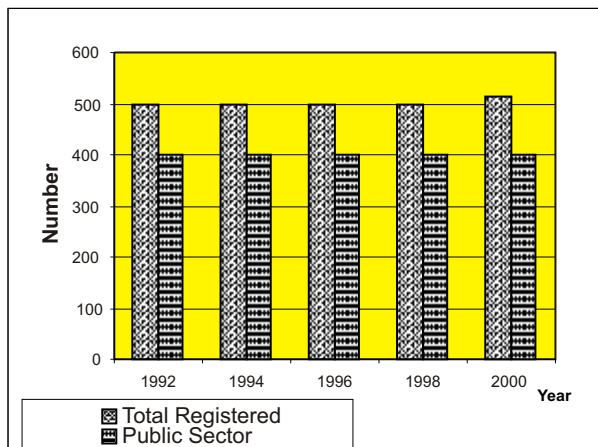


Figure 4.4: Public sector share of midwives in Cameroon, 1992-2000

The total number of registered pharmacists expanded rapidly in the 1990s, while the number of pharmacists employed in the public sector did not rise significantly. Figure 4.5 shows that while 68 pharmacists were registered in the country in 1992, only 13 were employed in the public sector.

The picture did not change significantly throughout the decade: whereas 113 pharmacists were registered in the country, only 23 were employed in public health institutions in 2000.

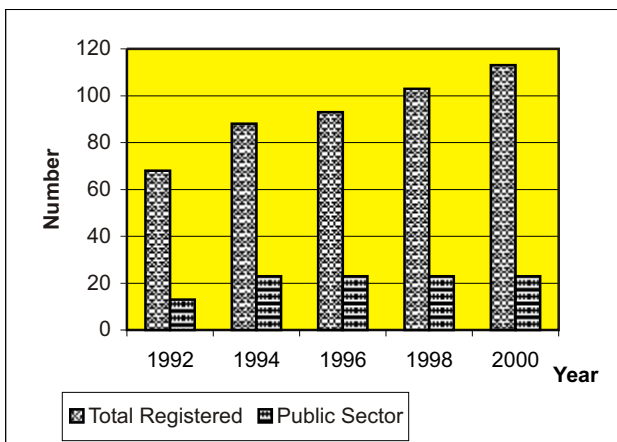


Figure 4.5: Public sector share of pharmacists in Cameroon, 1992-2000

Senegal

In Senegal, the public sector share of doctors improved significantly in the mid- to late 1990s (Figure 4.6). While the public sector employed 251 of the 584 registered doctors in 1993 (43%), the sector employed 358 of the 712 registered doctors (50%) in 2000.

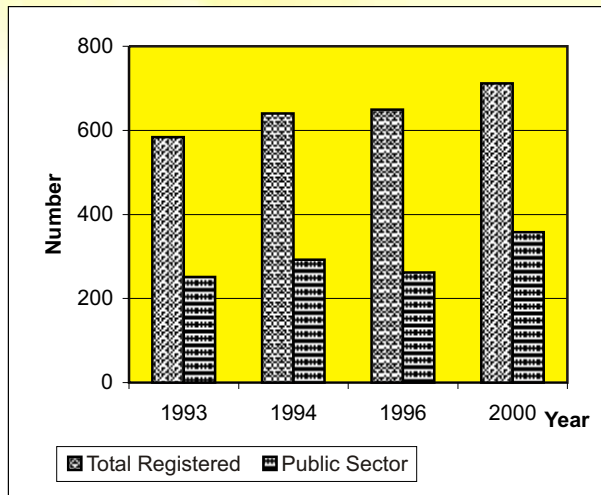


Figure 4.6: Public sector share of doctors in Senegal, 1993-2000

In 1993, the public sector employed 30% of the total number of dentists, but the share declined to 25% in 1994 and further to 10% in 1996, before rising to 50% in 2000 (Figure 4.7).

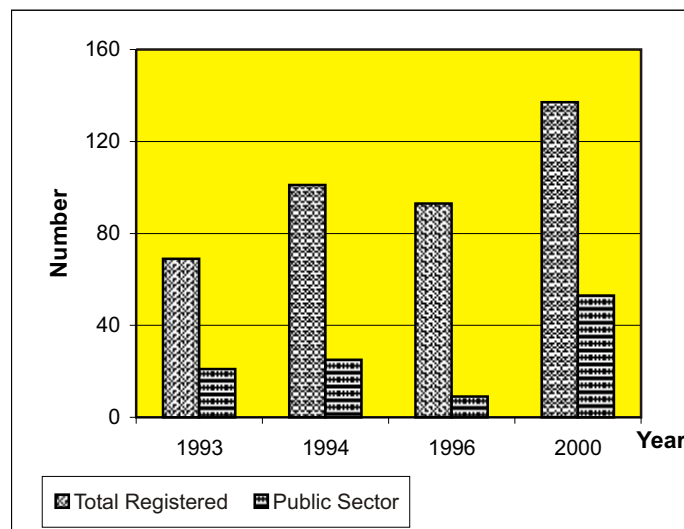


Figure 4.7: Public sector share of dentists in Senegal, 1993-2000

Both the total number of registered nurses and the number employed in the public sector in Senegal have been declining (Figure 4.8). Of note is the fact the share of public sector employment for nurses declined marginally from 90% in 1993 to 88% in 2000.

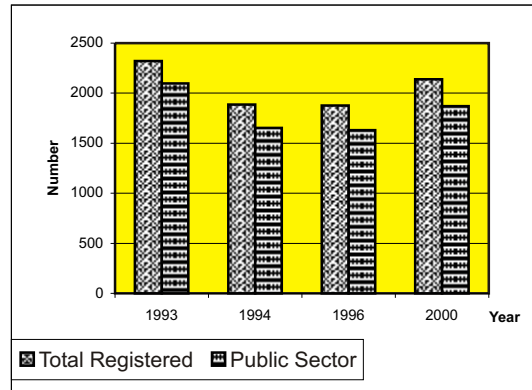


Figure 4.8: Public sector share of nurses in Senegal, 1993-2000

Senegal witnessed a fall in the number of total registrations for midwives between 1993 and 2000 (Figure 4.9). The public sector also witnessed a decline in the number of midwives employed, although the share of midwives remained static at 93%.

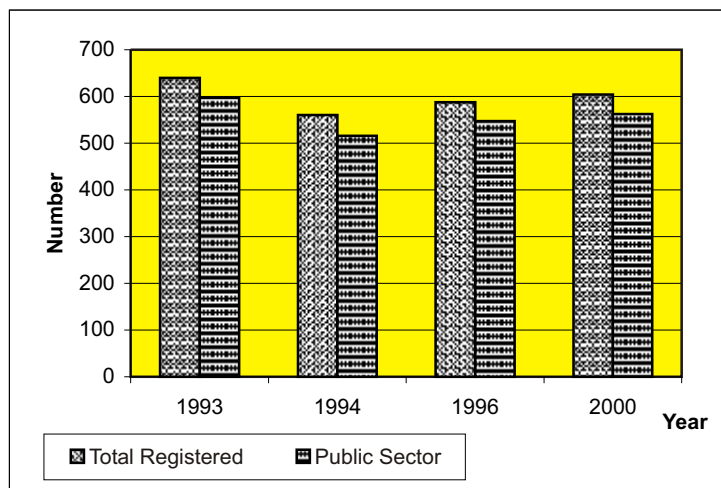


Figure 4.9: Public sector share of midwives in Senegal, 1993-2000

The public sector share of pharmacists in Senegal shrunk in the 1990s from 14% in 1993 (35 of the 245 registered) to only 5% in 1996 (Figure 4.10). Lately, the situation has improved, with the public sector accounting for 66 of the registered 372 pharmacists (18%).

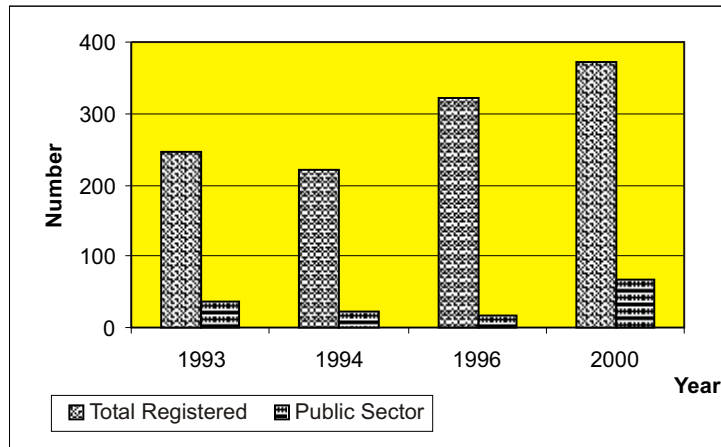


Figure 4.10: Public sector share of pharmacists in Senegal, 1993-2000

South Africa

In South Africa, there was a steady increase in the number of registered doctors, while the total number working in the public sector fell marginally (Figure 4.11). The public sector employed 44% of the registered doctors in 1998, but in 2001 this was only 37%, which was up slightly from 34% in 2000.

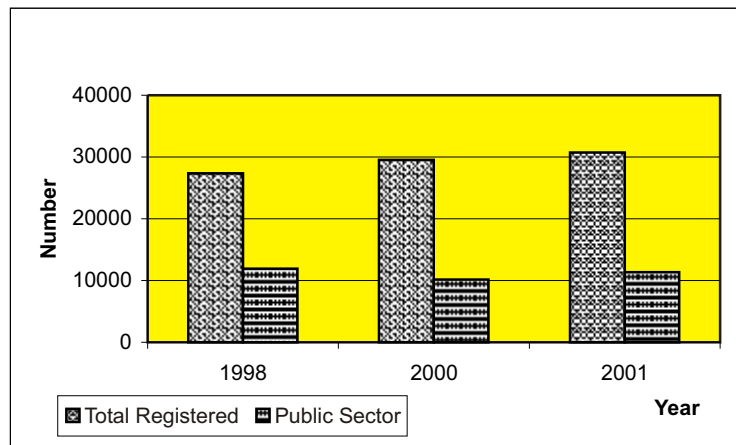


Figure 4.11: Public sector share of doctors in South Africa, 1998-2001

The public sector share of nurses declined in the late 1990s (Figure 4.12). While the total number of registered nurses declined marginally from 173 703 in 1998 to 172 338 in 2001, the decrease was more dramatic in the public sector, where the number fell from 102 200 in 1998 to 90 010 in 2001. Consequently, the public sector share of nurses dropped significantly from 59% in 1998 to 52% in 2001.

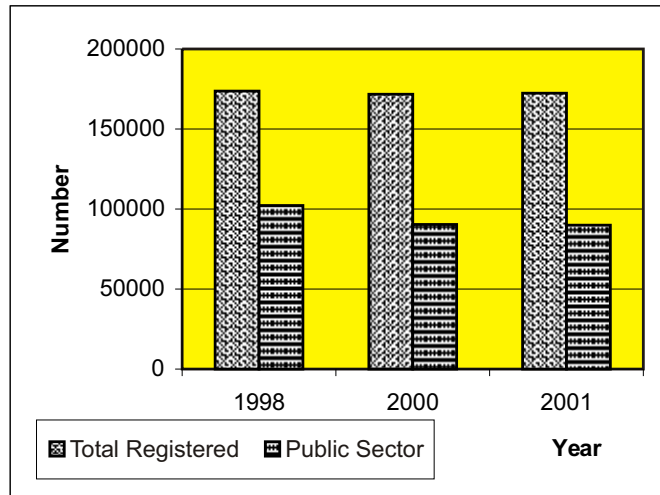


Figure 4.12: Public sector share of nurses in South Africa, 1998-2001

The decline in the public sector share of pharmacists in South Africa has been more dramatic (Figure 4.13). While the total number of registrations increased from 10 063 in 1993 to 10 742 in 2001, the number employed in the public sector fell from 2222 in 1998 to only 1322 in 2001, a drop of 10%. Thus the public sector employed 22% of the pharmacists in 1998 but only 12% in 2001, up from 11% in 2000.

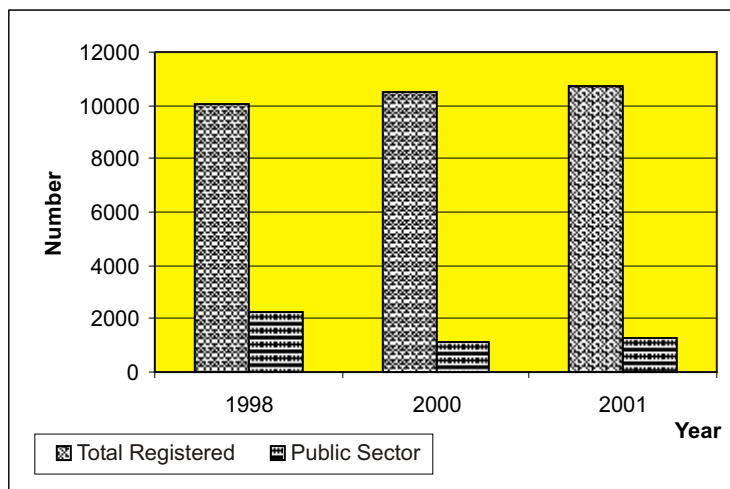


Figure 4.13: Public sector share of pharmacists in South Africa, 1998-2001

Uganda

In Uganda, the number of registered doctors rose from 706 in 1996 to 1092 in 2000, while the number practicing in the public sector rose from 552 to 815 over the same period (Figure 4.14). However, the public sector lost its share of doctors, falling marginally from 78% in 1996 to 75% in 2000.

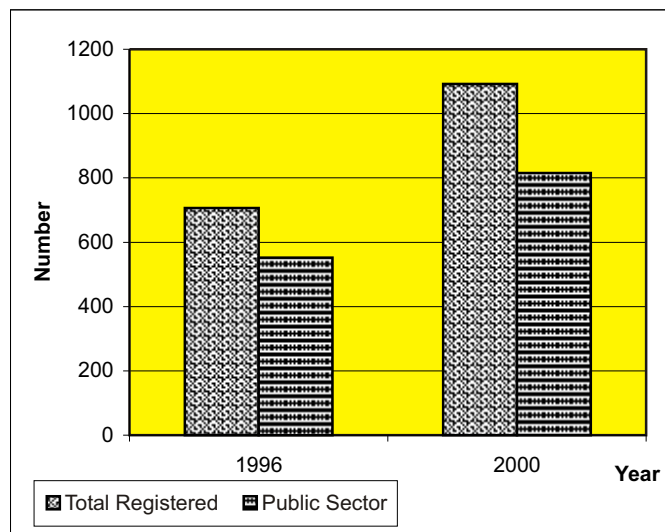


Figure 4.14: Public sector share of doctors in Uganda, 1996 and 2000

The public sector share of dentists in Uganda also fell marginally during the period 1996-2000 (Figure 4.15). While the public sector employed 80% of the dentists in 1996, the share had fallen to 78% in 2000.

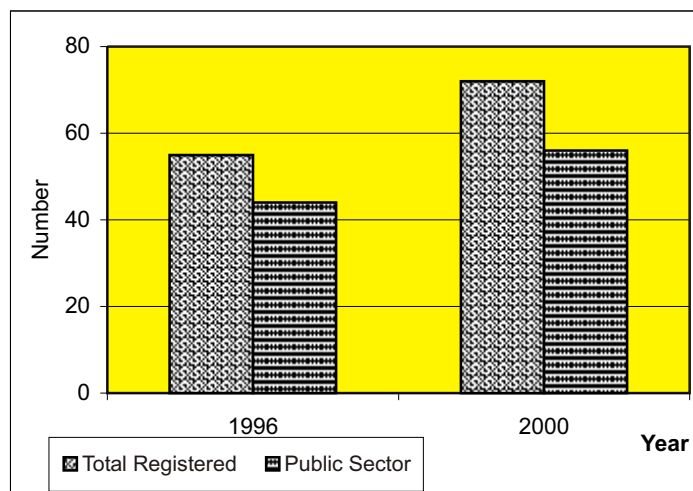


Figure 4.15: Public sector share of dentists in Uganda, 1996 and 2000

The nursing profession in Uganda experienced a sharp increase during the period 1996-2000 (Figure 4.16). The number of registered nurses rose from 3933 to 4744, while those employed in the public sector rose from 2673 to 3264. The share of nurses in the public sector increased marginally from 68% to 69% over the same time period.

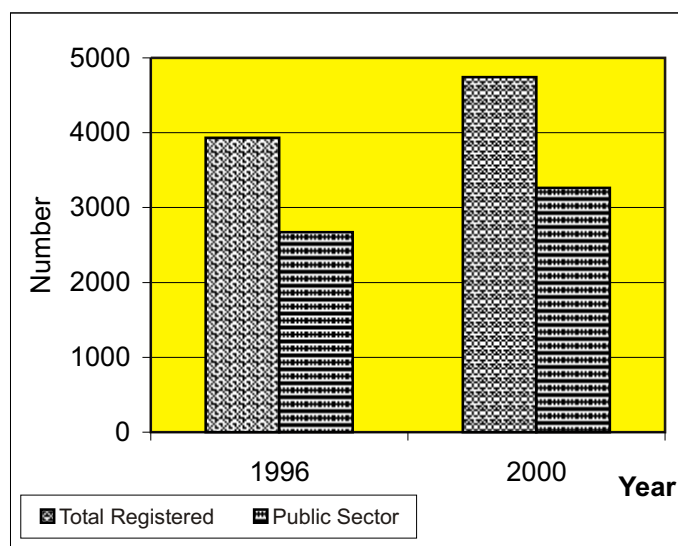


Figure 4.16: Public sector share of nurses in Uganda, 1996 and 2000

The midwifery profession in Uganda experienced a small increase in the number of total registrations between 1996-2000 (Figure 4.17). The public sector share of midwives rose marginally from 69% in 1996 to 70% in 2000.

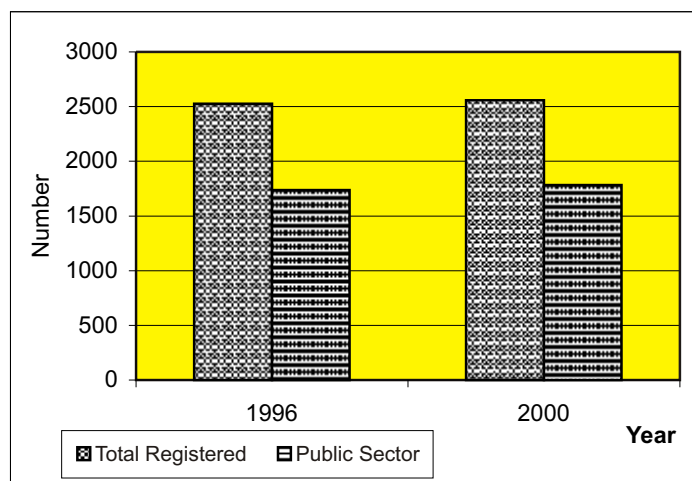


Figure 4.17: Public sector share of midwives in Uganda, 1996 and 2000

Figure 4.18 shows that the public sector employed most of the pharmacists registered in Uganda in 2000.

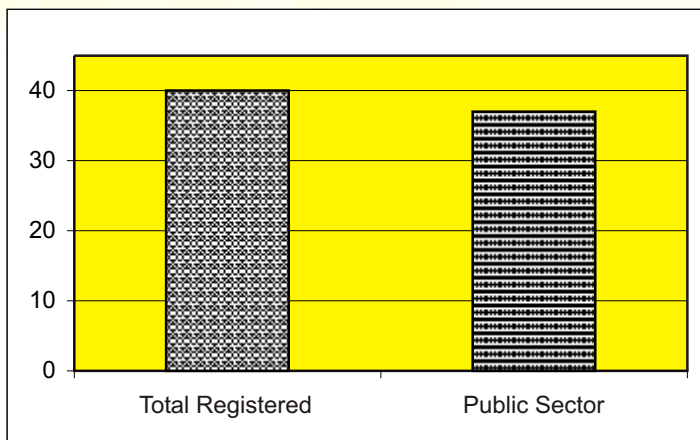


Figure 4.18: Public sector share of pharmacists in Uganda, 2000

Zimbabwe

Both the number of registered doctors and the public sector share of doctors in Zimbabwe fluctuated slightly between 1995-1998 (Figure 4.19). In 1995, the public sector share of doctors was 43%; this fell to 40% in 1996, increased to 47% in 1997, before falling again to 43% in 1998.

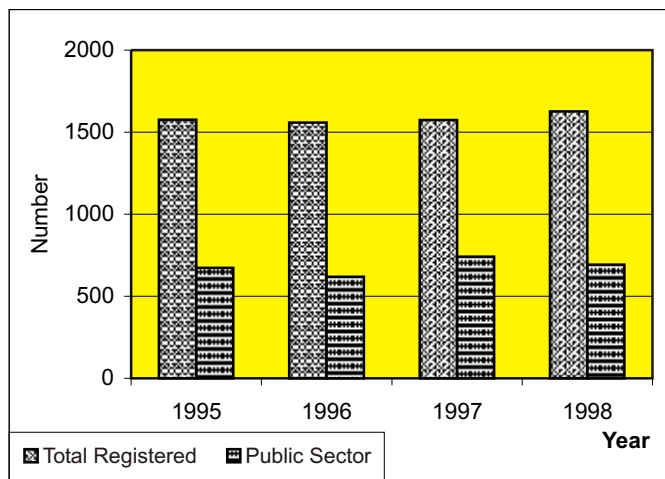


Figure 4.19: Public sector share of doctors in Zimbabwe, 1995-1998

The public sector share of nurses in Zimbabwe fell marginally during the mid-1990s. As shown in Figure 4.20, the share fell from 57% in 1995 to 52% in 1997.

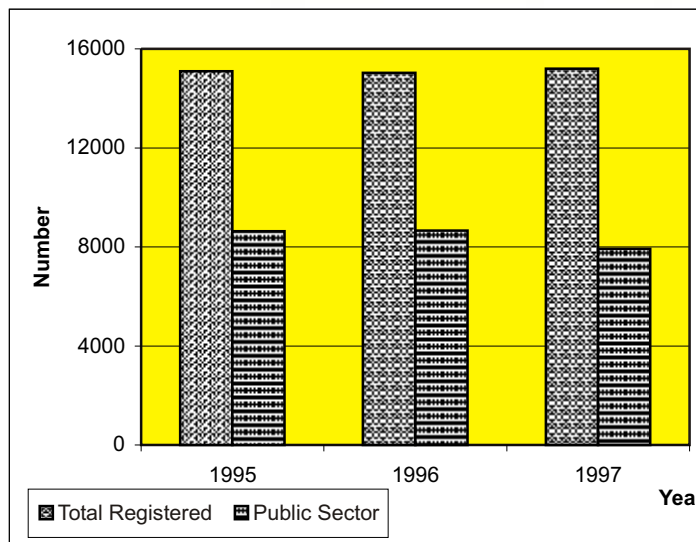


Figure 4.20: Public sector share of nurses in Zimbabwe, 1995-1997

Note that no data on the registration of dentists and pharmacists in Zimbabwe was available for the period 1991-2000. No data on registration of health professionals from 1999-2000 was available from Ghana.

4.5 Health professionals trained

Complete data on the number of health professionals trained (Table 4.1) was available only for Ghana and Senegal. In Ghana, the number of doctors who were trained did not increase significantly during the period under review. In 1995, due to industrial action by the university lecturers, there was no output of doctors in Ghana. The cohort had to graduate in 1996, which is reflected by the high numbers produced that year. In Senegal, 623 doctors were trained from 1990-2000. However, the numbers were not evenly distributed, sometimes falling to 37 in 1996, and rising up to as much as 68 in 2000.

There has been a general increase in the numbers of nurses being trained in Ghana and Zimbabwe. On average Ghana produced 414 nurses each year from 1990-2000, while Zimbabwe produced 391 nurses per year during 1992-2000. Data on midwives who were trained was available only for Ghana. The country's training institutions over the period 1990-2000 produced an average of 302 midwives annually. Except for 2000, this shows a declining trend, considering that 347 midwives were produced in 1990.

The number of pharmacists who were trained in Ghana and South Africa increased significantly during the period under review. While 42 were trained in 1990, the number increased to 112 in 2000 (an increase of 167%). In 1995, Ghana did not produce pharmacists due to an industrial action by the university lecturers. In South Africa, the number of pharmacists who were trained increased from 296 in 1991 to 400 in 2001 (an increase of 35%).

Table 4.1: Doctors, nurses, midwives and pharmacists trained in six African countries, 1990-2000

Country		1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Doctors	Cameroon*											
	Ghana	86	85	96	91	79	8	121	93	79	96	
	Senegal	55	46	41	49	49	40	37	45	52	64	68
	South Africa***				299	281	326	324	344	349	390	335
	Uganda*											
	Zimbabwe**											
Nurses	Cameroon*											
	Ghana	364	527	381	488	397	426	323	422	350	310	571
	Senegal*											
	South Africa***				1156	1305	2094	2699	1625	1850	1570	1484
	Uganda*											
	Zimbabwe			363	366	323	356	340	422	358	250	737
Midwives	Cameroon*											
	Ghana	347	268	297	351	280	280	306	346	259	226	357
	Senegal*											
	South Africa*											
	Uganda*											
	Zimbabwe**											
Pharmacists	Cameroon*											
	Ghana	42	47	53	57	62	0	78	53	63	73	112
	Senegal*											
	South Africa		296	245	302	293	297	348	389	464	426	400
	Uganda*											
	Zimbabwe*											

* Data not available **2001 data *** Data from Migration Survey 2003

4.6 Out-migration

Since most health professionals do not report their intention to emigrate, it is difficult to establish with certainty the number of professionals emigrating from the continent. This also makes it difficult for health administrators to plan their replacement in time to maintain the quality of services required. The study established that most professionals simply vacate their posts, resign or ask for leave without pay for an indefinite period. In a few cases, they request certificates of good standing from professional bodies. These requests can therefore be used as a proxy indicator for intention to migrate.

Cameroon reports that 173 doctors migrated during the ten-year period. The emigrants were mostly men, aged between 20 and 40. Most of them went to the United Kingdom (UK), the United States of America (USA), France and Belgium. Cameroon also lost 50 dentists through migration. As many as 80% were single men with 5-20 years' working experience, who had moved to the UK, USA and France. A total of 155 nurses emigrated, most of whom were specialist nurses in such fields as paediatrics, intensive care and anaesthetics. Of these, 90% moved to the USA, UK and France. Fifty midwives also emigrated during the same time period, 90% of whom were aged between 20 and 40, while 60% were married and 90% had between 5 and 20 years of working experience. They moved to the UK, USA and France. Nine pharmacists aged between 20 and 40 years emigrated, two-thirds of whom were married men and had between 5-20 years' working experience. They also moved to the UK, USA and France.

In **Ghana**, the major modes of attrition identified were leave without pay, vacation of post, request for letters of good standing, resignation, and of course, retirement; the latter is the only mode of attrition for which records could be kept. It was noted that the number of professionals taking unpaid leave has increased in recent years, as well as the number of professionals going on retirement.

In **Senegal**, the movements of professionals from the Health Ministry can be categorized as those proceeding on unpaid leave of absence, which concerns the employees who leave their post temporarily for another job; those on secondment from the government to other organisations; those on sick leave; and the resignation of contracted personnel who are not civil servants. According to the data, 214 employees left between 1984 and 2002, of whom 111 were on unpaid leave, with 74 of these having been away for six years or more.

In **South Africa**, the number of nurses requesting certificates of good standing from the Nursing Council has increased substantially. Requests for the certificates rose from 957 in 1996 to 3672 in 1999. However, it does not mean that all the nurses and midwives who request certificates of good standing end up working overseas, as some may fail to secure employment or fail to migrate because of other factors such as social and economic reasons. Nevertheless, the requests for such certificates provide a useful measure of the extent to which nurses and midwives are migrating, or rather intend to migrate, from the country.

Data in the six countries on the numbers of professionals working overseas was scanty. Where official statistics are available, they reflect large undercounts. Registration data do not necessarily indicate where people are working and living, while many people who live overseas – especially permanently – may not be registered at all. However, in South Africa in 2001 there were approximately 2800 registered professionals with foreign forwarding addresses on

the Health Professions and Pharmacy Council registers, excluding nurses. This represented just over 4% of registrations. This may be a slight overcount, as the number of erasures with foreign addresses was not added to the denominator. The highest proportion of overseas addresses was for medical specialists and pharmacists. These figures are likely to be underestimates.

4.7 In-migration

Most of the countries did not have data on foreign health professionals working within their borders. Data was available from Ghana and Cameroon only. This makes it difficult to determine the net gains or losses recorded in the countries. A balance has to be maintained between the number emigrating and immigrating so as to ensure stability in the health delivery system. This of course must take into consideration internal movement of staff into and out of the health service. In Ghana, the registration of foreign doctors increased during the mid-1990s, before stabilizing in the late 1990s (Table 4.2).

Table 4.2: Registration of foreign medical practitioners in Ghana by year

	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Doctors	17	29	39	39	48	63	71	48	46	45	47
Dentists	2	4	-	3	4	1	6	1	2	3	-

The loss of health professionals from the public sector can also be determined by comparing data on the number trained, number of foreign recruits registered and the existing pool of health professionals (Table 4.3). Data from Ghana showed that the public sector experienced a cumulative loss of medical doctors between 1990 and 2000.

Table 4.3: Annual and cumulative loss of doctors in the public sector in Ghana, 1990 2000

Doctors:	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
No. trained (a)	86	85	96	91	79	8	121	93	79	96	-
Foreigners registered (b)	17	29	39	39	48	63	71	48	46	45	47
Recruited to public sector (c)	187	195	204	181	141	177	235	221	117	207	166
Actual no. available for recruitment* (a + b + c) = (d)	-	290	309	339	311	268	248	427	362	242	348
Loss (d - c)	-	95	105	158	170	91	13	206	245	35	182
Cumulative loss	-	95	200	358	528	619	632	838	1083	1118	1300

*These figures were estimated based on the sum of doctors trained, foreigners registered and number recruited, all in the previous year.

It is also worth noting the characteristics of the immigrant health professionals. Cameroon, for instance, had a total of 10 immigrant doctors, who were aged between 31-40 years. Most of these are specialists who came from France and Belgium. There are two foreign dentists who are females and single, and 30 nurses, two-thirds of whom are married women. There are also 20 midwives, half of whom are married men, mostly from Asia. The five foreign pharmacists are all single men from France who hold doctoral degrees.

4.8 Workload

The foregoing discussion has attempted to establish the magnitude of migration of health professionals from Africa. It has been observed that the countries studied experienced different levels of migration and also had variations in the professional categories most affected by migration. However, the effect of these losses has not been assessed at the local level or health institution in terms the workload on the staff that remain. This section examines cases which highlight the impact of migration on the workload at different health institutions in Ghana and Zimbabwe.

The migration of health professionals in Ghana has adversely affected the staff strength and the workload at all levels of health delivery in the country. Table 4.4 shows the staffing situation and workload at Komfo Anokye Teaching Hospital (a tertiary level, metropolitan location) and Sunyani Regional Hospital (secondary level, rural location). Komfo Anokwe teaching hospital is better staffed than the provincial hospitals and district hospitals. The staff allocation increased slightly over the years. For instance, the doctor-to-patient ratio in 1996 was 1:2112 and 1:1805 in 2000, indicating a slightly decrease in workloads. Sunyani on the other hand, had a doctor-to-patient ratio of 1:6995 in 1998, 1:4771 in 1999 and 1:5341 in 2000 that indicates an increase in workload between 1999 and 2000.

The nurse-to-patient ratio was 1:404 at Komfo Anokye in 2000, compared to 1:963 for Sunyani Regional Hospital. The pharmacist-to-patient ratio also shows that those at Komfo Anokye Hospital had a lower workload (1:11 735) compared to those at Sunyani Regional Hospital (1:39 169).

Table 4.4: Client attendance in selected health institutions in Ghana, 1995-2000

		Variable	1995	1996	1997	1998	1999	2000	
Doctors	Komfo Anokye Teaching Hospital	No. of in-patients	35 232	37 054	39 732	36 987	35 863	40 601	
		No. of out-patients	328 362	348 550	384 647	357 407	347 500	328 566	
		No. at Post	168	165	-	-	-	182	
		Out-patient attendance per doctor	1955	2112	-	-	-	1805	
	Sunyani Regional Hospital	No. of in-patients	7272	8669	8451	8635	7732	8289	
		No. of out-patients	83 513	102 359	144 140	132 901	100 186	117 506	
		No. at Post	-	20	20	19	21	22	
		Out-patient attendance per doctor	-	5118	7207	6995	4771	5341	
Nurses	Komfo Anokye Teaching Hospital	No. of in-patients	35 232	37 054	39 732	36 987	35 863	40 601	
		No. of out-patients	328 362	348 550	384 647	357 407	347 500	328 566	
		No. at post	740	668	-	-	-	814	
		Out-patient attendance per nurse	444	522	-	-	-	404	
	Sunyani Regional Hospital	No. of in-patients	7272	8669	8451	8635	7732	8289	
		No. of out-patients	83 513	102 359	144 140	132 901	100 186	117 506	
		No. at post	134	109	122	144	130	122	
		Out-patient attendance per nurse	623	939	1181	923	771	963	
	Pharmacists	Komfo Anokye Teaching Hospital	No. of in-patients	35 232	37 054	39 732	36 987	35 863	40 601
			No. of out-patients	328 362	348 550	384 647	357 407	347 500	328 566
			No. at post	12	14	-	-	-	28
Out-patient attendance per pharmacist			27 364	24 896	-	-	-	11 735	
Sunyani Regional Hospital		No. of in-patients	7272	8669	8451	8635	7732	8289	
		No. of out-patients	83 513	102 359	144 140	132 901	100 186	117 506	
		No. at post	3	3	3	3	3	3	
		Out-patient Attendance/Pharmacist	27 838	35 786	48 047	44 300	33 395	39 169	

In Zimbabwe, provincial hospitals are generally better staffed than district hospitals (Table 4.5). Provincial hospitals are located in large urban towns, unlike district hospitals, which have a rural setting. Consequently, health professionals prefer to work in an urban environment where infrastructure is better. As can be seen from the table, Gweru Provincial Hospital has more health professionals, has fewer vacant posts and the health professionals have a lower workload compared to Kadoma District Hospital. The workloads did not follow a distinct pattern but fluctuated with a high ratio in one year followed by a lower one during the next year, for example. This may be attributed to the different vacancy levels each year. For example vacancy levels were reported as 3%, 2% and 4% (for nurses) and 0%, 15% and 15% (for doctors) in 1997, 1999 and 2000, respectively, at Gweru Hospital, while Kadoma Hospital had vacancy levels of 25%, 14% and 6% (for nurses) and 87%, 87% and 0% (for doctors) in 1997, 1998 and 1999, respectively.

The workload for Gweru Hospital decreased over the years. For instance, the workload for doctors was 1:25 628 in 1995, 1:21 489 in 1992 and 1:18 653 in 1999. For Kadoma District Hospital, the patient ratio fluctuated over the years with a ratio of 1:26 246 in 1995 followed by a higher ratio of 1:28 232 and 1:28 087 in 1997 and 1999, respectively. The situation is more severe for health centres. For instance, the workload for nurses at Gweru Provincial Hospital for 1998 and 2000 stood at 1:640 for both years but for Epworth Poly Clinic (a health centre), it was 1:4488 and 1:10 500 for the same years.

Table 4.5: Client attendance in selected health institutions in Zimbabwe, 1995-2000

		Variable	1995	1996	1997	1998	1999	2000
Doctors	Gweru Provincial Hospital	No. of in-patients	15 058	13 046	16 437	17 393	17 642	
		No. of out-patients	128 138	113 323	150 424	145 220	149 221	
		No. at post	5	4	7	7	8	
		Vacant posts	3	4	1	1	0	
		Out-patient attendance per doctor	25 628	28 331	21 489	20 746	18 653	
	Kadoma District Hospital	No. of in-patients	8984	8249	11793	11383	11565	10793
		No. of out-patients	183 723	125 260	169 392	171 372	168 522	155 462
		No. at post	7	5	6	7	6	6
Vacant posts			1	0	0	1	1	
	Out-patient attendance per doctor	26 246	25 052	28 232	24 482	28 087	25 910	
Nurses	Gweru Provincial Hospital	No. of in-patients	15 058	13 046	16 437	17 393	17 642	18 201
		No. of out-patients	128 138	113 323	150 424	145 220	149 221	150 628
		No. at post	231	230	237	238	232	235
		Vacant posts	5	12	5	4	10	7
		Out-patient attendance per nurse	555	493	635	640	643	640
	Kadoma District Hospital	No. of in-patients	8984	8249	11793	11383	11565	10793
		No. of out-patients	183 723	125 260	169 392	171 372	168 522	155 462
		No. at post	112	105	90	105	113	112
		Vacant posts	7	14	29	14	6	7
		Out-patient attendance per nurse	1640	1193	1882	1632	1491	1388
	Epworth Poly Clinic	No. of in-patients						
		No. of out-patients				22 440	38 000	42 000
		No. at post				5	5	4
		Vacant posts				2	2	3
		Out-patient attendance per nurse				4488	7600	10 500

Midwives	Gweru Provincial Hospital	No. of in-patients				3600	5362	8565
		No. of out-patients	22 417	23 110	22 991	23 110	23 177	23 428
		No. at post	20	22	22	20	18	18
		Vacant posts	<i>NO</i>	<i>DATA</i>				
		Out-patient attendance per midwife	1121	1050	1045	1156	1288	1302
	Kadoma District Hospital	No. of in-patients						
		No. of out-patients	<i>NO</i>	<i>DATA</i>				
		No. at post						
		Vacant posts						
		Out-patient attendance per midwife						
	Epworth Poly Clinic	No. of in-patients				3600	5362	8565
		No. of out-patients				7200	9000	12 500
		No. at post				10	8	9
		Vacant posts				2	4	3
		Out-patient attendance per midwife				720	1125	1389
	Pharmacists	Gweru Provincial Hospital	No. of in-patients	19 107	17 247	21 164	11 303	22 142
No. of out-patients			150 555	156 433	173 415	168 330	172 398	174 429
No. at post			2	2	1	1	1	1
Vacant posts			0	0	1	1	1	1
		Out-patient attendance per pharmacist	75 278	78 217	173 415	168 330	172 398	174 429
Kadoma District Hospital		No. of in-patients						
		No. of out-patients			20 099	21 394	46 422	35 308
		No. at post		1	1	1	1	1
		Vacant posts		0	0	0	0	0
		Out-patient Attendance per pharmacist			20 099	21 394	46 422	35 308

The data from Ghana and Zimbabwe show some fluctuations in workload except for nurses', midwives' and pharmacists' workloads in Zimbabwe, which have generally worsened between 1995 and 2000.

4.9 Intention to migrate

Substantial proportions of respondents in all six countries declared an intention to emigrate, ranging from 26% in Uganda to 68% in Zimbabwe (Figure 4.21).

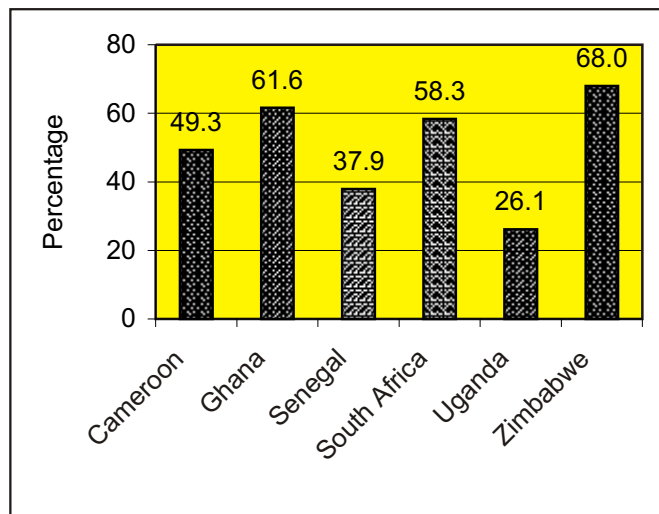


Figure 4.21: Proportion of health workers who intend to migrate in six countries, 2002

Cameroon

Half (49.3%) of the Cameroonian health professionals interviewed declared their intention to migrate. The most favoured countries were the USA (41.9%), France (17.1%), UK (12.4%), Canada (11.4%), Germany (3.8%), Belgium (2.9%), Senegal (2.9%), Switzerland (1.0%), Australia (1.0%), Congo (1.0%), Cote d'Ivoire (1.0%) and Holland (1.0%).

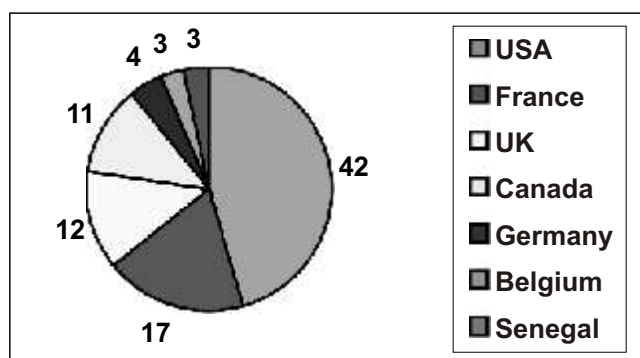


Figure 4.22: Countries of destination for Cameroonian health workers who intend to migrate (%), 2002

Ghana

At the time of the study, 61.6% of the individual health personnel interviewed had considered leaving the country to work elsewhere. Most had planned to go to the UK (50.7%) and USA (35.7%) (Figure 4.23).

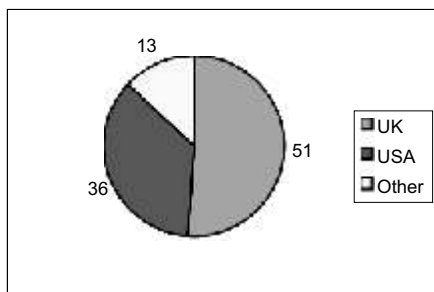


Figure 4.23: Countries of destination for Ghanaian health workers who intend to migrate (%), 2002

Senegal

In Senegal, 37.9% of the health professionals interviewed declared their intention to migrate. The USA (39.9%) and France (35.6%) were the most favoured destinations. Other destinations which were cited include Canada (6.9%), Belgium (3.4%), Italy (3.0%), Germany (2.6%), another country in Africa (2.6%), Switzerland (1.3%), Spain (0.9%), another country in Europe (0.9%), UK (0.4%), Japan (0.4%) and any other destinations not listed above (2.1%) (Figure 4.24).

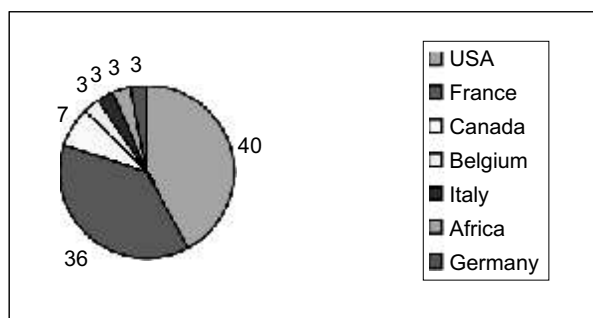


Figure 4.24: Countries of destination for Senegalese health workers who intend to migrate (%), 2002

South Africa

More than half of the interviewees (58.3%) were considering leaving the country. Of those considering migration to a new country, more than half (52%) considered the UK as a destination. Other countries considered were Australia (10%), the USA (9%), Canada (7%), New Zealand (5%), another African country (2.3%), France (0.3%), Germany (0.3%). No-one considered Belgium. The rest preferred other countries (Figure 4.25).

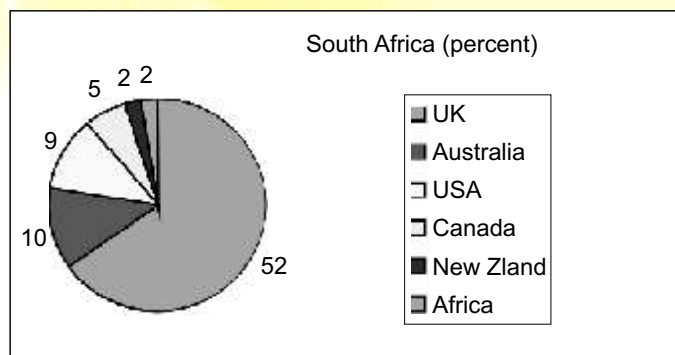


Figure 4.25: Countries of destination for South African health workers who intend to migrate (%), 2002

Uganda

Only a quarter (26%) of the health personnel interviewed were considering leaving the country and working elsewhere in the world. There were more health personnel in the central region considering migrating than in other regions. Tutors, lecturers and pharmacists were more likely to migrate and work elsewhere, followed by medical doctors. Midwives (18.3%), followed by nurses (23.7%), were the least likely to emigrate.

About 40% were intending to go to UK, 29% to USA, and 20% to another country in Africa. Of those who wanted to go to another country in Africa, 36.8% mentioned southern Africa, 26.3% elsewhere in English-speaking African countries, while 21% were intending to emigrate to the Republic of South Africa (Figure 4.26).

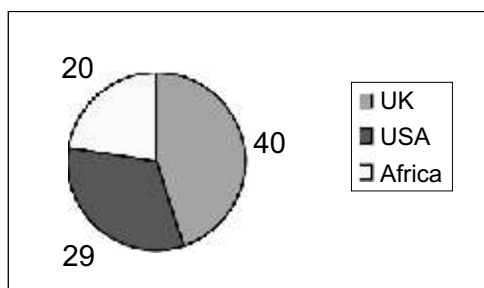


Figure 4.26: Countries of destination for Ugandan health workers who intend to migrate (%), 2002

Zimbabwe

The survey results indicate that most of the respondents (68.0%) are considering leaving the country to work elsewhere in the world. The most likely destination of these professionals is the UK (29.0%). However a good proportion (22.1%) of the respondents would want to migrate to destinations within Africa (mostly South Africa, followed by Botswana). Other

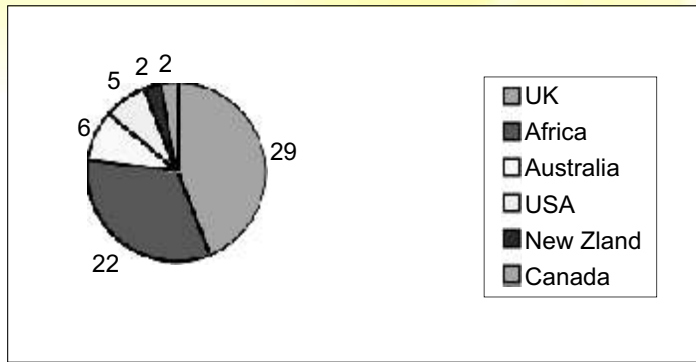


Figure 4.27: Countries of destination for Zimbabwean health workers who intend to migrate (%), 2002

destinations of note cited by the respondents include Australia (5.6%), the USA (4.8%), New Zealand (2.2%) and Canada (2.2%) (Figure 4.27).

4.10 Reasons for intention to migrate

The reasons for the intention to migrate were many and varied, with approximately four to five reasons per individual in all countries (Figure 4.28).

In **Cameroon**, approximately 85% wished to emigrate for further training. Also mentioned by 80% of those interviewed were economic reasons, the wish to travel and see the world, or no future in the home country. It is also worth noting that about 50% of the individuals envisage leaving their home country because of poor management of the health services in their home country, while 42% are pessimistic about the future economic situation. In Uganda, the majority (72.2%) were intending to leave because they wanted better remuneration, 40.7% in order to find better living conditions, 38% to upgrade their professional qualifications, while 23.7% wanted to gain experience abroad.

In **Zimbabwe**, most of the professionals would like to emigrate so that they can receive better remuneration in the intended country of destination (55.0%) or would like to save money quickly in order to buy a car, pay off a home loan, or for a similar reason (54.1%). Others want to emigrate for the following reasons: so as to achieve better living conditions (47.2%); lack of resources and facilities within the Zimbabwe health care system (45%); see no future in the country (45%); declining health care services in the country (42.9%). (Figure 4.28).

In **South Africa**, fewer than half (43%) of the respondents stated that they would migrate in order to gain international experience. The proportion of respondents who would emigrate in order to gain international experience varied from profession to profession, with midwives the least likely and pharmacists the most likely to emigrate for this reason. A larger percentage of women (44%) than men (36%) stated that international experience was a pull factor, but this difference was not statistically significant [$x^2 = 1.784$; $df1$; $p = 0.1816$]. A minority (27%) of respondents stated that they would migrate in search of a safer environment for their children. Men (41%) were significantly [$x^2 = 10.06$; $df1$; $p = 0.001$] more likely to emigrate in order to seek a safer environment for their children than women (24%). Doctors

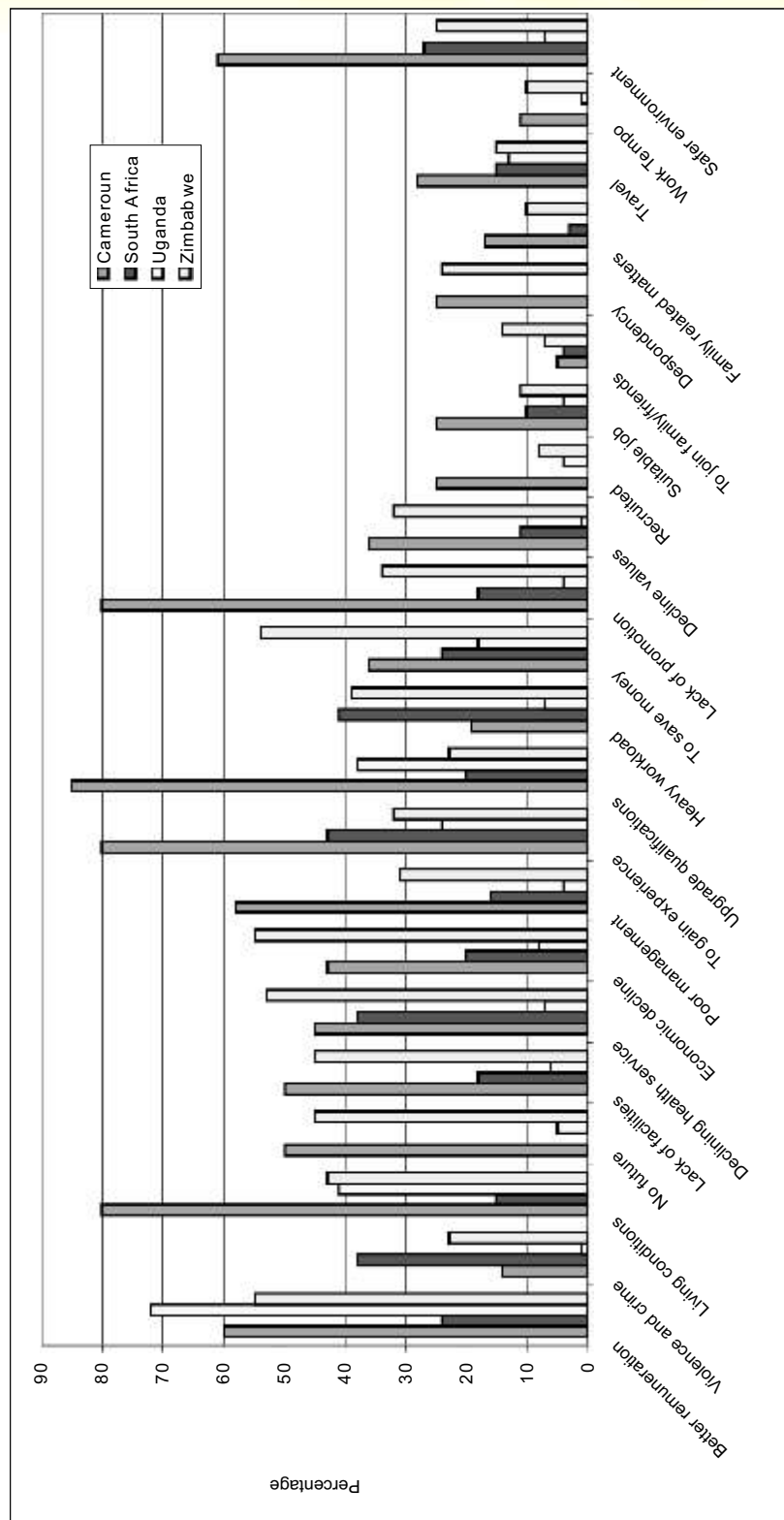
were significantly ($\chi^2 = 6.06$; $df1$; $p = 0.01$) more likely to migrate for this reason. Respondents over the age of 60 years were significantly less likely to cite a heavy workload as a reason for emigration. In addition, there was a significant difference [$\chi^2 = 28.509$; $df1$; $p = 0.0002$] in the distribution of those who cited excessive workload as a reason for migration across the different professions.

A considerable proportion (38%) of respondents cited a general decline in the health care services in South Africa as a reason for emigration, and this was mentioned particularly by those between the ages of 20 and 29 years. There was no difference in the proportion of respondents who cited a decline in health care services as a reason for emigration by sex, by province, or by profession. Violence and crime were seen as reasons for emigrating by 38% of the respondents. It was not related to age, but was significantly related [$\chi^2 = 7.52$; $df1$; $p = 0.006$] to the province in which the respondents worked. Those working in the Western Cape (11%) were least likely to cite violence and crime as a reason for emigration. A quarter of the respondents would emigrate in order to save money quickly. Respondents between 39 and 49 years were the most likely to emigrate for this reason (Figure 4.28).

In **Ghana**, the reasons given by health personnel for their intention to emigrate were: to gain experience; to have been recruited by another country; because there is no future for them in their home country; to find better living conditions; to save money quickly to buy a car and build a house; to upgrade professional skills; and for better remuneration. These reasons are exactly the same as those given by professionals who have already emigrated.

In **Senegal**, 37.9% of skilled health personnel employed in the public sector declared their intention to migrate. These were young people with an average age of 37 years. Intention to migrate seemed higher in single health workers (57.9%), nurses (45.7%), laboratory technicians (41.2%), medical doctors (36.7%) and workers without children (54.4%). The structure of Senegal's health system also influenced the decision to migrate. The majority (89.1%) who declared their intention to migrate found the salaries offered by the public sector to be uncompetitive, while 92.1% reported that their salaries were not paid in time. Furthermore, 40.6% of those who intend to migrate find it necessary to engage in other income generating activities. Pharmacists (59.2%) and doctors (77.8%) were the most inclined to offer their services in the private sector to augment their salaries

Figure 4.28: Reasons for intention to migrate in four African countries (%), 2002



4.11 HIV/AIDS and migration

The interviews that were held with individual health professionals indicated that a sizable number of health institutions were not taking adequate measures to protect health professionals from HIV. In Senegal and Uganda, adequate measures were reported to being taken by about 48% of the health professionals interviewed. The other four countries had a higher proportion of health workers showing satisfaction with protective measures in place (Figure 4.29).

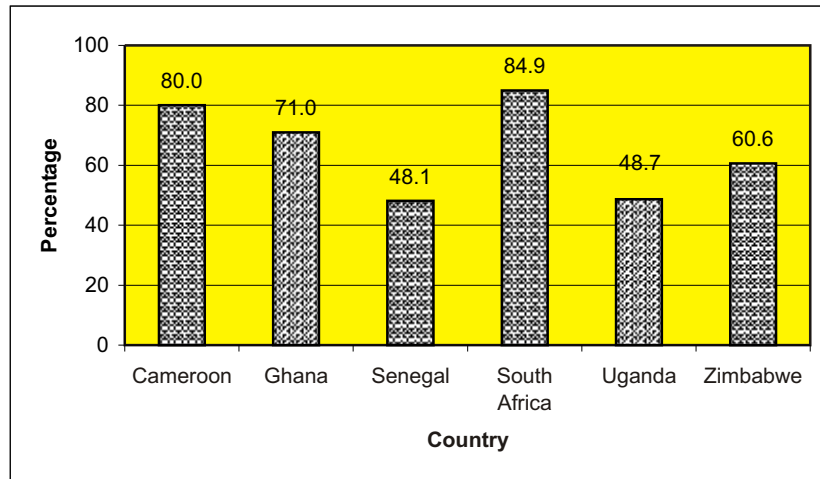


Figure 4.29: Proportion of health workers reporting satisfaction with work-related protective measures against HIV in six African countries, 2002

In almost all countries, about half or more of the staff are worried about the fact that they may get infected with HIV through work-related injury (Figure 4.30).

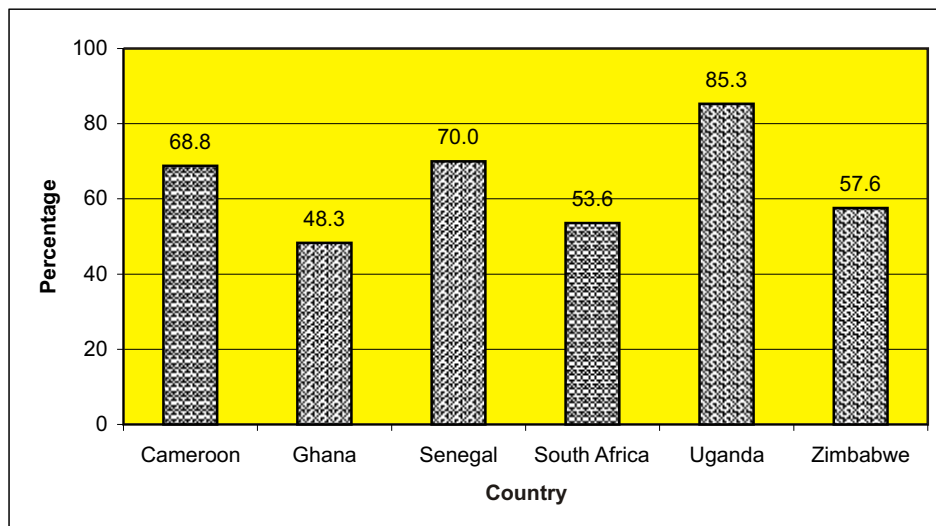


Figure 4.30: Proportion of health workers who worry about contracting HIV through work-related injuries in six African countries, 2002

The emergence of HIV/AIDS has created a stressful environment for health professionals, as they have to deal with so many dying patients. Health professionals in South Africa (57.5%), Uganda (61.5%), and Zimbabwe (58.4%) reported that they find it stressful to care for HIV patients (Fig 4.31). It must be noted that these countries have the highest prevalence of HIV/AIDS among the countries studied. Consequently, the workload among these workers has been high, which also contributes to the high levels of stress reported.

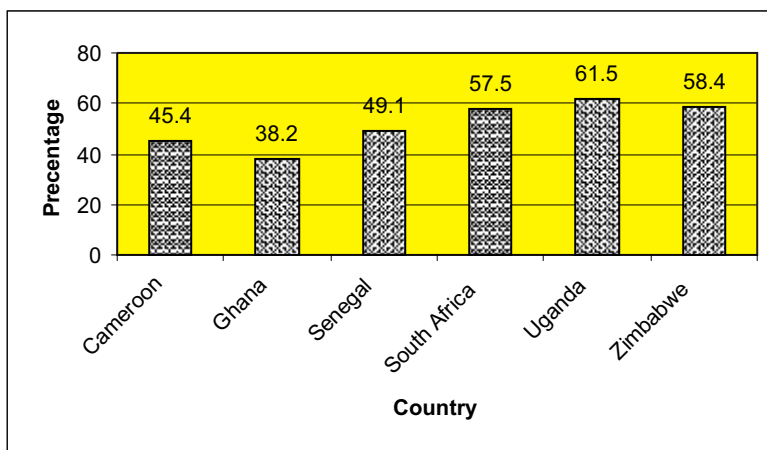


Figure 4.31: Proportion of health workers reporting stress caused by caring for HIV patients in six African countries, 2002

Notwithstanding the above factors, the majority of the health professionals are glad to use their professional skills in assisting the HIV patients. In Uganda, 98.1% are glad to use their professional skills to help the HIV patients, while a lower proportion (76.2%) are prepared to do so in Zimbabwe (Figure 4.32).

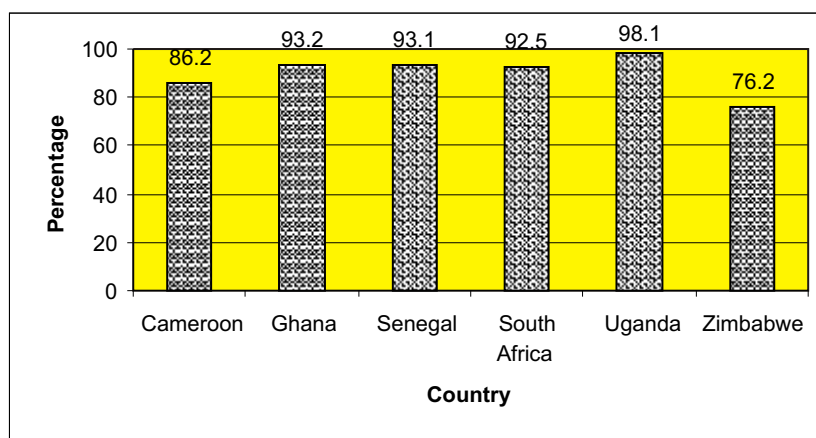


Figure 4.32: Health worker satisfaction on use of their professional skills to provide care to HIV/AIDS patients, 2002

4.12 Reasons for emigrating

There is some similarity between the reasons for intention to migrate and those for emigrating. The reasons mentioned by respondents who had emigrated were many, with approximately four to five reasons per respondent (see Figure 4.33).

In Cameroon, recruitment (28.6%), desire to gain experience (28.6%) and better remuneration (26.6%) were the major reasons why emigrant Cameroonians had left their country. This was followed by the search for better living conditions (19%), and a general sense of despair about the resources and economic prospects in the country. The reasons most commonly cited for out-migration by emigrant Ghanaians were the need to gain experience (86%), lack of promotion opportunities (86%), despondency (86%), economic decline and poor living conditions (71%). Ugandan expatriates mentioned the desire for better remuneration (72%), followed by the need for better living conditions (41%) and the need to upgrade their qualifications (38%). Zimbabwean emigrants had emigrated because of economic reasons (55%), by far the most important push factor, followed by the decline of the health service (53%), lack of facilities (38%) and despair about the future of the country (38%).

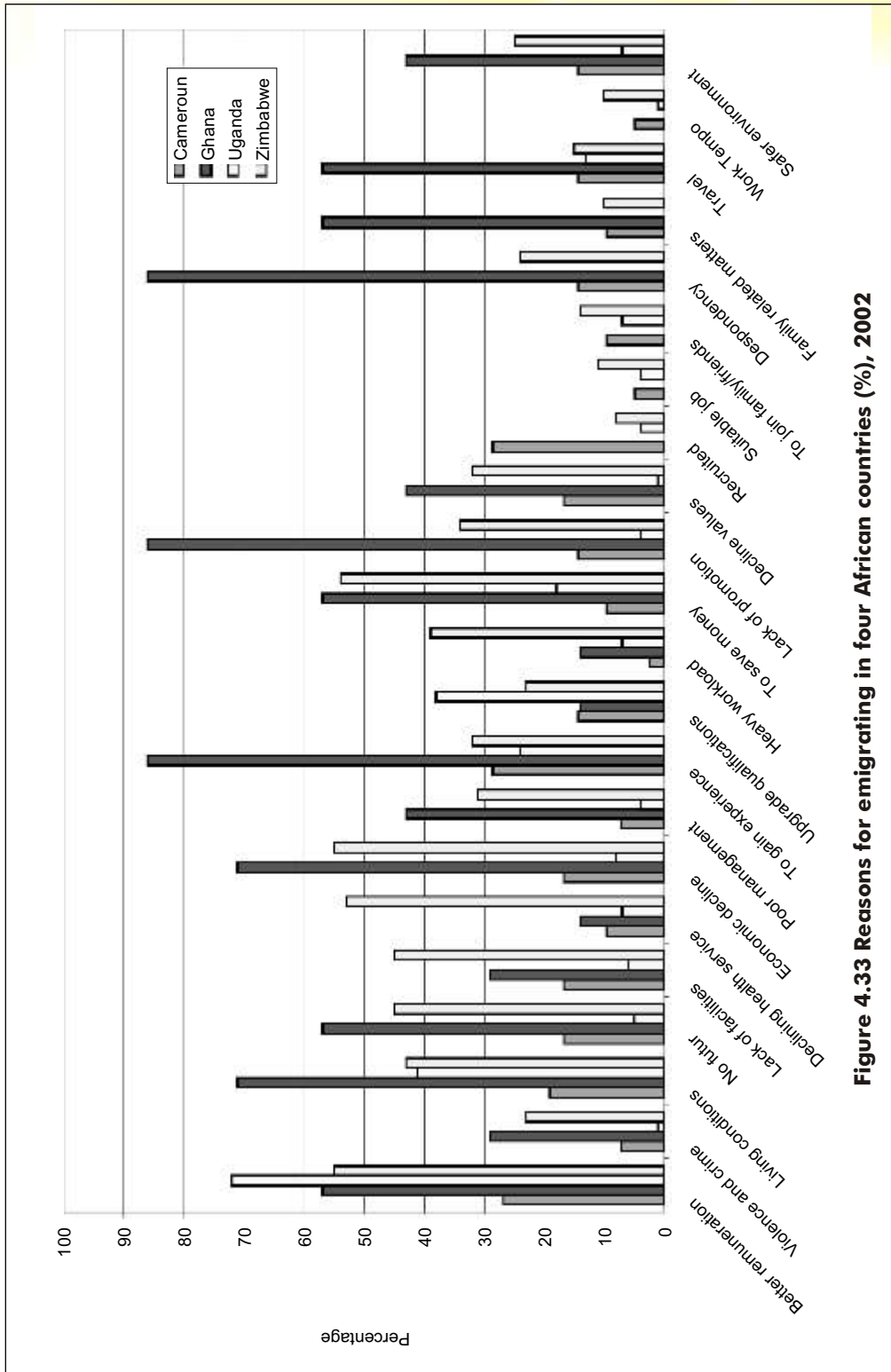


Figure 4.33 Reasons for emigrating in four African countries (%), 2002

4.13 Motivation to stay

An analysis of the factors that would encourage health professionals to stay in their home countries is reported on, and provides important clues for policy intervention.

Cameroon

In decreasing order, the most frequently mentioned factors that would retain health personnel are: better salaries (67.8%), better quality and opportunities for education and training (66.6%), conducive working environment (64.2%), better management of healthcare services (54.9%) and a peaceful social environment (48.4%).

Ghana

Health personnel considered the following key issues as those that will motivate them to remain in the country: better salaries (84.8%), a more pleasant and caring working environment (80.7%), attractive fringe benefits (77.7%) and improved facilities and resources in the health services (70.1%). Other motivating factors include opportunities for continuing education and training (66.9%), good quality education and training (60.2%) and adequate day-care facilities for their children (56.1%).

In respect of the most important incentives to motivate health personnel to stay in rural areas, the recommendations made by them include provision of extra allowances (32.8%), good accommodation (21.0%), basic amenities like water and electricity (16.1%), housing loans (9.8%), car loans (6.2%), appropriate tools and equipment for work (6.6%) and training opportunities (3.6%).

Senegal

Key informants in the community and internal and external migrants responded. They reported that enhancing the working environment, developing and implementing appropriate career profiles, making suitable equipment available and providing incentives such as housing and education opportunities for children will help health workers to stay at home or to return.

South Africa

The vast majority (77.5%) stated that better salaries would motivate health professionals to remain in their home country. This was followed by a healthy working environment (67.8%), better fringe benefits (66.4%), a more reasonable workload (58.7%), improved facilities and resources (57.8%), better quality education and training in the professional field (52.6%), more accessible education and training facilities (51.9%), the provision of adequate day-care facilities for children of employees (39.7%), innovative training opportunities such as distance education (37.9%), better working relationships in the public sector (26.1%), better leadership in the health sector (24.9%), a more peaceful social environment in the country (24.5%) and the appointment of more competent health service managers (23.8%).

Uganda

The majority of the respondents (83.5%) reported better salaries, fringe benefits (54%), a more pleasant and caring working environment (36%), a more reasonable workload (30%), and better quality of educational and training opportunities (29%), as factors that would encourage them to stay in their country.

Zimbabwe

In Zimbabwe the outstanding factors reported that would influence professionals to remain in their home country were: better salaries (76.6%), better fringe benefits (71.4%), a more pleasant and caring working environment (69.3%), improved facilities and resources in the health services (63.3%) and a more reasonable workload (59.7%). Other factors of note include the presence of a more peaceful social environment in the country (51.5%) and more accessible educational and training opportunities (50.6%).

The summary of the suggestions made by the respondents in the six countries regarding what would make them stay or attract them back to their countries is shown in Table 4.6. The suggestions have been grouped into the main themes of remuneration/salaries, more conducive working environments, continuing professional education and skills development and better management of the health services.

Table 4.6: Factors motivating health workers in six African countries to remain in or return to their countries, 2002

Country	Motivational factors			
	Better/realistic remuneration (N)	Conducive working environment (N)	Continuing education and training (N)	Better management of health services (N)
Cameroun	67.8 % (215)	64.2 (215)	66.6% (215)	54.9% (215)
Ghana	84.8% (435)	80.7 (435)	66.9% (435)	70.1% (435)
Senegal *	90% (627)	X	X	X
South Africa	77.5% (559)	67.8 (559)	51.9 (559)	57.8% (559)
Uganda	83.5% (315)	36% (315)	29% (315)	29% (315)
Zimbabwe	76.6% (231)	69.3% (231)	50.6% (231)	63.3% (231)

(N): number of respondents

* For Senegal, X implies all the factors in the table are applicable although there are no ratings available.

4.14 Effects or consequences of migration of skilled health personnel

Quality of care

The migration of skilled health professionals from Africa has adversely affected the quality of care offered in health institutions. Table 4.7 indicates the proportion of respondents that rated the quality of care indices from average to excellent.

Table 4.7: Proportions of respondents rating quality of care from average to excellent in four countries (%), 2002

Care index	South Africa	Ghana	Zimbabwe	Cameroon
Waiting time	63.2	73.6	58.1	80.2
Respect for patients	89.7	92.8	79.6	87.4
Respect for care givers	80.7	79.3	79.6	76.0
Attention given to patients	90.4	82.2	81.4	92.3
Availability of medication	81.1	83.9	29.8	72.6
Terms of payment	55.0	50.6	49.8	71.4
Communication between health workers and clients	88.0	92.7	81.4	88.2
General rating of the quality of services provided	93.0	94.6	81.0	92.5

Note: Data for Uganda and Senegal was not available.

The sections that follow provide a detailed analysis of the quality of care provided in the individual countries as rated by the health professionals.

Cameroon

Of all the countries, Cameroonian respondents were the most complimentary about the quality of care in their health services. Except for the availability of medications, Cameroon respondents had the largest proportion rating the quality of care as average, good or excellent (Table 4.8).

Table 4.8: Rating of quality of services provided at health facilities by health professionals in Cameroon, 2002

	Very poor (%)	Not good (%)	Average (%)	Good (%)	Excellent (%)
Waiting time	7.1	12.6	39.0	29.7	11.5
Respect for patients	4.4	8.2	20.9	44.5	22.0
Respect for care givers	4.4	19.5	34.4	34.4	7.2
Attention given to patients	3.3	4.4	25.8	43.4	23.1
Availability of medication	9.5	17.9	30.7	29.1	12.8
Terms of payment	11.3	17.3	37.5	26.8	7.1
Communication between health workers and clients	2.7	9.1	31.7	45.7	10.8
General rating of the quality of services provided	3.3	4.3	37.6	47.3	7.6

Ghana

In the view of a majority of health personnel, the quality of health care provided at all the health facilities in Ghana was satisfactory. Terms of payment are seen as a problem, however, for most professionals in the rural health centres and the teaching hospitals. It is not surprising that the quality of health care was deemed satisfactory in the view of the majority of the respondents, because they were assessing themselves. Most (62.9%) of the health personnel indicated that the satisfactory quality of care provided at the health facilities had improved the utilization of the services. As to

the rate of utilization of the private sector health services, most (67.1%) health professionals could not tell if this had been influenced by the quality of care in the public health facilities, though 10.1% reported a decrease. In respect of the utilization of services provided by traditional healers, 47.7% of the health personnel were not sure what effect the quality of services provided at the public health facilities had on the former. Nevertheless, 30.9% of health personnel observed a decline in the utilization of the services provided by the traditional healers, while 16.0% observed an increase.

The health personnel reported that the major complaints of patients related to the quality of health care provided at the public health facilities were: long waiting time and queues (34.6%), high cost of services and unfavourable terms of payment (21.2%), disrespect for patients (21.4%) and lack of drugs (13.2%). Most (51.5%) of the health personnel were, however, not sure of the effects of these complaints on their workload.

Senegal

The perception of the quality of services provided in Senegal was regarded as excellent by 13.2% of the individual health care workers interviewed, good by 46.5%, average by 36.2%, poor by 4.1% and very poor by none. Nurses and doctors were less satisfied with the quality of service than other health professionals.

South Africa

The care index of waiting time was regarded as very poor by 15% of the respondents. Only 26% regarded waiting times as good to excellent. One-in-ten respondents (10%) felt that health professionals displayed little respect for patients. Twenty percent (20%) felt that respect for care givers was below average. Almost 23% of the respondents felt that patients received sub-optimal attention, while the availability of medicines was perceived to be a problem by almost 20%. Payment terms were regarded as below average by 43% of the respondents, but communication was rated as not good to poor by only 12%.

The general rating of quality of care at the South African health facilities was rated mainly average to good. In making recommendations for improving the quality of services, the emphasis fell on increasing the staff, providing better rewards and incentives for staff and improving the health facilities.

Most of the respondents felt that their knowledge and skills were fully used. Only 6% of respondents were aware of illegal payments made in their services. More than a third of respondents felt that the quality of care made no difference to the utilization of health services in their facility, while more than half felt that good quality care led to increased utilization of the health services, with 11% of the impression that poor quality care led to an under-utilization of health services.

Uganda

The effects of migration on the public health system identified by the respondents include: loss of senior and specialized experts, increased work load, unnecessary transfer of staff, general frustration and low staff morale, loss of

investment in development of skilled health professionals, and patients resorting to other means of health care such as traditional practitioners. All these factors have resulted in poor quality of health care being provided at the public health facilities.

Zimbabwe

Of the 231 respondents, most (58.1%) rated the waiting time for patients before they are attended to as being average to excellent. Respect for patients scored high on the rating scale, with 87.0% rating it as being average to excellent, while 79.6% rated respect for health workers as being average to excellent. The attention given to patients was also rated highly by the respondents, with 81.4% rating it as being average to excellent. However, the terms of payment were not rated highly by the respondents, with 41.1% rating it as being very poor to not good. Of note, however, is the fact that 66% of respondents in the rural areas considered the terms of payment as very poor to not good, compared to 47% in provincial hospitals and 39% in tertiary hospitals. Communication between the health staff and clients was rated highly, with 81.4% of respondents deeming it average to excellent. Overall, 49.4% rated the quality of services provided by their health facilities as average, 31.5% as being good to excellent, and 14.7% as being very poor to not good. Besides the foregoing factors, other factors mentioned as influencing the quality of service provision in the health institutions were the poor working conditions, which result in low morale, and the inadequate funding of health institutions by the government.

CHAPTER 5: DISCUSSION

5.1 Magnitude and trends of migration

The quality and quantity of data collected to determine trends in migration were scanty, the data were incomplete, and in some cases were based on estimates. This is a reflection of the fact that in most of the countries, record keeping is poor. However, all the countries observed notable increases of staff leaving for the developed countries or from the public to the private sector, indicating a consequent depletion of the same cadres in the public sector, with the rural areas most negatively affected. Furthermore, some of the data collected on the increase in the number of expatriate personnel serving in the countries made mention of the quality of service being affected due to language and cultural barriers, as well as the issue of sustainability.

On a routine basis it is difficult to establish with certainty the numbers of personnel emigrating, as most do not report their intention to migrate. Most simply vacate their positions or obtain a leave of absence for prolonged periods without pay, or they simply resign. This makes it difficult for employers to keep track of the departures unless the record-keeping culture changes radically to allow for monitoring of the brain drain and migration trends on a routine basis. For example, from 41 to 86% of the pharmacists left the public service to join the private sector, while in four of the six countries there was a decline of 7 to 12% in the number of nurses in the public sector. While these numbers may seem small, the issue is that these reflect a further loss of the already depleted numbers in the public sector in real terms, and this may sometimes mean the loss of service either in that geographical area or specialty. The implication is often that the particular service is suspended or is being offered by unqualified staff.

While most of the health professionals may not report their intention to migrate, thereby making it difficult to establish with certainty the numbers of professionals emigrating, the study found that the numbers of health professionals requesting certificates of good standing from their professional bodies had increased substantially. Although this may not necessarily account for all departures, it is nonetheless a good indicator of the trend in migration.

The study has demonstrated the need for cultivation of a culture of record keeping. Reliable and comprehensive national databases should be set up with details of health professionals employed in all institutions, public as well as private. The information on human resources should be standardized in order to streamline the development, planning and evaluation of health personnel.

Meanwhile, discussing the reasons for leaving is an important step in understanding the problem of migration and brain drain.

5.2 Factors of de-motivation influencing departure or intention to leave

The study has shown the numbers of key health professionals leaving from the public sector to the private sector within the countries or leaving the countries altogether for jobs abroad. However, even more alarming are the numbers who intend to migrate and the reasons therefore. Between 26 to 68% of the respondents declared an intention to migrate, and their profile is that of the most productive age groups of young upcoming professionals in whom heavy

investments have been made, but who have yet to return that investment in the form of service to the population. The reasons for intention to migrate are similar to the ones given by those who have already left. The factors of de-motivation that encourage skilled health professionals to plan to leave include unsatisfactory remuneration levels, lack of proper work facilities and equipment, lack of proper career development options, poor management of the health services (especially those related to staff welfare and performance of work) and sometimes the overall environment, such as socio-political instability.

What is of most concern is that those who remain or who have not yet left suffer the consequences of the gaps left by those who migrated earlier, and further, those left behind share the same concerns as the migrants. Therefore, unless the countries begin to address these de-motivating factors, the remaining staff will also leave.

5.3 Motivating factors to stay or return

In terms of what factors would motivate skilled health workers to stay or return, the main reasons reported by respondents were better remuneration, a conducive working environment, better management of health services issues and opportunities for continuing education and training. This implies that if countries and the international community were to seriously tackle the issue of brain drain and migration, they would have to deal with issues of remuneration and incentive packages for motivation and retention addressing these concerns, among others.

This argument is further illustrated by the following suggestions given by the key informants as to ways to motivate and retain skilled health personnel:

- The public sector should offer competitive salaries and other incentives so as to reduce the migration of health professionals to the private sector. Examples of such incentives are provision of loans for housing and transport (cars) and improvement of the social security system to ensure that health professionals will get a decent pension on retirement. In addition, medical assistance should also be provided to the staff, supported by a comprehensive health insurance scheme.
- The opportunities for professional advancement need to be improved so as to reduce the numbers of professionals moving to other countries for reasons of furthering their studies. This can be done by strengthening basic and postgraduate training, and offering specialization and refresher courses within the country.
- Incentives and other fringe benefits should be offered to health professionals who choose to work in rural areas. The infrastructure in rural areas should be improved by way of linking them to towns with all-weather roads, provision of electricity and piped water, and building good accommodation for health staff.
- Working conditions should be improved by ensuring well-defined criteria and less bureaucracy in recruitment, as well as day-to-day human resources management; better management of healthcare services; availability of adequate drugs and equipment in all health institutions; making protective clothing available at all times; and better staffing for each health unit in order to ensure a manageable workload for each health personnel.
- Improved economic performance, a stable political situation and a peaceful working environment are important motivational factors.

The discussion above demonstrates the fact that consulting the health workers themselves and other stakeholders can provide an insight into solutions for reducing the rate and effects of migration to manageable levels. Further exploration of these suggestions is, of course, necessary for validation and feasibility in each country. For instance the last suggestion concerning inter-country collaboration merits discussion in that the migration of health professionals from Africa is of universal concern across the whole continent. Hence, there is a need for African governments to come together and enter into agreements with developed countries that are recruiting their health professionals. Similarly, the developed countries can be asked to pay for the costs of training of health professionals they recruit from the continent.

As regards community perspectives in retaining health professionals, in all the countries studied, community involvement in efforts aimed at retaining health professionals was limited or non-existent. Communities seem to have, over time, come to believe that it is only the government that can make lasting efforts in retaining skilled health professionals. Lack of consultation between the community and government has sidelined the former from making a meaningful contribution in the planning and implementation of developmental activities at health facilities. The essence of feedback from community representatives is similar to that of the key informants, with the additional point of their desire to strengthen the community contribution to improving working conditions as well as improving further the relationship and understanding of not only the roles, but also the expectations, of the skilled health workers. Matters of mutual respect by either side arising from better communication and interaction should be encouraged. To promote a sense of ownership, the community should therefore be involved at all levels of decision making, beginning from the planning to the implementation phases; the community should be allowed to be active participants in the healthcare system. For instance, the community can be involved in community projects that may assist in staff retention, such as maintenance work at health centres as well as building houses for staff.

5.4 Policies, strategies and practices for human resources for health (HRH)

The study shows that the six countries have adopted various policies, strategies and practices related to human resources for health. Indeed, a number of measures have been put in place by the different governments, but these were viewed as inadequate by both the informants in key positions and by the individual health professionals. These policies have failed because of a number of factors. For instance, the health professionals have generally an inadequate representation in policy formulation; hence their views are not fully incorporated. Other reasons include failure to implement interventions such as bonding and accruing of arrears in the payment of various allowances; over-dependence on doctors as decision makers and implementers, often leading to decisions and actions only in their interest; lack of training in administration and management for decision makers; and the use of ad hoc measures and on top-down approaches in the formulation and implementation of such policies, strategies and practices.

All the study countries reported the existence of opportunities for career development of skilled health personnel. These include government-funded in-service training, study leave, the holding of regular refresher courses and workshops, and postgraduate programmes that are available locally and overseas. However, the opportunities were judged to be insufficient, especially given the limited positions for university enrolment. It was also observed that the opportunities are biased more towards doctors than any other members of the health team. Furthermore, the health professionals working in rural areas are often left out of training opportunities. It is advisable, then, for those countries

whose systems are decentralised to give thought to shifting funding for training of skilled health personnel to the district level, whereby prospective trainees could apply for financial support contingent on an agreement to honour their service commitments after training.

The overall dissatisfaction with salaries, allowances and incentives was highlighted by Cameroon, Ghana and Zimbabwe. Given the recorded efforts being made to review the situation in these aspects, this study confirms the fact that this issue is complex and requires comprehensive review to assess underlying causes for longer-term positive effects. For instance, while some successes were noted in the study, the limited effectiveness of others is of concern. For example, in **Cameroon**, incentives and allowances were introduced, including non-monetary incentives such as writing a specific job description of the individual health professionals; opening of higher level training schools; improving the supply of equipment and infrastructure; and rational management of human resources for health. However, these allowances and other benefits were perceived as unequally distributed between the health professionals, and inadequate opportunities for career development and training remain. A second example from **Zimbabwe** is the issue of salary reviews that were introduced to match the cost of living in an environment of hyperinflation. Call allowances were introduced to allow professionals to work extra hours due to staff shortages; there were better call allowances in rural than in urban areas. However, the government's policy that the call allowance should not exceed the salary of the health professional is reported to have led to clashes with health professionals.

In **South Africa**, the government has introduced special financial incentives to encourage health professionals to remain in rural areas. A project has been launched to establish a database of South African health professionals living overseas in order to recruit them back to the country. In order to enhance the incomes earned by skilled health professionals, remunerated work outside the public sector has been introduced. Health professionals in the public sector are thus able to earn additional income to supplement their public service salaries. Another mechanism has been the 'twinning' of hospitals with sister institutions in the United Kingdom, which enables the South African hospitals to exchange staff in order to transfer special skills.

In **Senegal**, the Ministry of Health is engaged in a process of reviewing the employment terms of health professionals. They have decided to devise a system for motivation that it is hoped will satisfy the majority of health professionals, and to increase the training of new health personnel. In order to improve personnel motivation, some measures were identified during the planning of the National Health Development Plan (Plan national de Développement sanitaire, PNDS) in 1997. In addition to physical and financial motivators, it was recommended that PNDS improves and systematizes the actual motivation plans. These include the following: continuing education, letters of award, congratulation and encouragement; awarding distinguished professionals; and advertising the vacant responsibility posts, taking into account career plans. However, these motivational efforts were not assessed for effectiveness by the respondents, and if the low salaries coupled with delays in paying them are anything to go by, it may mean that until basic issues of financial incentives are realistic, the other interventions may not work.

The various strategies to try and counter the problem of migration of health professionals introduced in **Uganda** include salary increments to make salaries more competitive; increased opportunities for professional development; and recruitment of more health professionals. Since 1989, the Ugandan government has embarked on a programme

aimed at attracting Ugandan nationals back home. The government has also introduced the Health Policy and Health Sector Strategic Plan, which seeks to address the major constraints of inadequate numbers and uneven distribution of trained health personnel; develop guidelines for optimal deployment of trained personnel; and provide an enabling environment which meets the special needs of health professionals. The government has also embarked on a decentralization programme which is aimed at transforming the power relations between the central government and the local governments at the district level, by gradually devolving substantial administrative, political and financial authority from the former to the latter. The fact that Uganda recorded the lowest percentage (26%) of those intending to migrate may be an indication that some of these efforts are working.

5.5 Effects of migration on service delivery

The general deteriorating quality and quantity of the services provided due to the migration of skilled health professionals has been noted and observed as a matter of grave concern. While the respondents in the countries reported general satisfaction on the quality of care factors examined in the study (Table 4.8), there are specific aspects that have been severely affected by the disproportionate increase in the rate of migration and brain drain in countries. For example in Cameroon, although in some cases the quality of health care was generally considered to be acceptable, 25% of health workers agreed that the quality of care provided is deteriorating due to lack of drugs, long queues and lack of mutual respect between the public as users of health services and the health professionals. According to 80% of those interviewed, many factors are linked to the decline in quality of health care, such as an increasing workload per person and working under very poor conditions.

Workload

The caseload for the health workers who remain has generally increased as reported by Cameroon, Ghana and Uganda, while South Africa reported potential increases. Those who remain are overextended, overburdened and demotivated, and this leads to inadequate attention given to patients. The end result is that quality of service is compromised. For example, in one country, the workload was considered excessive where there was a ratio of 100 patients per nurse, while the average is 37 patients per nurse. In another country, the caseload is said to have become heavier when doctors leave the rural areas. These figures reflect the increased workload of the remaining workers amidst the generally unsatisfactory and difficult conditions, thereby increasing the pace of 'burnout' and demotivation. The end result is, of course, compromised quality and quantity of care provided.

Referrals abroad

The number of referrals abroad has correspondingly increased considerably in the six countries, except for South Africa. The migration of specialized personnel has led to sending patients abroad who would otherwise have been treated within the countries. Furthermore, the increased number of referrals abroad entails an unprecedented increase in both expense of care to fewer people and in the use of foreign currency, which could have been used for other developmental programmes or even for motivation and retention of the country's health workers.

Quality of care

Cameroon and Senegal reported other reasons for the decline in quality of health care, including that of non-qualified personnel performing duties that are normally beyond their scope of practice, such as a nurse functioning as a medical doctor. Young recruits are often left alone to carry out work without supervision, at the risk of making incorrect diagnoses and prescribing inappropriate treatment, while unqualified personnel are left to perform duties that are specialized, and beyond their scope of practice and which may endanger the lives of patients.

In Senegal, the Ministry of Health was reported to be considering the recruitment of foreign personnel as a short-term strategy to reduce the shortage of skilled health professionals in the country. The use of expatriate health personnel may ease the shortage of staff, however language and cultural barriers, especially in the rural areas, hamper quality of service.

The shortage of staff has affected the number of hours that health facilities remain open, more so for those with severe shortages than the others. An example from the Ghana study reflects the picture of many of the countries. The study revealed that apart from in-patient, emergency/casualty and surgical services at the academic, tertiary and regional referral hospitals, which provided 24-hour service including weekends and holidays, health services delivery at all other levels opened to the public at 8:00 am from Monday to Friday. Closing time, however, depended on the number of patients waiting to access the service. Out-patient and support services like x-rays are not available to the public in these health facilities at weekends and public holidays. Extra hours spent in offering health services averaged between 2 to 4 hours per day depending on the type of facility.

Equity of access

This study shows that the emigration of skilled health personnel has important negative effects on the accessibility and equitable distribution of health care, for the departure of skilled health personnel has a direct effect on reducing the quality of health care in the institutions concerned. Marginal and disadvantaged areas such as rural areas have been worst affected, as the skilled workers tend to shun such areas. This has reportedly led to patients resorting to other means of health care, such as traditional healers and self-medication. The effects of emigration of skilled health personnel are generally more severe in rural areas, although not all those interviewed shared the opinion. Cameroon, Uganda and Zimbabwe reported concern that the potential inequity in access to health services has increased as local communities are forced to seek services from the more expensive private sector; unfortunately, the poor cannot afford to pay and thus are denied access to services.

Of much concern, however, are reports regarding patients being turned away from busy public health institutions so that staff can carry on with their private practices. This has an obvious effect on equity of access to care for the poor. Quality, effectiveness and equity are thus compromised by migration from the public sector.

Effects on education and training

The emigration of skilled health personnel has also had a negative impact on the educational system. The immediate

effect is the poor training of graduates who are hardly prepared to undertake some of the roles expected in their particular health profession, whether clinical or in public health. This is due in part to the departure of some well-experienced and qualified teachers; even if notice is given, it is impossible to find replacements immediately. Those who qualify, by nature of the sector, normally depend on role models for mentoring and further professional development, but these are becoming scarce due to the reasons given. Furthermore, the countries feel that they are continuously financing education for other countries because their graduate health personnel leave the country immediately after graduation. In addition, the loss of skilled personnel is costly for the countries, as it was indicated that training of these skilled health personnel takes long and involves considerable government money, especially in the case of medical doctors. For example, it is estimated that it costs US\$ 27,500 to train each doctor in Uganda. This is likely to be a gross under-estimation, because it is likely all of the expenses were not included, such as the costs of educating each graduate from kindergarten through to the stage where they are ready to study medicine; the remuneration of the teachers/consultants involved in their medical training; the investment costs that they could have paid back had they remained in the country to serve the populations they were trained to serve; and so on. A more systematic approach taking into consideration all the investment made from an economic point of view should be used to calculate these costs.

HIV/AIDS

While it is gratifying to note from the respondents that they seem happy to utilize their knowledge and skills to take care of and assist patients with HIV/AIDS, the major concern (48 to 85% of the respondents) about lack of requisites to undertake their roles and responsibilities is genuine and needs immediate attention. The response from the six countries indicates a major need to urgently take this matter seriously before health workers become even more despondent and burn out in this area where the work environment is already stressful for them.

Meanwhile, while the HIV/AIDS pandemic has reached critical levels on the African continent, the impact of HIV/AIDS on the health professionals themselves remains largely unknown and at best speculative. There is therefore need to conduct further research on this matter, as it has wide implications not only on the quantity and quality of services, but also on the numbers to be trained in the first place.

6.1 The magnitude of migration

This study, in spite of the limitations with respect to availability of information in most of the countries, clearly establishes the significance of migration. The statistics for some of the professional groups indicate an increase in migration during the period studied.

A major finding of the study is that the tempo of out-migration and internal migration is increasing. Inevitably, the rate of out-migration is not the same for all professions and the rate of increase in migration is also not constant. What is striking, however, is that the rate of out-migration of nurses – traditionally a profession least likely to experience emigration – is increasing disproportionately in the Africa region. More than half of the staff interviewed in four of the six countries indicated an intention to migrate.

While we are concerned about migration of all health workers, this study has shown that among those who leave their countries, there is a higher proportion of professionals and the highly educated. Nurses are the most affected. The decline in the number of nurses registered in countries reflects, in part, the extent to which out-migration affects the supply of all skilled health professionals in the Africa region. In addition, the effects of migration of nurses from the public to the private sector are palpable in a number of countries and there is evidence of reduced proportion and numbers of nurses working in the public sector in all the countries studied. This is very worrying as nurses are the frontline workers in many countries, particularly at district level.

The study similarly produces evidence of increased migration of pharmacists from the public to the private sector. The picture is somewhat mixed in the case of doctors, with some countries showing an increase in the proportion of doctors working in the public sector while others show a slight decrease. This internal migration leads to fewer doctors serving the majority of the population in the region, as relatively few Africans have access to private health care. Equally of concern is the loss of mature, experienced health managers in a context of decentralization of services and cost recovery when national health systems require the best managers to run them. As a result, the limited resources available are not used for maximum benefit of the people.

The importance of the impact of the loss of human resources in terms of skills and numbers in relation to the total size of the health workforce cannot be over-emphasized. For the smallest countries with populations less than one million, the loss of even one skilled health worker is significant. A health economist and an intensive care nurse trained in a small African country and then recruited to the United States represent a net gain of two 'insignificant' health workers to the American human resources pool; on the other hand, the African country may have lost two key skilled staff that may be difficult to replace.

The loss of health workers is not limited to those working in service provision only. Many countries have lost lecturers and other educators from health training institutions. The end result is that the numbers remaining are unable to cope, especially at a time when countries are considering increasing their intakes into training programmes. The quality of training is thus compromised as well as the capacity to respond to the need to train more health workers. In some

cases, school leavers see the plight of health workers and end up opting for more profitable professions. In this way, the caring professions are losing some potential professionals before they even start training. The receiving countries could be requested to provide support to training of trainers and institutional support and capacity building in the countries losing personnel to hasten the scaling-up of education.

Evidence produced by some countries in this study indicates significant financial losses suffered by poor African countries when skilled health professionals migrate. The health workers are trained at very high cost, in most cases subsidized by the state. This adds up to hundreds of millions of dollars per year per country. This investment, which would normally have been repaid as a social good through services provided throughout the lifetime of the health worker, is lost, mainly to a developed country or to a relatively richer country in Africa. Thus, the poor countries are subsidizing the rich countries. In this paradoxical situation, the rich countries reap the benefits of investment made by poor countries.

Losses are high when people go overseas for further training. Local training should therefore be the norm, since such training is not only more relevant to the needs in the workplace, but also ensures that health workers are retained in their countries and the region. Revision and implementation of training curricula more in line with priority health needs in the region and use of innovative approaches such as distance learning and community-based learning can help to reach more professionals and also contribute to their retention.

The destinations preferred by migrants reflects the colonial history of the region, with Anglophone states supplying highly trained health professionals to the United Kingdom, the United States of America, Canada, and more recently, Australia and New Zealand. The Francophone states provide skilled health professionals to France, Belgium and Canada. As can be seen, Canada benefits from both Anglophone and Francophone migration. It is notable that substantial proportions of health professionals who indicated an intention to migrate would relocate to other countries in the region. Thus, apart from colonial ties, geographical proximity and relative socioeconomic prosperity also determine the destinations preferred by those who intend to leave their countries.

6.2 Motivating factors

Interviewees said that they would return to their countries if attention is given to the major push factors. These are issues that are being addressed with some success in a number of countries in the study. It is therefore prudent for countries to assess for themselves these factors and determine what needs to be done, beginning with what is feasible and seeking support for what is beyond their capacity.

A significant finding of the study has been the strong desire for further training and international experience, which drive many health professionals to migrate to northern countries. This in itself is not a bad thing and could be of huge benefit to the migrant's home country if they were able to return home after their period of study. The information obtained through the Institute of Migration (IOM) shows that these would-be returnees normally request for some of these pull factors to be in place before they would consider returning home, whether for a period or for good.

It is difficult for poor countries to compete with the dollar, the pound and the euro, but it is likely that improved remuneration and a reward system would reduce the rate of out-migration in most of the countries studied.

6.3 Effects of migration on service delivery

The study demonstrates the diverse and complex effects of the migration of highly trained health professionals on African health care systems. The continent is caught in a vicious cycle manifested by difficult working conditions characterized by heavy workloads, lack of equipment, poor salaries and diminished opportunities for advancement, all of which act as push factors, leading to increased migration from Africa to western countries, migration from poorer to richer African countries, migration from the public to the private sector, and migration from rural to urban areas.

The net effect is to increase the workload of those who remain (especially in rural areas where the poor people live and fall sick), which in turn causes stress and de-motivation, thus encouraging more professionals to migrate. It is this cycle that needs to be broken by member states with support from their partners at country, regional and global levels.

This study provides ample evidence of the worsening quality of care consequent, at least in part, upon the loss of skilled health professionals. A health worker who used to look after 20 patients a day can not provide the same quality of care when they are expected to now look after 100 or more a day.

All of the current forms of migration of health professionals generally lead to a reduction in the quality, efficiency and effectiveness of health care systems in the Africa region, this notwithstanding the fact that some migration is desirable for a number of reasons, such as the acquisition of skills in richer countries. There is clearly an urgent need for active intervention.

6.4 Proposed actions

The current situation calls for more aggressive interventions by developing countries to mitigate further losses of their human resources for health. There is need to have a clear regional picture about the movement of health workers. It has become evident that human resources data are inadequate or missing in all countries of the region. Most countries have insufficient information on their total human resources for health, and therefore annual replacement needs (for those retiring or migrating) are not known. A first priority for all countries is to invest in comprehensive human resources information systems that will provide evidence for policy formulation and decision making.

The issue of salaries is among the most complex and difficult to implement for many countries. As most health workers report migration due to economic reasons, governments are encouraged to ensure regular and fair provision of at least a 'living wage'. Realistic remuneration packages mean different amounts in different countries. However, the principle is that salaries of health workers should be at least comparable to those of other professionals in the same country and there should be sufficient accommodation, transport, utilities and opportunities for education. Good quality and quantity of health service delivery is not cheap, but the cost of the consequences of not paying staff well is even more expensive. If health service delivery is considered important, then it should be demonstrated in reality by the salaries paid to those delivering the services. Otherwise the few who remain may continue to pretend to work or migrate. Improved remuneration and creation of incentives could contribute to reversing the brain drain and returning health workers to their home countries.

Similarly, communities should be mobilized to participate in the debates surrounding the adverse consequences of skill migration, as well as providing support in addressing these, as was so eloquently demonstrated in the case of Uganda.

A significant new development is the emergence of an increasingly consumptive private sector in the Africa region. Yet, the public sector tends to exclude the private sector from health care planning processes, including training and education of health workers. The relationship between public and private health care needs urgent attention if the negative effects on the public sector are to be mitigated.

Dialogue and negotiation between stakeholders should be strengthened. Discussion on key policy issues is necessary to protect the interests of health services in poor countries, particularly with increasing trade liberalization and globalization and its effects on health. Those representing the interests of health services of a country need to be able to stand up to the government representatives on trade, whose mistaken interests might be in improving foreign currency inflows from remittances of migrant professionals.

It has been argued by some receiving developed countries that remittances from the migrants to their home countries contribute significantly to development. Those remittances are indeed considerable for some countries. However, they cannot replace skilled health workers who constitute the most important asset of health systems in the region. They cannot also fully compensate the losses. While further examining approaches to obtain compensation, the 'losing' countries can negotiate with the migrants who may agree to contribute more to the education efforts in their home countries.

Mitigation of the damaging consequences of the loss of health professionals from poor African countries needs to be addressed within the broader framework of globalization, because the migration of health professionals is a product of the globalization process the world is going through. It would not be possible for the poor developing countries, especially the states in sub-Saharan Africa, to contain this phenomenon without the support of the developed countries. Furthermore, it makes both public health sense as well as moral sense for the richer countries of the world to ensure that health workers are maintained in countries in the South. Donor agencies, whose budgets are sometimes comparable to that of many African governments, should form part of an alliance to address the problem by providing support for initiatives to reduce the loss of skills from Africa. One concrete way, for example, is ensuring that development assistance should have more than just funds for workshops and training, but also should encompass other aspects of human resources development including a contribution towards incentives and salaries for health workers.

Government-to-government agreements offer a mechanism for managing the migration of skills such that the benefits are maximized and the harm minimized. It would not be difficult to defend demands for some form of compensation from the recipient rich countries for the losses suffered by the supplier, mainly poor countries in the African region. Previous attempts to put forward the issue of reparations have so far not been successful. However, serious consideration should be given to this issue. It is worthwhile discussing who should make the reparations, to whom, and how. African countries should take a stance concerning the recruitment and migration of their professionals, given their high investment costs. There are substantial moral and economic reasons for doing so.

Should negotiations lead to compensation, the real costs should at least include costs of training and the value of service the professional would have given to the home country. This would amount to hundreds of millions of dollars payable to African countries. These issues call for serious discussion and agreement at high levels such as the G8 and UN General Assembly and led by African Heads of State.

Within the continent, the fact that migration depends also upon geographical proximity is of great value, as governments of supplier countries can negotiate directly with governments of receiving countries to minimize the deleterious effects of the out-migration of expensive-to-train health professionals on the health systems and economies of their countries.

The Commonwealth Code of Practice for International Recruitment of Health Workers was a positive move towards the issue of international migration. However, due to the fact that the Code is not a legal document and not legally enforceable, it has very limited impact. It is important for the Commonwealth firstly to ensure the adoption and adherence to the Code by all Member countries, and secondly to advocate that all countries globally adopt and comply with it. Sub-regional political and economic organizations such as the African Union (AU), Economic Community of Western Africa States (ECOWAS) and Southern Africa Development Community (SADC), or regional initiatives such as the New Partnership for African Development (NEPAD) should be actively involved in this endeavour.

It is obvious that migration of skilled health workers will continue, whatever the strategies of motivation and retention implemented. Innovative approaches should therefore be used to mitigate the consequences of migration on health systems in the region. One of these is the use of new information and communication technology to establish links between the skilled health workers in the diaspora and their counterparts in home countries for continuing education and exchange. Encouraging international fellowships or exchange programmes to place experienced specialists, educators and professors abroad in selected posts for one to two years are options that should be explored. These bilateral agreements should be time-limited, to ensure that health professionals return and others get the chance to go away too. Similarly, the highly qualified specialists from the diaspora can also be called upon to participate in defined technical and training programmes for limited periods through special agreements supported by development agencies and partners.

The first triggers towards migration are issues such as economic and political instability that in many countries are experienced well before salaries start falling. Professionals start migrating once they have doubts about their future, both professionally and socially. Some of the major push factors are remediable by action within the health sector, while others, such as crime and violence, political and unfavourable socioeconomic conditions would require interventions in other sectors to ameliorate them. However, it is clear from the findings that better remuneration, improved working conditions and increased resources in the health sector would go a long way in reducing the proportion of health professionals who would migrate out of the region. Countries should reduce the push factors as far as is possible. The bottom line however is socioeconomic development and political stability in the country. The success stories on the continent are testimony to this.

The movement of skilled health professionals could be restricted, through bonding at least for a considerable time after qualification. Efficient regulatory systems should be established to ensure that the free flow of precious human

resources to rich countries is regulated. Of course there is need to respect the human rights of the professionals, at the same time recognizing that the poor countries also have a right to lay claims to the investment they made in training them.

The assumption is that the migration of skilled health professionals will continue, particularly due to the projected estimation of shortages of human resources for health by the Organization of Economic and Cooperation Development (OECD) countries. The experience of Africa is not very different from that of Latin America or Asia. It is in this context that member states need to work with other developing countries globally to address the issue of migration of health workers.

6.5 Areas for further study and research

Suggestions for further research or study include:

- Assessing the magnitude and effect of the brain drain situation in countries so that they have evidence-based data and information;
- Evaluating workloads in relation to the impact of the human resource deficit on productivity;
- Testing out and experimenting with different incentives packages for different categories of staff, that is, those working in rural or urban areas or different professional groups or health teams;
- Costing of loss of human resources in monetary terms;
- Documenting success stories and failures of motivation and retention strategies;
- Monitoring rates and trends of migration in the region;
- Assessing the effect of the HIV/AIDS on health workers.

6.6 Conclusions

Factors determining the migration of skilled health workers in the Africa region pertain to the socio-political and economic environment as well as to health systems. Consequences and issues arising from migration are therefore complex and difficult to address. They call for a multi-sectoral approach and require concerted efforts by the communities, their governments, civil society and development partners if effective and sustainable solutions are to be found. The World Health Organization, its sister agencies in the United Nations and development partners should put high on the global agenda the issues of migration of human resources for health, taking into account the variety of health-related factors and those linked with other sectors of socioeconomic development. These issues should be addressed jointly if Africa is to achieve the Millennium Development Goals and reach the desirable level of health and development for its people.

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