

Incentives for health worker retention in Kenya: An assessment of current practice

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Executive summary

The importance of health workers to the effective functioning of healthcare systems is widely recognised (Ndetei et al, 2007). Shortages of health workers constitute a significant barrier to achieving health-related Millennium Development Goals (MDGs) and expanding health interventions in developing countries. In Kenya, internal migration of workers, from rural/poor areas to urban/rich areas, is just as serious a problem as international migration. Shortages in the health workforce are aggravated by the unequal distribution of health workers as a result of economical, social, professional and security factors that all sustain a steady internal migration of health personnel from rural to urban areas, from the public to the private sector, and out of the health profession itself. The crisis calls for investment in incentives to recruit and retain personnel in poorer, rural areas to service communities that need them most.

This study was undertaken within the Regional Network for Equity in Health in east and southern Africa (EQUINET), in co-operation with the Regional Health Secretariat for East, Central and Southern Africa (ECSA). It was co-ordinated by the University of Namibia, with support from the Training and Research Support Centre, University of Limpopo and the ECSA Regional Health Secretariat.

The study aimed to conduct a literature review and field research to obtain data on strategies for the retention of health workers in various institutions in Kenya. Specifically, we aimed to:

- establish the context for, and trends in, the recruitment and retention of health workers;
- identify existing policies, strategies and interventions to retain health workers;
- identify how these strategies are being introduced and resourced and assess their sustainability;
- analyse management, monitoring and evaluation systems to measure the impact of the health worker retention incentive regimes; and
- identify lessons learned and appropriate guidelines for non-financial incentive packages to promote the retention of health workers.

We reviewed existing strategies for recruiting and retaining health workers over time in Kenya. We looked at the Ministry of Health (national public health sector), national referral and teaching hospitals, Nairobi Hospital (private medical institution), Kenya Medical Training College (KMTC), the University of Nairobi (College of Health Sciences) and an NGO, the Adventist Development and Relief Agency (ADRA). Focus group discussions and interviews were held. The existing health worker retention incentive schemes, government policy and strategies on retention of health workers were analysed in the form of policy documents, terms and conditions of service for each institution and questionnaires that were filled in at selected institutions. Challenges facing the recruitment and retention of health workers in Kenya were also analysed to understand how these policies were implemented.

Facilities offered a number of financial incentives to their staff, such as paid leave and overtime pay, access to house or car loans at lower negotiated market rates (for highly skilled public sector workers) and numerous allowances, such as transport, entertainment, hardship, responsibility, special duty and uniform allowances. Some staff worked in bonding agreements, whereby the institution paid for their studies but they had to work for a specific number of years in return. Non-financial incentives for health workers included housing (or a housing allowance), post-graduate training and continuing medical education, life insurance, personal loan facilities, shorter working hours, membership to the National Social Security Fund (NSSF), medical cover (includes nuclear family) and the introduction of HIV and AIDS treatment in some workplaces.

Terms and conditions of service in private and teaching facilities were reviewed regularly and health workers were informed on any changes of services through improved human resource management. Private medical institutions, national hospitals and training institutions had implemented non-financial incentives by improving working conditions through renovations, upgrading the facilities (re-equipping the medical facilities with new technology) and making medical supplies accessible to the communities.

However, in public facilities, there were many unfilled positions despite high unemployment rates for health workers in the country. Primary health care facilities were severely understaffed, with relative overstaffing of hospitals (district, provincial and national hospitals). This imbalance causes health workers in public institutions to migrate from primary health care (PHC) facilities to district hospitals, provincial and then national hospitals.

The data presented shows a need to address the maldistribution between urban and rural areas, and between levels of care, as well as to stem the internal migration from poorer to richer areas. Poorer areas generally have worse living and working conditions, and better non-financial incentives propel the health workers to migrate to bigger health facilities (provincial and national hospitals) situated in towns and cities across the country. In these urban areas, they work fewer hours (due to higher staffing levels) and can also engage in private practice for more money. The incentives introduced to retain health workers often depend for their effective implementation on the facility, with better organised facilities, often in higher-income areas, more successful in providing incentives. Yet, ironically, it is at the lower levels of the health system (in rural and poorer areas) where incentives are more urgently needed to counteract the strong push factors that force workers out of these areas.

We recommend that government put in place national-level policies to retain health workers in rural areas, in lower-income districts and at lower levels of the health system to ensure that all areas reach minimum standards with regard to numbers of personnel per population (such as the WHO recommended minimum standard of 20 doctors per 100,000 patients). We stress that such incentives are not only financial. According to the feedback we received from health workers, a number of non-financial incentives are highly valued:

- improved working conditions;
- training and supervision; and
- good living conditions, communications, health care and educational opportunities for themselves and their families.

The government needs to invest not only in its health workers but in its facilities, by ensuring regular medical supplies, upgrading facilities and improving working conditions in rural and poorer areas. Continuous medical education in specific areas is required, depending on service needs, in response to areas of increasing public health burden, such as anti-retroviral therapy (ART), voluntary counselling and testing (VCT), and services for tuberculosis, epilepsy, mental health, diabetes and hypertension.

Management practices also appear to be important. However, the strategic information needed for effective management was often missing in the facilities that needed it most. We set out to assess the impact of incentives, but were not able to access the sort of routine information needed to make this assessment. This information gap puts human resource managers at a disadvantage for their own strategic planning, and makes it harder for them to argue for further resources needed for retention incentives. The reasons why health workers resign or leave facilities should be routinely documented to assist policy makers to address the causes of internal and external migration. Health information management systems should be used to track the flows of health workers and inform the planning and distribution of health workers. Particularly in the public sector, health worker records are necessary to be able to monitor implementation and assess the impact of incentives.

1. Introduction

Kenya's health system faces a variety of human resource problems, primarily an overall lack of personnel in key areas, which is worsened by high numbers of trained personnel leaving the health sector to work overseas. Furthermore, those personnel who remain are inequitably distributed between urban and rural areas (Dambisya, 2007). The availability of health personnel in Africa is considerably worse than in other regions of the world and it is one of the major stumbling blocks to the delivery of adequate healthcare (Chankova et al, 2006). Health workers are vitally important for the effective functioning of healthcare systems (Ndetei et al, 2007). An inadequate health workforce (with a high population-to-health worker ratio) contributes to the general deterioration of health indicators (Dolvo 1999; Dolvo, 2002; Dolvo, 2003).

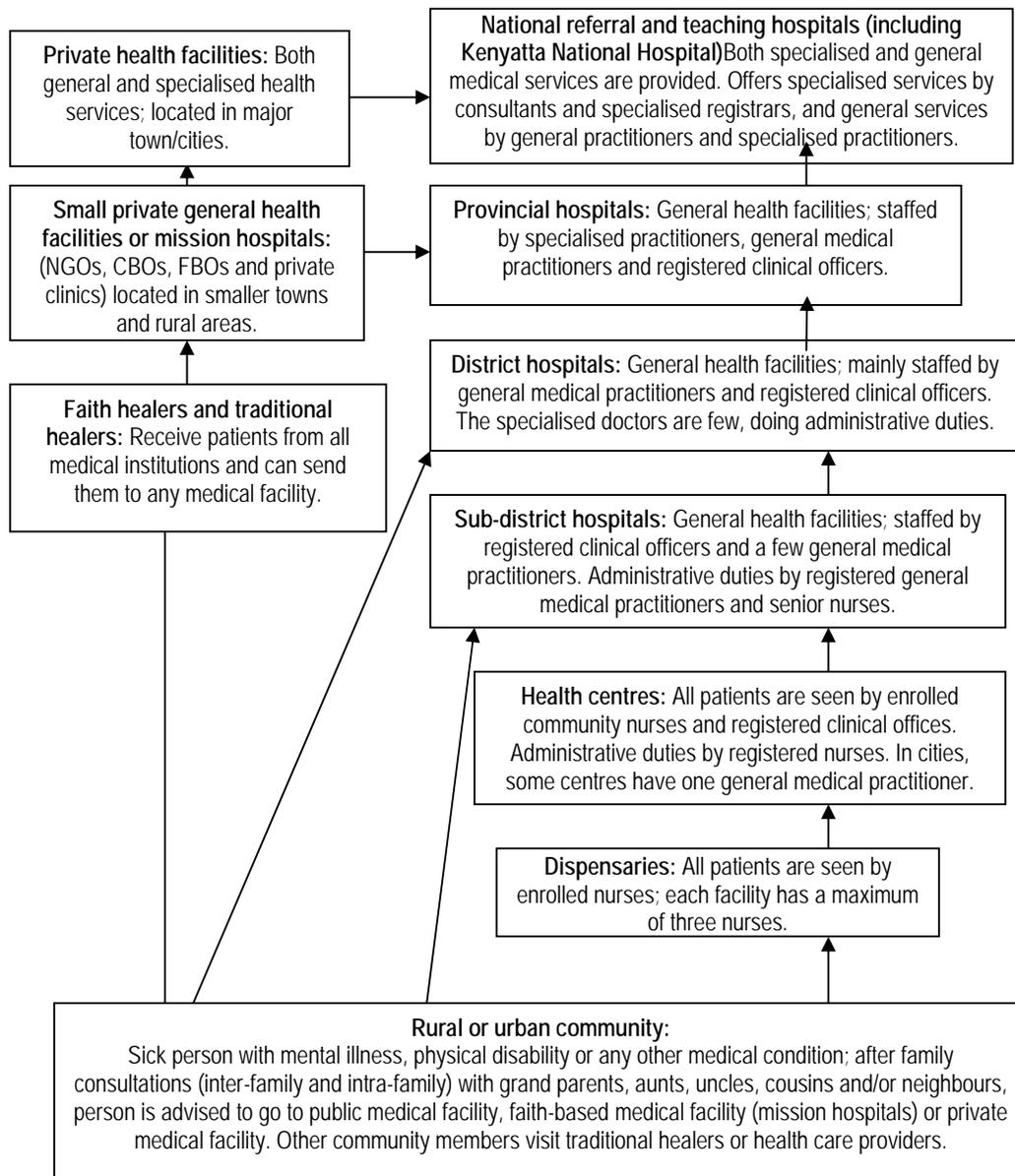
The Regional Network for Equity in Health in east and southern Africa (EQUINET) is co-operating with the Regional Health Secretariat for east, central and southern Africa (ECSA) in a programme of work to inform effective national and regional strategies for managing health worker migration and promoting the retention of health workers nationally. This is in line with the February 2006 ECSA RHMC resolutions. The programme is co-ordinated by the University of Namibia, with support from the Training and Research Support Centre, University of Limpopo, and in co-operation with the ECSA HC Technical Working Group on Human Resources for Health.

Recognising the need to serve people close to their homes, as well as the need for early intervention and follow-up services to keep people healthy, the Kenya government has already instituted primary health care (PHC) facilities to reach rural populations (see *Figure 1*). Delivery on the ground is, however, affected by the unequal distribution of staff in the public sector. According to Ministry of Health reports:

- Dispensaries are staffed by enrolled community nurses, with each centre having a maximum of three staff.
- At health centre level, facilities are staffed by registered nurses. Some centres have one to (a maximum of) three registered clinical officers, while some in the cities have one general medical practitioner. The administrator of each facility is a registered nurse.
- At the sub-district level (semi-urban locations), health services are mainly provided by registered clinical officers and general practitioners are few (a maximum of four in highly populated locations). The administrator in most of these facilities is a general practitioner.
- District hospitals, which are located in medium-sized towns, have health facilities staffed by general practitioners and registered clinical officers, and a few now have a resident physician, paediatrician, general surgeon and gynaecologist.
- Provincial hospitals, located in bigger towns, all have at least one resident physician, paediatrician, general surgeon, psychiatrist and gynaecologist and are able to offer specialised services.
- National hospitals have many specialised medical professionals offering specialised services. These hospitals are also used as teaching institutions.
- Church-aided mission hospitals are distributed across the country. Most have general practitioners with a few being staffed by resident general surgeons or gynaecologists.
- Most private medical facilities are in urban areas. Hospitals in the cities offer specialised services and are run with highly qualified medical specialists in private practice. This setting improves working conditions, increases the self-esteem of health workers in urban areas and also opens up career opportunities for them (Ministry of Health 2007).

Figure 1 illustrates the flow of patients through Kenya's health system, showing the hierarchy of facilities, ranging from dispensaries to national hospitals.

Figure 1: Flow chart of the health delivery system in Kenya



In response to the crisis in health services, the government has attempted to develop new standards to improve working conditions in the health sector and retain staff by offering salary increases, providing them with opportunities to engage in private practice and giving them training. Despite these incentives, there is a continued loss of many qualified professionals to other occupations and to international migration, driven by 'push' factors such as poor pay, limited career growth due lack of educational opportunities and concerns about safety and security. Complicating this situation is a high level of unemployment among nurses and clinical officers in the country, causing 'mismatches' in planning the health worker force (Ndeti et al, 2007). The country finds itself in a paradoxical situation: many nurses and clinical officers are unemployed and there is a desperate need for more health workers. At the same time, the government continues to retrench staff and freeze newly vacant positions so that they are not replaced.

A study done for WHO (Mejia et al, 1979) to establish the flows and staffing levels of the physician and nurse labour force in 40 countries concluded that, in 1972, about 6% of the world's physicians (140,000) were located in countries other than those of which they were nationals. *Table 1* compares emigration rates (those who have left) with the numbers of physicians and nurses remaining in the workforce in their ESA countries of origin. It shows that Kenya has one of the highest net emigration rates for doctors (51%) but a much lower rate for nurses (8.3%).

Table 1: Emigration levels and rates: Physicians and nurses in ESA countries, 2000

ESA country	Workforce at home (1)		Emigration level (2)		Emigration rate (%) $\left(\frac{2}{1+2}\right)$	
	Physicians	Nurses	Physicians	Nurses	Physicians	Nurses
Angola	881	13,155	2,102	1,841	70.5	12.3
Botswana	530	3,556	68	80	11.4	2.2
DRC	5,647	16,969	552	2,288	9.2	12
Kenya	3,855	26,267	3,975	2,372	51	8.3
Lesotho	114	1,266	57	36	33.3	3
Madagascar	1,428	3,088	920	1,171	39.2	27.5
Malawi	200	1,871	293	377	59.4	17
Mauritius	960	2,629	822	4,531	46.1	63.3
Mozambique	435	3,664	1,334	853	75.4	19
Namibia	466	2,654	382	152	45	5.4
South Africa	27,551	90,986	7,363	4,844	21.1	5.1
Swaziland	133	3,345	53	96	28	3
Tanzania	1,264	26,023	1,356	953	52	4
Uganda	2,429	9,851	1,837	1,122	43.1	10.2
Zambia	670	10,987	883	1,110	57	9.2
Zimbabwe	1,530	11,640	1,602	3,723	51.1	24.2
All of Africa	280,808	758,698	64,941	69,589	19	8.4
Sub-Saharan Africa	96,405	414,605	36,653	53,298	28	11.4

Adapted from: Clemens et al, 2006

The main objective of this study was to carry out a detailed review and field research to obtain evidence-based data on strategies for the retention of health workers in various institutions in Kenya. Specifically, we aimed to:

- establish the context for and trends in the recruitment and retention of health workers;
- identify existing government policies and the strategies and interventions for the retention of health workers being implemented by the central and local government and other health care providers;
- identify how retention strategies are being introduced and resourced, and determine their sustainability;
- analyse the systems for managing, monitoring and evaluating the impact of the health worker retention incentive schemes; and
- identify lessons learned and appropriate guidelines for future non-financial incentive packages to promote the retention of health workers.

In this study, we used both secondary and primary data to find out about the current situation for health workers in Kenya. We examined the strategies being used for health worker retention in areas of training and career paths, social needs, working conditions, health care and ART, personnel and management systems, financial allowances and salary top-ups. We sought to understand the various categories of health worker(s) at different levels in the health system and what push and pull factors are being addressed by retention policies for each category. We looked at the context (past policies and experiences, and stakeholder demands and acceptability) and what targets or measures are being used to gauge the success of the incentives. We wanted to find out what reasons were being used to select the incentives, what their funding sources were, what levels of incentives were offered, how, when and for how long incentives were introduced, and the plans for phasing them out. Was there any consultation or link to industrial relations processes, and what mechanisms exist for management and review?

We searched for qualitative and quantitative evidence of the direct and indirect impacts of different incentives, using the country's health management information system (HMIS) and field interviews. We wanted to find out what parameters were used in the HMIS to monitor the implementation and performance of the incentives, and how these were being monitored and reported on. We also analysed the effectiveness of guidelines and information provided to support implementation of the incentives, as well as the predictability of sources and levels of financing, and existing measures to institutionalise incentive schemes.

2. Methodology

The research combined a cross-sectional field survey with key informant interviews (primary data) and an analysis of secondary data from internet websites. A proposal for this review was developed and approved by the Kenyatta National Hospital Research and Ethics Committee. The authority to carry out the research was sought from and granted by the Ministry of Science and Technology. Two co-researchers and six research assistants were trained on the protocols and methods for data collection from the field, noting the barriers to be overcome in accessing information. Storage, analysis, retrieval and the use of information varied from one institution to the next, depending on the efficiency of the staff handling the records. Information from some institutions could not be accessed, despite ethical approval and informed consent for the study.

Secondary data was collected from websites that include materials on human resources in health (HRH), such as EQUINET, the WHO HRH database, Medline, USAID, IOM and the Global Health Worker Alliance, as well as from internet search engines (Medline/PubMed and Google) and government ministries, health institutions and peer-reviewed journals. Information was also obtained from published documents by medical service institutions on their terms and conditions of service, government policy documents and the English language newspapers in the country. These sources were reviewed to give some insight into our search for primary information from sampled health service institutions. In the searches, we looked for strategies used by different institutions to retain health workers, such as financial incentives, non-financial incentives, motivation, performance assessment, health care for workers and their immediate families, and health care system reform.

Purposive sampling was done to select relevant government ministries, medical institutions, NGOs and training institutions that deploy and train health care workers. We visited government ministries and retrieved policy documents from the Ministry of Labour, Directorate of Personnel Management in the Office of the President, Ministry of Health and Ministry of Local Government. Institutions that gave us their policy documents and terms and conditions of service documents were Kenyatta National Hospital, Nairobi Hospital, University of Nairobi and Kenya Medical Training College–Nairobi Campus. We also

sampled trade unions (the Kenya Local Government Workers Union, Central Organisation of Trade Unions, Union of Kenya Civil Servants, Kenya Local Government Workers' Union and Union of National Research Institutes Staff of Kenya) and non-governmental organisations (ADRA and Public Services International). The information obtained was analysed in line with the parameters set out in the objectives and the evidence was summarised.

Primary data was collected by interviewing administrative staff of the above-mentioned institutions using in-depth, semi-structured tape recorded interviews. Focus group discussions (FGDs) were held with employees from public and private institutions providing health services and with final-year students of the training institutions. In the interviews, we focused and identified staff retention measures that were being used to affect the push and pull factors for migration. (*Push* factors are the negative factors in the health worker's current job that encourage them to leave, such as poor pay, while *pull* factors are incentives that encourage them to take up a new job, such as better working conditions.) We gathered evidence on the reported challenges or weaknesses of existing retention strategies, and suggested appropriate non-financial strategies and other measures to be implemented to promote the recruitment and retention of health workers. The interviews were also used to collect evidence on the challenges that health workers faced as they did their routine duties in the health institutions, including through application of the relevant domestic employment policies and strategies. This primary data was analysed to identify the major themes emerging from the FGDs and interviews.

3. Results

In this section, we will analyse six different aspects of health worker retention in Kenya:

- the shortage and maldistribution of health workers;
- the push and pull factors affecting migration and retention;
- the Ministry of Health's priorities for health worker retention;
- incentives being applied by different institutions for health worker retention;
- how incentives are operationalised, monitored and evaluated by different institutions; and
- any evidence of the impact of health worker retention incentive regimes in Kenya.

3.1 Shortage and maldistribution of health workers in Kenya

Most physicians in Kenya are trained at public universities, while most nurses graduate from Kenya's medical training colleges scattered around the country. Private and mission hospitals also train nurses, while Aga Khan Hospital and Kenyatta and Egerton Universities train physicians. To practise in Kenya, all nurses and physicians must have a "certificate to practise" from the Nursing Council of Kenya and the Kenya Medical Practitioners and Dentist Board.

Scholarships are available for postgraduate training for different medical cadres, on merit. Few workers get scholarships to train outside the country (Directorate of Personnel Management, 2005a, 2006; Kenyatta National Hospital, 2006; Nairobi Hospital, 2007). The country has training opportunities for Masters' programmes for physicians at Nairobi, Aga Khan and Moi Universities. After working for three years in public institutions, doctors can apply for these scholarships and further their careers by specialising. For sub-specialities, government, national, mission and private hospitals offer scholarships in specific areas, according to the needs of each institution, for designated training in foreign countries. Kenya Medical Training College–Nairobi Campus offers most post-diploma courses at Kenyatta National Hospital. For nurses, there are many post-diploma courses available, including for theatre nursing, intensive care nursing, psychiatric nursing, paediatric nursing, special care in neonatology/renal care/cardiology, midwifery, public health nursing and emergencies

medicine, as well as an advanced diploma in nursing or a degree in nursing. Clinical officers have career advancement opportunities in many branches of medicine, such as advanced diplomas in audiology, ophthalmology, paediatric medicine, tropical medicine and anaesthesia.

Health workers in Kenya are employed by the Ministry of Health, by semi-autonomous government institutions (national hospitals, research institutions and training institutions), by non-governmental organisation (NGO) health facilities, missionary hospitals, nursing homes, consultants and by the private sector. Non-state organisations employing health workers include NGOs like AMREF, UN organisations, health management organisations (HMOs), pharmacies and clinical dispensing chemists. *Table 2* provide the numbers of graduating health workers in Kenya. As can be seen, there is an increase in numbers for all graduating cadres, except for laboratory technologists. Pharmaceutical technologists and physiotherapists recorded a sharp drop in 2006. Note that the difference between registered nurses and enrolled nurses is that registered nurses have a Diploma in Community Health Nursing, while enrolled nurses have a Certificate in Community Health Nursing. Physician numbers are for those graduating from Nairobi and Moi Universities.

Table 2: Numbers of graduating nurses, clinical officers and physicians, 2002–2006

Staff cadres	2002	2003	2004	2005	2006
Registered nurses	1,094	1,256	1,253	1,412	1,304
Enrolled nurses	428	524	536	576	497
Registered clinical officers	256	293	237	449	489
Laboratory technologists	164	245	208	228	160
Physicians	210	290	406	363	464
Pharmaceutical technologists	70	57	66	121	92
Physiotherapists	34	29	32	47	34

Source: Academic registrars' records on graduates of the Kenya Medical training college, Private nursing colleges and Mission hospital training colleges over the last 5 years

Table 3 shows the numbers of staff who have been recruited by the Ministry of Health from 2002 to 2006, as well as the numbers to be employed in the financial year 2007-2008. It illustrates gaps and the unequal distribution of health workers in the country.

Table 3: Numbers of health workers from 2002 to 2006 and projected numbers for 2007/2008

Health worker cadres	2002	2003	2004	2005	2006	Total	2007/2008 (projected numbers from Ministry of Health)			
							No's needed	No's to be recruited	Gaps	% Gaps in total needed
Nurses	756	503	957	338	2,605	17,150	47,384	6,000	30,320	64%
Physicians	158	261	162	248	309	1,875	4,192	810	2,284	54%
Dentists	–	–	–	–	–	168	836	30	668	80%
Clinical officers	–	–	–	–	–	2,333	4,900	1,000	2,567	52%
Laboratory technologists	–	–	–	–	–	538	2,475	200	1,937	78%
Physiotherapists	–	–	–	–	–	394	768	60	374	49%
Pharmacists	–	–	–	–	–	340	416	60	76	18%
Pharmaceutical technologists	–	–	–	–	–	1,500	1,835	100	335	18%
Occupational therapists	–	–	–	–	–	280	416	60	136	33%
Total	–	–	–	–	–	24,578	63,222	8,320	38,697	61%

Source: Ministry of Health, 2007

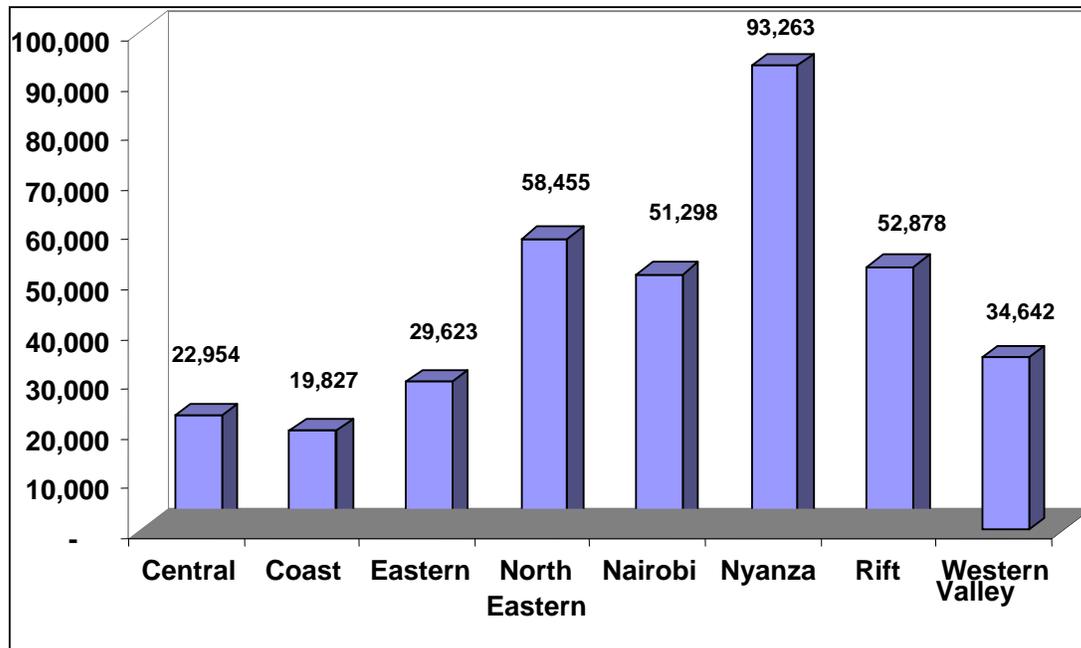
Tables 2 and 3 show that the supply of health workers to Kenya's labour market exceeds demand. However, official figures indicate how many posts are vacant rather than reflecting Kenya's real health care needs. Also, the gap of 30,320 nurses comprises 78.4% of the total number of health workers required to close up the gaps at the Ministry of Health. This means that nurses in PHC facilities are seriously overworked. For the other cadres of staff, the numbers of graduating professionals are also higher than numbers being deployed. This imbalance is predicted to increase when other training institutions become fully operational, namely Kenyatta University and Aga Khan University. Overall, the number of health workers graduating from colleges is higher than the number deployed. In other words, unemployment levels among recently graduated health workers are increasing.

Adding to the shortfall, the pensionable age of 55 years to 67 years means that workers often retire when they are most productive (WHO, 2006). The early retirement age in Kenya reduces the supply of vital health professionals. Highly educated and skilled health workers do not physically migrate to developed countries, but 'migrate intellectually' by retiring or re-orienting their activities.

There is also a maldistribution of health workers, worsening the shortfall in some areas, particularly in rural, primary care levels. Figure 2 depicts the unequal distribution of physicians/ population in public medical facilities across the eight provinces of Kenya.

Nyanza province, which has the lowest gross domestic product (GDP) by activity in the country, has the fewest professionals. Areas with higher GDPs, namely Central Province, Nairobi and the Coast, have many private medical facilities and a smaller population-to-health worker ratio. Nairobi has Kenyatta National Hospital, a semi-autonomous health facility with most of the highly experienced and specialist health professionals in Kenya, which is a major pull factor in internal migration from rural to urban areas. It is also a training institution for all fields of health professionals in the east African region. The number of physicians in Kenya in the public sector is 2.6 doctors per 100,000 (only 940 physicians are registered and employed by the Ministry of Health), which is far below WHO's 1998 recommendation of 20 physicians per 100,000 people.

Figure 2: Population/ physician by province in public medical facilities in Kenya, 2007

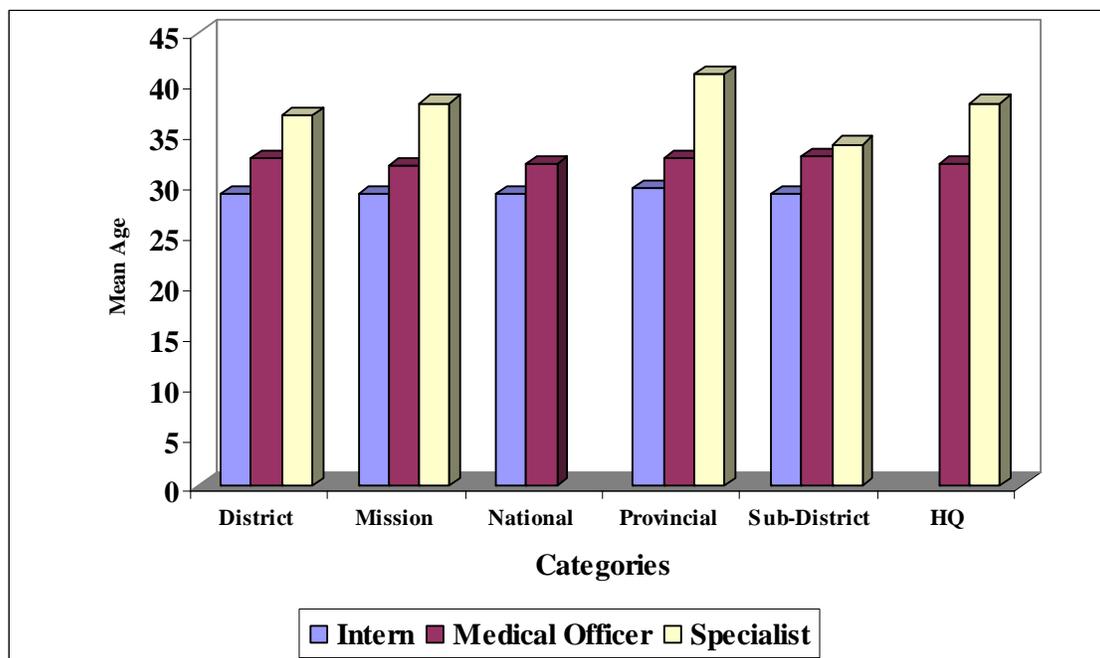


Source: Ministry of Health, 2007

Shortfalls and maldistribution are not the only problems facing the Kenyan health system. It also suffers from inequalities in skills and experience relative to need. For example, the number of experienced and specialist physicians (retained for over five years) in public health facilities is small relative to the number of newly qualified physicians joining the workforce. So, when young and newly qualified health workers are posted to district and rural areas, they usually have to work without supervision. Lack of supervision is a push factor that encourages young health workers either to migrate internally to national, mission or private medical facilities or teaching medical institutions, or to migrate externally to other countries, where they can work under supervision.

Interns form 25% of the workforce among physicians at district, provincial and national levels, while general practitioners (medical officers) form 41.6% of the force. The remaining workforce (32.9%) consists of specialists and administrators of public facilities located at the provincial and district hospitals. Highly qualified physicians (consultants) also run their own private medical practices. After internship, physicians are registered with the Kenya Medical and Practitioner's Board and, to be eligible for to train further on a government scholarship, they must work in public medical facility for three years (according to a "bonding" system). Postgraduate training takes an average three more years, so the younger specialists are posted to the sub-district and district hospitals at an average age of 34 years (see *Figure 3*).

Figure 3: Mean ages of types of physicians in health facilities in Kenya, 2007



Source: Ministry of Health, 2007

The national hospital figures can be seen under Kenyatta National Hospital in *Table 5*, where highly experienced medical professionals work. The majority of these workers have been at the institution for over five years, indicating reduced mobility of health workers at national hospitals. Long periods of service were also seen at Nairobi Hospital, Kenya Medical Training College and the University of Nairobi, all located in urban areas.

Kenya's maldistribution health in personnel is most clearly seen in mental health care (Ndeti et al, 2007). The country has produced a mere 78 psychiatrists since 1979, 73 of whom are alive – a negligible number, considering a national population of 31 million. Their

distribution is skewed by type of facility and locality, particularly across urban and rural areas (see *Table 5*). With two psychiatrists leaving the country and one returning in 2004, internal migration is clearly more serious than external migration.

Understaffing is experienced in other health disciplines: PHC centres offer a wide range of specialised treatments services to the public, yet are understaffed. In Nairobi, FGDs carried out at two health centres (Kangemi and Riruta Health Centres respectively) found that these facilities offered TB, mental health, epilepsy, maternal and child health (MCH), voluntary counselling and testing (VCT), and HIV and AIDS services. However, Kangemi had only one medical officer, one clinical officer, two registered community nurses and four enrolled community nurses, while Riruta had two clinical officers, two registered community nurses and four enrolled community nurses.

Table 4: Distribution of psychiatrists per province in Kenya, 2004

Province	Number of psychiatrists	% of total psychiatrists in Kenya	Population numbers	Ratio of psychiatrists to population
Nairobi	34	64.1	2,143,254	1:63,007
Central	3	5.7	3,724,159	1:1,241,386
Coast	4	7.5	2,487,264	1:621,816
Eastern	5	9.4	4,631,779	1:926,355
North-eastern	0	0	962,143	–
Nyanza	1	1.9	4,392,196	1:4,392,196
Rift Valley	5	9.4	6,987,036	1:1,397,407
Western	1	1.9	3,358,776	1:3,358,776

Source: Africa Mental Health Foundation, 2004

The situation was even worse in rural areas, with fewer staff than in urban facilities. FGDs at Ndalu Health Centre in the Bungoma District and Nambale Health Centre in Busia revealed that Ndalu had only one clinical officer, one registered community nurse and four enrolled community nurses, while Nambale had just one clinical officer, two registered community nurses and three enrolled community nurses, even though both centres serve large populations with the same range of medical conditions/complications as those in district or provincial hospitals. Patients often delay reporting for treatment (due to a lack of money) and arrive in critical condition, requiring specialised care. Yet PHC centres in rural areas do not have communication and transport facilities, and patients may die before being referred to provincial or national hospitals. These specialist facilities may refer terminally ill patients back to rural facilities, where health workers and communities have little information on how to care for patients. Family support systems in rural areas are weaker and people are poorer, with low literacy levels, which places increased demands on health workers, who have to offer both economic and psychological support in addition to health care.

Table 5: Period of service in years at Kenyatta National Hospital (2006), Nairobi Hospital (2007) and Kenya Medical Training College (Nairobi Campus 2007)

Categories of staff	New recruits (<1 year)			2–3 years			4–5 years			6–10 years			11–20 years			> 20 years			Total		
	Kenyatta	Nairobi	KMTC	Kenyatta	Nairobi	KMTC	Kenyatta	Nairobi	KMTC	Kenyatta	Nairobi	KMTC	Kenyatta	Nairobi	KMTC	Kenyatta	Nairobi	KMTC	Kenyatta	Nairobi	KMTC
Physicians	5	4	–	–	5	–	5	7	3	80	11	2	96	–	2	19	–	3	205	27	10
Clinical officers	1	–	–	–	–	–	2	–	2	13	–	2	32	–	2	7	–	2	56	–	8
Medical lab technologists	–	3	–	–	15	–	2	9	1	32	11	6	36	3	8	78	–	6	–	41	21
Dental technologists	–	–	–	–	–	–	1	–	–	3	–	2	1	–	2	8	–	3	13	–	7
Dentists	–	–	–	–	–	–	4	–	–	6	–	–	13	–	–	3	–	–	26	–	–
Community oral health	–	–	–	–	–	–	–	–	–	–	–	3	–	–	–	–	–	–	–	–	3
Health record-keeping	–	–	–	–	–	–	–	–	–	–	–	3	–	–	3	–	–	2	–	–	8
Environmental health technologists	–	–	–	–	–	–	–	–	–	–	–	4	–	–	3	–	–	4	–	–	11
Radiographers	1	2	–	–	4	–	2	7	–	5	–	–	9	2	–	24	2	–	41	15	–
Radiologists	–	–	–	–	1	–	–	3	–	–	–	–	–	1	–	–	1	–	–	6	–
ECG technologists	1	–	–	–	–	–	–	–	–	–	–	–	1	–	–	1	–	–	3	–	–
Nurses	137	79	–	22	68	–	115	82	–	483	45	2	591	106	10	358	8	19	1706	388	31
Occupational therapists	–	–	–	–	–	–	3	–	–	10	–	4	23	–	3	1	–	1	37	–	8
Orthopaedic technologists	1	–	–	–	–	–	3	–	–	–	–	1	4	–	3	10	–	3	18	–	7
Medical physiotherapists	1	1	–	–	3	–	–	7	–	–	3	–	–	1	–	2	1	–	3	15	–
Pharmacists	–	1	–	6	4	–	3	2	–	2	3	–	3	1	–	1	–	–	15	11	–
Pharmacy technologists	–	7	–	1	5	–	6	7	–	9	2	–	20	–	–	12	–	–	54	21	–
Physiotherapists	–	–	–	–	–	–	2	–	–	9	–	–	30	–	–	19	–	–	60	–	–
Nutritionists	3	–	–	1	–	–	–	–	–	18	–	–	20	–	–	9	–	–	51	–	–
Medical engineers	–	–	–	–	–	1	–	–	–	–	–	2	–	–	4	–	–	–	–	–	7
Medical educationists	–	–	–	–	–	2	–	–	2	–	–	3	–	–	–	–	–	–	–	–	7
Professionals in other programmes	–	–	–	–	–	–	–	–	–	–	–	8	–	–	7	–	–	6	–	–	21
Total	150	97	–	20	105	3	48	124	8	670	75	47	859	114	54	552	12	60	2,288	524	169

Sources: KNH, 2006; Nairobi Hospital, 2007; KMTC, 2007

3.2 Push and pull factors: Why do health workers migrate?

The reasons why health workers had left their public sector jobs in the 12 months prior to this study were difficult to establish. HR records were not standardised and the information could not be extracted. Some of the reasons for leaving included optional retirement before official age, mandatory official retirement age, golden handshake/retrenchment, resigning for further studies or job opportunities outside the country, joining private practice, dismissal on disciplinary grounds, desertion of duty, retirement on medical grounds, transfer of services and death of the staff member.

Income clearly plays a role in the decision to leave. Salaries in public medical facilities are lower than those in private and semi-autonomous government institutions. Private institutions also offer bonuses and special awards to honour and exemplify good service. In public institutions, nurses are given awards but there are no bonuses. Working conditions are also important. Working hours vary from institution to institution. In private and mission hospitals, staff work 40 hours per week – if on night shift (12 hour shift), they work for two nights consecutively, then take the following two days to rest (off duty). In public institutions, workers have similar schedules, but have to work *four* nights before they are allowed two days to rest. Workers who work extra hours in private and semi-autonomous medical institutions are compensated financially. If they work as locums in public medical facilities, the extra hours are accumulated and awarded as leave days. In contrast, workers at PHC centres, despite the heavy workload, are not compensated or recognised by their employers (city council) for the extra responsibilities they have to undertake. For these extra responsibilities, the workers have to use their own initiative to acquire the necessary skills to meet the needs of the populations they serve.

The most notable problem with working conditions was poor and inadequate supplies of medical equipment and drugs. The essential drug list covers all health centres in the country and they all receive equal amounts and types of drugs, despite differing population densities and medical needs. Specialised services in the PHC centres are initially piloted and programmed by NGOs and later rolled out into PHC services. The NGOs train the health workers at the programme sites in the new specialised clinical areas to provide services to the poor populations they serve. Once the NGOs have finished their activities, the trained workers take over running of these services without compensation from their employers. Medical supplies also stop, frustrating workers with new expertise in clinical areas. This frustration means that when donor support is provided for services in specific areas (such as TB, HIV/AIDS and mental health), health workers prefer to move from general jobs into newly created specialised jobs, often in NGOs, causing a 'brain drain' from public sector to private sector.

In private, for-profit hospitals, mission hospitals and semi-autonomous government institutions, all hospital machines or equipments are serviced and in working condition, with medical supplies available. Transport is made available to staff working late or odd hours or coming early on duty. In public institutions, systems are not usually fully functional, and stocks of available medical supplies are limited. For staff working late or odd hours, transport is unavailable most of the time. Health workers in primary health care facilities and sub-district hospitals are most affected because they have no security systems in place and lack non-financial incentives (unavailability of communication systems). There are also no ambulances to transport acutely ill patients to better-equipped medical facilities.

Social welfare facilities are available in all institutions, but are more operationalised in the semi-autonomous government and private medical institutions. Disciplinary or conflict cases among the workers are handled immediately, while dissatisfied workers with grievances have quick channels of communication to follow. The human resource departments are able to handle these matters and management implements the outcomes. In cases of difficulties or trauma, channels have been implemented to support the staff. They have transport,

financial support and sick or compassionate leave. In some private institutions, the children of staff are given transport to school. No institutions include nuclear family members of the staff in their social welfare activities, however. Staff canteens are operational in private and semi-autonomous public institutions at subsidised rates.

Workers in private medical facilities, in Kenyatta National Hospital and in the NGOs involved in provision of health services have both unlimited out-patient and in-patients facilities. Medical costs are covered by insurance schemes that give them access to medical facilities outside their institutions or country. In public institutions, workers have a medical allowance, which is limited to medical treatment offered in public institutions. If staff require specialised treatment outside public institutions, the arrangement is a private affair.

All permanent employees from all institutions subscribe to National Social Security Fund (NSSF) and, upon retirement at age 55, retirees receive a total of 250% of their contributions, plus accrued interest. The employer contributes 150% of the employee's social security benefits over the years worked. Another retirement benefit that has been documented in the policies is the contributory staff pension, which incorporates a life assurance element (Directorate of Personnel Management, 2005a, 2006; Kenyatta National Hospital, 2006; Nairobi Hospital, 2007).

The above differences between public and private services point to possible causes of internal migration. The key informant interviews and focus group discussions gave further support to the importance of such factors, reporting internal migration to urban areas because of:

- **Poor remuneration:** Most workers posted in public facilities and district hospitals are junior cadres who have only a basic qualification. Their salaries are low and they do not qualify for responsibility allowances, acting allowances, duty allowances, subsistence allowances or travelling allowances. These workers do not qualify to represent the Ministry of Health in any capacity and therefore cannot be selected to travel on duty or participate in courses/conferences outside Kenya.
- **Poor working conditions:** Hospital supplies are limited, supervision is lacking (senior and experienced health workers are posted at the provincial and national hospitals only) and rural communities are poor compared to urban communities. In urban areas, patients can afford the fees charged in private practice, but rural people cannot, which increases demand in rural public facilities.
- **Limited career opportunities and poor communication facilities:** All health professionals in Kenya compete for limited opportunities in furthering their career paths, with poor communication. Workers in rural and hard-to-reach areas receive information on scholarships only after entry dates have expired. Most facilities have no ambulances and the terrain is difficult so, when faced with an emergency, they lose critical patients without accessing help. Staff have to work in a poorly resourced and dangerous working environment to provide balanced and appropriate medical services.
- **Limited educational opportunities** exist for the workers, their children and their spouses.
- **Impact of HIV and AIDS:** Most community members are either infected or affected by the virus (in other words, they have infected friends or relatives) and there are no established programmes for interventions.

In the focus group discussions, respondents suggested that employers take steps to introduce non-financial incentives that:

- ensure that the administrative structures to deal with health workers in various medical institutions are well balanced and distributed;
- minimise bureaucracy;
- ensure management will encourage and respect every health worker;

- ensure that health professionals work in health-related disciplines, not as management staff (administrators or human resource managers);
- offer refresher courses with modern technology especially in theatre, radiology and laboratory work and in specialised areas in clinical practice;
- provide medical journals and learning materials;
- run staff-patient management-related courses;
- institute a clocking system for staff to register when they start and finish work;
- implement health management information systems;
- implement personal and equipment evaluation systems; and
- promote staff, especially in government facilities, in a way that reflects their performance and creativity.

Respondents proposed non-financial incentives such as good working conditions, an improvement in hospital supplies, provision of housing facilities, staff welfare-medical services, childcare facilities, provision of in-services training through continuous medical education, provision of ambulances and adequate staffing at health facilities. Employers need to have schedules for updating career and technology advancements of workers and ensuring good working conditions. There should also be a structured inter-staff relationship, room for contributions by the cadres of staff, and employers should offer good leadership. A professional job grading and salary structure should also be put in place.

Respondents also proposed financial incentives, including allowances for medical needs, housing, transport, car or fuel and holidays, as well as risk cover and hardship allowances in remote hard-to-reach areas. The extra money will enable staff to send their children to good schools and they will be able to visit their families outside the hard-to-reach areas. Benefits such as entertainment allowances, overtime pay, night call/duty, and benevolence benefits also need to be worked out. Employers may consider introducing award schemes to motivate workers for good performance or good professional conduct. To encourage workers to stay longer with one employer, salary increments and promotion at intervals should go hand-in-hand with job security, pension schemes and bonuses. Other areas suggested were for workers to access private medical facilities through insurance schemes, as well as pension and loan service schemes.

3.3 What incentives are being used to retain health workers in Kenya?

The information on incentives is drawn from institutional records and from policy documents published by the institutions, namely those by the Ministry of Health, Kenyatta National Hospital and Nairobi Hospital. These indicate a range of incentives being applied, shown in *Table 6*.

Different institutions have policies that govern the award of incentives to the health workers. Institutions report that they review these strategies regularly to meet market demands. Most of the retention strategies have been implemented.

These incentives are set for all cadres of staff at all levels, although implementation may depend on the facilities. Some, such as scholarships, are awarded on merit, and if a worker is sponsored by a private organisation or is self-sponsored, they get reinstated after completing their training. Health workers in private medical training institutions and national hospitals are tracked after completion of their training, as opposed to public institutions, where the worker is posted to other well-equipped medical institutions on promotion.

Table 6: Incentives offered in different medical institutions in Kenya, 2005–2007

Medical institution	Financial incentives	Non-financial incentives
Ministry of Health (national public health sector)	<ul style="list-style-type: none"> • Implemented by the Directorate of Personnel Management • Paid leave and overtime pay • Allowances include: acting, special duty, hardship, responsibility, non-practising, commuter, risk, security, extraneous duty, field, entertainment, telephone, mileage, subsistence, settlement and uniform allowances 	<ul style="list-style-type: none"> • Postgraduate training of doctors after three years after internship, housing for staff and National Social Security Fund (NSSF) • Medical cover includes nuclear family members, and is only available at public institutions
National referral and teaching hospitals	<ul style="list-style-type: none"> • Positions have competitive salary packages, according to level of qualification, as well as similar incentives to those offered by the Ministry of Health (see above) 	<ul style="list-style-type: none"> • Unlimited medical cover for staff and their immediate families, extended for up to five years after retirement (for the employee only) • Pension and National Social Security Fund (NSSF) • Opportunities for furthering careers, on merit: local training, scholarships abroad and specialised training in specific branches of medical practice • Good supervision • Awards to staff for job performance, as well as risk allowances and the introduction of HIV/AIDS treatment at some workplaces
Nairobi Hospital (private medical institution)	<ul style="list-style-type: none"> • House and car allowances 	<ul style="list-style-type: none"> • Promotion on merit • Loan facilities for personal growth • Shorter working hours: nurses work 40 hrs/week • Adequate numbers of staff • Salaries matched with the market rate, both nationally and internationally • May further their careers by studying, either part time or full time (taking unpaid leave) • Medical cover (includes nuclear family) and life insurance policy
Kenya Medical Training College (KMTC)	<ul style="list-style-type: none"> • Similar incentives to those offered by the Ministry of Health 	<ul style="list-style-type: none"> • Postgraduate training of staff (study leave) • Housing • National Social Security Fund (NSSF), medical cover (includes nuclear family) and life insurance policy • Loan facilities • Shorter working hours (40 hours a week)
University of Nairobi (College of Health Sciences)	<ul style="list-style-type: none"> • Implemented by the University Governing Council • Paid leave and overtime pay • Allowances include: acting, special duty, hardship, responsibility, non-practising, commuter, risk, security, extraneous duty, field, honoraria, entertainment, telephone, mileage and subsistence allowances 	<ul style="list-style-type: none"> • Postgraduate training (study leave) • Housing or housing allowance • National Social Security Fund (NSSF), medical cover (includes nuclear family) and life insurance policy • Loan facilities • Shorter working hours
NGO: Adventist Development and Relief Agency	<ul style="list-style-type: none"> • Good salary (more than public sector workers) • Paid leave and overtime pay • Allowances include: hardship and acting allowances (paid in cash) 	<ul style="list-style-type: none"> • May further their careers (work towards promotion on merit) through in-house/external training or continuous upgrading • Life insurance policy and unlimited medical covers (includes nuclear family) • Work half-day on Fridays

Sources: Directorate of Personnel Management, 2005a, 2006; Kenyatta National Hospital, 2006; Nairobi Hospital, 2007

To summarise the information from the above table, **financial incentives** for health workers in Kenya are:

- paid leave and overtime pay;
- access to loans at lower negotiated market rates from financing institutions for highly skilled public sector workers to purchase houses, cars or farms;
- an acting allowance payable to members of staff formerly appointed to act in a higher post, paid for no more than six months, after which arrangements are made to substantively fill the post;
- a commuter allowance paid to all staff;
- an entertainment allowance paid to senior members, such as institutional heads;
- a field allowance for staff on duty who are sent out into the field on special missions;
- a hardship allowance paid to members of staff who are stationed in the designated hardship areas, paid at the rate of 30% of an officer's basic salary;
- an honoraria allowance for staff offering services beyond their job descriptions, such as nurses who act as professional counsellors;
- a medical risk allowance paid to staff who are exposed to medical risks in the course of their duties;
- a mileage allowance paid to physicians attending to emergency calls at their medical facility;
- a non-practising allowance paid to doctors and dentists who are not practising;
- a responsibility/duty allowance paid to officers who are required to handle tasks beyond their job descriptions, such as acting as head of a department;
- a special duty allowance;
- a settlement allowance paid to all staff who are transferred;
- a subsistence allowance paid to staff who travel on official duties and need money for boarding and lodging;
- a telephone allowance paid to departmental heads of different medical facilities; and
- a uniform allowance paid to all nurses.

Non-financial incentives for health workers in Kenya are:

- housing or a housing allowance (private and training/educational institutions have their own housing schemes programmes for workers to buy houses);
- post-graduate training and continuing medical education;
- supervision and support for professional work;
- life insurance;
- personal loan facilities;
- shorter working hours;
- membership to the National Social Security Fund (NSSF);
- medical cover (includes nuclear family);
- a risk allowance; and
- the introduction of HIV and AIDS treatment in some workplaces.

Table 7 lists the various institutions that offer financial incentives. While paid leave, housing and some allowances are given to all staff, such as uniform and commuter allowances, others are only allocated to senior officers, who may be doing administrative duties only. Non-financial incentives are given to all health workers, apart from life insurance, which is only awarded to health workers in the private and NGO sectors. Public sector and semi-autonomous institutions also offer scholarships for career growth and paid study leave.

Table 7: Institutions offering financial incentives to health workers, 2004-2007

Financial incentive	Institution	Which staff are eligible?
Responsibility allowance	Ministry of Health, KNH, KMTC, UON and Nairobi Hospital	Heads of clinical divisions/departments, staff at the ministry headquarters, administrators at provincial and district hospitals, and doctors
Acting allowance	Ministry of Health, KNH, UON, KMTC and Nairobi Hospital	Officers appointed to act in a higher position
Duty allowance	Ministry of Health and Kenyatta National Hospital	Officers who are appointed to assume a duty in addition to their normal duties for a continuous period of 30 days, defined as a duty typical of a more highly paid post, or at the same level, or a duty of a separate and distinct nature
Non-practising allowance	Ministry of Health, KNH, UON, Hospital, KMTC and Nairobi Hospital	Physicians and dentists
Subsistence allowance (when travelling in Kenya)	Ministry of Health and KNH	Employees who travel for work reasons and are required to stay overnight, such as administrators from Ministry headquarters or provincial and semi-autonomous public institutions
Subsistence allowance (to travel outside Kenya)	Ministry of Health, KNH, UON, KMTC and Nairobi Hospital	Employees who are required to travel on duty out of Kenya
Maintenance allowance (to attend conferences or courses outside Kenya)	Ministry of Health, KNH, UON, KMTC and Nairobi Hospital	Employees who are required to attend a short course, long course, seminar, workshop or conference outside the country
Uniform allowance	Ministry of Health KNH and Nairobi Hospital	All nurses are paid a uniform allowance
Leave allowance	Ministry of Health, KNH, UON, KMTC, ADRA and Nairobi Hospital	All employees
Transport/commuter allowance	Ministry of Health, KNH, UON, KMTC and Nairobi Hospital	Medical and dental officers can purchase cars on loan negotiated at a lower interest rate by the hospital, while other staff get commuter allowances
Medical risk allowance	Ministry of Health, KNH, UON, and Nairobi Hospital	Payable to health workers
Professional fees for consultants	KNH and Nairobi Hospital	Medical practitioners appointed by the hospital
Housing allowance	Ministry of Health, KNH, UON, KMTC, ADRA and Nairobi Hospital	Employees who are not provided with official hospital accommodation, varying between rural and urban areas
Owner/occupier housing allowance	Ministry of Health, KNH and UON	Employees living in their own homes who have furnished the hospital with a certificate or valuation report of the house carried out by a registered land and estate valuer acceptable to KNH or the Ministry of Health
Subsidised housing scheme	KNH and UON	All employees are eligible to live in institutional or leased housing offered by the hospital

Sources: Kenyatta National Hospital, 2006; Nairobi Hospital, 2007; Directorate of Personnel Management, 1974; Directorate of Personnel Management, 2005a; University of Nairobi, 2004

It is the combination of incentives that often yields most impact. In the public sector, very few physicians are retained after 10 years in service. The retention levels and working conditions at training institutions and national hospitals are better; with regular continuing medical education and professional support. Duties and responsibilities are specified, overwork is

low and there is room for career advancement at these semi-autonomous institutions. Medical care services for the workers are available and they are able to access any speciality. At Nairobi hospital, nurses are retained longer due to better working conditions. As stated by Mathauer and Imhoff (2006), non-financial incentives increase net income.

These incentives are set out in the institutional policies and monitored by the Ministry of Labour and Human Resource Development and the trade unions. Since January 2006, staff in public and training/educational institutions have been appraised according to performance and they sign performance contracts (Directorate of Personnel Management, 2005a & 2006; Kenyatta National Hospital, 2006; Nairobi Hospital, 2007). The appraisals are used, in part, for promoting or awarding scholarships to further a career. The Ministry of Labour also acts as an arbitrator in cases of wrongful dismissal/termination of duty or workman's compensation issues. Staff in public institutions who are in middle and low cadres (diploma and certificate holders) are allowed to be members of trade unions or join a union. The unions have addressed some retention strategies by awarding allowances, for example acting, special duty, hardship, responsibility, non-practicing, commuter/transport, risk, security, extraneous duty, field, overtime, honoraria, leave, entertainment, telephone, mileage, subsistence, settlement and uniform allowances. They have also enforced statutory minimum wages and improved pay packages for their members, as well as access to health care, social security, risk and other allowances in line with ILO conventions (Directorate of Personnel Management, 2006; Kenyatta National Hospital, 2006; Nairobi Hospital, 2007).

These labour market institutions are also developing strategies to address migration. Government has also made links with associations of the Kenyan diaspora (Ministry of Labour and Human Resource Development, 2007) to tap into Kenyan talents abroad and make employment opportunities available to the Diaspora on a competitive basis. It has put in place structures, programmes and incentives to attract and retain qualified and skilled Human Resources from the Diaspora. The Union of National Research and Allied Institutes Staff of Kenya is drafting a policy paper on Retention/Migration of Health Workers (Public Service International 2006, Daily Nation 2007a and Daily Nation 2007b), while the Central Organisation of Trade Unions (COTU) is developing policies to address migrant worker issues in the East African region (COTU 2007).

3.4 Monitoring health worker retention incentives

The monitoring and evaluation of health worker retention incentives is done by the heads of clinical divisions or departments at the Ministry headquarters, and administrators at the provincial and district hospitals (physicians and nursing administrative officers). This monitoring is conducted largely to see whether implementation follows stipulated rules and policy requirements.

Managers also monitor staff to ensure that job openings in the hospitals and training/educational institutions are filled expeditiously by promoting the most appropriate staff in accordance with their career progression guidelines. These guidelines are specified as the minimum requirements in terms of recognised qualifications, merit, ability, seniority and work experience. The system is intended to encourage health workers to further their careers. Upon completing their studies, workers are promoted (their job descriptions change as they move higher in the salary scale). New information is continually added to their records, such as information on promotions, number of years served, positions held, any disciplinary measures taken against the worker, any interdicts issued against them and any new qualifications.

Most records in the public sector services are still operated manually so retrieving information is difficult. Management in the private sector has the advantage of having electronic information systems and can produce annual reports and monitor the impact of

incentives much more accurately. Evaluation reports are regularly prepared in the private sector only.

Specific incentive strategies for training and further career paths are fully defined for all cadres of staff at all levels, although implementation depends on the facilities. In private medical institutions, training institutions and national hospitals, workers who study long-term courses are offered scholarships on merit plus study leave but are bonded in the agreement to work for the institution for a specified number of years. A few workers get private sponsorship and, although they are allowed to proceed with their training, this is without pay. In public medical facilities (employees deployed at all levels, namely provincial, district, sub-district, health centre and dispensary levels), scholarships are given on merit but the vacancies for further training for each cadre of staff are limited. If workers are sponsored by a private organisation or are self-sponsored, they get reinstated after completing their training. Health workers in private medical training institutions and national hospitals are tracked after completion of their training, as opposed to public institutions, where the worker is posted to other well-equipped medical institutions on promotion.

The Ministry of Health has clear policies that govern employment of its staff. Doctors, dentists and pharmacists who are deployed as interns are thereafter offered permanent employment in public service. These measures are implemented and monitored through the Directorate of Personnel Management (MoH, 2007). Pay determination and other incentives in the service follow policy implementation through the Directorate of Personnel Management. The scheme was initiated in 2003. Housing is offered throughout the country to staff, and the minority who are not housed receive a house allowance. Some workers from middle cadres are employed on short-term contracts with government development partners on better terms, which has impacted positively on state of employment in the sector. The terms and conditions of service put more emphasis on nurses because of their vital services. In fact, they run almost all the primary health care services in the country (MoH, 2007). All monetary incentives are included in the salary package, although each incentive is itemised individually for all staff. Allowances include acting, special duty, hardship, responsibility, non-practising, commuter, risk, security, extraneous duty, field, honoraria, entertainment, telephone, mileage, subsistence, settlement, uniform allowances. Paid leave and overtime pay are also included in the package. For candidates who wish to study further, all divisions/departments in the Ministry have policy and training committees to select candidates on merit. For example, they prioritise scholarships for students who want to work in so-called "hardship areas" (Directorate of Personnel Management, 2005, 2006).

At Kenyatta National Hospital, terms and conditions for employment have stipulations that the hospital must provide staff with unlimited medical cover for themselves plus their immediate family members. This cover is valid for up to five years after retirement (for the employee only). Membership to the Pension and National Social Security Fund (NSSF) is mandatory for all staff, while vacancies at the hospital are advertised and the positions have competitive salary package, according to the level of qualification (Kenyatta National Hospital, 2006). Opportunities for furthering careers are on merit. Thereafter, the graduates join either the University of Nairobi or Kenya Medical Training College. Foreign scholarships are also available on merit for specialised training in specific branches of medicine. The hospital runs post-diploma courses for nurses in neonatology, renal medicine, cardiology, intensive care and emergency medicine. All these terms and conditions of service are implemented by the human resource department (Kenyatta National Hospital, 2006). Supervision and the giving of awards to staff are well stipulated in the terms and conditions of service (Kenyatta National Hospital, 2006). Incentives are reviewed periodically (in most cases, annually) and staff are informed through institutional publications, newsletters, emails or circulars, for example news about paying risk allowances to the health workers or the recent introduction of HIV and AIDS treatments at some facilities (Directorate of Personnel Management, 2006).

The Kenya Medical Training College (KMTTC) has policies that have been implemented and are reviewed regularly by its board (governing board members), as laid down by the Directorate of Personnel Management in the Office of the President (Directorate of Personnel Management, 2005b). Policies are clear on terms of service, medical benefits, career advancement/training, housing allowances and leave (annual, study or sabbatical). These policies have been in existence since the inception of the college in 1967 and the latest review was conducted in March 2007. All employees are updated through circulars/newsletters. Performance management of staff is done through appraisals and measuring the success of programmes, and all employees complete an "employee satisfaction" questionnaire annually. This ongoing evaluation enables the college to gauge an employee's performance gaps, training needs and merit rating, both in the interest of the employees and the college for improved efficiency (Directorate of Personnel Management, 2005a). The college's administration has adopted the policies as laid down by Directorate of Personnel Management in 2006 and they are administered by the Ministry of Health.

At the Nairobi Hospital, a private hospital, doctors of different specialties have additional rights to practise. The practising doctors must be registered to practise in the country as private medical practitioners. Universal recruitment and development procedures are in place: obligations, code of ethics and clinical policies (policies touching on each area of practice) are specified for each cadre of staff. Nurses who get recruited must be registered with the Nursing Council and they renew their practising licences yearly. Permanent staffs working with the hospital have specific standards for training. The incentives given to the staffs are promotions by merit, personal loan facilities and a good balance between work and life – for example, nurses work 40 hours a week, with no overtime and are not overworked because the hospital is adequately staffed. Salaries are matched to market rates, both nationally and internationally. Promotion is done on merit, individual growth is followed and health workers are encouraged to further their careers, by studying either part time or full time (taking unpaid leave). They have medical cover, which includes their nuclear families, and have life insurance policies. The hospital's health worker policies have been in place since the 1950s and are reviewed annually by the hospital's governing board. Every staff member gets a handbook containing all matters pertaining to the hospital's code of ethics and practice. Policies are operationalised by heads of departments, doctors, nurses, pharmacies, physiotherapists and occupational therapists at Nairobi Hospital.

The College of Health Sciences at the University of Nairobi has clear policies on terms of service, benefits, allowances and career development, which are reviewed regularly by the University Governing Council (University of Nairobi, 2004). These policies have been in existence since the inception of the college in 1970 (University of Nairobi Calendar, 2005–2006). All employees are updated on these issues through circulars/newsletters. Performance management of staff is done through appraisals and by setting programmes targets. The university has a turnover of more than 500 students graduating yearly from different fields in medical care and practice (University of Nairobi Calendar, 2006–2007).

The Adventist Development and Relief Agency (ADRA), an NGO that partners with communities to "better their lives", recruits health workers who must be ready to work in communities as community facilitators. It has policy documents on remuneration according to experience and educational level, and workers are encouraged to further their careers (in other words, work towards promotion on merit) through in-house/external training or continuous upgrading. These conditions are revised yearly and employees have access to the documents. Other incentives for their workers (including those who are not medical professionals) include life insurance, a good salary (more than workers in the public sector), unlimited medical cover (includes nuclear family), working half-day on Fridays, paid annual leave and various allowances, such as hardship and acting allowances, all of which are paid in cash (calculated as a percentage of the worker's salary).

4. Discussion of results

From the evidence gathered for this paper, the major problems appear to be those of internal migration and the inequitable distribution of health personnel between urban and rural areas in Kenya. These inequalities in the distribution of health workers leave "higher" levels of the healthcare system located in urban areas with more skilled and adequate levels of staffing, compared to facilities in rural areas (Dambisya, 2007). Rural populations, who have greater health needs, end up with poorer health services. The factors contributing to this maldistribution (push factors) may include: poor pay, particularly if one considers that less-skilled staff in rural district hospitals do not qualify for various allowances; poor working conditions; limited career opportunities; poor communication facilities; limited educational opportunities and the absence of services for conditions such as HIV and AIDS. While the Ministry of Health is actively recruiting and posting health workers to poor economic settings in the country (sub-district and district hospitals), they work there without supervision, forcing them to move to urban facilities with better working conditions, better hospital supplies and opportunities to be supervised, to further their careers or to engage in private practice.

The hierarchical national referral system shown earlier (Figure 1) permits the movement of patients from the base of the national health system to the apex and vice versa. Although the movement of patients should, in principle, be initiated by health professionals, in practice, patients move themselves up and down this system. Patients bypass the cheapest health units (health centres or dispensaries) mainly due to lack of physicians and diagnostic services. In this way, the migration of physicians contributes to the increasing inefficiency and weakening of the referral system, undermining the policy goals of the country's expanding primary health care system.

Paradoxically, Kenya has many unemployed qualified health professionals, yet many staff gaps exist at the Ministry of Health (Adano, 2006). This scenario pushes health workers to seek employment in the international market. Severe shortages in the health workforce undermine the capacity of local health systems to function effectively, and internal and international migration have led directly to staff shortages in various areas.

While net outmigration is highest for doctors, the bigger gap exists among nurses, given that public facilities are operating with only a third of the required nursing workforce. The situation is even worse at in primary health care.

The causes of internal and external migration are not systematically documented, which makes it difficult to design relevant incentive packages. In this study, we noted a range of push and pull factors:

- quality of working conditions;
- chances for career growth;
- resourcing of health systems;
- opportunities for post-basic education;
- opportunities to travel;
- level of supervision;
- access to HIV and AIDS facilities;
- access to educational facilities for children;
- employment and income-generating opportunities for spouse/family; and
- access to research facilities.

Push factors that contribute to migration out of rural areas (internal migration) include poor working conditions, inadequate communication facilities, lack of ambulances to transfer critical patients to tertiary medical facilities and inadequate medical supplies. In addition to poor working conditions, workers in rural facilities live in poor housing and have poor access to schools and health care. The failures in service and work conditions can trigger a vicious

cycle, in which health workers lose supervisors when physicians and nurses migrate out, further weakening the capacities of such health facilities to provide quality services to patients. Remaining workers are overworked and consider leaving too. For example, the few nurses deployed in these public facilities have to act as administrators as well as nurses and are the primary care givers serving large rural populations. Staff who are left behind have to assume greater responsibilities than they had been trained for, leading to a decline in the quality of health services, and adding to push factors for their migration to bigger health facilities. Health workers in rural and economically disadvantaged areas (such as hard-to-reach areas) miss out on most of the incentives. These workers are often junior professionals or are less qualified. The absence of incentives and a desire for further training motivates these junior workers to leave for the city.

In contrast, workers at urban and private institutions appear to access good housing and training facilities and have many opportunities to advance their careers. They have good, safe working conditions and medical supplies are adequate. The city provides good education opportunities for their children and work opportunities for spouses, and they all have access to good medical care. All urban or private institutions (Nairobi Hospital, University of Nairobi, KNH and KMTC) have functional administrative systems and policies are implemented in practice. They offer a good working environment, which acts as pull factor for health workers in rural and semi-urban areas.

Work organisation in the private sector was also reported to be well structured, with health workers deployed in their specific areas of professional training, a regular review of work and management systems that work to a high standard. Health workers in private medical training institutions and national hospitals are tracked after completion of their further career growth, more so than in the public sector. A similar scenario is found in relation to continuing medical education (CME) in private medical institutions, mission hospitals and national referral and teaching hospitals, which organise educational programmes for health workers. This improves the workers' self esteem, provides valuable supervision and support and opens doors for further career growth. Workers feel they are part of the health system, raising their morale (Dolvo, 2002). They do not suffer from problems found in the public sector, such as poor supervision, weak transparency on procedures and operating manuals and poor management of supplies, personnel, information systems and record keeping. Clearly, while financial factors are important, and have been addressed in the form of various allowances, these non-financial and management "incentives" are also very important to health workers. The public sector should perhaps take note of this when re-designing incentives to keep health workers in rural areas and in Kenya as a whole.

It would appear from the data presented that there is a need to address the maldistribution between urban and rural areas, and between levels of care, as well as to stem the internal migration from poorer to richer areas. Poorer areas generally have worse living and working conditions, and better non-financial incentives propel the health workers to migrate to bigger health facilities (provincial and national hospitals) situated in towns and cities across the country. In these urban areas, they work fewer hours (due to higher staffing levels) and can also engage in private practice on the side for more money.

To retain health workers in employment, the Kenyan government introduced allowances for physicians, dentists and pharmacists in public service in 2002 (Dambisya, 2007). Unfortunately, the implementation of incentives depends on the facility, so facilities that are better organised, often in higher-income areas, are more successful in providing incentives. Yet, ironically, it is at the lower levels of the health system (in rural and poorer areas) where incentives need to be implemented most urgently to counteract the strong push factors that force workers out of these areas.

5. Conclusion and recommendations

In all the health institutions we studied, policies were in place to retain health workers, but they are not working because workers are still moving from rural to urban areas and from Kenya overseas. There is a greater need than ever before for national-level policy formulation on non-financial and financial incentives if there is to be improvement in the inequitable distribution of health workers across the country. An approach that allows individual facilities to set incentives stimulates initiative, but the maldistribution of workers between urban (rich) and rural (poor) areas calls for policies that directly address workers in low-income areas, which are usually those with the greatest health needs. These policies should, in other words, address the issue of vertical equity, where those with the greatest needs get the most help. This approach is particularly important to avoid the vicious cycle of poorly staffed facilities, which creates increased workloads and reduced morale, leading to further out-migration. Further out-migration further weakens service provision and quality for low-income rural communities, who have to pay for poor quality services with their minimal resources.

We recommend that government put in place national-level policies to retain health workers in rural areas, in lower-income districts and at lower levels of the health system to ensure that all areas reach minimum standards with regard to numbers of personnel per population (such as the WHO recommended minimum standard of 20 doctors per 100,000 patients). We stress that such incentives are not only financial. According to the feedback we received from health workers, a number of non-financial incentives are highly valued:

- improved working conditions;
- training and supervision; and
- good living conditions, communications, health care and educational opportunities for themselves and their families.

The government needs to invest not only in its health workers but in its facilities, by ensuring regular medical supplies, upgrading facilities and improving working conditions in rural and poorer areas. Continuous medical education in specific areas is required, depending on service needs, in response to areas of increasing public health burden, such as anti-retroviral therapy (ART), voluntary counselling and testing (VCT), and services for tuberculosis, epilepsy, mental health, diabetes and hypertension.

Management practices also appear to be important. However, the strategic information needed for effective management was often missing in the facilities that needed it most. We set out to assess the impact of incentives, but were not able to access the sort of routine information needed to make this assessment. This information gap puts human resource managers at a disadvantage for their own strategic planning, and makes it harder for them to argue for further resources needed for retention incentives. The reasons why health workers resign or leave facilities should be routinely documented to assist policy makers to address the causes of internal and external migration. Health information management systems should be used to track the flows of health workers and inform the planning and distribution of health workers. Particularly in the public sector, health worker records are necessary to be able to monitor implementation and assess the impact of incentives.

A lot of attention in the research field is currently being given to the international migration of health workers and not enough to internal migration from rural to urban areas. In Kenya, internal migration is just as serious a problem as international migration. This situation not only calls for investment in incentives to recruit and retain personnel in poorer, rural areas, but also for wider investment in the quality of health services to provide the kind of working environment that allows health workers to perform their jobs effectively and service the communities that need them most.

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Acronyms

ADRA	Adventist Development and Relief Agency
AMHF	Africa Mental Health Foundation
COTU	Central Organisation of Trade Unions
ECSA	East, central and southern Africa
EQUINET	Regional Network for Equity in Health in east and southern Africa
HST	Health Systems Trust
IPAR	Institute of Policy Analysis and Research
KLGWU	The Kenya Local Government Workers Union
KMTC	Kenya Medical Training College
KNH	Kenyatta National and Referral Hospital
MDGS	Millennium development goals
MOH	Ministry of Health
NGO	Non-governmental organisation
NSSF	National Social Security Fund
PSI	Public Services International
UKCS	Union of Kenya Civil Servants
UNRISK	Kenya Local Government Workers Union
UON	University of Nairobi
WHO	World Health Organisation

Equity in health implies addressing differences in health status that are unnecessary, avoidable and unfair. In southern Africa, these typically relate to disparities across racial groups, rural/urban status, socio-economic status, gender, age and geographical region. EQUINET is primarily concerned with equity-motivated interventions that seek to allocate resources preferentially to those with the worst health status (vertical equity). EQUINET seeks to understand and influence the redistribution of social and economic resources for equity oriented interventions, EQUINET also seeks to understand and inform the power and ability people (and social groups) have to make choices over health inputs and their capacity to use these choices towards health.

EQUINET implements work in a number of areas identified as central to health equity in the region:

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