Regional Network for Equity in Health in east and southern Africa

DISCUSSION Paper NO. 44

A review of non-financial incentives for health worker retention in east and southern Africa

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With the Regional Network for Equity in Health in East and Southern Africa (EQUINET) and the East, Central and Southern African Health Community (ECSA-HC)

EQUINET DISCUSSION PAPER NUMBER 44 with ESC A-HC

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EXECUTIVE SUMMARY

This paper was commissioned by the Regional Network for Equity in Health in east and southern Africa (EQUINET) in co-operation with the East, Central and Southern African Health Community (ECSA-HC) to inform a programme of work on 'valuing health workers' so that they are retained within the health systems. The paper reviewed evidence from published and grey (English language) literature on the use of non-financial incentives for health worker retention in sixteen countries in east and southern Africa (ESA): Angola, Botswana, DRC, Kenya, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe. There is a growing body of evidence on health worker issues in ESA countries, but few studies on the use of incentives for retention, especially in under-served areas.

A draft report was presented at the EQUINET-ECSA-HC regional meeting on health worker retention and migration (Arusha, 16-9 March 2007), where further input was obtained from the country representatives.

Healthcare workers (HCWs) in the sixteen ESA countries listed above are offered a variety of non-financial incentives:

- Typical **training and career path-related incentives** include continuing professional development, opportunities for higher training, scholarships/bursaries and bonding agreements, and research opportunities.
- **Incentives that address social** needs were used in several countries, such as:
  - housing in Lesotho, Mozambique, Malawi and Tanzania;
  - staff transport in Lesotho, Malawi and Zambia;
  - childcare facilities in Swaziland;
  - free food in Mozambique and Mauritius; and
  - employee support centres in Lesotho.
- Most countries have **improved working conditions** or plan to improve working conditions by, for example, offering better facilities and equipment and providing better security for workers .
- All countries (except Madagascar, for which there was no data) have developed or are developing **human resource management** (HRM) and human resource information systems (HRIS). In many countries, these have been instrumental in improving HCW motivation through better management.

- In response to the high HIV/AIDS burden, many ESA countries have workplace specific programmes to care for HCWs and their families, ensuring **access to health care and anti-retroviral therapy** (ART). Some have HCW medical aid schemes, which may include access to private health care.

While there is evidence of the wide use of such incentives, they were not systematically documented in terms of their aims, design, implementation, monitoring and evaluation and timeframes. The categories of HCWs targeted by the incentives were not mentioned either.

Monitoring and evaluation (M&E) of the incentives range from a lack of any formal mechanisms to periodic reviews, and from performance appraisal at district and provincial levels to more developed M&E in strategic plans. Evidence from the M&E of incentive schemes was not used, except in Zambia, where it was used to justify the plan to extend the rural retention package to other workers.

Table 1 summarises the types of incentives currently being offered to health workers in ESA.

Table 1: Types of incentives used in ESA countries

	Training and career path measures	Social needs support	Working cond-itions	HR and personnel manage-ment systems	Health and ART access	Financial: Salary top-ups and allowances
Angola			X	X		X
Botswana	X		X	X	X	X
DRC	X			X		X
Kenya	X		X	X	X	X
Lesotho	X	X	X	X		X
Madagascar						
Malawi	X	X	X	X	X	X
Mauritius	X		X	X		X
Mozambique	X	X	X	X	X	X
Namibia	X			X		X
South Africa	X		X	X	X	X
Swaziland	X	X	X	X	X	X
Tanzania	X	X		X		X
Uganda	X			X	X	X
Zambia	X	X	X	X	X	X
Zimbabwe	X	X	X	X		X

Evidence suggests the successful application of non-financial incentives is associated with:

- proper consultative planning;
- long-term strategic planning within the framework of health sector planning;
- sustainable financing mechanisms, for example national budget; and
- donor funding and national budgets through a sector-wide approach (SWAP) or general budget support, rather than project-specific funding.

Several countries are using HR planning based on sound HRIS data (e.g. Botswana and Mauritius). Another positive trend is the move towards country-owned, rather than donor-driven programmes.

The current documented experience in this paper suggests that:

- **ESA countries continue to develop HRH information systems and personnel management systems.**
- **ESA countries introduce incentive packages,** preferably after wide consultation with all stakeholders, including with health workers and financing agencies, to make the incentives both acceptable and sustainable.
- **ESA countries use sustainable funding mechanisms to fund incentive schemes,** such as national budgets or SWAP, rather than vertical funding programmes.
- **HRH managers undertake periodic reviews of their incentive schemes,** at least annually, to monitor the impact of the scheme and document successes, failures and problems associated with implementation. HCW plans should include definite mechanisms to generate information and should ensure that M&E will document the impact of incentives. This practice will address the changing expectations of health workers and suggest areas for timely corrective action.

1. INTRODUCTION

The health workforce, physical facilities and consumables are three major inputs into any health system (WHO, 2000; Homedes and Ugalde, 2004; Kabene, Orchard, Howard, Soriano and Leduc, 2006). A growing body of evidence suggests that the quality of a health system depends greatly on highly motivated health workers who are satisfied with their jobs, and therefore stay at their stations and work (Kanfer, 1999; Awases, Gbary, Nyoni and Chatura, 2004; Dielem, Coung, Anh and Martineau, 2003; Luoma, 2006). Sub-Saharan Africa is faced with a great challenge in this respect, with low health worker to population ratios and poor health indicators (WHO, 2006). *Table 2* provides a clear overview of the current situation in sub-Saharan Africa.

Table 2: Selected health indicators in ESA countries

	Efficiency Index* (and rank)	HDI rank (and index)	IMR (per 1,000 live births)	Life expectancy (years)	MMR (per 100,000 live births)	Doctor and nurse density (per 1,000 population)
Angola	0.275 (181)	160 (0.445)	154	40.8	1,700	1.27
Botswana	0.338 (169)	131 (0.565)	82	36.3	100	3.05
DRC	0.171 (188)	167 (0.385)	129	43.1	990	0.64
Kenya	0.505 (140)	154 (0.474)	79	47.2	1,000	1.28
Lesotho	0.266 (183)	149 (0.497)	63	36.3	550	0.67
Madagascar	0.397 (159)	146 (0.499)	78	55.4	550	0.61
Malawi	0.251 (185)	165 (0.404)	112	39.7	1,800	0.61
Mauritius	0.691 (84)	65 (0.791)	16	72.1	24	4.75
Mozambique	0.260 (184)	168 (0.379)	109	41.9	1,000	0.24
Namibia	0.340 (168)	125 (0.627)	48	48.3	300	3.36
South Africa	0.319 (175)	120 (0.658)	53	48.4	230	4.85
Swaziland	0.305 (177)	147 (0.498)	105	32.5	370	6.46
Tanzania	0.422 (156)	164 (0.418)	104	46.0	1,500	0.39
Uganda	0.464 (149)	144 (0.508)	81	47.2	880	0.69
Zambia	0.269 (182)	166 (0.394)	102	37.5	750	1.86
Zimbabwe	0.427 (155)	145 (0.505)	78	36.9	1,100	0.88

* Efficiency Index is measured from 0 to 1 and is based on population health, responsiveness, fair financing and reduced inequalities. The Human Development Index (HDI) is a composite index of longevity, knowledge, and standard of living.

Sources: Tandon et al. 2005; World Development Report, 2005; World Health Report, 2006.

The health worker crisis in the sub-Saharan region has numerous dimensions. There are inadequate numbers of workers, poorly distributed with an unplanned brain drain (regionally and internationally). Workers

experience low salaries; poor, unsafe work environments; a lack of defined career paths; and poor quality education and training. Public expenditure ceilings have led to hiring freezes. Various sources report the lack of a holistic approach to health worker issues at country level (Padarath et al, 2003; Awases et al, 2004; WHO, 2006).

In addition to the above problems, there is an ever-higher demand for the availability and retention of health workers. Failure to retain staff results in losses that primarily disadvantage poor, rural and under-served populations (Padarath et al, 2003; Ntuli, 2006). It costs a lot to educate health workers and, for some countries in ESA, training capacity simply does not exist. The time lag between education and practice, and between changes in student intake and changes in supply of a particular category of professionals, is quite long in the health sector (Hall, 1998; Zurn, Dal Poz, Stilwell and Adams, 2002). Moreover, production without retention strategies leads to loss of staff, and erodes supervision, mentorship and support from the referral system (Kirigia, Gbary, Muthuri, Nyoni and Seddoh, 2006). Retention, as a measure against attrition, is less expensive than increased production, but effective human resource management should aim at both retention and increased production.

One way to do this is to offer incentives. The World Health Organisation (WHO) defines incentives as "all rewards and punishments that providers face as a consequence of the organisations in which they work, the institution under which they operate and the specific interventions they provide" (WHO, 2000: p 61). Buchan, Thompson and O'May (2000: 2) use the objective(s) of the incentive as the definition: "An incentive refers to one particular form of payment that is intended to achieve some specific change in behaviour." Incentives serve as motivation for the health worker to perform better - and stay in the job - through better job satisfaction (Zurn, Dolea and Stilwell, 2004). Enhanced motivation leads to improved performance, while increased job satisfaction leads to reduced turnover (greater retention). Health workers are internally motivated by:

- valence - how they perceive the importance of their work;
- self-efficacy - their perceived chances of success in their tasks; and
- personal expectancy - their expectations of personal reward.

Although motivation is an internal state consisting of perceived task importance, self-efficacy and expected personal reward, it is possible to influence it with external changes in the workplace. The workplace climate plays a role in job satisfaction, correlating highly with retention because workers who are satisfied with their jobs remain in their jobs

(Luoma, 2006). An exit study on 40,000 nurses in 11 European countries showed a relationship between job satisfaction and the intention to leave the profession: the lower their job satisfaction, the more likely nurses were to leave (Hasselhorn, Tackenberg and Muller, 2003). Indeed, facilities that are able to attract and retain staff tend to be those that offer the health workers high levels of job satisfaction (Zurn et al, 2004). Incentives systems are the most widely used external influences on motivation (Louma, 2006).

Beyond worker motivation, incentives are used to attract and retain health professionals to areas of the greatest need, such as rural or remote areas with poor infrastructure and poor populations. Incentives are used to overcome inequities in supply of and access to health services, such as rural allowances (South Africa), rural doctors on retention schemes (Zambia) and mountain allowances (Lesotho).

Incentives clearly perform an important role in attracting and retaining health professionals within the public sector, on which most of the population depend (Zurn et al, 2004). In recognition of this fact, a 2005 EQUINET regional meeting adopted a consensus statement that called for a focus on policies and measures that will reward health workers through financial and non-financial incentives (EQUINET, 2005). Similarly, the ECSA-HC ministerial conference (RHMC) in February 2006 urged member states to develop financial and non-financial strategies to encourage the retention of health professionals, and urged the secretariat to support member countries in conducting appropriate research on human resources for health (ECSA RMHC, 2006). In response to these resolutions, EQUINET, in collaboration with ECSA-HC, University of Namibia and the EQUINET secretariat at the Training and Research Support Centre (TARSC), is conducting research for capacity building and programme support for the retention of health workers in ESA.

EQUINET and ECSA-HC commissioned this paper to investigate how non-financial incentives (or a lack thereof) impact on health worker retention in East and Southern Africa (ESA). It reviews existing literature on worker retention and provides a critical analysis of secondary evidence regarding non-financial incentives. The sixteen countries covered in this review are Angola, Botswana, DRC, Kenya, Lesotho, Madagascar, Malawi, Mauritius, Namibia, Mozambique, South Africa, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe.

2. CONCEPTUAL FRAMEWORK AND METHODS

2.1. Conceptual framework

Incentives for health workers are broadly seen as either financial or non-financial:

- Financial incentives may be direct or indirect. Direct financial incentives include pay (salary), pension and allowances for accommodation, travel, childcare, clothing and medical needs. Indirect financial benefits include subsidised meals, clothing, transport, childcare facilities and support for further studies.
- Non-financial incentives include holidays, flexible working hours, access to training opportunities, sabbatical/study leave, planned career breaks, occupational health counselling and recreational facilities (Adams, 2000).

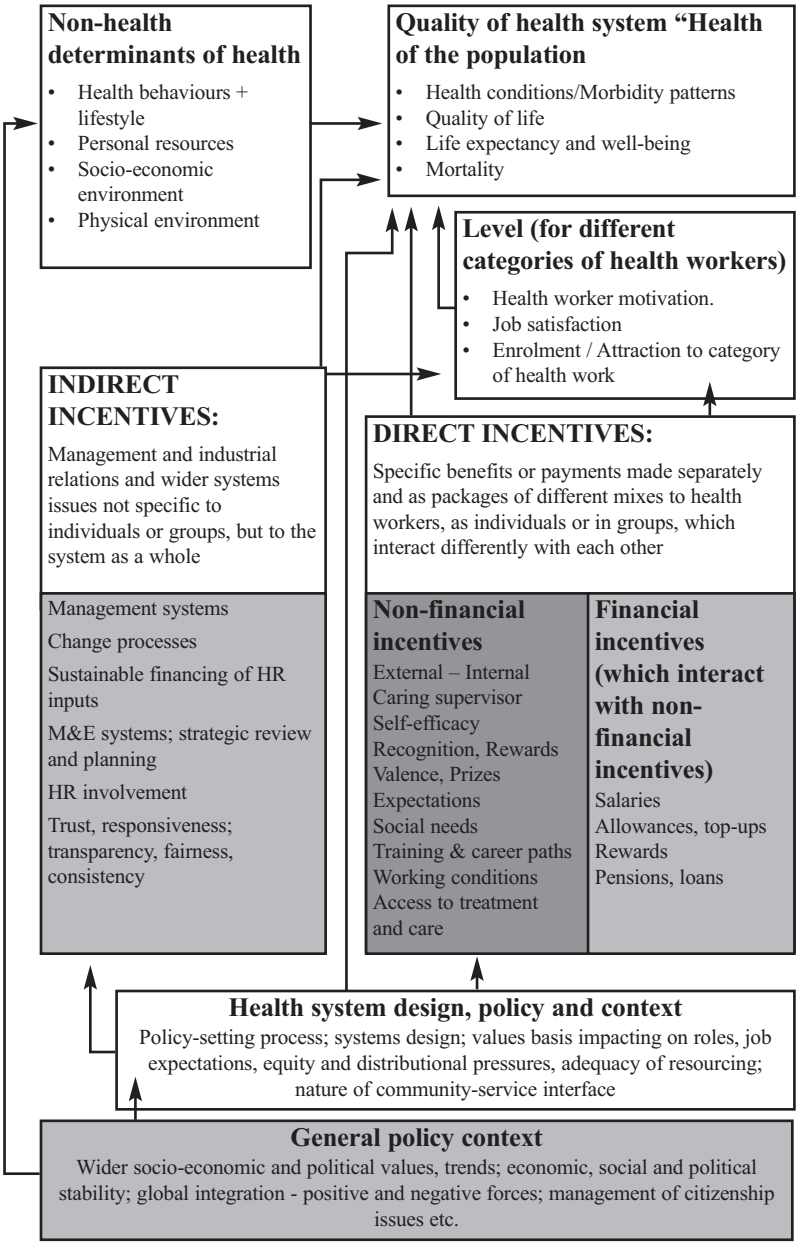
This paper examines incentives in a framework based on the role of health workers in delivering quality healthcare in a functioning health system, and explores how non-financial incentives contribute to the motivation for and availability of health workers for this role.

The general policy context, viewed from a broad perspective, affects the system and its responses to direct and indirect incentives. This includes the socio-economic and political values and trends; the macroeconomic, political and social stability; the effects of global integration; and the management of migration and citizenship issues.

The design of the health system, its policy and its context also affect incentives. Systems vary by degree of participation and feedback. The extent of universality or segmentation, their PHC orientation and their values base impacts on roles and job expectations, as does the distribution and adequacy of resourcing, the nature of the community-service interface, and how work is organised.

The conceptual framework is illustrated in *Figure 1*.

Figure 1: Conceptual framework of non-financial incentives for retention of health workers



Adapted from: Luoma, 2006 and Arah, Westurt, Hurst and Klazinga, 2006; with input from EQUINET.

The framework is broad enough to encompass the main determinants of a functioning health system, including those that have an influence on the incentives. However, it has two drawbacks. Firstly it is a post-hoc analytical framework, based on a review of documents that have not necessarily all used the same approach. As a result, some incentives may be relevant only to specific conditions, without any real assessment of their effect on the system as a whole. Further it relies on quantitative end points, such as the number of health workers recruited or retained, whereas health worker retention is affected by qualitative parameters such as motivation of health workers, or the quality of the healthcare system. Consequently, any assessment of the impact of various measures may be limited.

2.2. Methods

This review collated published evidence on the use of incentives in all sixteen countries using relevant search terms. Information was accessed from internet search engines and libraries (google, yahoo, Medline/pubmed and EBCOhost). Websites that are dedicated to human resources in the health sector (HRH) were used, such as the WHO HRH database and the websites of PRHplus, the Global Health Alliance, GTZ, MSH, Medline, USAID, the Capacity Project, UNDP, IMF/WB, ILO, IOM, EQUINET and the Health Systems Trust, as well as those of governments and ministries of health in countries from East And Southern Africa. Other HRH information was obtained from English language newspapers in countries that allow free access to archives.

All documents that were obtained during the review process were used to broaden the search for primary information sources. Initially, additional information was sought from the databases of SADC and ECSA-HC secretariats, and from human resources officials at the ministries of health in various countries, but this proved unsuccessful and no documents were forthcoming. The searches, in general, looked for documents referring to HCW that also addressed financial incentives, non-financial incentives, motivation, performance, HIV and AIDS and health workers, and health sector reforms. The final version of this paper incorporated input from country representatives at the *EQUINET-ECSA Regional Meeting on Health Worker Retention and Migration, Arusha, 17-19 March 2007*. The meeting provided an opportunity to validate and update evidence on the use of non-financial incentives in some of the countries under review.

Retrieved documents were scrutinised for relevance and, in some cases, were used to 'snowball' the search by using references therein to search for primary sources of information. Documents were then carefully examined for evidence relevant to this paper. The findings were put into context, according to the specific health system characteristics for each country. Information was consolidated and summarised to compare what is available in the different countries. A number of summaries of 'best practice' strategies used in some of the countries are presented in the form of boxes in *section 3* of this paper.

The review was biased in favour of published literature accessible through internet searches, and only English language documents were looked at. It is possible that documents in other languages (such as French or Portuguese) were left out, and so the emerging picture may not be fully representative. Most documents reviewed are from the past 10 years, which may misrepresent the situation in countries that have had non-financial incentives in place much longer.

3. COUNTRY-SPECIFIC INCENTIVES IN EAST AND SOUTHERN AFRICA

In this section, the current public health situation in the sixteen ESA countries chosen for this paper will be considered, focusing on the use of non-financial incentives in each case: Angola, Botswana, DRC, Kenya, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, South Africa, Swaziland, Tanzania, Uganda, Zambia and Zimbabwe. While some effort was made to obtain a core set of information, it is recognised that the information is variable across countries, largely limited by what was available in accessible published and grey literature.

3.1. Angola

As a result of its lengthy civil war in the 1980s, Angola has inherited a post-conflict health system, with shortfalls in facilities and health worker availability (Pavignani and Colombo, 2001; Einstein, 2004). Connor, Rajkotia, Lin and Figueiredo (2005) report Angola faces a lack of human and institutional capacity at all levels of the public sector, with dire consequences for the supervision and resource support for health services delivery. In addition to overall health worker shortages, there is an urban-rural imbalance: 85% of the health workforce is urban-based, while only 35% of the population is urban-based (Egger and Ollier, 2000). The system does, however, have a large number of nurses, dedicated public sector staff and donor-backed plans to increase other cadres, and is implementing quality programmes and public-private partnerships (Connor et al, 2005).

Angola has had several five-year health sector development plans. The 2000-2005 plan included a national HRH plan, which was formulated after extensive consultation between the Ministry of Health and donors, and was implemented in phases, based on the country's needs (Connor et al, 2005). The emergency phase aimed to improve work conditions mainly through the reconstruction of government infrastructure, pay and benefits, and management training. That was followed by the transition phase, and then sustainable socioeconomic development and health sectors reforms (Fustukian, 2004; Connor et al, 2005). One major rehabilitation plan was the Health Transition Project (HTP), 1995-1998, which was funded by the UK Overseas Development Administration (Fustukian, 2004). According to Key, Kilby and Maclean (1996), the HTP aimed to support the rehabilitation of the national health service through:

- health policy and planning at the national Ministry of Health;
- health management systems at three provincial offices; and
- rehabilitation of municipal health centres in three provinces.

In terms of incentives, nurses and doctors receive a 5% 'direct exposure subsidy' and a top-up allowance. Doctors get up to 200% of their salary in overtime pay for up to 24 hours in a month, while nurses receive a subsidy for working evening and night shifts. The total package for doctors - with full subsidy - is equivalent to those in the private sector, while the starting salary for a nurse with full subsidy is superior to starting pay for other government jobs requiring same educational background. The monetary package therefore compares with the private sector (Connor et al, 2005).

Angola has established a Health Information System (HIS), so far focused on surveillance and basic services. The professions are not well organised, except for doctors who belong to the Ordem dos Medicos de Angola (established in 2001). There are public-private partnerships, mainly with the Catholic Church's hospitals, which provide facilities and supplies, and are staffed by government-paid public employees (ibid).

The wide-ranging health system review by Connor et al (2005) is, however, silent on the use of non-financial incentives and retention specific strategies, apart from the rehabilitation and other measures under HTP. It provides no evidence of the impact on retention of health workers in provinces where HTP was operational.

3.2. Botswana

The Botswana government provides more than 80% of all health services, and finances more than 90% of all health care. Botswana does not have a medical school to train doctors, so it relies on its nursing workforce. However, local health training institutions do not have capacity to train adequate numbers of nurses (WHO, 2006; Tlou, 2006). Health policy and planning is included in the Botswana National Development Programme - Vision 2016 - under the theme 'Building an Innovative economy for the 21st Century', which incorporates HRH strategies into the nation's economic and social development plans (Egger et al, 2000).

The 2006 Budget gave all health workers salary adjustments of 8% across the board, as part of the civil service, and included provisions to

establish two pilot telemedicine sites to reduce the isolation felt by the health workers (Budget Speech, 2006). On World Health Day 2006, the Botswana Minister of Health mentioned the initiatives undertaken by the government which included "upgrading of hospital and health training institutions throughout the country to improve the working environment, training capacity of the institutions, welfare of the workers and the quality of services rendered" (Tlou, 2006: 3).

Among other financial incentives, nurses get overtime pay computed at 30% of their basic salary, while doctors get overtime pay computed at 15% of their basic salary. The higher allowance rate for the nurses may lead to almost equal pay for the two cadres in some cases, causing resentment. Local doctors are also unhappy about the higher rates of pay for expatriate doctors, who also get additional benefits, such as free housing and education for their children (Molelekwa, 2006; Tlhoiwe, 2004; Mokgeti, 2006; Thula, 2006a, 2006b). Botswana sends students abroad for medical training on full government sponsorship, but there are complaints about the long waiting period for sponsorship for specialist training. In the end, many Botswana doctors reportedly work outside Botswana and many students fail to return to Botswana after completing their studies (Molelekwa, 2006; Tlhoiwe, 2004; Mokgeti, 2006).

Botswana has plans to recruit more health professionals by increasing output from the training institutions and hiring foreign health workers to offset the shortages (Egger et al, 2000). The plans to acquire additional health workers were based on qualitative and quantitative data generated by a management information system (MIS) originally established for nurses and midwives in 1994 (Egger et al, 2000). Botswana worked with international partners, such as WHO and UNDP, to develop a human resources development plan. The plan was completed in 2005, after several workshops with more than 600 health facility managers, with the support of the Southern Africa Capacity Initiative, affiliated to the UNDP (HLF, 2005; UNDP Botswana, 2006). There is no documented evidence that assesses the impact of incentives that were applied.

With a severe HIV epidemic, Botswana also launched the African Comprehensive HIV/AIDS Partnerships (ACHAP), a public-private-partnership with the support of the Bill and Melinda Gates Foundation and the Merck Foundation, to support HIV programmes and complement work done by non-government organisations (NGOs) with funding from the Global Fund to Fight AIDS, Malaria and Tuberculosis (GFATM). As part of this, Botswana provides HIV prevention schemes for health workers (JLI Africa Working Group, 2004).

3.3. Democratic Republic of Congo

The Democratic Republic of Congo (DRC) currently faces health challenges resulting from a combination of poverty, severely deteriorated public services (including the public health system) and a large informal sector (Delamalle, 2004). Health workers endure poor working conditions and poor and unpredictable remuneration, leading to reports of shortfalls in numbers and motivation, employment instability, health worker maldistribution and poor communication (IRIN, 15 November 2005; 8 August 2006). Public sector health workers reportedly run private medical practices outside working hours to supplement public sector pay (WHO African Regional Office, 2006; IRIN 30 June 2006).

The government has tried to include health worker incentives in various externally funded projects and programmes, such as the 2004 application to the GFATM, with plans for:

- continuous training during employment;
- efficient pay using performance-based contracts;
- increased monitoring and supervision; and
- increased overtime pay to increase staff motivation.

The malaria component of the GFATM proposal provided for training and skill enhancement for 240 doctors, 2,400 nurses, 120 nurse managers, 60 trainers and 600 laboratory staff, coupled with a performance contract, and improved communication and partnership with provincial hospitals (DRC Submission to the Global Fund, 2004). This malaria component was approved, but the review found no reports on the impact of the funding on health workers and no evidence of the wider use of incentives. (Reliance on English language sources may well mean that secondary evidence on the DRC in this review is incomplete.)

3.4. Kenya

In Kenya, the health sector faces a worrying paradox: on the one hand, there is a shortage of health workers in the public health sector; on the other hand, there are many unemployed, qualified health professionals looking for work (Adano, 2006). According to Chankova et al (2006), the country is losing skilled staff to the private sector and other countries, leading to shortages of skilled staff across the country and an uneven distribution of the health workforce, with a bias towards urban areas.

In January 2002, the Kenyan government introduced payment of non-practice, risk and extraneous allowances for doctors, dentists and pharmacists in public service, and risk and uniform allowances for nurses and other health professionals (Kimani F, personal communication 2007). In addition to these allowances, all specialists were granted licences to do a limited amount of work in private practice, thereby earning additional income. For doctors, the net result of these allowances was a threefold increase in pay, which reportedly attracted 500 doctors seeking public service jobs (Mathauer and Imhoff, 2006).

The Kenyan Round 4 of the GFATM TB Proposal included a package of incentives to retain staff in hard-to-reach areas, including a limited stay policy, improved communication and training opportunities for staff involved in the care of TB patients in the hard-to-reach areas (Kenya Government, 2005; Dräger et al, 2006). Technical assistance from the Management Sciences for Health (MSH) Management and Leadership (M&L) programme and Family Health International was used to improve human resource management in the Kenyan health system in an effort to scale-up the delivery of HIV and AIDS services. An assessment of the human resource capacity at four health facilities in Mombasa with a 50% staffing vacancy rate found that the following measures needed to be taken to improve the situation:

- hiring more highly qualified personnel;
- improving staff performance and retention through a workplace HIV prevention programme;
- instituting a modern human resource management function;
- initiating psycho-social support groups for nurses whose primary responsibility is to care for dying patients; and
- developing formal partnerships with community groups to provide care to patients on antiretroviral treatment, to relieve nurses of this added burden (MSH, 2004).

In 2005, Kenya introduced a National Health Services Strategic Plan (NHSSP II), the cornerstone of which is the delivery of an essential package of health services. One problem is poor levels of staffing at many facilities, coupled with a lack of proper data on HRH in the health system. To address the gap, the Ministry of Health (assisted by the HLSP and with support from USAID) mapped out the public sector health workforce (James and Muchiri, 2005). A number of problems were revealed, including:

- understaffing of primary health care facilities with relative overstaffing of hospitals (29.6% of all health workers in PHC facilities, and 70.4% in the hospitals);

- wide variation in staffing levels and the size of catchment areas of different facilities;
- overpayment and poor payroll maintenance, with ghost workers and retirees being paid as active staff (James and Muchiri, 2005).

The mapping exercise was used to establish a comprehensive updated HR database for the ministry, supported by performance monitoring and detailed workload studies, and to develop a three-year rolling strategy for workforce management (James and Muchiri, 2005).

Another public-private partnership with HRH implications is the government's collaboration with the Aga Khan Health Services (AKHS) to establish a district health management information system (HMIS) (AKHS, 2004, See *Box 1*).

Box 1: Health Management Information System, Kwale District, Kenya

Kwale District is Kenya's first computerised district level HMIS. It is a joint effort between the Kenya MoH and the Community Health Department of the Aga Khan Health Services. The programme developed simple user-friendly software to collect and analyse data from local health facilities to provide more timely information for planning and decision-making, to give feedback to the clinics, and to encourage clinics to meet their targets and improve their performance. There is evidence that the reports generated have enhanced utilisation of health services, for example higher immunisation coverage.

Source: AKHS, 2005.

When following correct ministry procedures, it typically takes six to eighteen months to fill a post. To speed up the process, the Capacity Project and the MoH outsourced the hiring and deployment of public sector workers to a private firm with a proven track record. Many qualified health workers were employed for understaffed facilities on three-year contracts, subject to integration into the MoH. The private firm cut down on recruitment time and workers sooner (Adano, 2006).

Funding for incentives for public sector workers is mainly from the national budget, with donor support, and impact assessed through staff availability in hard-to-reach areas (Kimani, personal communication, 2007). So far there are only informal, verbal reports that these incentives have had a positive impact (e.g. Kimani F, personal communication, 2007).

3.5. Lesotho

The Lesotho Ministry of Health and Social Welfare works in conjunction with various NGO, private and donor agencies in the health system. The private sector, under the Church Hospital Association of Lesotho (CHAL) and the Private Health Association of Lesotho, is responsible for 43% percent of all bed capacity and employs 30% of all physicians and 39% of all nurses. The health worker situation is characterised by inadequate training and career advancement opportunities, which, alongside a high AIDS burden, contributes to high attrition rates in the health workforce (Schwabe, Lerotholi and McGrath, 2004a; 2004b). Lesotho has difficulty with retention in its rural, often mountainous, areas. The physician workforce is largely foreign, because Lesotho has no medical school and relies largely on South African medical schools..

Lesotho has a scarce skills policy that uses both financial and non-financial incentives, which is outlined in the comprehensive Human Resources Development and Strategic Plan (HRDSP) 2005-2025 (Schwabe et al, 2004a). Prior to the HRSDP, measures in place included accelerated grade/increment policy for health workers, continuing professional education, better promotion prospects for those serving in remote areas and overtime and night duty allowances (ibid).

The HRSDP's monetary incentives have been expanded to include other health workers. For example, the mountain allowance, which was originally received only by those working in Mokhotlong and Qacha's Nek, was extended to other remote highlands. The scope of the risk allowance, that was applicable only to nurses working with psychiatric patients, was extended to include those caring for patients with HIV and other infectious diseases. Workers in urban areas receive housing subsidies. On-call allowances, which were offered to doctors only, are now offered to other professionals who work extra shifts (ibid).

The HRDSP includes a number of non-financial incentives, including proposed improvements in physical workplace infrastructure and equipment, such as:

- computers, IT support and better communication especially for remote highland facilities;
- staff housing for those in remote places;
- staff security in the workplace;
- reliable staff transport for those on evening/late shifts;

- employee support centres to promote social cohesion and ensure there is no discrimination in the workplace;
- respect for professional authority in technical matters; and
- sabbatical leave for health workers in scarce occupations, in the form of a leave of absence for up to two years for every 10 years served, without the employee losing continuity of service or retirement benefits.

There are also plans to increase the retirement age to 65 years and to hire qualified retirees on contract; both measures are envisaged to use available people more effectively and improve the loyalty of available workers, presumably by demonstrating that the public sector does not disregard workers once they attain retirement age (ibid). Those measures are to accompany formal job grading/re-grading to eliminate pay inequality within the sector between jobs with similar qualifications and ensure payment of preferential remuneration for scarce skilled jobs (MoHSW, 2001). The HRDSP contains human resources management (HRM) proposals under 'loss abatement strategies' (see *Box 2*) of the Lesotho Health and Welfare Policy (ibid).

Box 2: Lesotho's Health Worker Loss Abatement Strategy

The loss abatement strategy includes a range of non-financial incentives, including accelerated grade for scarce skills, CPD, Higher promotion prospects for rural staff, free housing for rural staff and better security in the workplace. Staff transport is provided for staff on night/evening shifts and staff have access to sabbatical leave. Investments have been made in improved HRM with better career management, streamlined human resource policies and procedures, revision of career ladders, development of HRIS. Financial incentives are also applied, including over-time, night and shift allowances, a mountain allowance, risk allowance and housing subsidies for urban staff. The scheme also provides job grading/regarding and equitable pay.

Source: Schwabe et al (2004a); Lesotho's HRDSP 2005-2025.

Measures include improved career management, institution of a posting policy that defines the criteria for promotion and deployment outside the occupation (e.g. to management positions) and implementation of streamlined HR policies and procedures for employee promotion. Other measures envisaged are revision of career ladders to expand avenues for career development, elimination of structural impediments to career advancement, and the introduction of an accelerated salary grade scale

for scarce highly skilled occupations with limited career advancement opportunities (Schwabe et al, 2004a). A human resources information system (HRIS) has been developed with assistance from the USAID-funded Capacity Project (McQuide and Matte, 2006). Financing is from pooled resources from the MoHSW and from donors through SWAP (WHO African Regional Office, 2004).

There is a public-private partnership arrangement between government and CHAL, where government provides staff for the church run hospitals, and pays them entry-level (first notch) salaries, leaving CHAL to top up the pay to match the colleagues in the public sector. Often the church hospitals are unable to meet the top up, putting CHAL workers at a disadvantage. The HRDSP has addressed this disincentive by committing government to pay government-related salaries to CHAL posted staff, instead of paying them only at the first notch. This will hopefully increase CHAL's capacity to retain staff, and relieve pressure on government facilities (Schwabe et al, 2004a).

Bonding has been used over the years. The kingdom offers bursaries/scholarships for health science professions students to train abroad on the understanding that upon graduation they return and serve Lesotho for a period equivalent to the period of sponsorship. However, few return to Lesotho after completion of their studies (Capacity Project, 2006). Therefore it is regarded as important for governmment to address this ineffective bonding scheme before it scales up sponsorship for external training of health workers (Schwabe et al, 2004b).

The review did not find documented evidence on the effectiveness or impact of other incentives including those set in the HRDSP.

3.6. Madagascar

This review did not find any publication(s) on health worker retention strategies in Madagascar. Bhattacharyya, Winch, LeBan and Tien (2001) describe the use of incentives to motivate and retain community health volunteers in Jereo Salama Isika in a community-based integrated management of childhood diseases (IMCI) project that is part of the BASICS programme. The strategy is total community involvement, with very little supervision. At the end of the year a health festival is held to celebrate the achievements. The volunteers receive training appropriate to the task “for do-able things” (ibid).

3.7. Malawi

Malawi has faced poor retention of staff, out-migration to the United Kingdom, low output of health professionals from the country's training institutions, poor working conditions and poor conditions of service, compounded by a high TB and AIDS burden (Woche, 2006; Moeti, 2006; Palmer, 2004; Caffery and Frelick, 2006). The population largely depends on public sector facilities, with a significant contribution (37%) from church-based health facilities under the Christian Health Association of Malawi (CHAM) (85% of this in rural areas) (Aukerman, 2006). On top of a basic salary, Malawi public sector health workers receive a professional allowance, housing allowance and medical allowance, though these have been woefully meagre (Muula and Phiri, 2003; Mackintosh, 2003). Some health workers reportedly enhance their income through dual practice or work outside the health sector. (Muula and Maseko, 2005).

Malawi has used a mix of salary enhancements and non-financial incentives to retain and motivate health workers (Capacity Project, 2006). A study among midwives (Aukerman, 2006; Mackintosh, 2003) showed they were attracted to stay in the public health sector by a generous retirement package (with a higher pension contribution of 25% from government vs. 15% from CHAM), to which workers are eligible only after serving 20 years; access to post-basic training; a flexible leave policy; and job security and country-wide job opportunities.

Caffery and Frelick (2006) document a 2001 government-CHAM partnership for retention of nurse tutors, especially in remote institutions through a 'Six-year Emergency Pre-Service Training Plan' (SETP) with CHAM (which owns many of the training institutions). This improved the functioning and staffing of nurse training institutions. With assistance from various donor agencies, including the Interchurch Organisation for Development Cooperation (ICCO), German Technical Cooperation (GTZ) and Norwegian Church Aid (NCA), the MoH and CHAM started an incentive scheme with monetary and non-monetary incentives. Tutors were offered salary top-ups, and a bonding arrangement where they would work for two years in the training institutions in return for fully paid tuition for further studies. At the same time, government met the operating costs and funded infrastructural development programs in many institutions to improve and expand training facilities, and staff and student accommodation (Caffery and Frelick, 2006).

To supplement government efforts, CHAM secured donor support to improve staffing, and attract and retain CHAM- and government-seconded tutors. The scheme included a salary top-up to cover transport costs for visiting family and shopping, utility bills and medical costs for tutor and family. A broad set of non-monetary incentives was proposed, e.g. promoting CHAM tutors against the tutor career structure, free housing, free medical services, subsidised utilities, transportation for shopping, education and training opportunities, loan schemes, improved supervision, mentoring and communication systems (ibid).

To address human resource issues not covered in the 2001 SETP, the MoH developed the Emergency Human Resource Programme (EHRP) in 2004. The EHRP used government funds and donor support to rescue the public health system, as part of the sector-wide approach (SWAP) (Palmer, 2004). This enabled government to offer a 52% salary top-up for public health workers, hire emergency HCW to supplement available staff in the short term and for the creation of a Health Services Commission (Palmer, 2006; WHO African Regional Office Report, 2006). The salary top-up was accompanied by a campaign to attract nurses back from private practice. In addition, the GFATM funded the expansion of training capacities (IRIN, 14 April 2006).

Non-financial incentives in place or planned include establishment of career schemes to improve professional opportunities for all cadres, but there is apparently no evidence of its implementation. Malawi offers free post-basic/post-graduate training to government health sector workers, which has proven to be popular because the private sector does not offer these incentives (Mackintosh, 2003). Female midwives value the fact that government has facilities all over the country, so it is possible to get a job in any part of the country if their spouses are transferred. It is reportedly almost impossible to be fired in the government sector, unlike in CHAM and the private-for-profit sector (ibid). In a number of government facilities, health workers receive free meals while on duty (Kataika E, personal communication, 2007).

Some rural CHAM facilities offer health workers allowances for school fees for their children. CHAM is reportedly more successful at retaining its upper-level skilled workforce in rural areas, using mainly allowances and salary top-ups, including a car allowance, hardship allowance, responsibility allowance and duty allowance. These allowances may combine to effectively double the take-home pay of most health cadres (Aukerman, 2006). Some CHAM hospitals provide transport for nurses to go shopping, free uniforms and housing, easy access to loans, private

rooms for sick staff members, and end of service packages even after only two to five years of service (Mackintosh, 2003).

One result of SETP was that all of the nurse training institutions have remained open, including those that faced closure prior to the retention scheme. The number of nurse tutors and clinical instructors increased and remained relatively stable from 2000 up to the time of the Caffery et al review (2006). Preliminary reports on the impact of EHRP have been mixed. For example, DFID claims that "reports from districts suggest the top-ups have helped slow the exodus of nurses; the Ministry of Health has recruited over 570 new staff, and aims to fill a further 600 posts by July 2006; … new laboratories are being built at the College of Medicine, allowing the start of new degree courses" (IRIN, 2006). There is some debate around this, with Maureen Chirwa, the head of the Nurses and Midwives Council of Malawi, arguing that personal development and specialisation, important for nurses, is not available in Malawi, and that health workers also seek better housing and better education for their children, not available in remote parts of the country "…Top-up [of salaries] has slightly improved the situation. It has been able to attract some retired paramedics or those who resigned because of frustration, but it has failed to retain doctors and registered nurses" (ibid).

Apart from SETP and EHRP which are national programmes, there are reports of district initiatives to retain health workers (Zachariah, Teck, Harries and Humblet, 2004; Mackintosh, 2003). Zachariah et al (2004) report on a public-private partnership initiative involving local government (Thyolo District) and Medicines Sans Frontier (MSF) that employs a mix of financial and non-financial incentives. All district staff are eligible for a monthly performance-linked monetary incentive, ranging from US$13 to US$25. In addition, anti-retroviral drugs are made available to all district health staff and their immediate family if they are HIV positive and meet the eligibility criteria. Performance evaluation is done by MSF and district supervisors using a transparent process (Zachariah et al, 2004). Blantyre health district authorities have experimented with a novel HRM approach to scarcity of HCW in rural facilities. Instead of posting midwives to the rural areas, they rotate them between urban and rural health facilities. According to Mackintosh (2003), the system works as the staff find it easier to stay at the rural facilities for short spells, as opposed to longer term postings. It is not clear how widely applicable that practice would be, or how feasible it would be to extend that approach to the entire country.

Malawi has support for its human resource management and planning system, with a World Bank-funded initiative to institutionalise the

collection and analysis of data on availability, profiles and distribution of health personnel in Malawi (Herbst, 2006).

3.8. Mauritius

Mauritius health services are under the Ministry of Health and Quality of Life (MoHQL) (Tandon, Murray, Lauer and Evans, 2005). Indicators demonstrate increased life expectancy, reduced infant mortality and low population growth rates, and a low prevalence of HIV (157 AIDS-related deaths, and less than 3,000 living with HIV). The government offers free services at all public health facilities, and there is also a well-developed private sector (MoQHL, 2003). The HCW situation in Mauritius is relatively good, though there is a problem of nurses migrating to the UK (Buchan, Jobanputra, Gough and Hutt, 2006). To supplement government efforts, Mauritius uses public-private partnerships for services lacking in public facilities (MoHQL, 2003).

The government of Mauritius launched a major health policy in 2003 in the form of its *White Paper on Health Sector Development and Reform.* Its two-pronged approach was to improve and replace old buildings and equipment, and to attract and retain staff. The White Paper included plans for performance-related pay and continuing professional development, with accreditation linked to career development and a system of rewards for achieving the highest standards in each area of work. The health system makes continuous improvement in the workplace, through simple, commonsense improvements to daily processes. The net result is greater productivity, quality and efficiency, with minimal cost, time and effort invested. Initially applied only in the manufacturing sector, the Gemba Kaizen principle has now been extended to service delivery (Imai, 1986; Miller, 2006). Improvement of the health information system is also an ongoing process. The White Paper called for savings from greater efficiency to be ploughed back into the system in the form of staff rewards and service developments (MoHQL, 2003).

Mauritius has in place non-financial incentives including recognition (of excellence) certificates, the provision of meals and snacks to staff at work, support groups in the workplace, contracts with private security firms to ensure a safe work environment, and, for doctors, secure employment immediately after their internships. The financial incentives include incremental salary credits for years of service, annual salary adjustments, allowances (overtime, call and in-attendance), rent-free telephones, car loans at concession rates, sponsorship for postgraduate studies, paid study leave and performance bonuses. Doctors are the main recipients of the monetary allowances (Gaoneady D, personal communication, 2007).

A problem of maldistribution of HCWs exists, with Rodrigues and the Outer Islands being less attractive for health workers than the main island. To offset the health worker shortages in those islands, government has put in place various incentives, including continuing professional development activities using visiting tutors and distance learning, the decentralisation of operational management to promote local decision-making and management of operational budgets, and a disturbance allowance of 50% of basic pay to encourage health workers to serve on the islands. For doctors in Mauritius, the tour of duty was shortened from twelve to six months in the White Paper, while the number of students studying nursing from Rodrigues was more than doubled from six to fourteen. There is a back-up plan to recruit health workers from Madagascar to offset any shortfalls (White Paper, MoHQL, 2003).

Funding for the initiatives contained in the White Paper will be from the national budget (through the medium-term expenditure framework), with supplementary funds from national health insurance. There will further be extra incentives for the development of the private sector, with resources from the National Savings Fund; health taxes on tobacco and alcohol; an efficiency drive within the health sector and selective charges for health services (MoHQL, 2003). The plan was preceded by wide consultations on the White Paper, followed by parliamentary debate and adoption.

3.9. Mozambique

Mozambique emerged from a long civil war with a fragile health system characterised by massive destruction and displacement, low coverage of basic services, an under-skilled workforce (concentrated in urban areas), severe donor dependency, a proliferation of NGOs and massive fragmentation of all health activities (Yates and Zorzi, 1999; Pavignani and Colombo, 2001; Pfeiffer, 2003; Gbary, 2006). The country does not have enough skilled health workers and they are unevenly distributed among the provinces, and between urban and rural areas. For example, only 3% of physicians serve in rural areas (Ferrinho and Omar, 2006). Out-migration is not a problem (as is the case in other African countries) because Mozambique is a net *importer* of doctors (Ferrinho and Omar, 2006; Vio, 2006). The major staff losses occur when health workers leave to work in other departments, to study, or to work to the private sector (Ferrinho and Omar, 2006).

Mozambique has a high share of external financing in health (Vio, 2006), mainly through the sector-wide approach (SWAP) or the direct financing

of existing programmes (Yates and Zorzi, 1999). Because of rigid public service pay rules (Reis, Matos and Costa, 2004; Vio, 2006), Mozambique entered a 'pooling' agreement with donors in 1996 (Switzerland, the Netherlands and Norway), with salary top-ups paid to specialists working outside Maputo City via 'off-budget' funds (Rasmussen et al, 2004; Vio, 2006).

In 2004, the donor-pooled fund was replaced by the SWAP in financing the salary top-ups, and it was expected that even more specialists would be supported (Vio, 2006). These approaches and the language barrier have reportedly reduced the outward migration of physicians from Mozambique (Vio, 2006; Ferrinho and Omar 2006), and there are comparatively fewer Mozambican physicians in Portugal than those from other Portuguese-speaking African countries (Ferrinho and Omar, 2006). Other benefits offered to physicians are housing and fuel subsidies, the use of service cars (Myers, 2004) and a Medical Assistance Fund for civil servants. (Pfeiffer, 2003).

International NGOs, however, contribute to pulling health workers away from public services through financial incentives such as per diems, seminar training with per diems, extra contracts for after-hours work, travel opportunities, and temporary salary top-ups (Pfeiffer, 2003; Ferrinho and Omar, 2006). This problem is more serious in provinces outside Maputo, affecting the normal running of the health system. While per diems contributed as much as monthly salaries in some cases, “the per diem phenomenon had immediate detrimental effects on some routine community health programmes”, with community workers refusing to undertake field work once the project funding had dried up (Pfeifer, 2003: p 233). Mozambican health workers also reportedly use dual employment (including second jobs for NGOs) and receive under-the-table payments (Pfeiffer, 2003; Ferrinho and Omar, 2006). Although the government is aware of these practices it has not curbed them, and dual employment is reported to be one of the pull factors for rural-urban flows of staff (Macq, Ferrinho, De Brouwere and Leberghe, 2001).

A major non-monetary incentive is the decentralisation of human resources management (HRM) (Pavignani and Durao, 1999; Saide and Stewart, 2001; Ferrinho and Omar, 2006). Health workers in rural areas get a 50% bonus when calculating their years of service, thereby progressing faster along the career ladder. Other incentives include free housing (especially outside Maputo City), free or subsidised health care and medicines (but not uniformly applied), and free or subsidised food in some facilities outside Maputo (Lindelöw, Ward and Zorzi, 2004).

According to Myers (2004), there are proposals to implement greater staff rotation and mobility for basic and elementary level workers in rural areas, and the provision of adequate housing, increased access to career development and frequent, relevant supervision. Other incentives under consideration are bicycles, motorcycles, tea/coffee at work, a housing or rental subsidy, TV and internet access for those in remote areas, and solar panels where there is no electricity. There are also plans to increase motivation of staff through performance appraisals, and a more transparent and integrated management of payroll information (Myers, 2004).

The MoH received funding from USAID and technical assistance from MSH M&L to design a Management and Organisational Sustainability Tool to evaluate the Health Sector Support (HSS) Programme. The results showed improved communication between managers and subordinates, improved levels of self-confidence and initiative among lower cadres of staff and a general improvement in the working climate (Perry, 2005). There has also been a public-private partnership between the public sector and the Sant'Egidio Community, in the Drug Resource Enhancement against AIDS and Malnutrition (DREAM) - a holistic approach to the treatment and prevention of HIV and AIDS. The programme provides sustained in-service workplace training, access to training for involved health workers, clinical and laboratory monitoring, provision of transport for laboratory samples, and periodic supervision of on-site staff. It offers preferential treatment to selected skilled health sector workers, such as doctors, nurses and laboratory technicians. It has more than 95% adherence to anti-retroviral therapy and low drop-out rates (4.7%) (Marazzi, Guidotti, Lotta and Palombi, 2005). Although the DREAM programme was not aimed at health worker retention, their preferential access to ART, laboratory and supervision support and training were motivating factors. The overall impact of DREAM has yet to be assessed.

These developments were guided by two HRH development plans, the *HRH Development Plan 1992-2002* and the updated *HRH Development Plan 2001-2010*. The updated plan includes strategies for the involvement of sectors beyond the MoH to ensure the sustainability of the proposed measures. A personnel information system (PIS) has been developed to collect data on health worker trends, with a planned annual evaluation of the plan, paying particular attention to personnel losses associated with AIDS and to the financial performance of the system (with indicators from the PIS used to monitor progress towards equity in human resource developments) (Ferrinho and Omar, 2006).

3.10. Namibia

Namibia has a relatively well-functioning health system, with relatively good health indicators (McCourt and Awases, 2007). The main health worker challenges are low numbers of health workers in certain categories due to lack of training facilities, lack of management skills and geographical imbalances in the distribution of available workers, mainly affecting rural areas (Awases, 2006).

The public sector reportedly offers good work benefits, including generous end-of-service payments (pension scheme), subsidised house-ownership schemes or housing allowances, car ownership schemes and medical aid cover (Martineau et al, 2002; McCourt and Awases; 2007; Iipinge et al., 2005) mention the pension scheme as an attractive benefit from government. Other incentives such as fringe and social benefits, help in managing the career paths of staff, job security, fear of the unknown, loyalty and patriotism were identified as factors that help keep health workers in public service. Namibia plans to set up performance appraisal systems for all public servants to improve their motivation. There are no reported specific strategies for attracting health workers to hardship areas. More recently, Namibia has improved human resource management to determine staffing norms and to support the training of new health professionals (with bonding thereafter) and can now offer social benefits through an Employee Assistance Programme (Pendukeni, 2006). (See *Box 3*)

Box 3: Incentives for health workers in Namibia

In response to the attrition of health workers, the small pool of prospective students for health-related courses and the lengthy process of recruiting health workers from abroad, Namibia has placed a focus on HCW retention through better human resource management practices and an Employee Assistance Programme with establishment of staffing norms, provision of social benefits, facilitated access to pension funds and support for training, with bonding. Government awards certificates of appreciation an monitors its strategies through monthly reports on employee movement and bi-annual reports on training.

Sources: Pendukeni, 2006; Iipinge et al, 2005.

Namibian HCW issues are managed and monitored within the framework of the National Health Policy, which provides for long-term human resources strategic planning with:

- pre-service training, retraining and development of existing staff; and
- the deployment and redeployment of health workers according to appropriate staff utilisation rates, in a rational manner.

3.11. South Africa

In South Africa, there are significant disparities in the distribution of health workers between rural and urban areas, and between the private and public sectors. A further challenge is the outward migration of workers, especially to UK, Australia, and New Zealand (Padarath et al, 2003). The ANC government's approach to HCW has been systematic, starting in 1994, when it inherited a racially segregated cadre of health workers, which had to be systematically integrated into one coherent service, both nationally and at provincial level. The introduction of the district health system allowed for services to be decentralised (NDoH, 2000). A number of legislative and policy instruments have been developed to address health worker issues, most notably the *White Paper for the Transformation of the Health System (1997)*, the *National Health Act (2003)* and the *National Human Resources Plan for Health (2006)*.

The 1997 White Paper included generic policies on training and development, skills mix and equitable distribution, evaluation and monitoring. The National Health Act (2003) mandates the National Health Council to formulate policies and guidelines for HCW development, distribution, management and utilisation in the national health system. There is a *Government Programme of Action on Human Resources*, which has both financial and non-financial incentives among its priorities, including:

- strengthening the HR planning function;
- strengthening HR function with a view to retention and capacity building, improving the quality of work experience and the physical work environment; and
- attending to the conditions of service of professionals in order to attract them to and retain them in the public service (See *Box 4*).

Box 4: Non-financial incentives in the South African National HR Plan

In the short-term, South Africa aims to accelerate staff appointment to vacant positions to reduce staffing crisis in public facilities, and reduce workloads. In the long-term the country is pursuing a strategy for recruitment, succession, employment equity, reward and recognition for outstanding and long-term service in a given area. It has thus reviewed staff retention policies and negotiated a package of incentives and conditions of service for professionals working in varying conditions, in a consultative manner. This includes placement and supervision of health professionals in community service, e.g. the use of general practitioners in private practice to supervise and mentor young doctors; other support for professionals in under-served areas. South Africa's plan aims to create a culture of valuing all health workers - a healthy and safe work environment (careering for carers); promote a positive and supportive work environment; putting in place balanced financial and non-financial incentives. The plan seeks to develop of a performance management system that acknowledges excellence and promotion of life-long learning among health workers.

Source: NdoH, South Africa: A National HR Plan for Health [2006].

So far, South Africa has introduced increases in salaries and scarce skills and rural allowances for rural doctors and has deployed foreign doctors to rural areas to reduce workloads. In addition, clinics and hospital properties have been upgraded to improve the work environment (MoH, 2002). Kotze and Couper (2006) report on proposals to further increase salaries, provide hospital accommodation, ensure career progression, provide continuing professional development, increase support by consultants, improve hospital infrastructure/rural referral systems, ensure the availability of essential medical services and medicines, strengthen management and increase doctor involvement in management. Also under consideration are better and longer leave benefits, improvements in the hospital environment, the provision of recreational facilities, and greater recognition and appreciation for rural doctors (Kotze and Couper, 2006). It is not clear whether these additional measures will be only for doctors or will apply to the entire health workforce in the rural areas, as outlined in the National Plan (NDoH, 2006). Bonding is used by provincial departments of health for students sponsored for health professional courses, with personnel expected to serve the province for one year for every year sponsored. There was no documented evidence found on compliance with or the effectiveness of these measures.

A more focused approach to bonding was demonstrated by Mosvold Hospital in KwaZulu Natal, which began a scholarship scheme in 1997.

The hospital sponsors rural students for health professional courses and provides them with mentorship during their training (Physicians for Human Rights, 2006). The students sign a contract obliging them to pay back the sponsorship by working a year for the hospital for each year of study that was sponsored. Between 1998 and 2005, fourteen students completed various health courses and returned to serve the hospital, while 46 were still at university by 2005.

The success of the scheme has been attributed to the competitive selection process, with community involvement in identifying and selecting candidates for the sponsorships. The system has been emulated by the University of the Witwatersrand, in the WITS Initiative for Rural Health Education (WIRHE). This programme has recruited twenty students from rural areas, who will return home after their studies to serve their own areas (Reid and Ross, 2005; Ross and Cooper, 2004).

The government introduced community service for various categories of health professionals, who are all expected to do one year of compulsory public service (Reid, 2004). This move was primarily intended to enhance the training and experience of new graduates, but it also keeps them in public service, preferably in rural settings, for an additional year. Results have been mixed, with some staff viewing their year's experience as a disincentive to work in public hospitals due to poor supervision, skills gaps and poor conditions of service (ibid).

The National Health Act, No. 61 of 2003, has provision for a certificate of need (CON), which a health practitioner must have before setting up private practice. The intention is to reduce the concentration of private practitioners in urban areas, making it easier to establish new businesses in areas of greatest need. There has been resistance to this provision by some health practitioners.

To safeguard the health of health workers, the government established the Government Employees Medical Scheme (GEMS) for all public service workers, including health workers. GEMS is cheaper and more affordable than private medical schemes, but offers comparable benefits. It makes private health care accessible to those public servants who cannot afford private medical insurance contributions.

These legislative and policy initiatives are part of wide-ranging reforms in the health sector undertaken by government since 1994 (NDoH, 2006). The NDoH, through the Directorate of Human Resources, is responsible for the implementation, monitoring and evaluation of the

impact of the various initiatives. Public health care financing is from the national budget, which allocates money to the NDoH for the health sector, in three-year cycles. Ultimately, the provincial departments of health utilise funds for the facilities under their jurisdiction (Belcher and Thomas, 2004). In the recent budget, government will reportedly be able to self-sustain financing of the National HRH plan, as well as other health sector plans (Budget Speech, 2007)

3.12. Swaziland

Swaziland experiences a low output of health workers from training institutions, with only 80 nurses annually, no local training of doctors, high attrition due to AIDS, and outward migration. Public health workers are attracted to the private sector due to lower workloads, different shift systems, many training opportunities, close tutoring and supervision/ guidance, and quality care facilities. A recent report noted that 44% of physician posts, 19% of nursing posts and 17% nursing assistant posts were vacant (Kober and van Damme, 2006).

In April 2005, the Swaziland government increased the pay for all civil servants by 60% to improve public service retention, with effects evident within months (ibid). Plans were outlined for health workers to receive better accommodation, childcare facilities and easier access to car and housing loans. The combination of higher pay and other incentives reportedly made the public sector more attractive to nurses than the private sector. The government has also made ART available, recruited foreign personnel (to reduce the workload), and has provided subsidies to mission hospitals to reduce the burden on the public health system. In addition, there are rewards for recognition of good performance and access to bank loans at low rates for health professionals (Sibandze S, pers comm, 2007).

AIDS is a particular problem with high HIV prevalence, and health workers may fear going for treatment at the facilities where they work. To overcome this and to increase confidentiality, a separate health facility for the health workers with HIV was started in February 2006, run by the Swaziland Nurses Association, with support from the International Council of Nurses (ICN). ICN president, Hiroko Minami, stated that:

> *...treating HIV positive health workers will go a long way to keeping them healthy, in their jobs and in their country, allowing for a strengthened health care workforce, better able to meet the enormous health needs and addressing the serious health worker retention crisis in Africa* (ICN, 2005: online report).

The ICN targets 6,000 health workers, with HIV counselling, testing and treatment, stress management, psychological support, and prevention of mother-to-child transmission treatment (see *Box 5*).

Box 5: Caring for health workers with HIV/AIDS in Swaziland

Swaziland is one the countries with the highest prevalences of HIV/AIDS, and with many health workers infected by HIV and suffering from AIDS. Health workers are often reluctant to go for treatment at their place of work for fear of stigma, loss of trust and authority, and isolation. To improve access to treatment for health workers, a separate facility for health workers, the Wellness Centre of Excellence for Health Care Workers, was established in Manzini in February 2006. The Centre is run by the Swaziland Nurses Association, with support from the Danish Nurses Organisation and the International Council of Nurses. It offers a wide range of services, including HIV counselling, testing and treatment, stress management, psychological support, prevention of mother-to-child transmission, anti-TB treatment, home-based care and treatment of occupational injuries, targeting 6,000 health workers and their families. The scheme aims to improve retention and morale among the health workers by showing that they are valued and respected. The centre acts as a model for similar centres in other parts of the country.

Sources: ICN, 2005; Times of Swaziland, 2006; Physicians for Human Rights, 2006.

Public sector financing is from the national budget and external funding, although health funding (in 2006/7) was still below the Abuja commitment, totalling only 9.2% of total government expenditure for the health sector (Budget Speech, 2006). External funding includes international agency grants; Swaziland has not adopted the SWAp. There was no evidence found of specific M&E of the impact of incentives for health worker retention; this is being done through the larger M&E framework for the health sector (Sibandze, 2007).

3.13. Tanzania

The skilled health workforce in Tanzania is very small, with reportedly low public sector salaries, poor career prospects, poor facilities, poor working conditions (MoH, 2004; Bryan et al, 2006). As in other ESA countries, AIDS is also reportedly impacting on health workers (Kombo et al, 2003). Tanzania has relatively lower 'intention to emigrate' levels than other countries (Awases et al, 2004; Bryan et al, 2006), even though, due to an employment freeze, about 27% of doctors and 50% of

professional nurses were reportedly unemployed (Bryan et al, 2006; Gilson and Erasmus, 2005). This lower intention to emigrate is reportedly due to the peaceful environment with political stability, lack of conflict, a strong national culture and relatively low cost of living (Bryan et al, 2006). The current Health Sector Strategic Plan (2003-2008) sets the policy objectives and strategies for the sector as a whole (MoH, 2004) and acts as a framework for health worker strategies.

Some measures were implemented to retain and distribute health workers. Government public health workers may engage in private practice alongside their work in public facilities (Mogedal and Steen, 1995). There have been attempts to implement selective accelerated salary enhancement (SASE) to some health workers (mainly those in management positions), but this reportedly led to discontent among those not included in the scheme (Kombo et al, 2003). There is recognition of the need to value primary health care workers in Tanzania, with measures such as supportive supervision, performance appraisal, career development and transparent promotion processes (Manongi et al, 2006). The MoH reportedly has career development structures for each category of health worker, including criteria for promotion and upgrading, with accompanying salary increases. While health workers may receive housing and appreciation of good performance, and expect good communication between different levels of the health system, it is not clear to what extent these are practised (ibid).

The Mkapa Fellowship programme offers incentives to fill government health care positions in selected (rural) districts with high HIV prevalence rate and suffering severe shortages of health workers. The programme provides intensive training in aspects of health system management and anti-retroviral treatment, computer-based evaluation, and provides CPD. The Mkapa Fellows receive a regular government salary, a monthly stipend and an end-of-service bonus. In addition, fellows get skills-enhancement through planned training sessions and life membership to a prestigious alumni network (Mkapa Fellowship, website). No reports were found on the impact of this programme.

Public-private partnerships have been created to deliver service in critical areas. For example, the Evangelical Lutheran Church of Tanzania (ELCT) is an implementing partner of the Tanzania AIDS Commission. With 19 hospitals and 2,500 health staff, the ELCT is a key provider of health services in many rural areas. However, attracting and retaining qualified staff remains difficult. In 2004, the ELCT undertook a human resource management (HRM) assessment and developed strategies to help maintain a more stable and qualified workforce (MSH report, 2005).

There are no (other) reported incentive packages, although there are recommendations for continuing education provision, combined with an incentive package that induces good practice in clinicians (Dominick and Kurowski, 2004; Mæstad, 2006).

Health sector funding is from the national budget and donors offer funding through the SWAP (Aarnes, 2001). There are plans for a national health fund, community health fund and national health insurance fund to finance innovations such as the Tanzania Quality Improvement Framework (TQIF). The TQIF includes measures for strengthening supportive supervision, monitoring and surveillance and the health management information system. Tanzania reviewed its national health system in 2004. It has developed a health systems information policy and a human resources information system (HRIS) is being developed, with assistance from the USAID-funded Capacity Project (McQuide and Matte, 2006).

3.14. Uganda

As with most other ESA countries, Uganda has low numbers of skilled health workers, who are maldistributed between rural and urban facilities. After holding wide-ranging consultations (de Loor and Hutton, 2003; Calson, 2004), the Ugandan health sector has undergone many reforms, including decentralisation and the adoption of the SWAP for donor funding (Hutton, 2004; Hutton and Tanner, 2004), There is an integrated and effective medium-term expenditure framework and increased political commitment to the health sector (Hutton, 2004). In 2000, SWAP implementation started and the Health Sector Strategic Plan (HSSP) was launched, which includes mechanisms for periodic review, monitoring and evaluation (Hutton, 2004).

User fees were introduced in Uganda shortly after decentralisation in 1993, with a threefold intention to reduce the impact of irregular payment of health workers salaries; alleviate drug shortages; and strengthen community management of facilities (WHO and MoH, 2002). The fees collected at the health facilities were managed locally by each unit to top up workers' pay, and the balance was used to maintain the facilities and purchase additional drugs and supplies. Staff were reportedly more motivated by the higher pay and better work conditions (Kipp, Kamugisha, Jacobs, Burnham and Rubaale, 2001; Burnham, Pariyo, Galiwango and Wabwire-Mangeni, 2004). However, the user fees were abolished, to fulfil a political promise made during presidential campaigns (Kanyesigye and Ssendyona, 2005). There is mixed report on

the outcome of this measure. There have been some reports that health workers have shifted more of their time to work private clinics, or have reverted to 'under-the-table' payments from patients to compensate for loss of earnings from cost sharing (Burnham et al, 2004). However, there is no documented evidence to support these claims.

After a freeze on pay increases for the public sector, Uganda undertook pay reforms, with substantial increases in health workers salaries at higher pay scales than for other civil servants. Categories such as junior doctors received a 60% increase and entry-level enrolled nurses received a 300% increase, as well as a pension allowance with the salary increase. Before the salary enhancement, HCW benefited from a lunch allowance given to public servants in certain categories (Kanyesigye and Ssendyona, 2005). The health sector reforms ensured that remuneration of key health workers in decentralised local government facilities was consistent, regular and on time (Lindelöw, Reinikka and Svensson, 2003; JLI Africa Working Group, 2004).

The government also sponsored grants to health institutions to promote research capacity and motivate health worker trainers to stay and work in Uganda. Health workers got paid sick leave and more opportunities for further training. Other non-monetary incentives include the possibility of acquiring higher qualifications, recognition, promotions and better tenure of service. An early result of these measures was that they made the public sector more attractive than the NGO sector, and staff, especially nurses and paramedic staff, moved from the private sector to public facilities (WHO video, 2006).

Since 2004, the MoH has provided free ART to all those unable to pay. In 2005, this was extended to include more than 10,000 government employees, including health workers living with HIV (Kinoti and Tawfik, 2005).

The MoH established a quality assurance department (in 1993/4), responsible for setting standards and guidelines and offering supportive supervision and monitoring of the functioning of the (public) health sector (Egger and Ollier, 2005). Supervision and monitoring is done through regular visits to health facilities followed by immediate feedback, and an end-of-visit report highlighting the key messages. There is routine monitoring of indicators at district and national level. The indicators are used to assess performance against the national strategic plan. To encourage improvement in performance at facility level, the MoH introduced an award system, the Yellow Star Programme. The programme is based on 35 indicators of management efficiency. District health facilities

complying fully with the 35 standards receive a plaque with a five-pointed yellow star, along with official recognition and publicity (ibid).

As recounted in the World Health Report (2006: pp 83):

> *Uganda's efforts have resulted in better coordination between health services and local administrators and political leaders. The 2003/4 health sector review found that some districts are performing much better than others, and that unexpectedly, poor and rural districts are not necessarily poor performers. In interviews conducted across Uganda, the view was widely expressed that good performance stems at least in part from good management, especially in a supportive political environment.*

In 2006 a human resources information system (HRIS) was put in place to provide quick answers for planning, training needs, service delivery, retention and productivity, with the help of the Capacity Project (McQuide and Settle, 2006; Capacity Project, 2006). It is hoped that the HRIS will lead to better HR management and planning (McQuide and Matte, 2006).

Other HRH planning inputs have come through the MSH Human Resource Management Assessment Tool, used to assess the performance of staff and take follow-up actions on staff performance and communication across services. As a direct result of these changes, staff morale and motivation noticeably improved, staff turnover decreased significantly, and patient services grew by almost 50% (MSH, 2005).

3.15. Zambia

Zambia has a shortage of doctors and other health professionals, resulting in many rural hospitals and health centres operating with only 35-50% of their establishment levels for most cadres. This serious shortage of nursing and other support staff has reportedly undermined the quality of the health services in rural areas (Koot et al, 2003).

The government put various retention initiatives in place for Zambian doctors in rural and remote districts, supported by international agencies (Koot et al, 2003; Koot and Martineau, 2005; Miti, 2006). The retention scheme, piloted in 2003, contained a mix of monetary and non-monetary incentives (see Box 6) A number of non non-financial incentives were also applied, including priority consideration for post-graduate studies; a rehabilitated/ improved working environment; and annual performance appraisal.

Box 6: Zambia's Health Worker Retention Scheme

In a three -year contract with District Authorities; doctors are assured of

- a functional basic infrastructure (operating theatre, X-ray department, lab facilities), a housing subsidy, up to a maximum one-off payment of US$3,000
- a monthly hardship allowance, depending upon the remoteness of the area (US$250-300 per month).
- education for up to four children.
- access to a loan - up to 90% the value of the contract, or up to US$7,500-9,500.
- an end-of-contract incentive (US$2,000-2,600), and
- priority consideration in selection for post-graduate training.Benefit from the scheme is dependent upon satisfactory performance assessment.

Source: Koot et al, 2003.

By the end of 2003, Koot et al (2003) reported there was evidence of its success, with about forty doctors already posted to rural stations. More recently, a report from the Zambian MoH showed that 66 doctors had been attracted from tertiary hospitals to work in rural areas by the end of 2005 (Miti, 2006), a figure close to the 68 doctors in the mid-term review of the scheme by Koot and Martineau (2005). Government is reportedly able to meet its part of the retention scheme using savings from debt payments to the IMF to support salaries, within the Public Service Reform Programme (PSRP) (Smith and Henderson-Andrade, 2006; WHO World Health Day, 2006). The challenges for the scheme include preparation and administration, including the performance assessment, the inclusion of other cadres of health professionals, and the need to use other strategies to complement the retention scheme (Miti, 2006).

According to the *Times of Zambia* (28 December 2006), Zambian medical doctors that left the country for better jobs abroad have started coming back, following the improved conditions of service offered. It quoted MoH spokesperson, Canisius Banda, as saying the MoH planned to extend the improved conditions to other personnel such as laboratory technicians, pharmacists, and nurses. Although the retention scheme for doctors was currently only in rural areas, the ministry planned to extend it.

In addition to the doctors retention scheme, at the district level retention measures include provision of staff transport, group performance incentive schemes, top-up salaries for staff in remote areas, the renovation

of accommodation and electrification using solar in remote areas (Miti, 2006). Zambia received support for various initiatives, including top-up allowances for members of District Health Management Teams, renovation and construction of houses for medical staff in Luapula Province from USAID, WHO salary supplementation for lecturers at the School of Medicine, University of Zambia, and SIDA support for training nursing tutors, curriculum review and general strengthening of training institutions (ibid).

Zambia initiated an HIV prevention scheme for health workers in collaboration with the International Council of Nurses, Zambian Nurses Association (who administer the program) and Boehringer Ingelheim (who provide free Nevirapine) (ICN, 2003). Nurses and other health care workers now have free access Nevirapine for prevention of mother-to-child transmission (PMTCT) of HIV. According to Judith Oulton, Chief Executive Officer of the International Council of Nurses (ICN), *"Access to treatment will also be a powerful incentive for nurses to stay in the profession and in their country."* (ICN, 2003:online report).

A twelve-month pilot study was carried out to compare the use of financial or non-financial incentives to improve health worker motivation and performance in two health districts in Lusaka Province (Furth, 2005). In one district, the best performing and most improved health centres received a monetary award (based on user fee collections). In the other district, the best performing and most improved health centres received a trophy and plaque. Non-financial incentives were found to be more motivating and less controversial than financial ones (ibid).

To harmonise the various initiatives, a National HRH Strategic Plan (2006-2010) was launched to consolidate areas of HRH planning with the aim to support integrated HR approaches. The over-arching aim is to provide a coordinated approach to planning, based on best available evidence. The strategic plan includes a monitoring and evaluation system to monitor progress at both provincial and national levels. At the highest level, national oversight over the plan is exercised by a high level HR Steering Committee, the Health Sector Advisory Group, which produces an annual monitoring report. The provinces are expected to integrate monitoring into the performance assessment, with quarterly reports submitted to the ministry headquarters (Mwila, 2006).

3.16. Zimbabwe

Zimbabwe is facing a brain drain of health workers from the public to the private sector, as well as outward migration (de Castella, 2003; Chikanda, 2005). By 2000, Zimbabwe was losing an estimated 20% of health professionals to emigration annually, while in 2002 more than 2,300 Zimbabwean nurses sought work in the United Kingdom (Dovlo, 2003). The major causes of discontent among the health workforce are reportedly poor benefits and professional problems, such as the lack of resources and facilities, heavy workload and insufficient opportunities for promotion and self-improvement (Chikanda, 2005). Declining political and economic conditions have seriously exacerbated the situation (Gadzanwa, 1999).

Studies on Zimbabwean health workers in the 1980s and 1990s noted that pay, job security and opportunities for career advancement were important factors influencing health worker behaviour (Mutizwa-Mangiza, 1998). In the late 1990s, the government lifted the ban on private practice by public health workers in an effort to support retention, especially of doctors. Many public sector workers reportedly carry out such a dual practice, whether in a private health sector job or in non-health related activities, including petty trade (Mudyarabikwa and Mbengwa, 2006; Mutizwa-Mangiza, 1998). There is a legal framework for such dual practice by health professionals, but there is no implementation, enforcement or monitoring (Nyazema et al, 2003; Mudyarabikwa and Mbengwa, 2006).

In a recent report, Chikanda (2005) described some government financial and non-financial measures to stem the outflow of health workers. Salary reviews were undertaken to improve the pay of the health professionals, call allowances provided for extra hours worked due to staff shortages, with preferentially higher call duty rates in rural areas than urban areas. Government has, however, limited call allowances so they do not exceed salaries, leading to caps on this entitlement (Awases et al, 2004). Conflict has reportedly arisen around these allowances and pay levels are being rapidly eroded by the high rate of inflation, undermining their impact, sometimes even before they are implemented (Jongwe, 2007).

In 1997, the government introduced bonding for nurses and doctors, for three years after qualification. Doctors receive an academic certificate on completion of their studies, but only receive a practice certificate after they have completed the bonding period. The rationale is that many countries require proof of registration (and a certificate of good standing) from doctors seeking work. Opportunities for further training, such as fellowships, scholarships and advanced training programmes, are

available for public sector health workers, while the newly established Institute of Continuing Health Education (which provides courses for all health professionals) was expected to meet health worker demands for continuing education. A Health Services Commission was established to give government greater flexibility in applying measures for health worker retention, a retention task force was set up and a performance management system established (Chikanda, 2005).

The initiatives in the Zimbabwean health sector are guided by the National Health Strategy (1997-2007), which endorses decentralisation and a shift from control to regulation of the health sector. The health sector in Zimbabwe is largely funded from the national budget, especially following a fall in external financing (Bhawalkar, 2006). The review did not find evidence on the sustainability of the incentives measures mentioned above. The MoHCW has mechanisms in place for monitoring the functioning of the health system, and issues reports on health worker movements (Mudyarabikwa and Mbengwa, 2006).

4. THE USE OF INCENTIVES IN ESA

This review has revealed a paucity of systematic published data on retention strategies, and on non-financial incentives for health workers in ESA. The review itself was limited to only English language documents, possibly under-representing the situation in French and Portuguese speaking countries, particularly Madagascar, DRC, Mozambique, Angola and Mauritius. Nevertheless, a picture emerges from the approaches used in ESA countries to address shortages and distribution of health workers. A further limit in the evidence was that many documents spoke of prospective 'planned' or 'proposed' measures, with little evidence on evaluation or impact of measures. Certainly, health worker issues have only recently started receiving the attention they deserve, especially in the context of the Millennium Development Goals (WHO, 2000; HLF, 2005; WHO, 2006). One hopes, however, that monitoring and evaluation of impact will be increasingly documented and disseminated, particularly for national strategic review, and for regional exchange and learning. The evidence presented in *Section 3* does however suggest some analysis of current experience:

4.1. HRH challenges in ESA

All sixteen countries (except Mauritius) face common problems of absolute shortages of health workers, poor working environments, and a maldistribution of health workers between urban and rural facilities, and, for many, between private and public sectors. According to the evidence presented in *section 3*, the causes of these problems vary from country to country:

- Lesotho, Namibia, Swaziland and Botswana experience shortages of doctors due to a lack of medical schools.
- South Africa has better health worker numbers, but faces severe maldistribution between public and private sectors, and between rural and urban areas.
- Tanzania may not have a huge problem of emigration of health workers, but has low numbers due to low output from the training institutions.
- Zimbabwe has good training capacity, but has been affected by out-migration.

The nature of losses of health workers varies across the sixteen countries. All of them have 'hard-to-staff' areas, typically poor, rural areas with poor

infrastructure. Virtually all the health systems lose staff from rural to urban areas and from the public to private sector. For some countries, such as Zimbabwe, South Africa, Malawi, Lesotho, Swaziland and Zambia, outward migration of health workers is a major problem. In most ESA countries, AIDS has also contributed to high attrition rates among health workers.

4.2. Contextual factors

Any country's political and economic situation will affect its health system in various ways, including in relation to health worker issues. Long-term stability in Tanzania, for example, provides an important context both for health workforce planning and for external funding, while higher domestic financing in countries such as South Africa and Namibia also provide latitude for long-term planning. Countries that have that have extremely low domestic resources (such as Malawi), that have experienced conflict (such as DRC) or that face unstable or inflationary economic environments (such as Zimbabwe) have more difficult environments for domestic planning, and in the latter two contexts, also have more difficulty in attracting long-term predictable external financing (Delamalle, 2004).

The socio-economic environment is equally important. One of the reasons Tanzanian health workers stay in their country is because of the low cost of living in Tanzania, while contrasting high inflation rates in Zimbabwe contribute to health worker out-migration. Countries like Namibia, South Africa and Botswana do not appear to have faced the same donor conditionalities as Zimbabwe, Uganda, Tanzania, Zambia and Kenya, where SAPs were associated with hiring freezes and caps on pay levels for public servants. These contextual factors need to be taken into account, as each country's health system and human resource situation is specific, and workforce issues are multidimensional and interconnected (Dussault and Franceschini, 2006).

Some programmes explicitly recognise and plan for these contexts. For example, to guard against fluctuation of the local currency, the Zambian Rural Health Worker retention scheme pegs its benefits in Euros/US$, which are then disbursed at the rates prevailing at the time of payment (Koot et al, 2003).

Political and economic contexts are not only relevant to current situations. Country options need to take into account their history and build on - or respond to - political and institutional cultures. So, for

example, Tanzania's socialist past affects the way it avoids allowing incentives to differently treat different groups of health workers and South Africa's HRH options in many cases aim to redress historical inequalities, such as access in rural areas (Dominick and Kurowski, 2004; Gilson and Erasmus, 2005; Bryan et al, 2006; Government White Paper, 1997; National HRH Plan, 2006; Kotze and Couper, 2006).

The countries under review include middle-income countries (Botswana, Mauritius, Namibia, South Africa and Swaziland) and low-income countries (Angola, DRC, Kenya, Lesotho, Madagascar, Malawi, Mozambique, Tanzania, Uganda, Zambia and Zimbabwe) (HDR, 2005). While middle-income countries appear to have better health worker to population densities, they do not appear to use substantially different non-financial approaches to retention. For example, Malawi and Namibia have very different income levels, but both use pension schemes and opportunity for further studies. The difference may arise in the urgency for salary top-ups and other allowances. Evidence suggests that when workers' pay is adequate, non-financial incentives play a bigger incentive role than when workers are poorly paid, where a living wage is of prime importance (Zurn et al, 2004).

The design of the health system has also created a context for approaches to health worker retention and to dealing with challenges. For example, in post-conflict Angola and Mozambique, the destruction of health facilities and poor HRH training capacities called for rehabilitation of facilities and emergency plans, requiring foreign personnel (Pavignani and Colombo, 2001; Fustukian, 2004). Most health systems continue to face inequalities across geographical areas and across income groups, raising challenges such as how to distribute health workers to rural, remote areas, avoid losses to the private sector and discourage forms of dual practice that undermine public services.

The industrial relations context is also important here. For example, in Botswana, the nursing profession is a powerful lobby that is able to influence policy, putting them in a favourable position. In many of the other countries, the health system is 'doctor-centred', so many initiatives are directed at responding to the medical lobby of doctors and ensuring their incentives (Koot et al, 2003; Mathauer and Imhoff, 2006). Most documents reviewed were silent on the involvement of health professionals in planning the various incentives, or in the industrial actions and lobbies around the policies, but they are clearly taking place. There is some evidence of the need to manage conflict in this area.

Human resource managers in MoHs can no longer simply perform the role of administrators. The demand for strategic management capacities in this field is now intense and the skills required need to be recognised and catered for. Few reports gave evidence of how this realignment of the HRH function in MoHs was being done. Strategic management must not only engage with national factors, as global integration has enabled out-migration, contributing to skills shortages in many countries (Gadzanwa, 1999; Awases et al, 2004; Chikanda, 2005; Pavignani and Colombo, 2001; Dussault and Franchesni, 2006).

4.3. Incentives in ESA countries

The documented evidence on incentives in ESA countries is summarised in *Table 3.*

Table 3: Summary of reported incentives used in ESA

Country	*Non-financial incentives*	*Financial incentives*
Angola	Functional Health Information System; expansion and upgrading of facilities.	Under-the table payments; overtime pay; exposure; evening and night subsidies.
Botswana	Performance-based incentives; HRH planning with HMIS; upgrading of facilities; higher training opportunities; HIV/AIDS workplace programme.	Reasonable salary; overtime pay (higher rates for nurses than doctors).
DRC	Not available. *Planned:* Continuing professional development; monitoring and evaluation; supervision; improved communication.	Dual employment; under-the table payments; timely pay; performance-based bonuses; increased overtime pay.
Kenya	HRIS established; strengthened HRM; HIV/AIDS workplace programme; psychosocial support groups; speedy recruitment of staff.	Dual practice; extraneous allowances; risk allowances; salary adjustments.

Country	Non-financial incentives	Financial incentives
Lesotho	Accelerated grade policy; continuing education; higher promotion prospects for rural HCW; bonding. *Proposed:* Improvement in facilities and equipment; IT support; staff housing; staff security; transport; support centres; sabbatical leave; formal job regrading; improved career management; better posting policy; streamlined HRM policies and procedures; HRIS.	Accelerated increment for rural workers; overtime and night duty allowances; mountain allowance; housing subsidy; top-up pay for CHAL hospital workers.
Madagascar	Celebration of community health workers' achievements.	No data available.
Malawi	HIV/AIDS policies in the workplace; training opportunities; improved workplace conditions; staff rotation; better HRM and supplies through SWAP. CHAM: Transport for visits and shopping; free housing; free medical care (private rooms); bonding for training.	Salary top-ups; professional allowance; retirement packages (earlier for CHAM; more generous for government); housing allowance; car allowance; subsidised utilities; access to loans; dual practice; CHAM - assistance with school fees; medical expenses; housing.
Mauritius	Improved workplace; CPD; HRIS; decentralisation of operational management.	Reasonable salary; disturbance allowance for Rodrigues and outer islands; higher pay from savings.

Country	*Non-financial incentives*	*Financial incentives*
Mozambique	50% bonus when calculating length of service for rural staff; use of service cars; free housing; free food; HRM system; NGO initiatives; paid and free ART; improved communication. *Proposed:* bicycles; motorcycles; tea/coffee; greater staff rotation; TV and internet access; solar panels where there's no electricity; performance appraisal.	Dual employment; under-the table payments; medical assistance fund; salary top-ups; housing and fuel subsidies; per diems; extra-hours contracts.
Namibia	Job security; career paths and training opportunities; performance appraisal.	Reasonable salary; end-of-service benefits; housing; car ownership schemes; medical aid.
South Africa	Improved working conditions; infrastructure; performance appraisal system; career progression and CPD; community service; bonding; certificate of need; recreational facilities; better HR planning and management; medical care (GEMS). *Private sector:* Allows short postings abroad.	Salary increase; scarce skills and rural allowance; limited dual practice (RWOPS); sponsorship for education; affordable medical insurance. Proposed: New remuneration structure for HCW.
Swaziland	Proposed by government: Better accommodation; childcare facilities; provision of ART; AIDS care. *Private sector:* Lower workload; many training opportunities; supervision; good facilities.	60% pay rise for HCW; car and housing allowances.

Country	Non-financial incentives	Financial incentives
Tanzania	Open performance appraisal; HRM; HRIS; housing; performance-based contract; Mkapa fellowships offers skills enhancement and alumni association membership.	Differential salary structure for HCW compared to other civil servants; dual practice; SASE; Mkapa Fellowships offer a stipend and end-of-service bonus. *Proposed:* Rural incentives; extend SASE to other HCW.
Uganda	Better training opportunities; promotions; HRM; HRIS; increased research capacity; decentralisation; HIV/AIDS treatment for HCW.	Enhanced salaries; lunch allowances; dual practice; under-the table payments; sponsorship for further training.
Zambia	HIV/AIDS treatment for HCW; better infrastructure; training opportunities; performance-based contract; staff transport; accommodation; electrification; support for nurse tutor training; trophy and plaque awards (pilot study).	Rural doctors: good salary; housing subsidy; hardship allowance; children's fees; end-of-contract bonus; access to loans. Salary top-ups - medical school staff; bonus for best performing and best improved health centre in one district (pilot study). *Planned:* Extend Incentives rural incentives to other HCW.
Zimbabwe	Bonding; training opportunities; performance management system; recruit more HCW to reduce workload; improvements in housing and working environment.	Salary reviews for all health professionals; Call allowances - better rates in rural than urban areas; dual practice; part-time work in non-health sector.

Training and career paths

Virtually all countries use training and career paths-related incentives. Lesotho, Swaziland and Botswana sponsor students for studies abroad, after which they are expected to go back and serve the country, a bonding arrangement which has failed in both Swaziland and Lesotho. The approach by FOMSS in South Africa is an example of a focused bonding approach, which involves the community (Reid and Ross, 2005). The promise of sponsorship for further studies was one 'stay' factor for nurses and nurse tutors in Malawi (Mackintosh, 2003), for public sector workers in Namibia (Iipinge et al, 2005); and the new HCW package in Uganda included training opportunities (WHO, 2005; Lindelöw et al, 2003).

Bonding is a controversial measure and often difficult to use. As an incentive, it may be questionable, but it is used here in the broad sense as advanced by the WHO: "all rewards and punishments that providers face". The review showed that many countries have inadequate enforcement mechanisms, and are planning to strengthen the systems to manage and monitor bonding. It also points to examples of countries like Tanzania, which has no bonding strategy, yet retains more health workers. Bonding may be viewed as a punitive measure, which may then produce the opposite of the intended effects, as shown by initial reactions to the introduction of South Africa's community service (Reid, 2004). Bonding may also send the perverse message that the health workers are needed only for the specified time, after which they may leave.

In many countries, training opportunities is one area in which the public sector has an advantage over the private sector. Uganda reportedly attracted many health workers from the private sector to the public sector with its new plan that included opportunities for further training (WHO, 2005); Namibia similarly retains its workforce partly due to creating opportunities for further studies (Iipinge et al, 2005), as does Malawi and Zambia. Indeed, part of the frustration Botswana doctors face is the long waiting period before they can specialise - shortening the waiting period may be one measure to deal with the poor retention of Batswana doctors (Molelekwa, 2006; Mokgeti, 2006).

Work environments

A number of countries are addressing working conditions by upgrading facilities or building new facilities, such as Mauritius, South Africa, Lesotho and Uganda. Such improvements are part of the Zambian retention scheme and the Malawi nurse tutor retention scheme. In countries with high burden of HIV infections, such as Swaziland, Zambia, Uganda and Lesotho, access to ART for health workers is both

an incentive and a means to preventing losses from ill health (Kinoti and Tawfiq, 2005). While risk allowances were offered in some countries, such as Lesotho and Kenya, sustainable investments are commonly improving working conditions and providing health care for health workers (Hasselhorn et al, 2004).

Social needs and the welfare of health workers

Countries are using different strategies to address the social needs of their health workers. Housing is provided in Lesotho, Mozambique, Malawi and Zambia. Staff transport is available in Lesotho, Malawi and Zambia; while there is provision of free or preferential treatment for health workers in Mozambique and Malawi. In response to the high HIV and AIDS burden, almost all countries have workplace programmes for the care of health workers and their families, and some provide access to anti-retrovirals (Kinoti and Tawfiq, 2005; ICN, 2003, 2005). Addressing these social needs not only provides a material incentive, but sends an important signal that workers are valued, thereby strengthening their trust in the management of HCW issues (Aukerman (2006).

Health worker beneficiaries

The review suggests that incentives are focused on a few cadres of staff, such as doctors for rural facilities in Zambia, nurse tutors in Malawi, or nurses and doctors in Botswana. This is understandable because of the (international) mobility of such staff, and the 'market clout' they tend to have in the various countries. However, a 'health team' approach is more desirable. For example, in Lesotho, initially only doctors received allowances for overtime/ night shift duty, and this practice demotivated other workers, until the allowances were extended to the other members of the team (Schwabe et al, 2004a). Similarly, provision of free housing to expatriate doctors only in Botswana is a sore point for nationals who feel less valued (Tlhoiwe, 2004; Thula 2006a; Mokgeti 2006). Similarly, in Tanzania, the application of SASE to top managers has had negative effects on the morale of other health workers (Kombo et al, 2003).

4.4. The relationship between financial and non-financial incentives

The review showed that non-financial incentives are often combined with monetary incentives, such as sponsorship for training and mentorship (in South Africa); better staff housing with salary top-ups (in Zambia); or better communication for staff and allowances in mountainous areas (in Lesotho). Most incentives are financial, with many 'rewards' offered at the same time (either financial or non-financial) (Furth, 2005). But there is not

always a clear link between the financial and non-financial incentives. In South Africa, for example, there was no apparent structured relationship between the policy framework on scarce skills and rural allowances and other retention strategies, especially non-financial incentives to retain health professionals in the public health service (Reid, 2004; National HR Plan, 2006).

The financial component of the incentives tends to have dramatic, immediate results, either slowing the exit from or attracting health workers to the system. For example, in Kenya raising doctors' allowances resulted in hundreds of doctors applying for government jobs (Matheau and Imhoff, 2006). In Swaziland, a 60% pay raise resulted in many workers opting for public service (Kober and van Damme, 2006) and in Malawi, the 52% raise in health workers reduced the haemorrhage from the public sector in a few months (Palmer, 2006).

In most countries, health worker salaries are poor, and financial incentives are essential because health workers need more money to meet their living costs - this makes remuneration the most influential factor for retaining health workers (Dovlo and Martineau, 2004). In several countries (Zimbabwe, Kenya, Tanzania, Malawi, Mozambique and Uganda) health workers reportedly supplement their income through dual practice or moonlighting. While dual practice may provide an income top-up that helps retain staff in the public sector, it also has the negative effect of making the health workers less accessible by reducing the amount of time they spend in public service (Lerberghe et al, 2002).

Health workers themselves do not only seek financial incentives. As observed by the head of the Malawi Nurses and Midwives Council Association, most health workers "look beyond salary increments … at personal development, better housing … education for children … specialisation..." (IRIN, April 14 2006: online). Non-financial incentives appear to provide a stabilising influence after the more rapid effects following introduction of financial incentives, by sustaining health worker commitment, sending additional signals to support distribution of health workers or compensating for loss of financial gains in inflationary environments.

4.5. The financing of incentives

ESA countries finance their incentives for health workers from the national budget, using government funds, as part of health sector funding, and donor funding. South Africa, Botswana, Namibia,

Zimbabwe and Mauritius fund their incentives from national budgets, and have adopted the medium-term expenditure framework (MTEF), where budgets are drawn up using three-year rolling plans (Belcher and Thomas, 2004; Botswana Budget Speech, 2006; Mauritius Budget Speech, 2006).

A number of countries supplement the national budget with donor funding, such as Uganda, Tanzania, Malawi, Mozambique, Kenya and Zambia, particularly through the SWAP. It appears that the SWAP and budget support for health worker financing lend stability and sustainability to the financing of health worker incentives and are preferable to localised project initiatives (Dlamini, 2005). There are also some additional resources. For example, Zambia used resources released from debt relief under the Highly indebted poor country initiative (HIPC) (Miti, 2006). Some incentive schemes are more directly donor funded, such as the nurse tutor retention scheme in Malawi, while donor funding and technical resources have been used to invest in the development of HRIS in a several countries.

4.6. Introducing and monitoring new incentives

From the literature it was not clear how the incentives were introduced in the various countries. During discussions with HR managers from several ESA countries at the EQUINET-ECSA-HC meeting (Arusha, 17-19 March 2007) it was apparent that various approaches were used, as summarised below:

- policy measures were first negotiated by government and trade unions (Mauritius);
- and integrated with wider health sector development plans or medium-term development plans (for example, South Africa, Lesotho, Malawi, Zambia);
- by collaborating with other sectors (for example, Swaziland);
- following consultations with other stakeholders, ministries, development partners and health workers (for example, Uganda); and
- using experiences from other countries (Zimbabwe).

In Angola and Mozambique there were post-conflict human resources rehabilitation plans after the civil wars (Pavignani and Colombo, 2001), while both Malawi and Zambia had HRH emergency plans (Palmer, 2004; Koot et al, 2003).

The literature was also relatively uninformative on the monitoring and evaluation mechanisms for the various incentives. Countries rely on

reports from services, such as monthly meetings with unit heads, feedback from health management teams at health facilities, information yielded through larger M&E frameworks used in the health sector or on performance appraisal reports, facility surveys or periodic reviews (EQUINET-ECSA-HC, 2007).

The review found evidence of the use of (or intention to use) HR and personnel management systems in a number of countries. Some have undertaken HRH mapping exercises (for example, Kenya), and HRH plans are available or under development in most countries. In countries such as Botswana, Mauritius and Lesotho, HRH plans are integrated into national development plans, such as the Vision 2020 in Botswana (Egger et al, 2000; MoHQL, 2003; Schwabe et al, 2004a).

Several countries have undertaken plans to establish HRIS. By providing timely, proper and reliable data, HRIS makes it possible to plan for HCW requirements, and even more relevantly, makes it possible to employ health workers and process their payments without delay (Perry, 2005; Ferrinho and Omar, 2006; Gilson and Erasmus, 2005; McQuide and Mattee, 2006). Some countries were helped by agencies such as MSH and the Capacity Project to develop capacity to manage HRIS (e.g. McQuide and Matte, 2006). Another aspect of HRM has been the attempt to have HRH managed outside the public service, e.g. the Malawi Health Services Commission (Palmer, 2004), Zambia Central Board of Health (Martinez and Collini, 1999), Zimbabwe Health Services Board and Uganda Health Services Commission (Hutton, 2004). Whereas these mechanisms are intended to cut bureaucratic red tape and ease processes such as hiring, their establishment may not be problem free. The Zambia board faced stiff opposition from the health workers who preferred the public service conditions of service (Martinez and Collini, 1999).

There was hardly any information on timeframes for the incentives, nor could the sustainability of the various schemes be easily assessed from the literature. The Malawi nurse tutor retention scheme was supposed to end with the introduction of EHRP, but the tutors threatened to leave the institutions for government service if the scheme were terminated, so it was continued (Caffery and Frelick, 2006).

4.7. The impact of non-financial incentives

A number of documents commented on the impact of non-financial incentives, although the evidence on this remains limited and somewhat patchy:

- The short-term rotation of midwives in one district in Malawi reportedly led to better staffing of rural facilities (Mackintosh, 2003).
- Zambia documented effectiveness of non-financial awards in motivating health workers in one district (Furth, 2005).
- Evidence indicates that further training opportunities have been credited with luring health workers back to the public service in Malawi, Zambia, Uganda, Namibia and South Africa.
- The Malawi nurse tutor retention scheme resulted in all nursing schools staying open.
- Incentives applied in Uganda led to a reported movement of health workers from private to public hospitals (WHO, 2006).
- The Zambian rural retention scheme attracted more staff, even from urban hospitals, to rural areas (Koot and Martineau, 2005; Miti, 2006).

Since the non-financial incentives were combined with monetary incentives and are also affected by the wider contexts, it is difficult to attribute these outcomes to non-financial incentives only. The incentives that have had some success appear to be those linked to long-term strategic plans, within the framework of health sector planning and in consultation with health workers, that promote long-term stability through non-financial incentives. Sustainability of funding is ensured through the SWAP (instead of specific project funding), coupled with monitoring and evaluation.

Recognising that there is no 'one-size fits all' approach to health worker retention in the region, the best retention strategies appear to be those that combine financial and non-financial incentives: based on sound data and supported by adequate financial resources and management capacities. It is suggested that these preferably evolve from consultation with key stakeholders; and are owned by the country, as opposed to being donor-driven, although using external technical and financial resources to support national plans. The presence of a strategic planning and management capacity appears to be critical, given the complexity of the task and environment. In planning to introduce incentives, sustainability should be borne in mind since health workers may consider the withdrawal or termination of incentives as variations in conditions of service (Caffery and Frelick, 2006).

5. CONCLUSION

The health worker crisis in ESA can be compared to diabetes mellitus. Both are systemic diseases, with underlying functional (and often structural) disturbances; both are chronic, developing insidiously, so that by the time they are noticeable, the damage can be quite significant. Just as it is possible to treat diabetes mellitus and have the patient functional, it is possible to 'fix' the HRH problem, and the continued well-being of the patient (health system) will depend on continued, quality management.

There is no single effective combination of treatment modalities for all diabetic patients, and no 'one-size fits all' solution to the health worker crisis. Diabetes comes in different forms depending on the precipitating factors; similarly, the characteristics and causes of the HCW crisis vary across the countries of the region. Diabetes has the potential to affect the functioning of every part of the body; HCW problems have the potential to affect the performance of the entire health system. Diabetic patients tend to have high blood glucose levels and spill the excess into the urine, and yet at the cellular level the cells are starved of glucose; in many countries of the region, while facilities operate at less than 50% staffing, health workers are migrating out in thousands. There is no one-off treatment for diabetes; rather, the patient must be managed for life, using a combination of drug and non-drug measures such as lifestyle modification and dietary control. Likewise, this review has shown that HRH can never be addressed effectively by using a single measure or strategy, applied once; rather, there is need for constant reviewing of the HRH situation, and adjusting the remedies to the changed situation. In the same way that the acceptable management of diabetes now involves a multi-disciplinary team, depending on the patient's condition, so to too must the approach to the HRH crisis be multi-sectoral.

Policies that address the retention of health workers also address poor motivation, low productivity and poor health worker behaviour and attitudes towards patients. Retention strategies, therefore, improve the performance of the health system by increasing the pool of available skilled health workers and by increasing staff responsiveness to the needs of the patients (Gilson and Erasmus, 2005). From an equity perspective, such strategies are crucial, as they are necessary for retaining health workers in the public sector and, especially, in rural facilities, which largely serve the poorer members of the population who often cannot afford private health care (EQUINET, 2006). The data presented

invariably shows a preponderance of measures for the retention of staff in the public sector and in rural, remote, hard-to-reach areas.

Non-financial incentives are usually introduced through a consultative planning process, and are linked to long-term strategic planning. Financial incentives provide immediate signals (through response of workers), while the non-financial ones provide the long-term stability of incentive packages. Funding of incentives is sustainable when it is done through the national budget, or if it is from donor funds through SWAP or general budget support, rather than through direct project-specific funding, which often jeopardises projects because it cannot be sustained for the length of the project. Where incentives are used properly, coupled with timely feedback, monitoring and evaluation of the processes, there is a likelihood of success.

Much is being done in various countries regarding incentives for HCW. Unfortunately, little of it is documented; some published documents may be inaccessible and other documents are unpublished. In some cases, published documents lack essential details such as timeframes for the application of the incentives, the design of incentives and even the categories of workers who benefit from the incentives.

Strategic gaps were identified in the existing literature, particularly in the stated plans for monitoring and evaluation; the reported impacts of incentives; and the long-term 'exit' or 'scale up' strategies for incentives. These gaps are important, given the need to exchange information and experience across the region in order to support strategic planning and management.

5.1. Lessons from the review

In order to draw up effective HRH plans for the future, ESA governments will need to develop strategies and systems to incorporate data collection, especially regarding the monitoring and evaluation of incentives. This information needs to be generated and shared to enable strategic management and review across the region. Ensuring wide consultation with health workers and other stakeholders, including financing agencies or ministries, prior to the introduction of incentives, should ensure their acceptability and sustainability.

The financing of incentives appears to be most stable and sustainable when integrated within national budget funding through MTEF, within budget support or through pooling of national and donor funds through

SWAP. In contrast, project-specific funding for incentive schemes was not effective. It is recommended that international agency support be made through such wider national mechanisms.

There is no simple prescription for what incentives to use. The evidence from regional experience suggests that countries should design schemes that combine financial and non-financial incentives, so that incentives not only address issues of reasonable pay but also send out the signal that health workers are valued. Their wider needs should be addressed, their work environments should be improved and their career paths should be developed and supported.

Finally, it is clear that HRH management plays a pivotal role in the successful application of incentives to attract and retain health workers. Introducing and managing incentives calls for strategic management capacities within ministries of health and, in some cases, may require a review of the status and capacities of HR departments. Effective HR management requires regular, periodic reviews (annual or more often) of incentive schemes to document their outcomes, and to address issues that arise. Baseline assessments and HRH information systems that collect indicators more specifically relevant to HR plans, will be invaluable for informing projections and plans, and will help to enable their review.

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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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- Poverty, deprivation and health equity and household resources for health
- Health rights as a driving force for health equity
- Health financing and integration of deprivation into health resource allocation
- Public-private mix and subsidies in health systems
- Distribution and migration of health personnel
- Equity oriented health systems responses to HIV/AIDS and treatment access
- Governance and participation in health systems
- Monitoring health equity and supporting evidence led policy

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