Mid Term Review

Zambian Health Workers Retention Scheme (ZHWRS) 2003–2004

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Dr. Jaap Koot, Public Health Consultants, Amsterdam
Mr. Tim Martineau, Liverpool Associates in Tropical Health

Table of Contents

List of tables

List of figures

Acknowledgement

The review team consisted of five persons, two external consultants (Dr. Jaap Koot and Mr. Tim Martineau) and three local counterpart experts, Dr. V. Mukonka, Director Public Health and Research, CBOH, Mr. B. Nalishiwa, Director Human Resources Management and Administration, MOH, and Mr. J. Mwila, Chief Human Resources Management Officer, MOH. Though the external consultants bear solely responsibility for this report, the mission would not have been possible without the excellent contributions of the local experts.

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Furthermore, the team wants to thank all who gave a contribution to the review and shared in open and frank discussions their views on the ZHWRS and options for future expansion.
A special word of thanks to the doctors under the retention scheme, who pioneered and had the courage to start something new, without a notion what the personal benefit for themselves would be. They have set an example for future generations of doctors in Zambia.

Acronyms

CDE	:	Casual Daily Employee (usually unskilled)
CO	:	Clinical Officer
CBoH	:	Central Board of Health
CHAZ	:	Churches Health Association of Zambia
CMAZ	:	Churches Medical Association of Zambia
DDCC	:	District Development and Coordination Committee
DHMT	:	District Health Management Team
DDH	:	District Director of Health
DMO	:	District Medical Officer
DRC	:	Democratic Republic of Congo
EHT	:	Environmental Health Technician
FAMS	:	Financial and Administrative Management Systems
GRZ	:	Government of the Republic of Zambia
HIPC	:	Highly Indebted Poor Countries
HMIS	:	Health Management Information System
HR	:	Human Resources
HRH	:	Human Resources for Health
HSR	:	Health Sector Reforms
MOH	:	Ministry of Health
MTR	:	Mid Term Review
NGO	:	Non Governmental Organisation
PHC	:	Primary Health Care
PRSP	:	Poverty Reduction Strategy Paper
PSRP	:	Public Service Reforms Programme
QA	:	Quality Assurance
RHC	:	Rural Health Centre
RN	:	Registered Nurse
RNE	:	Royal Netherlands Embassy
RS	:	Retention Scheme
UTH	:	University Teaching Hospital
Zamsif	:	Zambian Social Investment Fund
ZEM	:	Zambian Enrolled Midwife
ZEN	:	Zambian Enrolled Nurse
ZHWRS	:	Zambian Health Workers Retention Scheme

Executive Summary

Introduction

To tackle problems of staff shortage and maldistribution, in 2003 the Government of the Republic of Zambia in partnership with the Royal Netherlands Government embarked on a Pilot Zambian Health Workers Retention Scheme (ZHWRS) for health professionals. The scheme had as first objective to replace the Dutch doctors, working under the bilateral agreement between Zambia and the Netherlands.

A regular review process was included as part of the scheme. This report is from the Mid-term review that took place in January 2005. The key questions addressed by the review were:

1) Have the original systems been properly implemented and are they working?
2) What modifications or additional systems are needed?
3) Is the scheme being used in the right locations?
4) Has it improved the staffing of remote districts?
5) Has the scheme caused any negative side effects?
6) Is the current scheme sustainable?
7) Could the scheme be used for other cadres? If so, what modifications would be needed?

A retention scheme needs to be viewed in the light of the limited alternatives to increasing staff supply (others include increase intake, changing skills mix and within the overall workforce improving distribution). The retention scheme also needs to be considered within the wider policy context. Important factors in the case of Zambia include the Public Service Reforms Programme – in particular the focus on rightsizing, pay reforms and decentralisation; the impact of HIPC conditions on the size of public sector employment; and current health plans including rapid expansion of HIV/AIDS related programmes.

In general the health workforce is insufficient to deliver the government's health programmes, training output does not keep up with losses and the distribution of the available workforce is inequitable. A major issue in attracting and retaining staff is the level of government salaries which has fallen by up to 90% over the past 25 years or so whilst at the same time a highly competitive private sector is developing within Zambia and international demand for health professionals continues to grow.

Retention scheme and pilot for doctors

The Zambia Health Worker Retention Scheme is being piloted, as part of the wider public service reforms, with a scheme for attracting doctors to and retaining them in rural areas. The scheme, which is currently funded through the CBOH by the government of the Netherlands, provides a financial incentive (hardship allowance), school fees, loans facility for cars or a house and assistance with post-graduate training at the end of the three-year contract. Funds for renovation of government housing are included.

Clearly the scheme has been successful in attracting doctors to rural areas. Sixty-eight doctors have so far been attracted onto the scheme. Though about 15 doctors were already working in posts included in the scheme and 4 have left the scheme, this is a significant increase. The impact has been better staffing of rural districts with doctors in general and a great proportion

of these posts filled by Zambians – in some districts for the first time ever. The average monthly cost of the scheme per doctor is between €500 – 550 (US$652 to 717) – about 70% of what was budgeted for.

Recommendations for improving the current scheme for doctors

1. The management of the scheme should be improved by:
- Simplification of the administrative procedures – for example, giving a fixed sum of money for renovation of accommodation instead of requiring submission of plans for approval which unnecessarily delays the process
- Clarification of the details of the scheme – both for prospective applicants and for other stakeholders
- Better monitoring of the impact of the scheme.

2. Better preparation of doctors joining the scheme – both in clinical areas of surgery and obstetrics, and in health services management.

3. Improved supervision and management of the performance of doctors on the scheme.

4. Management of post-graduate training opportunities. Existing scholarship programmes need to the harmonised with the scheme and special attention needs to be given to attracting doctors on to the M. Med. Programme which might include fast tracking promising candidates and postponing the rural service period for them.

5. Improving the work environment to enable doctors to work effectively and to continue to develop professionally.

6. Expand the scheme to other selected groups of doctors to ensure overall retention in the country.

7. Develop clearer criteria for the district categories and a mechanism for regularly reviewing the categorisation against these criteria.

The expansion of the scheme to other categories of staff

Because to the nature and size of other staff categories and building on lessons learnt from the pilot, the following criteria were adopted for planning the expansion of the scheme:
- Targeted to areas of critical shortage
- Minimise destabilisation of the workforce
- Incremental expansion of the retention scheme
- Build on existing initiatives
- Use of simple and unambiguous systems
- Use of other strategies to complement the retention scheme.

The priority groups to start with are the health professionals (nurse, clinical officer and environmental technician) who staff the remoter rural health centres. A very small number of critical posts in the district hospital that are persistently challenging to fill could be included in the scheme. Nurse-tutor posts could be included, too, as shortage of these has a serious impact on training output.

The incentive package should be developed by the District Health Management Team, technical support from the Province and should focus more on non-monetary benefits. It could include some or all of the following:

- Renovation/construction of accommodation
- Lighting (solar panels)
- Access to transport – to collect salaries where there are no banks nearby and for shopping. This could be through the provision of motorcycles or the use of the district vehicles from time to time.
- Access to free ARV drugs either for themselves or for dependants. Improving the health of both groups would also reduce staff absence. A general health insurance package, which also covers referral, would be welcomed by many staffs.
- Access to in-service training for all; presently in-service training is pushed by vertical programmes and skewed to certain cadres only.
- Access to distant learning programmes using information technology
- Career development/ support for further training. This should be used judiciously, as through the provision of a higher qualification the strategy will often simply "train the person out of the job".

The review team was struck by the number and range of local initiatives already being used at district level to attract and retain staff. In the spirit of decentralisation and the forthcoming devolution it is suggested that these initiatives be built upon by the DHMT with some external technical guidance. Funding for these "recruitment and retention" schemes could be provided through the existing district basket mechanism with an additional recruitment and retention ceiling. This would also contribute to the sustainability of this aspect of the retention scheme. Cooperating partners who cannot contribute directly to the basket might fund some elements of the package in kind – transport or renovation of accommodation, for example.

1 Introduction

1.1 Terms of Reference

In 2003 the Government of the Republic of Zambia in partnership with the Royal Netherlands Government embarked on a Pilot Zambian Health Workers Retention Scheme (ZHWRS) for health professionals, in the context of the PSRP and officially recognised and authorised as such by Cabinet Office, starting with doctors in an effort to retain and support them work in rural areas of Zambia.

Regular formal evaluations, including this Mid Term Review (MTR), have been built into the design of the ZHWRS to ensure that it is being implemented well and on track to meet its objectives. This MTR focuses on the modalities that have been chosen for the implementation of the pilot ZHWRS, whether they are adequate, in place and operational. In addition to providing recommendation on possible improvements of the current scheme, the aim of the review was to consider the extension of the scheme beyond the pilot.

More specifically the following questions are addressed during to evaluation:

1) Have the original systems been properly implemented and are they working?
2) What modifications or additional systems are needed?
3) Is the scheme being used in the right locations?
4) Has it improved the staffing of remote districts?
5) Has the scheme caused any negative side effects?
6) Is the current scheme sustainable?
7) Could the scheme be used for other cadres? If so, what modifications would be needed?

The expected outputs of the MTR are:

- Lessons learnt and findings on the points mentioned above;
- Recommendations for further improvement/streamlining of the ZHWRS;
- Recommendations on possible extension of the ZHWRS to professional health staff (e.g. nurses, paramedics, administrators), including:
  - the financial, administrative and organisational ramifications,
  - categorization (sub-district)
  - involvement of other donors/cooperating partners
- Sustainability of both the existing scheme as well as the potential extension in terms of the Government's commitment and involvement

The full text of the Terms of Reference is attached in Annex 1.

1.2 Methodology

The Ministry of Health (MOH) selected two consultants through the Employment House in the Netherlands (Dr. Jaap Koot, team leader, and Mr. Tim Martineau), both with knowledge of the Zambian health care system. The MOH delegated Mr. B. Nalishiwa, Director Human Resources, and Mr. J. Mwila, Chief Human Resources Management Officer, to participate in the mission and the Central Board of Health delegated Dr. Victor Mukonka, Director Public Health and Technical Support Services.
The team studied relevant documents (listed in Annex 2), interviewed involved officials and conducted field research in Central, Northern, Southern and Western Province (see itinerary in Annex 3). Semi-structured interviews were used during the interviews. Conclusions were formulated by the review team and discussed during the debriefing with stakeholders. The team also shared the conclusions with the Honourable Minister of Health and top officials of the MOH and CBOH and included their views in this report.

1.3 Structure of the report

The next section in the report provides the analytic framework used by the review team, as well as the policy context in which the retention scheme takes place. The same section gives some general information on human resources in health in Zambia.
Section 3 gives a detailed review of the retention scheme for medical doctors as implemented in the last 18 months.

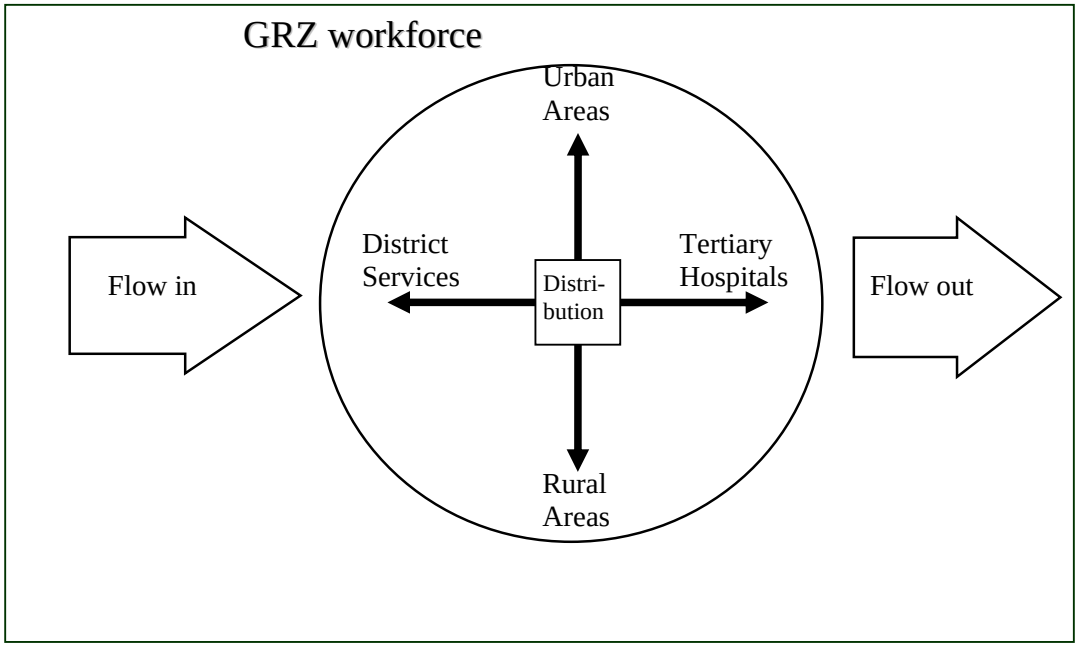
Section 4 gives recommendations for continuation of the scheme and section 5 discusses options for expansion of the scheme to other cadres in the health sector.
The Terms of Reference, documents reviewed, the itinerary, and persons met are provided in the annexes, as well as thoughts for decentralised approach in incentive schemes.

2 Human Resources in Health in Zambia

2.1 Analytic framework

Human resources are being recognised worldwide as the most important factor in effective health care delivery. The HRH literature now emphasises the importance a more comprehensive analysis of HR issues in the search for appropriate solutions[1]. A particular concern is the identification of the dynamics affecting the supply and demand for health labour. The distribution of the workforce within the country is equally important. (See Figure 1 below)

Figure 1: Workforce staffing flows in and out and distribution of staff



When considering options for addressing a staffing crisis it is useful to first look at the flows in and out of the organisation – in this case GRZ health workforce. The size of the workforce will be dependent on the inflows in the form of recruitment, and the outflows in the form of losses such as resignation (perhaps to go to a better job), retirement, or long-term sickness/death. The size of the workforce can be managed in the following ways:

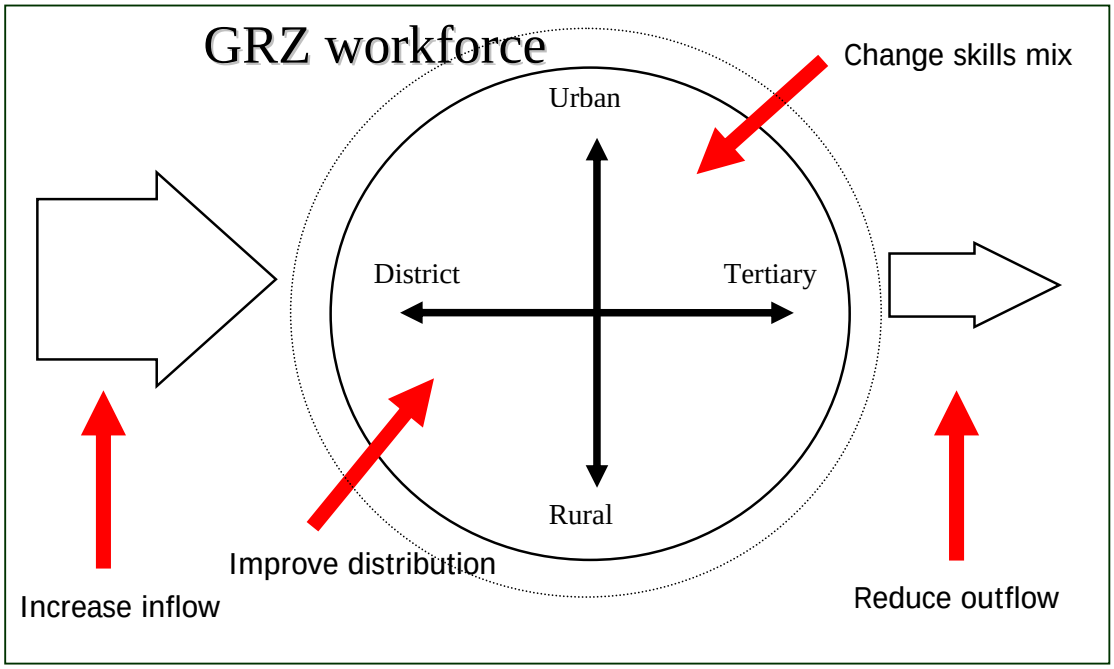
- Recruitment can be increased by raising training output. It can also be increased by making the jobs more attractive through improving the nature of the job itself or making the conditions of service better.

[1] See Martinez, J. and T. Martineau (1998). "Rethinking human resources: an agenda for the millennium." Health Policy Plan **13**(4): 345-58. and Egger, D., D. Lipson, et al. (2000). Achieving the right balance: the role of policy-making processes in managing human resources for health problems. Issues in health services delivery. Human Resources for Health. Discussion paper no. 2. Geneva, World Health Organisation

- Losses can be reduced if the job and conditions of service are improved. Retirees can be recruited back into the system. Measures to reduce occupational hazard and to treat long-term illness may also contribute to a reduction in the losses.
- Finally, effective production of services can be increased by changing skill mix, especially where more highly skilled staff are unavailable.

All these measures only contribute to the overall size of the workforce. To provide health services equitably requires an appropriate distribution of staff. Two major dimensions of distribution are district level – tertiary level and urban – rural. In many health systems the distribution is skewed towards the urban – tertiary hospital quadrant and for staff with midlevel skills also to the district-urban quadrant, leaving the district-rural quadrant greatly understaffed in relation to population density. A further dimension for clinically trained staff could be added to Figure 1 – that of clinical vs. non-clinical. This is the case of clinically trained staff working in non-clinical jobs such as management. It is important to recognise this dimension in a situation where the shortage of clinical skills is greater than that of managerial skills. Figure 2 provides a summary of the main intervention points for dealing with the staffing crisis by increasing the overall number of staff and improving distribution.

Figure 2: Intervention points: increasing the workforce and enhance equitable distribution of health workers



In the same way that it is possible to make entry into the workforce as a whole more attractive (improving the job/improving conditions of service), it is also possible to provide incentives to attract staff from one quadrant to another and thus effecting a redistribution of the available workforce. However, where there is an overall labour shortage, this may simply end up in redistributing the problems. Redistribution should ideally be accompanied by strategies to increase the overall supply and to reduce the overall losses.

The following sections provide important background information for this review including the policy context and the more general staffing situation in the health sector in Zambia.

2.2 Policy Context

The policy context relates to the health sector specific policies and the broader policy environment, such as the Public Service Reforms Programme (PSRP), the National Decentralisation Policy and other national policies, in which the health sector is operating. A comprehensive Government Strategy and Action Plan for Public Service Management and Capacity Building for the period 2004 to 2008 was launched in 2003. It has six broad areas of focus: rightsizing and pay reforms, enhancing performance management, strengthening policy management, enhancing public expenditure management and financial accountability, enhancing governance and justice for all, and decentralisation and strengthening of the local government system. As part of the rightsizing process the "optimal" size of the GRZ workforce is being developed, and therefore is a major point of reference for determining the actual needs for the health workforce. An establishment totalling about 40,000 was developed in 2001 by the MoH, based on the prototype health facility structure, but this has not been approved by Cabinet Office. In the absence of any other establishment figure, this one is used in this report to determine vacancy levels.

As part of the planned pay reforms salary structures will be simplified and differentiation in salaries for critical staff will be considered. Decompression of salary scales will enable quicker salary rises for individuals. Critical professional groups, including those in the health, may receive higher levels of remuneration.

Reforms in the health sector were initiated in 1992 in order to address the urgency of improving health service delivery and outcomes. The Health Sector Reform process represents a major initiative to improve equity, access, quality and cost effectiveness of health services. The goal for the management and development of human resources for health is 'to provide a well motivated workforce, operating in a conducive environment in which the right skills are available in the right place, at the right time, to deliver health services as close to the family as possible'. The policy still is the core of the health sector strategies in place. However, the Health Services Act 1995, which provided the legal framework for the Health Sector Reforms, will be repealed shortly. It is expected that the main impact of this repeal will be on the organisational structures at the central level (MOH and CBOH). There is no intention to change the mode of operation of the decentralised health systems.

The National Health Strategic Plan 2001-2005 (NHSP) provides the strategic vision and framework for the achievement of health sector goals and outcomes, and for the strategic objectives and outputs for the management and development of the human resources for health (HRH). The Mid-term Review of the NHSP in October 2003 recommended the formation of a Task Force to produce an Emergency Rescue Plan to place before the Government and Cooperating Partners within two months, for action in FY2004. The Task Force has been created and has tackled several topics of HRH, but has not produced a comprehensive plan. Although the NHSP was aiming at the delinkage of health workers, which would place the health workers outside the civil

service, it has been decided in 2004 that this process will no longer be pursued. The structure for the GRZ workforce still has to be defined (as described above).

The Ministry of Health has developed a draft Human Resources Policy in 2002. However, this policy requires fundamental updating. In 2004 a synopsis document[2] was produced, which gives direction to the update of the HR policy. This paper provides background information and an outline action plan to address the human resource crisis in the public health sector. Tasks and activities are grouped under four main foci for action as follows:

- Actions to create a strong structure to manage the crisis
- Actions to respond immediately to the crisis
- Actions to strengthen systems to improve HR management capacity
- Actions to remedy deep seated human resource problems

The MOH is in the process of preparing a stakeholders conference for update of the HR policy.

The CBOH, in consultation with the MOH, did develop the 10-year Human Resource Plan in 2001, which laid out the staffing situation at that time. It made projections for pre-service training intakes required to ensure that the supply of health professionals kept pace with population growth and it recommended actions to support the retention of health workers. Both the MOH and the CBOH recognised that this "Plan" was only a rough first attempt to define realistic and affordable staffing needs for the future. Further effort would be required to develop better approaches to determining these needs in relation to the delivery of the Basic Health Care Package at each level. Nevertheless, the HR Plan did provide guidance and information for decision-making that has not as yet been fully utilised.[3]

The Government of Zambia is in the process of meeting the HIPC completion point conditions formulated by the IMF and World Bank. One of the conditions is to reduce the expenditure on personal emoluments for the civil service. The target is not more than 8.1% of GDP spent on Personnel Emoluments (PE); currently expenditure on PE is about 9.1%. In order to achieve this, the Government has imposed measures, like a hiring freeze, a ban on promotion and salary increase on the government sector. Only in exceptional cases may new civil servants be hired (e.g. when replacing somebody who has left the service).

The impact of the hiring freeze is that despite the staff shortages that District and Hospital Boards are facing, some health workers remain unemployed. Some District Health Boards use the grant for recurrent costs to pay salary advances to health workers, who cannot be put on the payroll. Recent information is that the hiring freeze may be lifted for certain cadres in the health sector, allowing for hiring more technical staff. Lifting the freeze would allow districts and hospitals for reallocation of funds to recurrent costs again.

[2] Ministry of Health (2004). A synopsis of the current staffing crisis and outline proposals for action.

[3] Ministry of Health (2003). National Health Strategic Plan 2001-2005 Mid Term Review Report. Lusaka, Ministry of Health. pp 89-90

The National Decentralisation Policy was launched in September 2004. Under the policy the Government will gradually devolve all functions, including primary health care delivery systems, to local government. Secondary and tertiary services will continue to be provided under the central government. The Policy acknowledges the need for greater decentralisation of the HRM/D function, particularly appointments, promotions and disciplinary practices to improve service provision. It proposes the formulation of policies and practices to improve and strengthen HRM/D. In practice, this could mean that HRH in district health services is transferred to local authorities.

Key policy issues:

- *The structure (establishment) of the government health sector (which includes Government health facilities and Church health facilities) has to be defined, in order to determine the desired size and actual need for health staff.*
- *Government policies on hiring, pay structures, etc. are of importance, as the health sector cannot move on its own in determining conditions of service for its employees.*
- *The decentralisation policy may – in the years to come – drastically change the labour relations in the health sector, shifting from civil service to local authority employment.*

2.3 General staffing situation in Zambia

In the absence of an approved structure (establishment) for the Zambian health service, it is difficult to report on staffing shortages. The figures projected by the MOH in 2001 have not yet been accepted by Cabinet Office and are part of the restructuring process of the MOH. A complicating factor is that in the context of restructuring of the civil service, the government aims at trimming down to size of the civil service and reducing the salary burden for government.

Table 1 shows that staff shortages based on the projected establishment of 2001. Vacancy rates for doctors, nurses and clinical officers are all around the 50% mark, with shortages of only about one third for paramedics and administration.

Table 1: MoH/CBoH vacancies and vacancy rates by cadre using the projected establishment figures of 2001

Staff Cadre	Projected Establishment	Staff in- post 2004	Vacancies	Vacancy rate
Doctors	1266	646***	620	49%
Nurses	16732	8706	8026	48%
Clinical Officers	2620	1161	1459	56%
Paramedics	2914	1865	1049	36%
Administration *	16868	11068	5800	34%
TOTALS **	40400	23446	16954	42%

Source: Adapted from Table 9 in Synopsis of the current staffing crisis, MOH 2004

* This heading encompasses all other categories not quoted separately

*** Minor variations between this and similar tables elsewhere may be accounted for by timing and the inclusion or exclusion of certain HQ posts.*

****In the statistics done for this Mid Term Review the number of doctors was found to be 703, which brings the vacancy rate to 44%.*

However, whichever measures are used for comparison, the present staffing levels appear to be too low to provide the minimum health services as defined in the essential health package. The proposed structure (establishment) of the MOH is based on the essential health package, which does not yet include HIV/AIDS related activities. The HIV/AIDS workforce study of 2004 estimated the consequences of scaling up various programmes and calculated the need for hundreds of additional health workers by 2007. Table 2 shows the projected impact on selected cadres only. Given the lead time for training health workers, it is clear that such numbers cannot be made available, unless at the expense of regular health services.

Table 2: Selected staff requirement to scale up HIV/AIDS services in Zambia

Staff category/service	Additional FTEs required	
	10,000 patients	24,420 patients
Doctors	13	31
Nurses	13	31
Pharmacy technicians	15	37
Lab technicians	32	77
Total	73	176

Source: Adapted from Table 55 in Huddart et al. The Zambian HIV/AIDS workforce study: preparing for scale-up, April 2004

Losses

A survey was carried out on staff losses between January 2003 to June 2004. Although the numerical losses for certain establishments were quite dramatic, the average annualised rate of attrition was 4.48% for the total workforce.

Table 3 shows that the majority of losses were due to deaths (38%) closely followed by resignations (32%).

Table 3: Reasons for staff attrition between January 2003 and June 2004

Reason for Attrition	No	%
Retired	**55**	**10**
Resigned	**181**	**32**
Term Cont.	**0**	**0**
Dismissed	**67**	**12**
Deceased	**209**	**38**
Cont. Expired	**15**	**3**
Transferred	**28**	**5**
TOTALS	**555**	**100**

Source: Ministry of Health (2004), A synopsis of the current staffing crisis and outline proposals for action.

Unfortunately only about half of the dataset of the staff losses survey has information on the age, sex and length of service of the staff lost to the service. However, an

analysis of this data shows that the majority of resignations (voluntary losses) take place in the first five years of service – (58% n=53) for females and (62% n=23) for males (see Table 4).

Table 4: Reasons for staff losses by length of service and sex

Sex			Length of service in years					Total
			0-2	3-5	6-10	11-20	21-40	
Female	**Reason**	Absconded	0	3	1	5	1	10
		Contract Expired	0	0	0	1	1	2
		Deceased	2	10	8	19	10	49
		Dismissed	1	1	1	1	0	4
		Resigned	10	21	9	8	5	53
		Retired	1	2	0	2	22	27
		Retiring	0	5	0	0	0	5
		Secondment	0	1	0	1	0	2
		Transferred	1	6	0	4	1	12
		Unpaid leave	0	1	1	0	2	4
	Total		15	50	20	41	42	168
Male	**Reason**	Absconded	0	4	0	1	0	5
		Contract Expired	0	1	3	0	0	4
		Deceased	2	11	7	8	7	35
		Dismissed	2	10	0	2	1	15
		Resigned	3	11	8	1	0	23
		Retired	0	2	3	2	6	13
		Retiring	0	3	0	0	0	3
		Study leave	0	1	0	0	0	1
		Transferred	7	0	0	1	0	8
		Unpaid leave	0	0	0	2	0	2
	Total		14	43	21	17	14	109

Source: Data extracted from MoH database on attrition (December 2004)

Distribution

The staffing situation in rural areas is worse than in areas along the line of rail[4]. Health centres in remote areas are rarely staffed according to minimum levels (CO, ZEN/ZEM, EHT). In some remote districts, more than 50% of the RHCs have only one qualified staff. In these districts there are also some RHCs without qualified staff at all. However, the staffing situation varies from district to district: some remote districts are able to have reasonable numbers of staff in the centres (though not always with the right skills mix).

According to informants, the living conditions are a major factor in retaining staff. In remote areas there is often no electricity or water in the houses of staff and the road communication is very poor so access to essential commodities is difficult. Access to information is also limited and often the "intellectual" environment is not challenging. Chances of getting good education for children are limited. From the interviews it transpired that especially younger health workers are no longer ready to accept such

[4] In Zambia "the line of rail" refers to the more urbanised areas near the railway line from Livingstone to Lusaka and the Copperbelt.

conditions. The workforce in remote areas does not benefit from an inflow of younger staff.

Salaries

A major factor in the attraction and retention of staff is the level of the salary. Despite salary increases over the years, public sector pay had fallen in value between 1975 and 2000 by between 85 and 90%[5]. Table 5 shows a recent comparison between government, NGO and private sector salary levels for selected categories of staff (though this does not include additional allowances and benefits). The challenge for government to retain its staff can easily bee seen.

Table 5: Average Annual Salaries Paid (US$) by: Service Provider Type

	Government	NGO	Private Sector
Doctor	7,525	9,240	17,050
Clinical Officer	1,915	3,400	no data
Midwife	1,900	no data	2,500
Nurse	1,865	2,295	no data
Laboratory Technician	1,915	2,800	6,350

Source: Huddart J. et al. The Zambian HIV/AIDS workforce study: preparing for scale-up, April 2004

2.4 Doctors in Zambia

2.4.1 Numbers of doctors

According to the Medical Council of Zambia there are 1077 medical practitioners on full registration (Annual Report 2003). However, the number of practising doctors may be lower, as doctors in administration, doctors working abroad or doctors who finished their contracts may retain their registration.

Table 6: Medical doctors in Government Health Services in Zambia (February 2005)

	Non Clinical	District and Provincial Hospitals	Tertiary Hospitals	Total
Zambians	34	140	217	391
Non-Zambian	3	165	144	312
Totals	37	305	361	703

Source: Head count Ministry of Health 2005

Table 6 above shows that 36% of the Zambian doctors works in a district or provincial hospital (43% of all doctors). More than 51% of all doctors work in one of the tertiary hospitals in Lusaka, Kitwe or Ndola.

Table 7: Medical doctors in private practice in Zambia in 2004

[5] Valentine, T. (2002). A medium-term strategy for enhancing pay and conditions of service in the Zambian public service.

	Full-time Private Practice	Part-time Private Practice	Totals
Zambians	125	170	295
Non-Zambian	136	85	221
Totals	261	255	516

Source: Medical Council (October 2004)

Table 7 shows that there are nearly as many Zambian doctors working in private practices in urban areas, as there are Zambian doctors working in districts or provincial hospitals. The average population:doctor ratio in Zambia is 15,303 inhabitants per doctor; with as extremes Lusaka where the ratio is 5,435 and Northern Province where the ratio is 57,213.

The Medical School of the University of Zambia started in 1968 with 12 students. For many years the average output was around 40 doctors per year. The intake has now increased to 80 doctors per year. Because of the long lead time, this has not yet resulted in a significant increase in output of the medical school. Recent figures of the MOH over the last 18 months indicate that attrition rates are higher than previously estimated in the 10 years' HRH plan (see Table 8 below).

Table 8: Projected number of doctors for 2004 and loss rates vs. actual number and loss rates in 2004

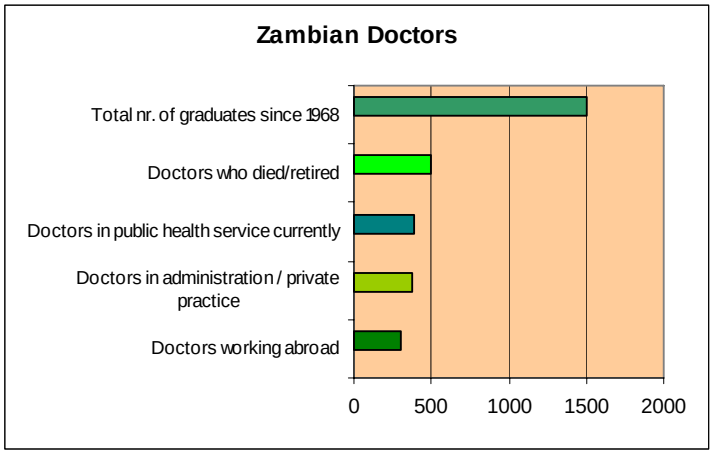
Staffing	2000	2004 projected (% loss projected)	2004 actual (% loss 2004)
Doctor	698	757 (4.2%)	646 (7.6%)*

Sources: Based on Ministry of Health (2001): National 10-year human resource plan for the public health sector and Ministry of Health (2004): A synopsis of the current staffing crisis and outline proposals for action.

* The number includes foreign doctors

Around 1500 doctors have been trained in total, of whom 391 are working at this moment in public health sector. Others work in administration, education or in private practice (295 in 2004). Of the 1500 trained doctors, 500 may have retired or died. Based on interviews, rough calculations and "guestimates", this mission assumes that maybe 300 or more Zambian doctors are working abroad. In the period Jan 2002 – June 2004 31 Zambian doctors requested the Medical Council of Zambia for a statement of good standing, necessary for working abroad. However, some doctors may have obtained jobs overseas without this statement, so this figure may be an underestimate.

Figure 3: Estimated distribution of Zambian doctors



Source: Koot, J., V. Mukonka, et al. (2004)

Zambia has bilateral agreements with Nigeria, Cuba, China and the Netherlands for provision of medical doctors to the country. The doctors from Cuba and China are employed under local conditions of service in Zambia. The inducement allowance which Zambia used to pay to expatriate doctors was been abolished in 1995. The Nigerian government pays travel costs, salaries and allowances to their doctors and the Netherlands all costs, except basic salaries, which are paid by Zambia. Zambia also allows individual doctors from other countries to apply for jobs. Currently the majority of expatriate doctors are from Congo, Rwanda, Nigeria, the former Soviet Union and Asia (see Table 9).

Table 9: Doctors in public hospitals in Zambia by nationality (February 2005)

	Zambia	DRC	Rwanda	Nigeria	Other Africa	East Europe	Former SU	Asia	Other	On Training	TOTAL
District Hospitals	88	28	7	7	0	6	4	3	19	0	162
Provincial Hospital	33	23	1	6	2	2	26	10	6	3	112
Central Hospital	217	61	0	3	6	3	45	25	1	0	361
Lusaka Urban Health Centres	19	1	0	0	3	0	4	4	0	0	31
Non-Clinical Functions	34	0	0	0	0	1	0	0	2	0	37
Total	391	113	8	16	11	12	79	42	28	3	703

Source: headcount MOH 2005

In conclusion, the shortage of doctors in Zambia is obvious; the number is far below the by WHO recommended number of 10 doctors per 100,000 population. However, this shortage mitigated because of influx of doctors from other countries, showing the effect of the global market for medical doctors.

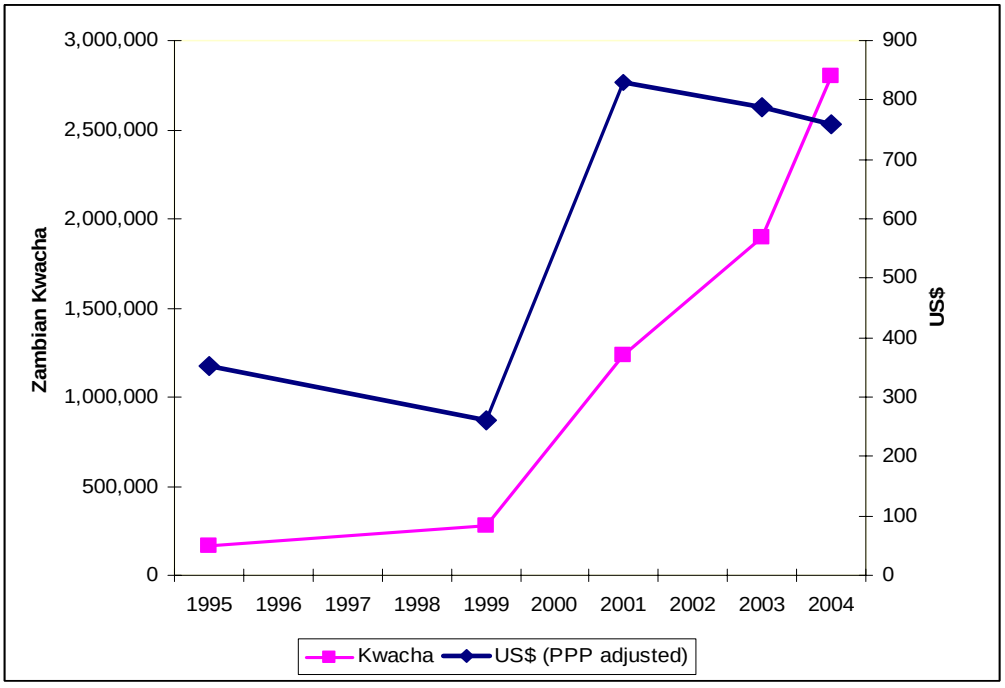
In Zambia there is an absolute shortage of doctors, compared to WHO standards and compared to the proposed establishment of the MOH. The shortage in rural areas is much more serious than in urban areas (where there is a concentration of doctors in public health facilities as well as private health facilities).

2.4.2 Salary trend of doctor working in Zambia

The last 8 years the financial situation of Zambian doctors working in government services has improved. The salary of a doctor working in district level has increased over sixteen fold in Kwacha value between 1995 and 2004 (see Figure 4). When adjusted using purchasing parity power in USD the increase in real terms is only double.

This salary level has not only made it more attractive for Zambian doctors to remain in the country, but also has attracted medical officers from abroad, e.g. the Democratic Republic of Congo and the countries of the former Soviet union, notably Russia and Uzbekistan.

Figure 4: Salary trends of medical doctors in Zambia in Kwacha and USD (PPP adjusted)



The salaries of doctors are high in comparison to paramedical staff, but low if compared with the private sector salaries (see Table 5).

2.5 Nurses in Zambia

Nurses and midwives (both registered and enrolled) constitute the largest (70%)[6] of the professional groups. The total number of nurses and midwives in the public service is growing slightly, in line with the projections of the 10 year HRH plan of 2001 (see Table 10 below). The actual loss rate of 3.5% (estimates over the year 2004) is lower than the rate used for the projections in 2001. As the figure is not disaggregated by type of nurse, it is possible that loss rates for Registered Nurses might have been higher than the average 3.5%. As the proposed MOH establishment of 2001 for nurses is 16,732, there is a shortfall of more than 8,000 nurses.

Table 10: Projected number of nurses and losses for 2004 vs. actual number and losses in 2004

Staffing	2000	2004 projected (% loss)	2004 actual (% loss 2004)
Nurse (all)	8,500	8,702 (7%)	8,706 (3.5%)

Sources: Based on Ministry of Health (2001): National 10-year human resource plan for the public health sector and Ministry of Health (2004): A synopsis of the current staffing crisis and outline proposals for action. Note that a higher attrition rate of 5.3% has recently been given (see Ministry of Health (2004): Human Resource Crisis in Zambia, A Paper For The High Level Forum Abuja, December 2004.)

The nurses are the most commonly found health professionals at the sub-district level in rural health centres and health posts. It was reported that many of nurses in these rural facilities are male, though it was not possible to disaggregate the data to confirm this. In many of the rural facilities the nurses are the only professionals available, performing tasks of diagnosis and treatment of patients, as well as tasks of environmental health and sanitation. An Integrated Competence-based Training (ICT) programme has been developed. It gives all of the front line health cadres (Clinical Officer, Nurses, Environmental Health Technologists) basic competencies in the delivery of the entire health package at sub-district level.

The general perception is that the exodus to the private sector and overseas is depleting the number of nurses. Although the absolute number is not decreasing, there may be a number of reasons why there is a perceived crisis in Zambia:

- The number of health facilities has increased over the last years[7]
- The workload has increased, especially because of HIV/AIDS related activities[8]
- More nurses work in administration in hospital and districts, and therefore do not contribute directly to patient care
- The maldistribution of staff across the country may have resulted in gaps in certain areas, maybe as a result of abandoning centralised posting
- The number of chronically ill staff (or staff on leave to care for chronically ill) may have increased over the last years, resulting in fewer effective full-time equivalent nurses available to provide patient care.

[6] See Table 9 in Ministry of Health (2004): A synopsis of the current staffing crisis and outline proposals for action.

[7] According to synopsis of current staffing crisis (Dec. 2004), 140 new facilities have been opened in the last 10 years.

[8] See table 9 in Huddart et al. The Zambian HIV/AIDS workforce study: preparing for scale-up, April 2004

2.6 Paramedical Cadres in Zambia

Clinical officers have always been an important cadre for medical services in rural health facilities, also rural hospitals.

The Medical Licentiate Course, which offers to Clinical Officers an opportunity for upgrading, was started in 2002. This training prepares them for operating autonomously in small rural hospitals or big health centres. In the 10 year HR plan it was foreseen that due to attrition and upgrading the number of clinical officers would reduce by 23% between 2000 and 2004. In fact there was only a 9% reduction, due to increased intake into the Clinical Officer Training and probably due to reduced attrition. Nevertheless the number of clinical officers is actually falling (see Table 11), while the need is increasing. Factors affecting productivity in relation to direct patient care (for example working as administrators, others are on study leave, chronically ill) are similar to those for nurses and the staffing figure does not accurately reflect the actual number working in clinical practice.

Table 11: Projected number of clinical officers for 2004 vs. actual number in 2004

Staffing	2000	2004 projected (% loss)	2004 actual (% loss 2004)
Clinical officer	1,264	981 (7.7%)	1,161 (4.1%)

Sources: Based on Ministry of Health (2001): National 10-year human resource plan for the public health sector and Ministry of Health (2004): A synopsis of the current staffing crisis and outline proposals for action.

Note that a higher attrition rate of 5.3% has recently been given (see Ministry of Health (2004): Human Resource Crisis in Zambia, a Paper For The High Level Forum Abuja, December 2004.)

Clinical officers not only perform a role as junior clinicians. Following specialist training, they also perform specialist functions in anaesthesia, ophthalmology or psychiatry. There were no statistics available for the specialist clinical officers. In interviews, the shortage of anaesthetic clinical officers was frequently mentioned.

With regard to other paramedical staff no figures are available. However, during the review the shortage of laboratory technicians, laboratory technologists, radiographers, etc. in rural areas was frequently mentioned.

> The staff shortages in the public health sector in Zambia are considerable, even though the official structure is not defined. Future developments in health service provision will further increase the demand for health staff. For all cadres, there is also a distribution problem, leaving the rural areas underserved.

3 Retention of Zambian doctors

3.1 Retention Scheme Objectives and Set-Up

The pilot of the Zambian Health Workers Retention Scheme, starting with doctors, commended in September 2003, after approval by CBOH and MOH. It also received approval from Cabinet Office as a pilot for its broader public sector reform programme.

Objectives and scope of the scheme
The retention scheme aims at improvement of service delivery, increasing the potential to achieving the Millennium Development Goals (MDGs).The scheme will initially be targeted at the critical staff (doctors) to serve the rural and underserved parts of Zambia contributing to:

- Reducing child morbidity and mortality
- Improving maternal health
- Combating HIV/AIDS, malaria and other diseases

Target areas for the programme
The districts in Zambia have been categorized from A to D with districts under D being the most disadvantaged or extremely rural (see Annex 5). Most districts in Western Province, North-Western Province, Luapula Province and half of the districts in Northern Province are classified as extremely rural. The retention scheme will only apply for rural and extremely rural districts (category C and D).

Key elements of the retention scheme

- The employee will serve a fixed period of 3 years in the rural area.
- The employee will receive a salary equivalent to his/her substantive grade as provided by the Ministry of Health/Central Board of Health.
- The employee will be paid and additional rural hardship allowance equivalent to Euro 200[9] per month for category C and Euro 250 per month for category D districts.
- Central Board of Health will pay an education allowance of Euro 1350 per year per natural child (aged 5-21 years) maximum of 4 children per contract upon submission of receipts.
- The Central Board of Health will provide funds equivalent to Euro 2500 per contract to the benefiting District Health Board to renovate/upgrade the accommodation of the employee, upon submission of an acceptable housing plan.
- The employee will be eligible for post graduate training in the relevant postgraduate course at the expiry of the contract.
- The employee shall accumulate an equivalent of 3 monthly rural hardship allowance per contract year worked, after a minimum of 3 years deployed in a category C or D district. This support will go towards postgraduate training.
- The employee shall be subjected to annual appraisal of performance and identification of training needs for capacity building.
- The employee will be entitled to a loan (for e.g. a car or a house), maximum of 90% of the 3 years rural hardship allowance and eligibility will be after 6 months of service under the contract.

[9] Due to the high rate of inflation in Zambia, rates were agreed in Euros. The current exchange rate is €1= ZMK6133.44 (as of 01/02/05)

- By signing the contract, the employee agrees at all times to competently, faithfully and diligently perform such duties as the Central Board of Health may from time to time require, assign or order the employee to perform and shall do the utmost of his/her ability to promote the interest of Central Board of Health in its implementation programme of the Health Reforms.

The Retention Scheme for medical doctors is a pilot in preparation for a retention scheme for a wider group of health workers. During the preparation of the Retention Scheme there was wide consultation with all stakeholders. The Ministry of Health and Collaborating Partners were consulted, as well as professional bodies, and the Association of Junior Doctors. The pilot phase of the scheme provides funding from the Netherlands Government for contracting 80 local Zambian doctors during a period of 3 years.

3.2 Implementation of the retention scheme

3.2.1 Preconditions for implementing the scheme

Zambia has a policy of obligatory rural posting for doctors of one year after completing the internship, before these doctors are free to take up any job of their preference. Before the ZHWRS started, enforcement of this policy was erratic. Doctors, who were forced to go to rural areas, often preferred to resign from government rather than serving under poor conditions. The strategy of many young doctors has been to continue working for some time in a tertiary hospital until they find an attractive post in government service, or finding a postgraduate training opportunity.

In order to initiate the retention scheme, collaboration was established between MOH, CBOH, Medical School, tertiary hospitals, Zambian Medical Association, Resident Doctors Association, Zambian Medical Council and other stakeholders. The result of this collaboration was:

- The internship in tertiary hospitals was extended from 12 to 18 months, and more intensive supervision was provided during that period
- Tertiary hospitals initiated a policy to terminate working relations with doctors who recently completed their internships and to direct them to CBOH for rural posting
- CBOH and provincial health offices actively pursued posting of doctors to rural areas.

3.2.2 Engagement of doctors in the scheme

In total 68 doctors have been contracted under the retention scheme, between September 2003 and December 2004. About 15 doctors were already working in the districts eligible for the retention scheme, and were incorporated into the scheme. The others were recruited from elsewhere. Two doctors have subsequently been transferred to districts not eligible for the scheme, one left the scheme because he went on study leave abroad, and one doctor has passed away. These four are not included in the statistics below.

Table 12: Doctors on scheme in January 2005 by province and district category

	Category C	Category D	Total
Central	6	0	6
Copperbelt	5	0	5
Lusaka	0	0	0
Northern	2	5	7
North-Western	8	0	8
Southern	11**	2	13*
Eastern	7	1	8
Luapula	3	0	3
Western	7	7	14
Totals	49	15	64*
Percentage	77%	23%	100%

Source: CBOH data (31 December 2004)

* Included 2 people on study leave within the country

** In two B-type districts, remote Mission Hospitals are categorised as C-type sub-district

It can be seen in

Table 12 that category C districts are better filled than Category D. This is partly because a number of the districts in category D (about one third) do not have hospitals and are therefore not a priority for posting more than one doctor to under this scheme. But it is also partly because some doctors request a posting where they are able to maintain their surgical and obstetrical skills. Another factor is that when some doctors first see their remote posting site they return to the CBOH to request a more moderate posting.

Table 13 shows that there is a variation of doctors per district across the different provinces. The figures for Western and North-Western are higher, because 11 doctors have been posted in the provincial hospitals. In North-Western none of the Zambian doctors is working in a district hospital. The density figures would be higher if expatriate doctors working in the same districts were included.

Table 13: Average density doctor on the scheme per participating district by province

Province	Total # districts in scheme	Average doctor density per district
Western	7	2.1*
Southern	7	1.9
Copperbelt	3	1.7
Central	4	1.5
Eastern	7	1.1
North Western	7	1.1*
Northern	11	0.6
Luapula	6	0.5
Lusaka	2	0.0
Total/average	54	1.2

Source: CBOH data (31 December 2004); MOHHRIS

* Includes doctors posted in provincial hospitals in Mongu and Solwezi

The flows into and out of the scheme are shown in Table 14. The biggest influx was at the start of the programme, when about 15 doctors already in post were incorporated in the scheme in September 2003. The next biggest influx occurs in the third quarter, which coincides with the completion of the internship period, now 18 months. A further big influx is expected towards the end of 2005 with the completion of the current group of interns. This predictability of the main inflows of candidates for the scheme allows the administration to be fully prepared for it.

Table 14: Number of doctors joining and leaving the scheme by quarter[1]

	09-12/2003[2]	1-3/2004	4-6/2004	07-09/2004	10-12/2004	Total
Join D	7	0	3	1	1	12
Join C	37	3	11	4	1	56
Leave D	0	0	0	0	0	0
Leave C	0	0	4	0	2[3]	6
Total joining	44	3	14	5	2	68
Total leaving	0	0	4	0	2	6
Cumulative total	44	47	57	62	62	

1 Including those on study leave; date of engagement for 1 doctor missing
2 4 month period
3 Including one death which occurred in December 2004
Source: CBOH data (31 December 2004)

The majority of doctors on the scheme are in their late twenties and early thirties (see Table 15). For most of those interviewed this was their first job after completion of internship in a tertiary hospital. These doctors are fulfilling their obligatory rural posting. A positive characteristic of this group is that they are more likely to be energetic and enthusiastic. They are less likely to have family obligations. A more challenging aspect is when young doctors take on management responsibility for more mature and senior staff (in length of service) who often resent being managed by someone who is younger and inexperienced. The retention scheme aims to target those with critical skills for the overall health system. Whilst the doctors are clearly needed for their clinical skills which are critical to the health care system, health services management can be (and often is) done by non-clinicians. There clearly is a question to be debated about the best use of the time and skills of these doctors which goes beyond the confines of this review.

Table 15: Age range of doctors on the scheme*

Age range	Number
26-30	15
31-35	29
36-40	5
41-45	2
46+	3
Total	54

* Data not available for all doctors
Source: CBOH database on doctors participating in the scheme

The majority of doctors on the scheme are male and are married (see Table 16). There is only a 10% participation in the scheme by females. This compares with an overall

female participation rate at Grade MDS04 of 28% (n=293)[10]. Rural postings amongst other cadres also appear to be dominated by males. This is partly due to the cultural and administrative norm of a woman following the posting of the husband. However, special attention should be given to trying to understand the different needs of females in rural areas when considering what kind of support would make the posting more attractive.

Table 16: Marital status of doctors in the scheme by sex

Sex	Married	Separated	Single	Total
Female	3	0	1	4
Male	34	1	14	49
Total	37	1	15	53

Source: CBOH database on doctors participating in the scheme

During the Mid-term Review 20 doctors on the scheme were interviewed. The majority of the doctors interviewed indicated that without the incentives they would not have come to the district where they were working. They would have tried to find more attractive postings (A or B districts), or would have left the government service. Some doctors indicated that whilst this incentive scheme was not the main factor, it was an important contributing factor in deciding to accept the posting. A few doctors were already in the rural area, or were planning to go to the place they were posted anyway.

In most the rural districts in the country, there are now at least two doctors (Zambian and/or expatriate) now contributing to the aim of better distribution of doctors. A few districts (without hospital) still remain without doctor. In Western Province and Northern Province all Dutch doctors who have left in recent years have, as a result of the scheme, been replaced by Zambian doctors, thus contributing to the Zambianisation aim. In addition to the improved staffing situation, there is a general view that the advantage of Zambian doctors is their knowledge of local languages and understanding of the local culture.

There is no evidence that the scheme has managed to bring Zambian doctors back from abroad. Anecdotal evidence shows that Zambian doctors in neighbouring countries have made enquiries about the conditions and consider return and that in Botswana they are puzzled as to why the supply of Zambian doctors has recently dried up.

The scheme offers opportunities for contracting 80 doctors (based on the defined assumptions regarding costs per element) and therefore can accommodate more contracts, when doctors apply for including in the retention scheme.

> The ZHWRS has contributed to the increase of Zambian doctors in the rural areas of the country. Most of the doctors are young doctors, on obligatory rural posting. They were recruited from one of the tertiary hospitals.
> The scheme has contributed to redistribution of doctors across the country.

[10] Source: MOHHRIS. Though this figure might be slightly exaggerated due to the fact that females are less likely to be promoted to the higher ranks. To be more accurate, a comparison should only be made with those at Grade MDS04 between the ages of 26 and 35.

3.2.3 Preparation of the doctors

The general profile of the people joining the scheme is a young doctor who has just completed his/her internships or has worked for one year in a tertiary institution after internship. Their experience in district hospitals is minimal or non-existent. Most doctors feel that they can handle paediatric and medical cases sufficiently. The lack of surgical and obstetric skills is recognised as a problem. For example, most doctors cannot perform a forceps or vacuum extraction, which leads to unnecessary caesarean sections. The extension of the internship from 12 to 18 months – with more attention for surgery and obstetrics – is seen as important in improving the preparation. The internship now uses a logbook that checks procedures which the doctors have to master before going out to rural areas. Current internship focuses doctors more on learning surgical skills, as they know that rural posting will be part of their career.

The retention scheme made provision for the preparation of doctors in provincial hospitals. This has been realised only partially in Western Province, with the support of an expatriate Technical Assistant. In other provinces such support has not been possible, to a large extent because these hospitals struggle with shortages of consultants, who could take up this responsibility. Doctors interviewed indicate that they would welcome further technical support while posted in rural areas. Doctors coming from a tertiary institution do not have any knowledge about the systems applied in the district, like planning, FAMS or HMIS. They know little about the preventive health programmes in the country. The component in their medical training on community health is said to focus too much on clinical medicine.

In addition their knowledge of administrative procedures in hospitals or districts is insufficient. Nevertheless, most doctors are made medical superintendent or even District Director of Health, almost immediately after arrival in the district. The consequences of this have been discussed earlier.

Nearly all doctors interviewed come from urban areas and have spent most of their life in urban settings. Their reference point is city life. As they have no relevant preparation, coming to remote places is a culture shock for some of them.

> The preparation of doctors for work in rural areas has improved over the last years through longer and better structured internships. The preparation of the doctors in the provinces as envisaged in the scheme has not been implemented.

3.2.4 Management of the scheme

The scheme is managed by the Directorate Technical Support Services in the CBOH. Administration is handled by accounting department and the HR departments in the CBoH. There is currently no involvement of the MOH. The scheme has a steering committee, with representatives of stakeholders, including doctors contracted under the retention scheme. At provincial level the scheme is managed by Provincial Health

Director and the human resources specialist, while there is little involvement of other members of the provincial team. Within the district, other members of the DHMT hardly have knowledge of the scheme except in relation to the renovation of houses for the doctor.

There are positive and negative experiences with the management of the scheme. Doctors were brought into the scheme before the management systems were fully developed. There were numerous teething problems. But even recently, there are examples of delays of joining the scheme, because forms went missing at different levels of the system. Some payments are late and most procedures are tedious (e.g. renovation of the house) leading to dissatisfaction among the doctors. The doctors complain of too much red tape and unnecessary bureaucracy in the scheme.

Communication about the scheme has been limited. Doctors in the scheme do not fully understand the package, especially what the support to postgraduate training could entail. Other stakeholders also had inadequate knowledge of the scheme which has resulted in inaccurate rumours being circulated and some unhappiness amongst co-workers (other doctors and other cadres).

Understanding the contract

Some doctors, who have just started work under the scheme, understand the scheme as an extra financial incentive, on top of the mandatory rural placement. They consider the contract as a one-year contract, which can be prolonged if the doctors so wishes. In general, doctors, who were already working in the rural area and who were absorbed by the scheme, do not wish to complete the three years contract. Three of them have already left for studies; several are planning to leave soon. However, most doctors, who were freshly recruited by the scheme, intend to complete the three years' period. One doctor has absconded and another doctor has not shown up for work for several months. Some doctors questioned the legal standing of the contract and thought that wording in the contract is too vague. Some reported that in verbal negotiations with the CBOH a more positive picture was given of the scheme than the reality proved to be.

The package

Hardship allowance
The hardship allowance is highly appreciated and well-understood by the doctors in the scheme. The allowance is roughly 50% of the basic government salary for doctors. Some complain that the amounts were promised in Euros, but paid in Kwachas, without taking the inflation into account.

Education allowance for children
Although most of the doctors are married, if they have children of their own, they are mostly of pre-school age. Only few doctors interviewed receive an education allowance, as only biological children are accepted by the scheme. Consequently, the budget for this element is not fully utilised (calculating an average of one child per doctor). However, in line with Zambian culture all doctors have responsibility for education of children, e.g. orphans of older siblings, their younger brothers and sisters. Doctors think that this responsibility should be honoured as well. Now, for most doctors the education allowance is a meaningless incentive.

Car loan
There is a strong expectation that in keeping up with their status a doctor should be able to have the use of a vehicle. It was therefore thought that a car loan would be an attractive incentive. The hardship allowance for 30 months can be converted into a loan which can be obtained after 6 months of service. Five doctors so far accessed a car loan (though other requests are in the pipeline). This is either because the doctors interviewed just joined the scheme, or because they do not find the scheme attractive.

There is a slight irony with this part of the scheme to encourage doctors to work in remote areas. Because of the locations of many of the posts, many doctors really need to buy a four-wheel drive vehicle, but the loan is only enough to buy a normal saloon car.

The procedures developed under the system are – in the eyes of the doctors – too bureaucratic. The fact that the car remains registered under the DHMT, is considered to be a negative factor. The delay in setting up the system of manage the loans means that fewer doctors in the initial group will be able access the loans than was planned for. At the same time, doctors can also access a loan scheme for civil servants, though the funding for this scheme is limited; some doctors prefer using this government loan scheme.

As few loans have been taken, the cash flow in the scheme is lower than expected. Given the continuous depreciation of the Kwacha against the Euro, there is a considerable saving made on this element of the scheme.

Mortgage loan
None of the doctors has accessed the loan. The conditions formulated for this loan are considered to be very unattractive, because the interest rate is too high. The cumulative amount of the hardship allowance is too small to make a real contribution towards buying a house, so a further commercial loan must also be taken. The mortgage conditions would leave the doctors with a financial burden after completing the scheme, which is more or less equivalent to their net salary.

It must be recognised that setting up a loan scheme – both for vehicles and for housing – is a complex and risky business. Setting up the necessary controls is also likely to be time-consuming and getting everything ready in time could have delayed the start of the retention scheme. The initial cautiousness of the doctors in taking out the loans will also have contributed to the slow uptake of this component of the scheme. Activity may pick up once doctors see that some of their colleagues are driving around in vehicles obtained through the loan scheme.

Postgraduate training
For nearly all doctors interviewed, postgraduate training is essential for their career development. The doctors understand that they get some financial support from the retention scheme, when entering postgraduate training. At the same time, they are expecting to get easier access to postgraduate training.

Most doctors most would prefer to do their postgraduate training abroad, either in South Africa, Europe or the USA. There are numerous scholarship programmes in parallel to

the retention scheme, which doctors could try to access. In fact, some are trying to access these scholarships whilst still under the under the retention scheme contract and will not complete the 3 years if offered a scholarship. The MOH and CBOH are negotiating with those managing the scholarship programmes to harmonise with the retention scheme and make fulfilment of the obligatory rural posting a condition for obtaining scholarships. However, this can only be realised on the basis of mutual understanding.

Housing
District Health Management Boards and Hospital Management Boards can obtain money from the scheme for maintenance of institutional houses, where doctors stay. Initial procedures were very tedious and complicated, leading to delay of maintenance. Now, in practice, maximum lump sum amounts are paid, to be accounted for through the regular accounting system.

Financing the retention scheme

The total budget made available for the retention scheme is € 2,348,835 for a period of three years. Of this budget 5% was reserved for overheads and 5% for contingencies. Table 17 shows the budget that was based on the assumption of fees for one child per contract and based on the assumption that all contracted doctors would take up a loan.

Table 17: Budget for the scheme per doctor by category of district

	Average per contract per year	Average per contract per month
C - district	€ 8,083.00	€ 674.00
D - district	€ 9,333.00	€ 778.00

In reality savings are being made because the average child per contract is less than one and few loans are taken up. Together with exchange fluctuations and lower overheads than planned, this adds up to considerable savings. Real costs may be around €500.00 - €550.00 per month per contract.

> Management processes in the retention scheme had to be formulated, while doctors were already under contract. Some of the procedures are complicated, involving many levels (district, province, national) for approval. Administration is not always smooth. The scheme would benefit from simplification and streamlining some of the procedures.

3.2.5 Performance

According to their paramedical colleagues most doctors are performing well in clinical areas, though their limited knowledge in surgery and obstetrics is recognised as a problem. However, the impact on the health service provision – overall objective of the retention scheme – cannot be measured after 18 months of this retention scheme: in Western Province and parts of Northern Province the Zambian doctors replaced expatriate doctors; in Southern Province the number has increased from one doctor to

two doctors per district; the increase has not been so even in Northern Province. There is lower turnover and therefore greater continuity of presence of doctors in rural areas. Some programmes, like ARV require the availability of doctors in the district. According to informants in ARV and TB programmes the impact of the presence of medical doctors is the most obvious. While doctors are retained through this scheme, the other cadres continue their exodus, which is balancing out any positive effect the presence of doctors may have on the district health performance as a whole.

The aim of the scheme is improving the medical service delivery in districts. Nevertheless, about x (y%) of the doctors on the scheme the responsibility of district director of health. A previous study[11] showed that these doctors may spend up to 60% of their time on administration.

In general, doctors interviewed are satisfied with their choice, despite problems with their living conditions and isolation. For most of them it is a new challenge, moving from junior doctor in a tertiary hospital to the most senior position (in qualification) in a district health system. They see this posting as a positive learning experience.

In the design of the retention scheme, it was foreseen that the Annual Performance Appraisal System (APAS) would be used. However, this system – which is part of the PSRP – has not yet been introduced in the health sector. Provincial health officials are not familiar with the system. At this moment, there is no individual performance appraisal at all for doctors under the scheme. There is a general performance appraisal of the hospital and district health services, which includes the services of the doctors. Doctors appreciate this type of feed-back from the provincial team.

The incentives are not tied to performance. Even doctors who have left the station (studies or unauthorised absence) still receive the package. This is not stimulating improved performance.

> The performance appraisal system, which was part of the design of the retention scheme, has not yet been introduced. Even though the number of doctors in rural areas has increased, it is therefore difficult to be sure whether the government is getting value for money for the scheme.

3.2.6 Working environment

Because they lack theatre or X-ray facilities some rural hospitals are in fact no more thatn Rural Health Centres, These facilities are small, with a limited workload for the doctors. Doctors in these areas cannot fully exploit their capacities and fear loosing some skills.

Most doctors, with the exception of the doctors in a mission hospital, a former mine hospital, and one hospital that still attracts support from the Dutch Doctor scheme, complain of obsolete equipment and lack of crucial support staff. Theatre staffs, especially anaesthetists, as well as radiographers and laboratory technicians are in short

[11] Koot J. et al: Evaluation of Dutch Doctors Supplementation Programme in Zambia, November 2003

supply. In general, there is a shortage of registered nurses and to a lesser extent enrolled nurses.

Most doctors are of the opinion that they cannot perform up to the standards, which they learned during their studies. They cannot provide the level of clinical care which they would expect to give to patients. For some doctors this is a reason to leave the retention scheme before the end of contract.
Many doctors find it difficult without professional support e.g. information from the internet, or the ability to consult a senior doctor about complicated cases. Some – who have access to telephones – consult the PHDs when necessary.

> The working environment (staffing, infrastructure, equipment, supplies, etc.) still is not sufficient to allow the doctors to work according to their capacities. The return on in this scheme is therefore not optimal.

3.3 Effects on the provincial hospitals and tertiary institutions

The ZHWRS has led to a redistribution of doctors: junior doctors in tertiary institutions have moved to rural hospitals in Zambia. This redistribution has had an impact on the normal turn-over: at this moment the number of junior doctors in these hospitals is much lower that used to be the case before the retention scheme. But as the Medical School is increasing the output of doctors (to 80), there will be a compensation for this loss.

There has also been an effect on provincial hospitals: for example Kasama general hospital saw an outflow of Zambian doctors, who preferred going out to districts. Other general hospitals, like Livingstone and Choma are faced with a shortage of doctors.
Potentially, the rural posting can affect the M.Med training (specialisation) if the intake of these programmes is disrupted in the coming years. Furthermore, doctors, who have worked for some years in rural areas and who have enjoyed a hardship allowance, may not want to go back to the teaching hospital to work as junior registrar (without any incentive). These doctors may opt for MPH training instead.

The Medical School and UTH would like the option for some of the brightest young doctors to be able to enter into the M.Med programme after internship and to be able to carry out their rural posting obligation after completing their training as specialist. This would at least ensure a minimum supply of specialists.

4 Recommendations for continuation of the ZHWRS for doctors

4.1 Management of the scheme

Simplification of administrative procedures

- Now routines have been established, more decisions can be delegated to the programme manager, instead of the steering committee.
- Some provisions in the contract can be made standard, reducing the need for pro-forma invoices, etc. The house improvement can be a standard 13.5 million subsidy for institutional houses, once per contract (or once per 2 years if contracted doctor leaves early). The education allowance can be a standard amount for every doctor (as all doctors have biological or other children to look after).
- Car loan: the procedure of approval can be simplified and harmonised with the government loan procedure
- In view of the reorganisation of MOH and CBOH, the management of the scheme can be integrated with general HRM in the MOH

Clarification of scheme:

- The MOH/CBOH could have a policy on publicity of the scheme and could make an information brochure, which can be distributed to potential candidates. Also information for the other health workers and general public is necessary.
- The contract should contain unambiguous language (including currency).

Monitoring of the scheme and human resources in general

- In order to have a better insight into the movement of doctors as a result of the scheme, there is need for more detailed information on numbers, ages, careers of doctors, vacancies, etc.
- It is good to institute exit interviews for getting information on reasons for moving to other places, etc.

4.2 Preparation of doctors

Although the 18 months internship programme has been an improvement, there is still need for enhancing surgical and obstetric skills of doctors. The Provincial Hospital attachment is a not realistic option, as in many of these hospitals there are no consultants available. Even the hospitals in Kitwe and Ndola do not have sufficient Zambian specialists to guide the interns. In the future, it may be necessary to expand the retention scheme to trainers/educators. The DFID supported retention scheme for the Medical School has come to an end and the current low level of incentives provided by WHO does not appear to be effective in retaining faculty.

As doctors are often given a responsibility as District Director of Health, it is necessary to increase their knowledge of management and preventive health programmes. A short attachment to PHD office before going out to the district, could be considered to prepare the doctors for these tasks. However, in general, it would be advisable to allow young

doctors to start building up experience in a hospital, before taking up administrative responsibilities in the district.

4.3 Supervision and performance assessment

Regular supervision by consultants would enhance the performance of the doctors in the districts (and probably the clinical care as a whole). The medical school and Zambian Medical Association have indicated that they would be willing to play a role. Some funds could be made available from the retention scheme to try out arrangements.

Doctors who work in a district where the hospital has no theatre could be transferred after one year to a district with a larger hospital, if they want, or have a quarterly attachment to a provincial hospital to update surgical skills.

Performance assessment should be introduced. The APAS system cannot be introduced without preparation of the provincial staff. It may be better to await general introduction in the health services. However, some basic performance management is needed to ensure some return on the investment through the scheme. It is recommended that until the APAS is properly introduced, some simple performance assessment is made by the Provincial Health Director, e.g. by using a checklist, which looks at presence in duty station, personal relations with management in hospital, etc.

4.4 Postgraduate training

The doctors working under the scheme want more clarity about what is offered under the scheme. Career development could be an important part of the retention package, and could be linked to a next phase in the retention programme. It is necessary that the MOH comes to formal memoranda of understanding with as many providers of scholarships to Zambian doctors, as possible, to avoid “poaching” of rural doctors on the scheme. If fulfilment of the rural posting becomes a rule for obtaining any scholarship or sponsorship, it would increase the credibility of the scheme.

With regard to the M.Med programme, it is suggested that some doctors could be exempted of performing the rural posting before starting the M.Med programme, on condition that they perform this posting after completion the programme (in e.g. provincial hospitals).

4.5 Enabling environment

For many doctors, the availability of essential staff, supplies and equipment stands out as an important factor to maintain motivation. Even with the best personal incentives, doctors will not continue to work when they are unable to perform according to standards.

Communication and access to internet were mentioned as very important. It will improve the communication with MOH and CBOH. Access to internet will allow doctors to look up literature for specific problems. Also distance learning programmes can be followed with good internet access. Internationally there are examples where the university provides back-up to rural doctors via internet, e.g. in Tanzania.

Internet via Vi-Sat would provide access for whole district health office. In Tanzania there are examples of DHMTs that started income generating through an internet café.

4.6 Expansion to other areas and other groups of doctors

It has been demonstrated that the shortage of doctors in rural areas is being tackled in an effective way through this retention scheme. However, the scheme for doctors needs further expansion for two reasons:

1) to keep the delicate balance in distribution of doctors over remote rural, rural and urban areas: the shortage should not shift to rural districts or peri-urban districts (B districts)
2) to offer doctors who have completed rural posting an attractive package that keeps them in Zambia, as otherwise the retention scheme is simply delaying doctors' departure from the country.

When posts in remote rural areas have been saturated, doctors in B districts may be given a kind of mini-package of incentives, though this should definitely be less attractive than the package now offered to doctors under this ZHWRS.

Doctors, who have completed a postgraduate training after the rural posting, should be offered a package that is attractive enough to keep them in the country (and in government service). The type of incentives has to be developed in close coordination with this group of doctors. What seems to be very important for more mature doctors is career development opportunities and mortgage loans for constructing/buying of houses.

Definitely, there is need to reconsider the position of provincial hospitals. If indeed the MOH sees those hospitals as referral hospitals for the district hospitals, the staffing of doctors has to be improved, not only in quantitative terms, but also in qualitative terms: the doctors should at least be at a GMO level, preferably even senior registrar or consultant. Expansion of the scheme to specialist doctors in provincial hospitals is therefore recommended.

4.7 Categories of district

The criteria for C or D districts are somewhat arbitrary: they look more at the isolation of the district as a whole, than the district town (where the doctors live). The differences in living conditions are sometimes minimal between certain C and D districts. Already within some B districts mission hospitals have been re-categorized as C, which shows that there is room for interpretation. By and large the categories make sense. However, the criteria for district categories should be made more transparent and the categorisation of district s reviewed on a regular basis. The situation of the district town i.e. where the doctor actually lives could be taken as standard, instead of the district as a whole.

5 Expansion of the ZHWRS to other cadres

5.1 General principles

In a highly mobile labour market an internationally competitive salary for all health workers in government service is a strong instrument in retaining staff. However, given the constraints the GRZ is facing – even with the Medium Term Pay Policy, this is not likely to be realised on a short term. Retention schemes are intermediate second-best solutions.

It was striking to note that in many interviews, health workers mentioned that competent human resources management, which acknowledges the efforts of people and respects their human dignity, is already an important first step in retention. When people get their appointment in time, their confirmation in time, be put on the pay role without delay, get appraised regularly and get promotion when due, get their leave benefits when entitled, already many people feel more satisfied as employee. When a career development is offered, without favouritism or corruption, commitment to the organisation is created. These measures do not need big investments, only competent and committed managers and human resource officers.

The pilot for the health workers retention scheme has dealt with only one cadre (doctors) that is both structurally distinct from all other cadres in the health sector and is relatively small, compared to cadres such as nurses and clinical officers. Replication of a similar package to other cadres is neither feasible and nor affordable.

Increase of the number health workers can be done through distinct interventions (see figure 2, intervention model):

- Increase the inflow ("flooding the market with nurses and other health workers") reduces negative effects of outflow and maldistribution of personnel
- Adding a new cadre of polyvalent health worker, which only finds employment at health post and health centre level and has the right skills mix for primary health care work
- Selective incentives for key personnel reduces the outflow of that cadre (which may be high in demand in the private sector or overseas)
- Selective incentives for personnel in certain locations (e.g. remote rural) enhance more equitable distribution.

Because of the systemic effect on the labour market, each of the interventions can have negative effects:

- increased inflow may be costly and result in unemployment of certain cadres
- cadre with basic training only (polyvalent health worker) does not have a career development perspective and may have a higher drop-out rate
- selective incentives for key personnel may lead to social unrest or shortages under other cadre when too many people develop a career in the area where the incentives are
- selective geographical incentives may lead to redistribution disadvantaging urban areas

Because of both the potential exponential increase in costs and also much greater rivalry between cadres, the thinking about expansion to other cadres needs to be

guided by clear principles. Retention schemes cannot be used on their own to solve staffing problems.

The following principles were used in defining options:

1) *Targeted to areas of critical shortage:* this is obviously important due to the large number of staff in the health services and the implications for costs. It is also important not to spread the incentives too widely; otherwise the required redistribution is unlikely to occur.

2) *Minimise destabilisation of the workforce:* this refers to both potential rivalry between cadres, if one receives benefits and another does not. It also refers to the effect of when incentives are too strong and the resultant draining of one type of institution to increase the staffing of another – for example if the incentives to work in rural health centres become too big, in some more rural districts the hospitals are likely to lose many of their staff. They then become ineffective as referral units for the RHCs.

3) *Incremental expansion of the retention scheme:* based on lessons learnt because of the delicate balance of various segments of the workforce (as referred to above), it is critical that incentives – both financial and material – are introduced gradually and that the impact of the incentives is monitored very closely. Adjustments can be made to the incentive packages introduced early on and lessons can be applied to incentive packages subsequently introduced.

4) *Build on existing initiatives:* the review teams were struck by the number and range of initiatives already undertaken by the District Health Management Teams in certain districts[12]. These included: recruiting and sponsoring people through pre-service training (sometimes CDEs known to be good performers) and subsequently bonding them for several years; improving living conditions through renovation of accommodation, provision of solar panels (where there is no electricity), and provision of transport for both work and social purposes, equity in opportunities for in-service training (workshops, etc.), Christmas gift, bonuses. These schemes are evidence of the kind of entrepreneurial spirit that was envisaged early on in health reforms and decentralisation process. It is therefore extremely important not to overshadow these kinds of initiatives with a large centralised retention programme. In addition, the district health management team generally has a better understanding of where of the critical staff shortages are, and how the shortages should be best managed.

5) *The use of simple, unambiguous systems:* this is to reduce workload on the administration and also to remove barriers and frustration for the beneficiaries of the system.

6) *The use of other strategies to complement the retention scheme:* unless the overall supply of staff is increased, incentives will simply move people from

[12] It should be pointed out that though these schemes were impressive, no formal evaluation had been done to measure the impact and the opportunity costs of using extra resources to support the schemes.

one part of the system to another and create shortages where they came from. The overall supply needs to be addressed by increasing training output; this requires more tutors (extra incentives may be needed for this group or the continued use of volunteers[13]), and more training accommodation. Eventually the overall salary level needs to be increased to attract more people. However there is no point in increasing supply if there are restrictions on recruitment. Improving salary levels and working conditions, and getting people on to the payroll more speedily will also contribute to a reduction in staff losses.

5.2 Priority groups

It was generally agreed among people interviewed that the geographical priority groups were those of the health professionals (clinical officer, nurse and environmental health technician) working at the remotest rural health centres in a district. All 72 districts have remote and hard to staff rural health centres. However, some districts – in line with the categorisation of districts for the pilot retention scheme – should be given priority.

It was also agreed that there may be some critical skills shortages at the district level – especially in the hospital. Where it has been persistently difficult to fill all critical posts – such as a clinical officer anaesthetist, radiographer, or lab technician – the district management may wish to provide an extra incentive to fill the post.

A particular group of health workers which needs special attention is the group of trainers - nurse-tutors, lecturers, etc. - who have an important task of training new health workers. The review team learnt of the serious shortage of nurse-tutors[14], whilst at the same time training schools are being renovated and infrastructure is being extended.

5.3 Elements of the incentive package

The emphasis of the incentive package – particularly for rural posts – should, in line with the principles listed above, be on non-monetary benefits aimed at improving social and living conditions. The mix of the non-monetary elements of a package should be determined by district management, but could include some of the following:

- Renovation/construction of accommodation: the selling of government houses has created serious problems in district towns
- Lighting (solar panels)
- Access to transport – to collect salaries where there are no banks nearby[15] and for shopping. This could be through the provision of motorcycles or the use of the district vehicles from time to time.

[13] The Nigerian government has supplied a number of volunteers to work in training institutes. DFID said that it could investigate the possibility of supplying VSOs, too.
[14] See also Ministry of Health (2004). A synopsis of the current staffing crisis and outline proposals for action.
[15] One group interviewed said they often had to pay up to 100,000ZKW on transport costs just collect their monthly salaries.

- Access to free ARV drugs either for themselves or for dependants. Improving the health of both groups would also reduce staff absence. A general health insurance package, which also covers referral, would be welcomed by many staffs.
- Access to in-service training for all; presently in-service training is pushed by vertical programmes and skewed to certain cadres only.
- Access to distant learning programmes using information technology
- Career development/ support for further training. This should be used judiciously, as through the provision of a higher qualification the strategy will often simply "train the person out of the job".

In addition a small financial benefit in the form of a "critical shortage" allowance should probably be included. The amount would have to be carefully judged both because of budget implications and because of all the elements in the package this risks being the most destabilising of the workforce.

This list was derived from discussions with mixed-sex groups of staff. Given the apparent shortage of females working in remote rural areas and higher general resignation rates in early years of service (see Table 4), a special effort should be made work will all-female focus groups to identify possible gender-targeted attraction and retention strategies.

New staff may be recruited into the system and subsequently retained by financing their pre-service training. The return on investment is secured by the use of a bond.

5.4 Managing and resourcing the scheme

The simplest way of managing and resourcing the scheme is through the well-established channel of the district basket or hospital basket since, in the spirit of decentralisation within the health sector, the scheme should be managed by the district health management team or hospital management team. Additional funds can be provided to the basket, and a ceiling fixed for "recruitment and retention strategies". Plans would be included as part of the overall annual planning process and budgets approved accordingly. Guidelines for the use of these funds would be developed, and strategies would be checked against these guidelines by the provincial health office (a draft checklist is given in Annex 5). This is normal procedure for all use of resources, but it would be particularly important to guard against misuse of incentives.

The basket would need to be increased initially through additional funds provided by Cooperating Partners. Those partners who are unable to contribute directly to the basket could provide resources in kind – such as a large programme of staff housing renovation or even construction, provision of solar panels for motorcycles.

Whilst the emphasis has been on giving the district health management team (or hospital management team) the freedom to manage the scheme, some will also need support with the design and implementation of their schemes. It has already been seen that support can be provided by sharing experiences and recruitment and retention models between districts. Forums for sharing experiences should be established both at the provincial level and at the national level. Districts should be encouraged to monitor recruitment successes and retention achievements closely and to share results so that a national knowledge base on what works and what does not can be developed.

5.5 Long-term developments

For the longer term two issues are important: the government decentralisation and financial sustainability.

The government decentralisation, whereby staff in district health services will be under local authorities, is still in an early process. However, the trend is towards more differentiated personnel management, looking at availability of critical skills and allowing more market-led approach towards human resources. The decentralised approach, whereby responsibility is given to lower levels for designing and implementing incentive packages, would fit in future decentralisation.

Sustainability in terms of managerial sustainability can be achieved through reinforcing human resource management cadres at different levels. The provincial level can play a key role in assisting the DHMTs in developing their HR capacity, but the provincial office needs to be appropriately staffed.. A good monitoring system is needed to assess which strategies work or do not work, and which offer the best return on investment.

In terms of financial sustainability, it may be expected that for the time to come there will be need for donor support, like in other areas in the health sector. Fortunately, there is a growing understanding under cooperating partners, that human resources need additional attention. Positive signals have been given by several cooperating partners, in particular USAID, that they want to be part of this process.

For the long term, it will depend on the socio-economic developments whether Zambia will be able to sustain the measures to increase the human resource base for health on its own.

Annex 1 Terms of Reference

TERMS OF REFERENCE: EVALUATION RURAL RETENTION SCHEME FOR HEALTH WORKERS IN ZAMBIA

Introduction
The Public Health Sector for a long time has continued losing professional staff in search for better working conditions and quality of life. The isolation of postings, the difficulties of communications and paucity of schools and social amenities all contribute to reluctance to professional staff, particularly doctors to work in rural based health facilities.
In 2003 the Government of the Republic of Zambia in partnership with the Royal Netherlands Government embarked on a Pilot Retention Scheme (RS) for health professionals, in the context of the PSRP and officially recognised and authorised as such by Cabinet Office, starting with doctors in an effort to retain and support them work in rural areas of Zambia.

Objectives of the Retention Scheme
In line with the National Health Strategic Plan, the overall objective of the RS is improved service delivery in the rural and underserved parts of the Zambia, contributing to:

1. Reduced child mortality.
2. Improved maternal health
3. Combating HIV/AIDS, malaria and other diseases i.e. halt and begin to reverse the spread of HIV/AIDS; Halt and begin to reverse the incidence of malaria and other major diseases.
4. Ensuring environmental sustainability i.e. reverse the loss of environmental resources;
5. Reducing hunger and poverty in environmentally sound ways; meeting basic human needs; expanding economic opportunities, increase access to safe drinking water etc.
6. Developing a global partnership for development i.e. providing access to affordable, essential drugs to rural communities.

The implementation of the RS pilot phase started in September 2003 and will initially run till 2007. In September 2004, 56 Doctors were serving under the scheme in rural health facilities country-wide. By the end of 2004, the number is expected to have increased to app. 75.

Terms and Conditions of the Retention Scheme
The main terms and conditions of the RS and the benefits for the doctors contracted by the MoH under the RS are as follows:

- The employee to serve on a minimum period of three years renewable contract in the rural/remote area
- The employee (Doctors) to receive a salary equivalent to his/her substantive grade (MDS scale) as provided by Ministry of Health/Central Board of Health.
- The employee to be paid an additional rural hardship allowance of K1,000,000 (200 Euro) per month for category C districts and K1,300,000 (250 Euro) per month for category D districts.
- Central Board of Health to pay an education allowance to maximum of K2,300,000 (450 Euro) per term per child (aged 5 -21 years) for a maximum of 4 children per contract upon submission of relevant receipts.
- Central Board of Health to provide funds to a maximum of K13,000,000 (2,500 Euro) per contract payable to the benefiting District Health Management Board to renovate/upgrade

the accommodation for the employee, upon submission of an appropriate housing plan to be approved by Central Board of Health

- The employee eligible for a subsidy towards postgraduate training in the relevant postgraduate course at the expiry of 3 years period. The employee shall accumulate an equivalent of 3 monthly rural hardship allowances per contract year worked after a minimum of 3 years. This support will go towards the postgraduate training subsidy against actual expected costs of postgraduate training.
- The employee will be entitled to a loan maximum of 90% of three years rural hardship allowance and eligibility will after 6 months of service under the contract. Interest to this entitlement can be expressed upon the signing of the contract.
- The employee shall be subjected to an annual appraisal of performance and identification of training needs for capacity building. Satisfactory performance shall be conditional to continued enrolment in the retention scheme.

Evaluation

In order to assess whether the RS is being implemented well and contributes towards the objectives set there will be regular formal evaluations.
The first evaluation is to take place in January 2005 and will focus on the modalities that have been chosen for the implementation of the RS, whether they are adequate, in place and operational. The evaluation is also to lead to recommendations on possible improvements of the scheme and to options of a further extension of the scheme to non-MD health staff.

More specifically the following questions to be addressed during to evaluation:
1) Have the original systems been properly implemented and are they working?
2) What modifications or additional systems are needed?
3) Is the scheme being used in the right locations?
4) Has it improved the staffing of remote districts?
5) Has the scheme caused any negative side effects?
6) Is the current scheme sustainable?
7) Could the scheme be used for other cadres? If so, what modifications would be needed?

Outputs

- Lessons leant and findings on the points mentioned above;
- Recommendations for further improvement/streamlining of the RS (incl. of sanctions);
- Recommendations on possible extension of the RS to lower level and non-MD health staff (e.g. nurses, paramedics, administrators), including:
  - the financial, administrative and organisational ramifications,
  - categorization (sub-district)
  - involvement of other donors/cooperating partners
- Sustainability of both the existing scheme as well as the potential extension in terms of the Government's commitment and involvement

Outputs to be compiled in a concise report, of which the final version is to be submitted in electronic format two weeks after departure from Zambia.

Approach and Methodology
As the ultimate beneficiaries of the RS and the RS doctors are to be found in remote areas, the evaluation team will have to go and visit them there, in order to assess the situation on site. In consultation with the CBOH Director Technical Support Services a random and logistically feasible selection will be made of the areas to be visited. Furthermore stakeholders will be consulted at provincial as well as central level. Meetings/short workshops to be held where possible in order to be time efficient and effective.

- Before the mission the consultants will receive all relevant documentation on the project and will study the documents
- Before the mission the consultants will indicate which statistics need to be collected in order to gather evidence for the achievement of objectives. CBOH/MOH will provide the necessary statistics in a timely and complete manner. E.g.: an inventory who (midwives, CO's, tutors) works where?
- The consultants will produce a semi-structured interview list before moving to the districts to be selected
- There will be two teams for field visit, each team consisting of an international consultant and a local consultant/resource person from CBOH/MOH
- The mission will be concluded by a feed-back session
- The CBOH/MOH will provide comments within 7 days on the draft report before the final report will be produced.

Duration and Timeframe
Given the travel involved and the geographical distribution of the RS districts, the evaluation team is expected to require 10-12 days of field work. The expected time requirement in Lusaka is one week (3 days prior to fieldwork, 4 days upon return), including a briefing, consultation of Lusaka based stakeholders, debriefing and report writing. After departure from Zambia three more days are required to produce the final report to be submitted.

Profile of the Evaluation Team
In order to address all aspects of the RS, the evaluation team will consist of a public health specialist, preferably a MD, and an institutional expert, to be joined by senior MoH/CBoH Human Resource and Technical Support Services Officers. Where and when possible the team will split up in order to be time-efficient.

05/01/2005

Annex 2 Documents reviewed

Anon (Undated). Appraisal Memorandum: Zambian Health Workers Retention Scheme (ZHWRS).

Caffrey, M. (2004). Review of Human Resource Management and Development issues in the Zambian Health Sector.

Egger, D., D. Lipson, et al. (2000). Achieving the right balance: the role of policy-making processes in managing human resources for health problems. Issues in health services delivery. Human Resources for Health. Discussion paper no. 2. Geneva, World Health Organisation**:** 53.

Huddart, J., R. Furth, et al. (2003). HIV/Aids Workforce Study. Boston, Initiatives Inc.

Koot, J., V. Mukonka, et al. (2004). Supplementation Programme Dutch Medical Doctors 1978–2003. Lessons learned Experiences Dutch Doctors. Final Report.

Martinez, J. and T. Martineau (1998). "Rethinking human resources: an agenda for the millennium." Health Policy Plan **13**(4): 345-58.

Ministry of Health (2001). National 10-year human resource plan for the public health sector.

Ministry of Health (2003). National Health Strategic Plan 2001-2005 Mid Term Review Report. Lusaka, Ministry of Health.

Ministry of Health (2004). Human Resource Crisis In Zambia. A Paper For The High Level Forum Abuja, December 2004.

Ministry of Health (2004). A synopsis of the current staffing crisis and outline proposals for action.

Valentine, T. (2002). A medium-term strategy for enhancing pay and conditions of service in the Zambian public service.

Annex 3 Itinerary

Joint Team Work			**Jaap Koot Tim Martineau**	
DATE		**From**	**To**	**Fieldwork**
10 Jan 05	Monday	Amsterdam/London	Lusaka	
11 Jan 05	Tuesday			Lusaka
12 Jan 05	Wednesday			Lusaka

SOUTHERN AND WESTERN PROVINCEs			**TEAM: Nalishiwa, Mwila & Koot**	
DATE		**From**	**To**	**Fieldwork**
13 Jan 05	Thursday	Lusaka	Choma	Gwembe
14 Jan 05	Friday	Choma	Choma	Choma, Kalomo
15 Jan 05	Saturday	Choma	Namwala	Macha, Namwala
16 Jan 05	Sunday	Namwala	Livingstone	Namwala
17 Jan 05	Monday	Livingstone	Livingstone	Livingstone
18 Jan 05	Tuesday	Livingstone	Livingstone	Sesheke
19 Jan 05	Wednesday	Livingstone	Lusaka	Sinazongwe
20 Jan 05	Thursday	Lusaka	Mongu	Mongu
21 Jan 05	Friday	Mongu	Lusaka	Mongu
CENTRAL PROVINCE			**TEAM:Mukonka & Martineau**	
13-Jan-05	Thursday	Lusaka	Chibomobo	Chibombo
NORTHERN PROVINCE				**TEAM:Mukonka & Martineau**
DATE		**From**	**To**	**Fieldwork**
14-Jan-05	Friday	Chibomobo	Kasama	Kasama
15-Jan-05	Saturday			Kasama
16-Jan-05	Sunday			Kasama
17-Jan-05	Monday	Kasama	Luwingu (return)	Luwingu
18-Jan-05	Tuesday	Kasama	Mbala	Mbala
19-Jan-05	Wednesday	Mbala	Chinsali	Nakonde
20-Jan-05	Thursday	Chinsali	Ishoko (return)	Chinsali & Ishoko
21-Jan-05	Friday	Chinsali	Lusaka	
Joint Team Work				
DATE		**From**	**To**	**Fieldwork**
22-Jan-05	Saturday			Lusaka
23-Jan-03	Sunday			Lusaka
24-Jan-05	Monday			Lusaka
25-Jan-05	Tuesday			Lusaka
26-Jan-05	Wednesday			Lusaka
27-Jan-05	Thursday	Lusaka (Koot)	Amsterdam	Lusaka
28-Jan-05	Friday			Lusaka
29-Jan-05	Saturday	Lusaka (TM)	London	

Annex 4: Persons met

Hon. Brig. Gen. Dr. B Chituwo, Minister of Health
Dr SK Miti, Permanent Secretary, Ministry of Health
Dr B Chirwa, Director General Central Board of Health
Ms B Mkuyamba, deputy director Human Resources Management and Administration, MOH
Steering Committee ZHWRS, CBoH
Directorate of Human Resources, team, MOH
Prof Dr Munkonge, Dean, School of Medicine
Ms Margaret O'Callaghan, Representative, UNFPA
Dr Mukumba, Programme Officer UNFPA
Dr TK Lambart, Managing Director, University Teaching Hospital, Lusaka
Dr G Biemba, Executive Director, Churches Health Association of Zambia
Mr. J. Banda, registrar Medical Council of Zambia
Prof Babou, Zambian Medical Association
Dr F. Masawinga, WHO malaria control officer
Mr Tony Daly, Adviser Health and HIV/AIDS, DFID
Dr M. Gerritsen, First Secretary Health, RNE Lusaka
Ms Jeannie Friedmann, Deputy Director, Office of Population, Health and Nutrition, USAID
Dr Dynas Kasungani, USAID
Mr Boss ???, Acting Permanent Secretary, Public Service Management Department
Dr Oliver Lulembo, Health Advisor, IrelandAid (by phone)
Mr Chris Murgatroyd, Governance Advisor, DFID
Dr Rosemary Sunkutu, Health Specialist, World Bank (by phone)
Dr Priscilla Chisha, District Director of Health, Chibombo District, Central Province
Dr Nande Putta, District Director of Health, Kabwe District, Central Province
Dr ??Suya, Provincial Health Director, Central Province
Health staff group, Central Province
Dr Percival Chisha, District Director of Health, Mporokoso District, Northern Province
Dr Naomi Kasanda, Medical Officer, Mporokoso District, Northern Province
Dr L Alisheke, Provincial Health Director, Northern Province
Dr Felix Silwimba, District Director of Health, Kasama District, Northern Province
Dr Makasa Sichela, Executive Director, Kasama General Hospital, Northern Province
Dr Desmond Musonda, Medical Officer, Kasama General Hospital, Northern Province
Dr Allan Musonda, Medical Officer, Kasama General Hospital, Northern Province
Health staff group, Kasama General Hospital, Northern Province
Dr Paul Kafulubiti, Medical Officer, Luwingu District Hospital, Northern Province
Dr Habmana Rusumba, Medical Officer, Luwingu District Hospital, Northern Province
District Health Management Team, Luwingu District, Northern Province
Mr Crispin Mwenya, District Commissioner, Luwingu District, Northern Province
Health staff group, Luwingu District, Northern Province
District Health Management Team, Mbala District, Northern Province
Dr Mwelu Mawazo, Mbala District Hospital, Northern Province
Mr Chongo, Acting District Commissioner, Mbala District, Northern Province
Dr Cliff Hara, Medical Superintendent, Mbala District Hospital, Northern Province
Health staff group, Mbala District Hospital, Northern Province
District Health Management Team, Nakonde District, Northern Province
Dr Paul Mwansa, District Director of Health, Nakonde District, Northern Province
District Health Management Team, Ishoko District, Northern Province
Mr Kelvin Mwanja, Medical Licentiate, Ishoko District, Northern Province

District Health Management Team, Chinsale District, Northern Province
Dr Ajayi Tope, Medical Officer, Chinsale District Hospital, Northern Province
Dr. Mutinda Mudenda, a District Director of Health, Gwembe district
DHMT and hospital management team, Gwembe District
Mr. Mukelabai, a- DDH Choma district
Dr. Mukelabai, Executive Director Choma General Hospital
Ms. M. Hazemba, a-DDH Kalomo district
Dr. L. Hachaamu, MO Macha Hospital
Dr. K. Moonga, MO Choma Hospital
Mrs. J. Nondo, District Commissioner Namwala district
Dr. A. Mwila, MO Namwala hospital
DHMT, Namwala district
Dr. J. Chinyonga, DDH Livingstone district
DHMT Livingstone district
Dr. Monga (?) a-executive director Livingstone Hospital
Mrs. P. Mukonka, a-principal nurse tutor, Livingstone School of Nursing
Dr. Mahani, GMO, Livingstone General Hospital
Team Provincial Health Office, Southern Province, Livingstone
Dr. M. Kamanga, medical superintendent, Sesheke Hospital
Dr. Van Hasselt, MO Sesheke Hospital
DHMT, Sesheke District
DHMT, Sinazongwe District
Dr. H. Mutembo, medical superintendent Maamba Hospital, Sinanzongwe
Dr. Mwiche, MO, Maamba Hospital, Sinazongwe
Dr. Silumezi, a-executive director Lewanika Hospital, Mongu
Dr. N. Mwanza, MO Kalabo district
Dr. P. Lumano Mulenga, MO Kaoma district
Dr. L. Mulenga, Medical Superintendent, Koama Hospital
Dr. E. Mwaba, MO, Lewanika General Hospital
Hospital management team, Lewanika General Hospital
Dr. A. Sitali, Provincìal Health Director Western Province
Provincial Health Office team, Western Province
Mr. Liombe, a-Permanent Secretary Western Province

Annex 5: Categories of Districts

Category A	Category B	Category C	Category D
Chililabombwe	Chipata	Chibombo	Chama
Chingola	Choma	Chinsali	Chavuma
Kabwe	Kapiri Mposhi	Chongwe	Chilubi
Kafue	Kasama	Isoka	Gwembe
Kitwe	Mansa	Kalomo	Kabompo
Livingstone	Mazabuka	Kaoma	Kalabo
Lusaka	Monze	Katete	Kaputa
Mufulira	Grand Total 7	Kawambwa	Kasempa
Ndola		Masaiti	Luangwa
Luanshya		Mbala	Lufwanyama
Kalulushi		Mongu	Lukulu
Grand Total 11		Mpika	Luwingu
		Mpongwe	Mambwe
		Mumbwa	Mufumbwe
		Nakonde	Senanga
		Namwala	Shangombo
		Petauke	Mporokoso
		Samfia	Milenge
		Sesheke	Chiengi
		Siavonga	Mwense
		Solwezi	Zambezi
		Mpulungu	Grand Total 22
		Mungwi	
		Sinazongwe	
		Kasungula	
		Itezhi Itezhi	
		Mkushi	
		Serenje	
		Nyimba	
		Lundazi	
		Chadiza	
		Mwinilunga	
		Nchelenge	
		Grand Total 33	

Annex 6 Checklist for deciding on retention packages

The purpose of this checklist is to help managers at district (or hospital level) to think through the process of developing retention packages for different types of staff.

Questions and basic steps to consider

1. Which jobs (or facilities) are you finding it hardest to staff? (Put in rank order based on length of vacancy and voluntary turnover[16] rate i.e. how long people stay on average in post)

2. Why is the post (or facility) difficult to staff? Is this due to an overall shortage in the labour market, or because the post/living conditions are unattractive?

3. What methods do you think are appropriate for attracting staff to this (these) specific post(s)? Consider the different needs of male and female staff.

4. For each method:
    a. Is this a continuous incentive (e.g. regular allowance) or a one-off incentive (e.g. opportunity for further training)?
    b. What is the expected impact of this method? What evidence have you got[17]?
    c. What are the risks of using these methods?
    d. How big is the administrative burden for this method?
    e. What is the financial cost of the method (per person per year)?

5. Considering the costs, impact, risks, administrative burden, etc, develop one or two options for the retention package.

6. Prepare an annual budget for each scenario.

7. Adjust costs if above the recruitment and retention budget ceiling.

Guidelines for the district scheme

1. Work through the checklist
2. Develop a proposal for a 3-year period[18] within the recruitment and retention ceiling. Include indicators and methods for monitoring impact on recruitment and retention.
3. Submit to PHD for approval.
4. Incorporate into the annual plan.

Monitor impact against baseline vacancy/ voluntary turnover rate

[16] I.e. does the individual decide to move, or is this a decision of management (transfer, dismissal) or long-term illness/death?
[17] You may have heard of this working in another district or tried this in your own district.
[18] How does this fit with MTEF budgeting? Is this relevant?