2011

East, Central and Southern Africa Health Community (ECSA-HC)

Documenting Best Practices for Retention of Health Workers

Report of a Survey and Case Studies from Rwanda, Tanzania and Uganda

Commissioned by the East, Central and Southern Africa Health Community

TABLE OF CONTENTS

FOREWORD

Retention of skilled health workers in our countries remains a big challenge. The fact that our current health-worker to population ratios are already way below the WHO recommended minimum of 2.5 health workers per 1000 population further complicates the situation.

The global community has recently focused attention on this issue during the 58th World Health Assembly (WHA). Apart from bringing to the attention of the world the magnitude of the problem, the WHA also adopted the WHO Global Code of Practice on the International Recruitment of Health Personnel through Resolution WHA63.8. This resolution incorporated possible strategies to mitigate the effects of migration of skilled health personnel from low income countries to developed countries.

These global discussions will need to continue alongside other local discussions of viable strategies for encouraging health workers to stay in our health systems. While the problem of health worker shortage is prevalent at national level, it is even more so in rural and disadvantaged contexts where most of the population in our region live. There is an urgent need to reflect on models that show promise in supporting retention of health workers in our countries.

This survey documented promising practices from and analysis of case studies and experiences from Tanzania, Uganda and Rwanda. The two models highlighted specifically the Benjamin William Mkapa HIV/AIDS Foundation of Tanzania and the Karamoja project of Uganda, were selected for their potential to inform other initiatives that aim at retaining skilled health personnel in rural and disadvantaged areas.

It is our hope that the lessons learnt and models identified in this survey will contribute to our regional efforts to identify home-grown solutions to our human resource challenges in the area of retention and motivation.

Dr. Josephine Kibaru-Mbae
Director General - ECSA Health Community

ACKNOWLEDGEMENT

The successful completion of this survey was made possible by the generous support of a large number of stakeholders.

The generous financial support by the USAID East Africa enabled the successful planning, field work and report production for this survey.

ECSA-HC would also wish to thank ECSA staff who participated in this activity including the late Dr. Helen Lugina, Manager HRH & CB, Ms. Sheillah Matinhure, Ms. Dotael Kanza, Ms. Mary Mhomi and other staff for the excellent support throughout the process.

We wish to most sincerely thank the Ministries of Health personnel who availed their time and ideas to ensure that the information required for the survey was made available. Also, the enthusiastic support and insights of the staff during the field work was invaluable.

We also wish to thank the Permanent Secretaries in the Ministries of Health in each country (Rwanda, Uganda and Tanzania), who kindly accepted and permitted the assessment to be conducted and generously allocated a senior personnel to support the process.

To all other partners involved in this process, the ECSA Health Community remains indebted to you for the invaluable input.

Finally, we appreciate the work of the consultant, Dr. Sebalda Leshabari who was contracted by ECSA-HC to conduct this assessment.

ACRONYMS

AIDS: Acquired Immune Deficiency Syndrome
ARVs: Antiretroviral Drugs
BMAF: Benjamin William Mkapa HIV/AIDS Foundation
CHMTs: Councils Health Management Teams
CTCs: Care Treatment Centers
DANIDA: Danish International Development
DJCC: Directors' Joint Consultative Committee
ECSA: East, Central and Southern Africa
ECSA-HC: East, Central and Southern Africa Health Community
EGPAF: Elizabeth Glaser Pediatric AIDS Foundation
EHP: Emergency Hiring Project
GTZ: German Society for Technical Cooperation
HDT: Human Development Trust
HIV/AIDS: Human immunodeficiency virus/Acquired Immunodeficiency syndrome
HRH: Human Resources for Health
MDG's: Millennium Development Goals
MOH: Ministry of Health
NGOs: Non-governmental Organizations
PBF: Performance Based Financing
PHC: Primary Health Care
UDHS: Uganda Demographic and Health Survey
UNAIDS: United Nations Joint Programme on HIV/AIDS
UNFPA: United Nations Population Fund
UNICEF: United Nations Children Fund
USAID: United States Agency for International Development
WHO: World Health Organization

EXECUTIVE SUMMARY

Most of the population in sub-Saharan Africa live in the rural areas. The shortage of health workers in most countries in this region is acute, and most of the available health workforce live and work in the cities. This imbalance is common to almost all countries in the region including the ECSA region and with it most severe consequences being felt in low income countries. This poses a major challenge to the nationwide provision of health services.

Some of the factors fuelling the labor shortages are related to the toll of HIV and AIDS increasing, and lack of adequate trained health personnel. Staffing imbalances also constitute a critical constraint to scaling up of health services. To achieve positive health outcomes in such critical areas as reproductive health and family planning, there is need to understand the strategies that have worked in retaining the relevant health workforce and keeping the motivation levels high.

With this background, the ECSA-HC commissioned a study to document best practices in the retention of human resources for health that can be shared and advocated for scale up in the region. The purpose of this study was to provide evidence-based best practices in attracting and retaining of skilled personnel in the health sector especially in disadvantaged (rural) areas.

This report mainly focuses on the survey of two identified best/promising practices in the retention of health workers implemented in the two countries of Uganda and Tanzania and highlights a third initiative in Rwanda that focuses on motivation of health workers and performance improvement.

The specific objectives of the survey were:

1) To determine the various retention strategies in Rwanda, Uganda and Tanzania
2) To identify best practices in retention of health workers, including those for Reproductive health and family planning
3) To benchmark with best practices regionally and internationally with a view to create a conducive environment for public health workers

A multi-method evaluation matrix was used to determine the various retention strategies in Rwanda, Uganda and Tanzania. The assessment methods included:

(1) **Documentary review** to acquire an in-depth understanding on retention of health workers. Background documents included (among others) national policy documents, documented programs and practices, past studies and research reports on retention strategies. Enrichment materials included reports prepared by collaborating agencies and donors.

(2) **Country and field site visits** in Rwanda, Uganda and Tanzania to get the views and experiences from a range of existing retention policies, programs, practices and

strategies. Other insights gathered from interviews included the factors that influence the decisions of health workers to stay as well as the health systems responses to these factors including outcome measures. A few institutions that had managed to retain staff with known additional efforts were part of the sites visited.

(3) **Snowball method** was used to identify key informants known to be knowledgeable about the retention strategies that have worked to retain health workforce.

(4) **Individual in-depth interviews** were conducted using interview guides with key informants such as relevant ministry of health officials, local government and development partners focusing on retention strategies, enabling conditions for these strategies and the outcome measures.

Data collected from both review of documents and key informant interviews was transcribed, summarized, categorized and analyzed according to thematic areas. In each country, different sets of data were triangulated to ensure validity in interpretation.
A criterion data checklist was used to determine whether a program or initiative offers "Best practice", or whether it was likely to offer a "promising practice", or "Not" based on Advance Africa's definition of best practice.

Advance Africa's definition emphasizes that such programs will have the following characteristics; *cost effectiveness, sustainability, effectiveness/efficacy, ethical considerations, relevance, replicability and transferability.*

The findings indicated that, all three countries assessed (Uganda, Rwanda & Tanzania) were implementing several strategies aimed at retention of health workers that included such initiatives as; decentralization, improvement of working conditions, housing, transportation, top-up allowances, NGO's recruiting retired staff after 60 years among other strategies. Most of these efforts, however, were fragmented and did not strictly meet the criterion for being judged as best practices or promising practices.

In all the three countries, the survey did not find a nation-wide strategy which could be judged as systematic, well planned, implemented, well monitored, evaluated and documented as best practice for retention of health workers. In Uganda, there was a national comprehensive retention and motivation strategy which was still in discussion at different levels at the Ministry of Health at the time of this survey. Rwanda is implementing "Performance Based Financing (PBF)" which is a nation-wide motivational strategy. Evaluation studies of the PBF initiative have shown that it increases motivation of health workers towards quality performance, but less evidence exists of its impact on retention of health workers.

After analysis of the data collected from the study, two initiatives, one each from Uganda and Tanzania demonstrated evidence characteristics of being judged as best or promising practices. These were; 1) Karamoja Project in Uganda; and 2) The Benjamin William Mkapa HIV/AIDS Foundation (BMAF) in Tanzania.

These two models spell out that, it is the combination of various incentives, both financial and non financial that yields the most positive impact in retention of health workers. Some of the incentives include improved working conditions; training and supportive supervision; good living conditions; career opportunities; good communication; health care and educational opportunities.

Main Strategies of Uganda's Karamoja Project

The Karamoja model in Uganda used three main strategies for retention of health workers. These are:

1) Provision of scholarships, bursaries or other education subsidies with enforceable agreements of return of service in rural or remote areas after the studies.

2) Enrolling students with a rural background in education programmes for various health disciplines, in order to increase the likelihood of graduates choosing to practice in rural areas.

3) Locate health professional schools and campuses outside of capitals and other major cities, as graduates of these schools and programmes are more likely to work in rural areas.

Main strategies of Tanzania's Mkapa Fellows and Emergency Hiring Programme

The Mkapa Fellows and Emergency Hiring Programmes Tanzania model used mainly three strategies. These are:

1) Use a combination of fiscally sustainable financial and non-financial incentives such as hardship allowances, free housing, free transportation and paid vacations.

2) Design continuing education and professional development programmes that meet the needs of rural health workers and that are accessible from where they live and work, so as to support their retention.

3) Supporting health worker performance with effective supportive supervision.

The two models in Uganda and Tanzania highlighted a number of critical components of effective retention strategies. Focusing on both financial and non financial incentives greatly influences a health worker's decision to relocate to and remain in rural areas. A responsive incentive package could include a variety of elements such as; improving living conditions for health workers and their families; investing in infrastructure, providing good and safe working environment, including appropriate equipment and supplies, supportive supervision and mentoring to make the posts professionally attractive; improving staff motivation and creating an enabling environment. In addition, identification and implementation of appropriate outreach activities to facilitate teamwork between health workers from better served areas and those in underserved areas, and, where feasible, use tele-health to provide additional support to health workers in remote and rural areas.

In conclusion, the two models used in Uganda and Tanzania demonstrate the multiple dimensions of an effective and sustainable response to retention of health workers. While some of the strategies obviously depend on country contexts, the overriding theme is the recognition of the vital role of adequate human resource for health in the delivery of sound health services and the need to invest in sound mechanisms to attract,

and retain skilled health personnel especially in under-served areas such as rural and remote areas in the countries.

For the ECSA region, a good number of lessons emerge from analysis of the two models in Tanzania and Uganda. It is imperative that training and recruitment of more health workers should be supplemented with favorable working environment and enabling human resource management policies and systems that are informed by local conditions. An appropriate mix of financial and non financial incentives that are clearly targeted and sustainable can contribute to increased retention and motivation of health workers in country health systems and more importantly in underserved areas. These should be matched with health system wide responses to improve infrastructure and work environment factors that enable health workers to feel recognized and supported in their day to day work.

I. INTRODUCTION

A key constraint to achieving the MDGs is the pervasive shortage of adequate properly trained and motivated workforce. Loss of clinical staff from low and middle-income countries is crippling already fragile health care systems. Health worker retention is critical for health system performance and a key problem is how best to motivate and retain health workers (Mischa et al., 2008). For countries in the ECSA region, the acute shortage is exacerbated by mal-distribution of the already inadequate numbers between urban and rural areas.

In 2007, the ECSA Health Community conducted a review of HRH policies and practices in the region (Dambisya, 2007). The review sought to establish areas of progress and gaps to inform ECSA's work with member states and to help in the development of a regional strategy. Among other findings, the review established that:

(i) Health care spending remains low in the region, with some countries spending as little as $4 per capita and none of the countries has achieved the Abuja target of 15% of government expenditure going to health. The private sector is becoming more involved in health service delivery in the region, but most of the expenditure on private health care is out of pocket. The inadequate financial allocation to health may hinder the establishment of suitable financial incentives for retention.

(ii) There is a high burden of disease in the region, with high infant mortality, under-five and maternal mortality rates, and high prevalence of HIV/AIDS in most of the ECSA region. HIV/AIDS is a main cause of death in most of the ECSA countries. HIV/AIDS has had a devastating effect on the health workforce in some of the countries in the region with increased loss of health workers (death, burn out leading to resignation) and increased workloads. A number of ECSA countries have workplace HIV/AIDS prevention and care programmes for health workers, but the impact of these programmes remains poorly documented.

(iii) The health workforce in the ECSA region remained small, with most of the countries having less than 2.5 health workers per 1000 population. Consequently, in many of the countries, there is high reliance on unskilled health workers. The shortages are due to various factors, including low training capacity and high attrition rates. The absolute shortage of health workers is compounded by poor working conditions, migration, mal-distribution of existing staff, low productivity and poor performance, low efficiency of the health systems, and the effects of HIV/AIDS.

(iv) ECSA countries have applied various financial and non-financial measures to attract and retain staff but there is apparently no data on the implementation, monitoring and evaluation and impact assessment of such measures.

(v) Many of the countries in the region have adopted various strategies and initiatives to optimize health service delivery in the face of limited resources. These include decentralization, the district health system, IMCI, IMAI and the essential minimum health package, all of which have implications on human

resources for health. In a number of the countries, partnerships with the private sector are being used for health service delivery.

In response to ECSA Health Ministers' Resolutions to document and share best practices from the region that help address the pervasive human resource crisis in the health sector, the ECSA Health Community sought to document and share best and promising practices in retention of health workers. (**RHMC/42/R4; ECSA/DJCC20/R5).**

It is envisaged that the lessons learnt from the study findings will augment regional advocacy efforts to strengthen policies and programmes to redress the current challenges in attraction and retention of skilled health personnel in ECSA countries.

II. BACKGROUND

The importance of an adequate, highly motivated health workforce to the quality of a health system has been underlined in many publications. Sub-Saharan Africa is faced with great human resources for health challenge, with low health worker to population ratios, and poor health indicators as identified by various regional forums including the ECSA Health Ministers' Conference. The challenges faced by ECSA countries are compounded by a high burden of HIV/AIDS, malaria, tuberculosis and other infectious diseases, the emergence of non-communicable diseases as a major public health problem, under-nutrition and micro-nutrient deficiency disorders, high poverty levels and insufficient financial resources.

The reasons why health workers leave and look for jobs in different locations and with different agencies are complex. Employees consider advantages in the destination location (pull factors) and weigh these against the disadvantages in the origin (push factors); with contributions from stick factors which increase retention and stay factors which weaken migration return.

Factors at work that can make health workers leave their jobs, apart from grievances with low pay include; limited opportunities for promotion, poor access to education and training, very poor living conditions and poor educational facilities for children. Other factors that can cause frustrations at work include; poor access to supplies and equipment and lack of utilities at work, unmanageable workloads, inadequate supervision, and poor management.

The human resources for (HRH) crisis in Africa is characterized by widespread shortages and mal-distribution of skilled health workers (between and within countries). The paucity of information and knowledge on best practices contributes to inadequate uptake of effective responses. Further, Africa has 25% of the disease burden; 10% of the world population, 3% of the HRH, and 1% of total health expenditure. The shortage of health workers has been exacerbated by the migration of highly skilled professionals from the region to developed countries and internally from public sector to private sector, and from rural to urban areas, and by attrition due to factors such as the increased mortality of health care providers from HIV/AIDS. This Human Resources for Health crisis severely limits Sub-Saharan Africa's ability to meet the MDG targets by 2015.

Three of the eight (8) Millennium Development Goals (MDGs) specifically target health related goals namely Goal 4 - reduction of child mortality; Goal 5 - improvement of maternal health; and Goal 6 - to Combat HIV/AIDS, Malaria and other diseases. Specifically, by 2015 there should be a reduction of maternal deaths by three quarters, a reduction of under-five mortality by two thirds, a halt and the start of reversal of the spread of HIV/AIDS, and halt and beginning of reversal of the incidence of malaria and other diseases.

To achieve basic coverage goals such as immunization of at least 80% of children against measles annually and 80% of all deliveries are conducted by skilled attendants, a ratio of 2.5 skilled health workers per 1000 population is required.

For many of the ECSA countries, the MDG targets are not achievable at current HRH strengths. There have been some initiatives in the countries to develop or adapt retention strategies to retain a productive health workforce but there has been little

documentation and sharing of these. Of specific importance to achieving MDG 4 and 5 is the reproductive health and family planning health workforce.

The purpose of the assignment was to provide evidence based best practice in retention to inform promising incentive packages and practices for the health sector, so as to attract and retain skilled health workers especially in disadvantaged areas. This report documents the various retention strategies implemented in the three countries of Rwanda, Uganda and Tanzania.

Objectives of the study

The specific objectives of the study were to:

- determine the various retention strategies in Rwanda, Uganda and Tanzania
- identify best practices in retention of health workers, including those for reproductive health and family planning
- benchmark with best practices regionally and internationally with a view to create a conducive environment for public health workers

III. METHODOLOGY

a) Design

A consultative, participatory multi/method approach was adopted for the study. The data was gathered using a combination of methods including documentary review and individual in-depth interviews with key informants. Triangulation of methods served to validate and ensure reliability and credibility of the findings.

b) Participants

Stakeholders at various levels were involved in this study including country level teams and donors/partners. A consultant, Dr. Sebalda Leshabari was commissioned by ECSA-HC. Permission to conduct the study was sought from the offices of the Permanent Secretaries of the Ministries of Health in the three countries. The focal point for the consultant in each of the countries was Ministry of Health - Reproductive Health Unit.

c) Methods and strategies

A multi-method evaluation matrix was designed in order to determine the various retention strategies in Rwanda, Uganda and Tanzania. Assessment methods and strategies included the following:

i) Review of key documents to acquire in-depth understanding of strategies for retention of health workers. Background documents included among others; national policy documents, documented programs and practices, past studies and research reports on retention strategies.

ii) A set of interview guides was drafted and used to guide discussions conducted in-person or by telephone with national key informants including donor agencies and key Ministry of Health personnel. A detailed list of individuals interviewed during this assessment is provided in Appendix 2.

iii) In-depth interviews focused on the retention strategies used in countries, enabling conditions that allowed them to become operational and their implication on retention including the outcome measures (Appendix 3).

iv) Site visits were conducted in each country. Site visits were also made to the institutions where they have managed to retain their staff with known additional efforts.

d) Data analysis

Data collected from both review of documents and key informant interviews was transcribed, summarized, categorized and analyzed according to thematic areas. In each country, different sets of data were triangulated to ensure validity in interpretation.

e) Identification of best practices

In order to identify best practices in retention of health workers, the following activities were done:

i) A detailed analysis of data collected from the identified interventions (policies, programs and practices), using an analytical data checklist (appendix 3). The checklist entailed whether the program offers "Best practice", or whether likely to offer "promising practice", or not offer either best practice or promising practice. This checklist was used as a tool of analysis to identify those programs, strategies or practices eligible as best practices or promising practices according to measures for judging the best practices as stated below.

f) Criteria for best practice

The notion "best practice" has been defined differently by various people and various sectors. Despite much discussion, there is no universally accepted definition of a best practice (Singleton, 2005). For purposes of this report, a Best Practice or Promising Practice will be according to Advance Africa's Perspective (Advance Africa, 2008) which defines a Best Practice as an evidence or scientific based intervention (a method, technique, policy, program, or process) that has been proven to be effective in delivering certain outcomes compared to other interventions. A Best Practice should further demonstrate the following characteristics:

- **Cost effectiveness:** high impact intervention delivered at least cost and benefiting large numbers of people

- **Sustainability:** the ability of the program or project to continue being effective in the future

- **Effectiveness/ Efficacy:** whether the intervention has a positive impact on the intended target resulting in improved health outcomes. The intervention must also be accepted to the beneficiaries

- **Ethical Considerations:** compliance with principles of social and professional conduct

- **Relevance:** whether the intervention has been designed and implemented to primarily achieve health related outcomes

- **Replicability:** ability of the experiment to be performed repeatedly across various settings and be used as model for policies and initiatives elsewhere

- **Transferability:** successful application of a program in new settings; the ability to successfully apply a procedure or program successfully across various settings.

Therefore**,** to be considered a **best practice**, a practice/program must include substantial evidence that it has had an impact and/or has successfully met its program objectives. Secondly, a best practice must show evidence that it has been transferred to or replicated in various settings. If a practice/program has the potential to be replicated and transferred to other settings, it may be considered a **promising practice**.

The Best Practices "Pyramid of Practices"
To be able to better identify best practices, a clear distinction was made between untested interventions and those with more experience and evidence behind them. The "Pyramid of Practices" framework (see illustration, Figure 1:) represents the various types of practices and the ways in which they are related.

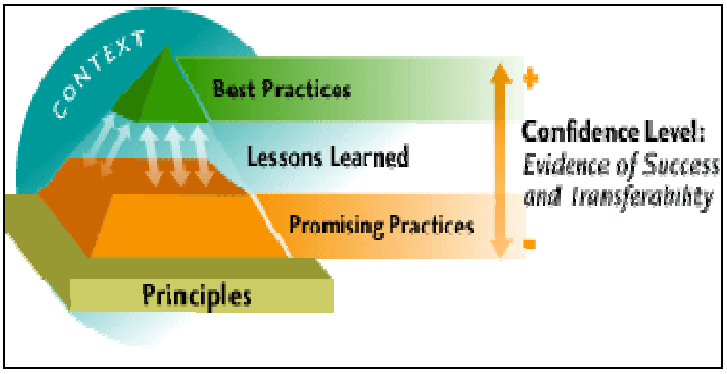

Figure 1: Pyramid of Practices" framework
Source: http://www.advanceafrica.org/tools_and_approaches/Best_Practices/bp_process.html

g) Benchmarking with best practices regionally and internationally
The goal of benchmarking is to identify, understand and adopt superior practices and processes from outside the organization (Skryme, 2005).To benchmark the interventions found to be best practices in the 3 study countries with best practices in the region or internationally; the following activities were done:

i) Reviewed literature and read existing documents written from the region and international on best practices in retention of health workers; and then;
ii) Compared with the found best practices in the three study countries (Rwanda, Uganda and Tanzania).

IV. FINDINGS

All three countries assessed (Uganda, Rwanda & Tanzania) demonstrated that several strategies have been implemented for retention e.g. decentralization, improvement of working conditions, housing, transportation, top-up allowances, NGO's recruiting retired staff after 60 years etc. In general, all these efforts are in fragmented manner and most of them did not strictly meet characteristics for being judged as best practices.

In all countries, the study did not find a national-wide broad strategy that addresses health workers retention which was systematic, well planned, implemented, well monitored, evaluated and documented. However, in Uganda there was a national comprehensive retention and motivation strategy which was still in discussion at different levels at the Ministry of Health at the time of this survey.

Rwanda was implementing Performance Based Financing (PBF) which is national-wide strategy that addresses motivation of workers. Evaluation studies of the PBF have shown that it can increase motivation to the health workers towards quality performance, but, less evidence exists on its impact on retention of health workers.

After analysis only two of the several initiatives demonstrated characteristic evidence of being judged as best practices using the definition provided in the previous section. These were:

1) Karamoja Project in Uganda
2) The Benjamin William Mkapa HIV/AIDS Foundation (BMAF) in Tanzania; commonly known as "Mkapa Fellows"

UGANDA - Karamoja Project

The Uganda, Karamoja initiative for retention of health workers in hard-to-reach areas of the Northern part of Uganda, commonly known as "Karamoja Project" show some evidence characteristics of being documented as best practice for retention of health workers to share within ECSA region.

Short description of the area

Karamoja is a semi-arid region and historically one of the most marginalized parts of Uganda. It is located in north-eastern Uganda along the borders with Sudan and Kenya. Karamoja comprises of five districts namely; Abim, Kaabong, Kotido, Moroto and Nakapirpirit covering approximately 27,200 square kilometers. Karamoja sub-region is inhabited by Karimojong ethnic groups, a largely pastoralist community.

For decades, Karamoja has suffered high levels of conflict and insecurity, alongside marked low levels of development. This has slowed down economic growth thus affecting provision of services and infrastructure development making it a particularly unattractive working environment. The area suffered critical shortage of health workers for long. Notably, there were no medical doctors serving this area for about one and a half years in 1998 mainly due to insecurity issues.

Local government initiative: In 1999 one among the five districts then (Moroto District) initiated a top-up of medical doctors' salary. At that time a medical doctor graduating just after his internship was earning 230,000 Ugandan shillings. The intentional top-up was 300,000 Ugandan shillings for those who would be interested to go and work in this sub-

region just after internship. Those who agreed to serve in these positions were also assured of support for postgraduate training after 2 to 3 years.

These incentives made a bit of difference and five young doctors who were finishing internship at that time, applied for the posts and they were posted in this sub-region. Two among the first five recruitments were still serving as medical directors of the two district hospitals in that sub-region during the period of this assessment. Other development partners joined the government eg. DANIDA - working in training of nurses and midwives in Matany, Kalongo and Lachor nursing schools including rehabilitation of infrastructure.

This remarkably increased number of trained nurses and midwives in northern Uganda; and most specifically local Karimojong students who were eligible. Students from the neighboring districts who were likely to work and be retained in northern districts of Uganda were included in that training Programme. By 2002, nurses and midwives trained under DANIDA program accounted for 35% of the district health workforce. Since then, other partners like AMREF supported laboratory personnel training, UNFPA supported midwifery training for candidates with a high potential of being retained. For Moroto District, proportion of health posts filled improved from 39% to 58% between 2000 and 2005 (UDHS, 2005). This was subsequently adopted by other Local Governments in the country, though its ability to attract and retain health workers in those areas is not documented (Oral communication with MOH official during interviews).

TANZANIA - "Mkapa Fellows" initiative

In Tanzania; "BMAF - for retention of health workers in hard-to-reach areas in the country, shows some evidence characteristics of being documented as best practice for retention of health workers.

The Benjamin William Mkapa HIV/AIDS Foundation (BMAF) was established in 2006 as an umbrella organization to oversee various programs under the Foundation. The foundation aimed at supplementing and complementing government efforts by enhancing the delivery of quality care to hard-to-reach rural areas. In July 2005, the former Tanzanian President Benjamin Mkapa in collaboration with the then U.S President Clinton initiated, the first BMAF program entitled "the Mkapa Fellows Program". The program is a core part of the Clinton Foundation's Rural Initiative in Tanzania.

This innovative program is anchored on recruitment, trainings and deployment of skilled health personnel to underserved rural districts of Tanzania. The initiative's main focus is Human Resource for Health as an entry point in scaling up HIV & AIDS prevention, care and treatment and other health services including maternal and child health.

The fellows program deploys at least 30 health professionals each year to rural areas of Tanzania where they will serve for three years. The fellows receive training in HIV/AIDS clinical care and patient treatment, as well as training in health administration and management before being posted to hard-to-reach rural areas in a group of three (a doctor, a nurse & a pharmacist or lab. technician). They are recruited as skilled health professionals that are envisioned as "change agents".

Since inception, in July 2006, BMAF has recruited and conducted induction trainings to ninety-nine (99) Mkapa Fellows that have been posted to 33 rural districts, in an effort to enhance access to quality and affordable health services in Tanzania. The Foundation has for the past three years contributed commendably in strengthening human resources for health (HRH) through its Mkapa Fellows Program jointly supported by the Norwegian Government and the Clinton Foundation.

Within two years of operation, the program has demonstrated encouraging signs of success in scaling up health service activities; and therefore, BMAF has been granted a second project in February 2007 - "Emergency Hiring Project (EHP)", a project of the Ministry of Health and Social Welfare, Tanzania that is financially supported by the Global Fund. The Foundation provides technical and managerial assistance to the project and successfully fast tracked hiring of 176 skilled health workers that had been deployed in 19 rural districts.

These two initiatives are recognized as human resource innovations that designed an incentive package of attracting health workers to rural underserved areas for 3 years contract. The package included both financial and non-financial incentives e.g. further training, conducive working environment, free housing and top-up salary. Table 1 - show comparison of the incentive package instituted by the Government and two HRH innovative programs in Tanzania BMAF (Mkapa Fellows Program & Emergency Hiring Project).

Table 1: The comparison of the incentive package instituted by the Government and two HRH innovative programs in Tanzania

Mkapa Fellows Programme	Emergency Hiring Programme	Government
Salary:		
Enhanced salary (at least double of Govt entry level for FY 2006/7)	Enhanced salary (as per Govt FY 2006/7 salary scale) Graduate: Principal level Non Graduate: Senior level	Government salary scale as per FY 2007/8.
Housing allowance:		
To all Mkapa Fellows: Flat rate 166 US$ per month	To all hires:10% of the basic salary	To Entitled officers(usually senior officer) and Medical Doctors (30% basic salary)
Re-llocation/Installation grant:		
▪ Payment of 1,042 US$ each ▪ Transportation of family (spouse + children)	Subsistence allow (250 US$), Luggage allowance (417 US$) & Transport allow (5% of basic salary) Transportation of family (spouse + children)	-Transportation of personal effects based on mileage and weight -Subsistence allowance -Disturbance allowance (for employee, his/her spouse and 4 children) highest salary scale: 85 US$ per day for 7 days
Pension schemes - For the programs you are paid after the contract while government pays on retirement		
National Social Security Fund (NSSF): 20% contributed by the employer Temporary for 3 years through an agreement between NSSF and employer		Permanent and Pensionable Contribution made to either: -NSSF - 10% employee, 10% employer or -Local Authority Pension Fund (LAPF) - 5% employee, 15% employer or -Parastatal Social Pension fund

	(PSPF) - 5% employee, 15% employer.

Mkapa Fellows Programme	Emergency Hiring Programme	Government
Health Insurance – NSSF covers more health benefits than NHIF		
Benefits from Social Health Insurance Benefit (SHIB) under the NSSF		-Benefits from National Health Insurance Fund (6% of basic salary 3% employee & 3% employer contribution)
Gratuity:		
5% of 3 years basic salary plus 20% of NSSF contribution paid at the end of the contract.		Permanent Pension for pensionable employees
Other staff incentives		
Orientation session, Induction HIV/AIDS & management training; Provision of Laptops, Mobile phones, monthly air-time (25 US$), Periodic continuing education trainings.	Orientation session; Induction HIV/AIDS training	-Short and long term training (salaries are paid throughout the training period), housing and health cover. -Extra hours allowances
Districts and Regions incentives		
Monthly mobile airtime (25 US$), Internet installation at district level, One computer sets.	HRH management training District Grants to 5 districts (through Capacity project/USAID)	-Use of Local Capital Development Grant, Central government subvention for improving HRH Management.

EVALUATION OF MKAPA FELLOWS:

1. **Most fellows are mainstreamed into district health manpower after their 3 years contract**

The aim of the short term program is to address the overall 67% human resource shortage which exists within the country, by targeting 52 districts. From the deployed 275 health workers in 52 underserved districts, 233 (85%) of the staff were retained in the same districts within two and half years of the programs' periods, before advancing to another step of being mainstreamed in the public service employment. By June 2009 the Foundation, in collaboration with the Government of Tanzania, successfully obtained Government recruitment permit to mainstream its 154 health workers of 9 different cadres into the public service for two consecutive years of FY 2008/9 and 2009/10.

The mainstreamed health workers have been deployed in 63 districts whereby 52 of the districts are initial programs' beneficiary districts and 11 are non-beneficiary districts.

The 154 staff recruitment permit provided, 87 with age below 45 years were mainstreamed under permanent and pensionable service, whereas 67 aged above 45 years and less than 60 years were mainstreamed on contractual basis.

A sense of one being recognized, appreciated and promoted was a pervasive theme identified from most employees' responses. For example when one of the Mkapa Fellows was asked about his feelings of working with the programme, he said;

"I thank our supervisors for their mentoring strategies they use to equip us with really professional competencies. We work very hard but we enjoy our work because at the end of the day, you can count how many lives you have saved. I have been posted in this district two years ago; already I have been mainstreamed into the public service and now appointed as District Medical Officer. They appreciate my work".

2. Quality improvement of HIV/AIDS Care and treatment clinics

The injection of the 275 trained staff in care and treatment of HIV/AIDS services has relieved the burden of care that health workers experienced in the districts benefiting from Mkapa Fellows. On the other hand, the extra pair of skilled hands increased daily operating hours from 4 to 8 for five days instead of twice a week.

This means that clients are assured of timely services, improved health education and counseling on HIV/AIDS, and prompt provision of ARVs, the result of which is improved quality of care in terms of well prescribed drugs and accurate diagnostic check-ups despite limited laboratory facilities. The districts currently benefiting from the Fellows programmes have registered up to three fold increases of clients enrolled in Care and Treatment Centers (CTCs) and those on ARV's as shown in the two graphs figures 2 and 3 below.

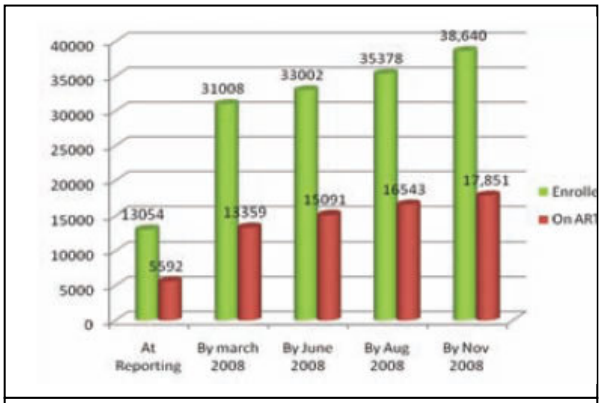

Figure 2: The Performance in HIV/AIDS Care and Treatment for 26 months in the 33 districts benefiting from Mkapa Fellows:

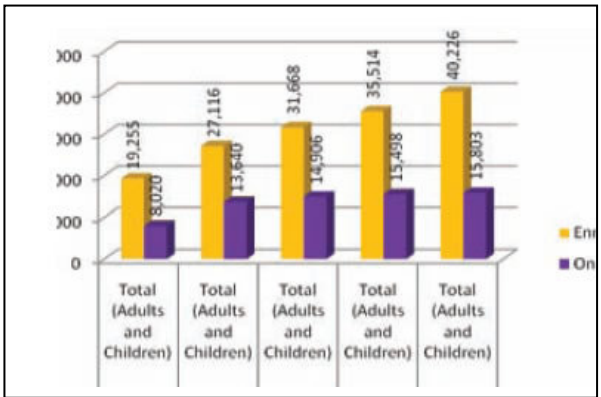

Figure 3: A Progressive increment of CTC clients in the 19 EHP districts within 16 months of stay:

Through Mkapa Fellows programme support for conducting outreach/mobile services, HIV/AIDS services have extended to remote communities. Reports from the districts benefiting from the programme show that there has been a progressive increase of sites providing care and treatment from 47 to 170 sites which include stand alone, re-filling centers and mobile clinics.

In order to further strengthen the HIV/AIDS outreach and clients' referrals, the Foundation supported five districts of Kilindi, Mpanda, Simanjiro, Micheweni and Kilolo, each with one 4WD vehicle. Health staff under the two programmes have also been actively involved in collection and transportation of blood samples for clinical monitoring

of patients who are using Anti- Retroviral drugs at least twice a month to the regional and district hospitals.

3. Fellows are well integrated in district health systems resulting into provision of clinical care in general health services such as maternal and child health, family planning, medical and surgical services

Both programmes - the Mkapa Fellows and Emergency Hiring Programme (EHP) have scored notable successes in district health management structures and general provision of health services. Ten (10) Medical Officers under the Mkapa Fellows Programme have been appointed as District Medical Officers and some of the deployed health personnel have assumed managerial positions in the various Councils Health Management Teams (CHMTs) and in Hospital Management Teams. Presence of Pharmaceutical and Laboratory specialists have contributed highly in the improvement of the drugs and supplies logistic systems as well as laboratory services and quality control. Due to the fact that the deployed teams possess varying skills and expertise, their presence additionally contributed to improved obstetrical and child health services particularly provision of Emergency Obstetric Care including surgeries.

Youth and other vulnerable groups were reached through sexual reproductive health services including HIV/AIDS education an experience noted in the districts of Newala, Wete and Tarime. Additionally, the trained teams have provided technical guidance and clinical mentorship on effective planning of district HIV/AIDS interventions and on care and treatment to staff at lower Primary Health Care units (PHCs) respectively.

A unique milestone reached by the Foundation through the Mkapa Fellows Programme is the mainstreaming of Fellows into the public service whereby 27 of them were absorbed during the financial year 2008/09. Additional 93 health staff, under the two programmes were in the process of being mainstreamed as well during the FY 2009/10.

4. Building partnership and improving data management

A number of bilateral and multilateral partners played a critical role in complimenting the Mkapa Fellows efforts at national and local level. These include the Elizabeth Glaser Pediatric AIDS Foundation (EGPAF) which has provided training to two Mkapa Fellows to serve as mentors in Urambo and Sikonge Districts in Tabora region that have subsequently mentored several other staff in the newly opened CTCs.

As part of the Mkapa Fellows Package, the availability of computer sets in all beneficiary districts and internet services to 19 districts has attributed to great improvement in HIV/AIDS data management hence contributing to better planning of interventions. Through internet services districts were able to send the collected data to various regional and national bodies in a timely manner. Some of the Mkapa Fellows have also benefited from online trainings on Health and Human Rights and in Effective Project Management. The essence is to encourage more health workers to use the available internet for distance learning.

RWANDA - Performance Based Financing (PBF)

In the presence of limited resources, the financial motivation of health workers has been a focal point of the Government of Rwanda (GoR) since 2002. The GoR with the

assistance of development partners has piloted different financing schemes to improve the efficiency of the health systems and the effective access to health services by the poor population in a sustainable manner.

In 2002, with the full support of the government, the NGOs Cordaid and HealthNet introduced performance based financing for general health services in health facilities in the provinces of Cyangugu and Butare respectively. The Government of Rwanda has adopted PBF as a human resource policy which aims at decreasing the number of unskilled health care providers and increase the skilled health care providers by providing them with good salaries, incentives and other work benefits.

The Rwanda PBF scheme involves the transfer of conditional funds to public health care facilities to supply a package of basic health services to population. The health facility is totally autonomous in the use of the funds received from the PBF at its disposal without interference from the district or central level. Each health facility has a management committee representing all providers and which provides guidelines for the use of the funds.

This mechanism proved particularly successful in triggering increase in the utilization of key high impact health services. In both provinces the implementation of incentives schemes for health workers in the form of a performance based contract based on a few easily monitored indicators has been followed by a dramatic increase in the use of out-patient services, assisted deliveries and even family planning.

A recent evaluation of the approach found that the provinces in which the performance based approach was implemented outperformed the control provinces on all indicators – both in absolute achievements, in proportional increase per indicator as well as in quality - since the introduction of the output based schemes. For example a 28 times difference in family planning coverage was found between Cyangugu and Kibungo provinces and a 4 times difference between the institutional delivery coverage rates between Cyangugu and Gikongoro provinces. Refer to tables 2 and 3 below;

Table 2: Performance of output indicators in 4 provinces in 2004

Provinces	Coverage Outpatient 2004	Coverage Assisted Delivery 2004	Coverage FP 2004	Coverage Measles 2004
Butare (control)	47%	19,1%	2,4%	74,5%
Cyangugu (study)	61%	26,8%	4,9%	86,5%
Provinces PBA	55%	*23,1%*	*3,9%*	*81,5%*
Gikongoro (study)	24%	6,7%	0,9%	84,9%
Kibungo (control)	37%	12,7%	0,2%	72,9%
Provinces Control	*30%*	*9,7%*	*0,5%*	*78,9%*
All provinces	**47%**	**18,2%**	**2,7%**	**80,6%**

Table 3: Overview of increase in 3 main indicators

Provinces	Increase Outpatient Visits 2004/2001	Increase Assisted Deliveries 2004/2001	Increase Family Planning 2004/2001	Average Increase
Butare (control)	27%	12,7%	1,8%	13,8%
Cyangugu (study)	37%	5,8%	3,5%	15,4%
Provinces PBA	*33%*	*10,9%*	*2,8%*	*15,5%*
Gikongoro (control)	7%	2,6%	0,6%	3,3%
Kibungo (study)	14%	3,3%	-0,1%	5,8%
Provinces Control	*10%*	*2,9%*	*0,2%*	*4,5%*
All provinces	**25%**	**7,8%**	**1,9%**	**11,6%**

Overall, the comparison between Kibungo province - in which financial transfers were made for human resources without contracts attached - and the Butare and Cyangugu provinces shows that input financing had inferior results in comparison with the output financing support. The evaluation of the experience of the performance based approach in Rwanda concluded that increasing the government subsidy by only increasing the number of staff paid by the government had a low level of cost-effectiveness if performance based incentives are not included. The study concluded that centralized line item subsidy of salaries should be considered with care and may be advantageously replaced by extension of performance based subsidy schemes (GPOBA, 2005).

V. DISCUSSION

This study documented two best practice initiatives used for retention of health workers in Uganda and Tanzania. It also highlights but does not discuss in detail the PBF model in Rwanda which has demonstrated increase of staff performance, although less is known about its impact on retention of health workers.

From the two models discussed from Uganda and Tanzania, it is evident that the most positive impact in retention of health workers can be achieved through the combination of incentives that target financial and non financial needs of the health workers. Such incentives include; improved working conditions; training and supportive supervision; good living conditions; career opportunities; good communication; health care and educational opportunities for themselves and their families (Ndetei et al., 2008).

Other studies suggest that the way human resources in health are trained, deployed and managed by many countries reduces their productivity (Dolvo, 2005). The studies suggest that to alleviate the problem, the capacity of African countries' HRH departments needs to be strengthened, and development partners and governments must invest significant portions of health budgets in building capacity, not only through training, tools and technology, but with incentives to retain staff (Dolvo, 2005).

Health worker motivation is also strengthened by certain environmental factors including; a sense of self-worth-valued and respect by colleagues and managers; positive working relationships; pre-service training appropriate to the job; justice and equity with fair treatment; adequate rewards; feedback on performance with supportive supervision and appraisal; ability to do the job - in-service training; clear expectations of performance and provision of job descriptions (Manafa et al., 2009, Salem & Beattie, 1996).

Unique aspects of the Karamoja model (Uganda)

The Karamoja model discusses 3 major strategies for retention of health workers. The main philosophy behind this model is; **"**Make it worthwhile to move to a remote or rural area by using both financial and non-financial incentives". The 3 major strategies are:

1. Provide scholarships, bursaries or other education subsidies with enforceable agreements of return to service in rural or remote areas with the goal to increase recruitment of health workers in these areas.

2. Enroll students with a rural background in education programmes for various health disciplines, in order to increase the likelihood of graduates choosing to practice in rural areas.

3. Locate health professional schools and campuses outside of capitals and other major cities, as graduates of these schools and programmes are more likely to work in rural areas.

Benchmarking with international best practice
Each of the strategies listed above is discussed briefly below with comparisons with international best practice.

1. **Provide scholarships, bursaries or other education subsidies with enforceable agreements of return to service in rural or remote areas with the goal to increase recruitment of health workers in these areas.**

Many governments offer students in the health professionals scholarships, bursaries, stipends or other forms of subsidies to cover the costs of their education and training and in return students agree to work in a remote or rural area for a certain number of years after they become qualified.

A systematic review analyzed the effectiveness of financial incentives given in return for medical service in rural areas (Bärnighausen & Bloom, 2009). It included 43 studies, of which 34 evaluated programmes based in the USA, while the rest examined programmes from Canada, Japan, New Zealand and South Africa. In these programmes, future health workers (i.e. students), or practicing health workers enter into a contract whereby they receive some sort of financial incentive (either scholarships for their education, or loans to payback their education, or direct financial incentives), and in exchange they commit to serve in a rural area for a certain period of time.

Usually, this intervention is combined with other types of retention strategies, such as recruitment of students from rural backgrounds or training in a rural located school (see Box 1). These types of bonding schemes were linked to impressive retention rates in 18 studies: the proportion of participants who remained in the underserved area after

completing their obligated period of service ranged from 12% to 90% (Bärnighausen & Bloom, 2009). The case study below highlights a similar model from Japan.

Box 1: Home prefecture recruiting scheme, Jichi Medical University, Japan

The Jichi Medical University (JMU) in Japan began a new and unique «home prefecture recruiting scheme» in 1972 with the aim to produce rural doctors and distribute them nationwide. Students who attend JMU are fully funded by their prefecture government to study medicine and they sign a contract bonding them to working in their home prefecture medical institutions for nine years post-graduation, with five to six years of this obligation spent in rural dispatch areas chosen by their home prefecture. If a contract is breached all medical school expenses must be paid in one lump sum. In one part of a well-designed retrospective cohort study, 1477 graduates from JMU were surveyed in 2000, 2004 and 2006. There was a 95% completion rate and on average, 69.8% of JMU graduates remained in their home prefectures for at least six years after their obligatory service. Interestingly, if settlement is defined as being in a home prefecture for at least one out of the three time points, the settlement rate of post-obligation JMU graduates rises to 76.3% (Matsumoto et al., 2008).

2. Enroll students with a rural background in education programmes for various health disciplines, in order to increase the likelihood of graduates choosing to practice in rural areas.

There is a compelling body of evidence from high-, middle- and low-income countries that a rural background increases the chance of graduates returning to practice in rural communities. Some studies have shown that they continue to practice in those areas for at least 10 years (Laven & Wilkinson, 2003; De Vries & Reid, 2003; Rabinowitz et. al, 2005; Woloschuk &Tarrant, 2004).

A Cochrane systematic review states: “It appears to be the single factor most strongly associated with rural practice” (Grobler et. al, 2009). Several longitudinal studies tracking the practice locations of physicians in the USA have found that students with a rural background continue to practice in rural areas for an average of 11-16 years after graduation (see Box 2). In South Africa, students from rural backgrounds are three times more likely to practice in a rural location compared with their urban counterparts (De Vries & Reid, 2003).

Box 2: Long-term retention of graduates from a program to increase the supply of rural family physicians

A multifaceted education programme aimed at producing long-serving physicians for rural areas in the USA has proven highly successful, according to the results of comprehensive longitudinal cohort studies. Researchers tracked the location and retention of graduate physicians from the “Physician Shortage Area Program (PSAP)” in rural areas of the USA for over 20 years. They found that after 11-16 years, 68% of the PSAP graduates were still practicing family medicine in the same rural area, compared with 46% of their non-PSAP peers. Although the PSAP’s class sizes are relatively small, the evidence indicates that a high percentage of its graduates serve in rural areas for many years (Rabinowitz et. al, 2005).

3. Locate health professional schools and campuses outside of capitals and other major cities, as graduates of these schools and programmes are more likely to work in rural areas.

Large observational studies from high and low-income countries show that medical schools located in rural areas are likely to produce more physicians working in rural areas than urbanely located schools. For example, a recent review found that medical schools in the USA with the following characteristics tend to produce more rural physicians: located in rural states, public ownership, offering training in generalist specialties and receiving little federal research funding (Wilson, et. al, 2009).

Studies in the Democratic Republic of the Congo and China showed that location of a school in a rural area was strongly associated with subsequent employment in the rural area (Longombe, 2009, Wang, 2002). However, it is often difficult to determine the independent effect of rural location of schools, because research findings tend to be confounded by such factors as recruitment of more rural students in such schools (Wilson, et. al, 2009).

Unique aspects of the Mkapa Fellows model (Tanzania)

The Mkapa Fellows model uses two main strategies namely:

1. A combination of fiscally sustainable financial and non-financial incentives such as hardship allowances, grants for housing, free transportation, paid vacations, etc.

2. Designed continuing education and professional development programmes that meet the needs of rural health workers and that are accessible from where they live and work, so as to support their retention.

Each of these strategies is highlighted below with reference to international best practices models.

1. Use a combination of fiscally sustainable financial and non-financial incentives such as hardship allowances, grants for housing, free transportation, paid vacations, etc.

Several studies point to salaries and allowances as two of the key factors that influence health workers' decisions to stay in or leave a rural workplace (Dieleman, et. al, 2003; Iipinge, et. al, 2006; Mangham & Hanson, 2008; Martineau, et. al, 2006; Mrayyan, 2005; Kotzee & Couper, 2006). Financial incentives are widely used to recruit and retain health workers in remote and rural positions, and can be implemented relatively quickly. Yet, well-designed and comprehensive evaluations of the effectiveness of financial incentives are rare, and the evidence that is available suggests mixed results.

In Australia, for example, financial incentives were set up for long-serving physicians in remote and rural areas and the amount paid varied according to location and length of service (Gibbon & Hales, 2006). One of these incentive plans succeeded in achieving a 65% retention rate of physicians after five years. In the Niger, financial incentives were responsible for increasing the percentage of physicians, pharmacists and dentists working outside the capital, Niamey. But two years after implementation, the proportion

of health workers choosing to go to these areas had not changed significantly (from 42% at the start to 46%. (Niger MoH, 2008).

However, other studies have shown positive effects of financial incentives on increased attractiveness of rural areas. A survey in South Africa found that 28% to 35% of rural health workers who received the rural allowance believed it affected their career plans for the next year (Reid, 2010). A mid-term review of the Zambian Health Workers Retention Scheme found that within two years of implementation, the scheme had been able to attract and retain more than 50 doctors in rural areas, some to areas where there were previously no doctors available (Koot & Martineau, 2005).

2. Design continuing education and professional development programmes that meet the needs of rural health workers and that are accessible from where they live and work, so as to support their retention.

Access to continuing education and professional development is necessary to maintain competence and improve performance of health workers everywhere (WHO, 2006). However, it may be difficult for health workers in rural areas to access these programmes if it requires traveling to urban locations.

There is limited direct evidence on the effect of continuing education programmes on retention. But there is ample supportive evidence that if delivered in rural areas, and if focused on the expressed needs of rural health workers, these programmes are likely to improve the competence of rural health workers, make them feel like they are a part of a professional group, and increase their desire to remain and practice in those areas (Humphrey et al., 2007; White et al., 2007).

Similarities between the two models used in Uganda and Tanzania

Both models used combination of *financial and non-financial incentives* for retention of their employees. The notable similarities are:

Improve living conditions for health workers and their families and invest in infrastructure and services (electricity, housing, telecommunications, and professional development) as these factors have a significant influence on a health worker's decision to locate to and remain in rural areas.

The absence of direct evidence that improving rural health infrastructure and living conditions contributes to increased retention of health workers in rural areas is mainly because few large-scale programmes have been implemented (Lehmann et al., 2008). On the other hand, there is ample supportive evidence. In studies that aim to elicit the factors that influence decisions to work in a remote or rural area, the availability of good living conditions is always mentioned as very important. This includes accommodation, roads, electricity, running water, Internet access, and schools for children and employment opportunities for spouses.

A study of South African doctors listed better accommodation as one of the three most important factors that would influence them to remain in a rural area (Kotzee & Couper, 2006). A study in Bangladesh revealed that remoteness and difficult access to health centers were major reasons for health worker absenteeism, while health personnel

working in villages or towns with roads and electricity were far less likely to be absent (Chaudhury & Hammer, 2003).

Anecdotal data reinforce the results of studies indicating that the lack of appropriate housing, electricity and phone service, and inadequate schools, all act as disincentives for rural service. Given that this intervention is always part of a larger retention package or scheme of so-called "non-financial incentives", it is difficult to isolate its individual effect on retention.

Provide a good and safe working environment, including appropriate equipment and supplies, supportive supervision and mentoring, in order to make these posts professionally attractive, and thereby increase the recruitment and retention of health workers in remote and rural areas

To what extent improving the working environment has directly improved retention in rural areas is unclear. However, according to a Cochrane systematic review, professional and personal support may also influence health professionals' choice to work in underserved areas.

Professional development, ongoing training and style of health service management were important factors influencing retention of health professionals in underserved areas" (Grobler et al., 2009). Supportive evidence from satisfaction surveys shows that health professionals are disinclined to apply for or accept assignments to practice in facilities that are in a state of disrepair and that do not have basic supplies, such as running water, gloves, elementary basic drugs and rudimentary equipment, because this dysfunctional work environment severely limits their ability to practice what they have been trained to do (Henderson & Tulloch, 2008; Kotzee & Couper, 2006). In addition, supportive supervision is also a key element that contributes to improved job satisfaction, performance and subsequent retention and practice in rural areas (WHO, 2006).

Foster interaction between urban and rural health workers by identifying and implementing appropriate outreach activities to facilitate cooperation between health workers from better served areas and those in underserved areas, and, where feasible, use tele-health to provide additional support to health workers in remote and rural areas.

In addition to improved working conditions and supportive supervision, there is also the possibility to provide outreach support to rural health workers. One form of outreach support is when individual specialists or teams of specialists make regular visits to their rural peers to advise and assist with patient care and their professional development. Another form is telehealth, where distance-based technology is used to help rural health workers diagnose and treat patients and improve their knowledge and skills.

There is no direct evidence that outreach support programmes improve rural or remote retention. However, there is ample supportive evidence from observational studies that such programmes improve competencies and job satisfaction of rural health workers (Watanabe et al., 1999; Gruen et al., 2003). They can also contribute to improving local quality of care, reduce the number of consultation visits to specialists and lower the rate of hospital admissions (Como et al., 2005; De Roodenbeke et al., 2006).

Develop and support career development programmes and provide senior posts in rural areas so that health workers can move up the career path as a result of experience, education and training, without necessarily leaving rural areas.

A career ladder provides a sequence of posts, from the most junior to the most senior, which health workers can climb up as they advance in their jobs. This is particularly relevant in the public sector and civil service where a clear sense of hierarchy is the rule. There is no direct evidence that setting up career ladders in rural areas can help to retain health workers.

However, evidence from surveys shows that clear career prospects are important factors in the choice of health workers to practice or not in a remote or rural area (Gagnon et al., 2006; 2007). Such interventions are likely to improve the morale and professional status of health workers, which can in turn improve their motivation, job satisfaction and work performance.

VI. CONCLUSION AND RECOMMENDATION

In conclusion, the two models used in Uganda and Tanzania demonstrate the multiple dimensions of an effective and sustainable response to retention of health workers. While some of the strategies obviously depend on country contexts, the overriding theme is the recognition of the vital role of adequate human resource for health in the delivery of sound health services and the need to invest in sound mechanisms to attract, and retain skilled health personnel especially in under-served areas such as rural and remote areas in the countries.

For the ECSA region, a good number of lessons emerge from analysis of the two models in Tanzania and Uganda. It is imperative that training and recruitment of more health workers should be supplemented with favorable working environment and enabling human resource management policies and systems that are informed by local conditions.

An appropriate mix of financial and non financial incentives that are clearly targeted and sustainable can contribute to increased retention and motivation of health workers in country health systems and more importantly in underserved areas. These should be matched with health system wide responses to improve infrastructure and work environment factors that enable health workers to feel recognized and supported in their day to day work.

REFERENCES

1. Adamson S, Muula D, Maseko FC: Survival and retention strategies for Malawian health professionals: Regional Network for Equity in Health in Southern Africa (EQUINET)**.** *EQUINET discussion paper, No 32.*

2. Awases M, Gbary A, Nyoni J, Chatora R. (2003). *Migration of Health Professionals in Six Countries: A Synthesis Report*. Brazzaville: WHO-AFRO DHS; 2003.

3. Bärnighausen T & Bloom D. (2009). Financial incentives for return of service in underserved areas: a systematic review. *BMC Health Services Research*, 2009, 9:86.

4. Chaudhury N, Hammer J. (2003). Ghost doctors: absenteeism in Bangladeshi health facilities. Washington DC, The World Bank, 2003 (Policy Research Working Paper No. 3065).

5. Como del Corral MJ et al. (2005). Utility of a thematic network in primary health care: a controlled interventional study in a rural area. *Human Resources for Health,* 2005, 3(4):1–7.

6. Dambisya, YM (2007a) 'A review of non-financial incentives for health worker retention in east and southern Africa', *EQUINET Discussion Paper 44:* University of Limpopo and EQUINET: Harare

7. Dambisya YM (2007b) "Human resource for health protocols, strategies and approaches: A desk review", *Unpublished paper.* ECSA-HC: Tanzania

8. De Roodenbeke E et al. (2010). *Outreach services as a strategy to increase access to health workers in remote and rural areas*. Geneva, World Health Organization, 2010 (in press).

9. De Vries E, Reid S. (2003). Do South African medical students of rural origin return to rural practice? *South African Medical Journal*, 2003, 93(10).

10. Dieleman M et al (2003). Identifying factors for job motivation of rural health workers in North Viet Nam. *Journal of Human Resources for Health*, 2003, 1(10): 1–10.

11. Dielman M, Toonen J, Toure H, Martineau T (2006). The match between motivation and performance management of health sector workers in Mali. *Human Resources for Health* 2006, **4:**2.

12. Dielman M, Cuong PV, Anh LV, Martineau T. (2003). Identifying factors for job motivation of rural health workers in North Viet Nam. *Human Resources for Health* 2003, **1:**10

13. Dolvo, D. (2005). Wastage in the health workforce: some perspectives from African countries; Commentary BMC - Human Resource for Health.

14. ECSA-HC (2006) ECSA Health Ministers' Resolutions (30th - 44th). ECSA-HC: Tanzania.

15. Iipinge SN et al. (2006). Perceptions of health workers about conditions of service: A Namibian case study. Harare, Regional Network for Equity in Health in Southern Africa (EQUINET), 2006 (Discussion Paper No. 35)

16. (http:// www.equinetafrica.org/bibl/docs/DIS35HRiipinge.pdf, accessed 17 March 2010).

17. Gagnon MP et al. (2006). Exploring the effects of telehealth on medical human resources supply: a qualitative case study in remote regions. *BMC Health Services Research*, 2006, 7(6):1–9.

18. Gagnon MP et al. (2007). Implementing telehealth to support medical practice in rural/remote regions: what are the conditions for success? *Implementation Science,* 2007, 1(18):1–8.

19. Gibbon P & Hales J. (2006). *Review of the Rural Retention Program – Final report*. Australian Government, Department of Health and Ageing, 2006. (http://www.healt.gov.au/internet/main/publishing.nsf/Content accessed 17 March 2010).

20. Grobler L et al. (2009). Interventions for increasing the proportion of health professionals practising in rural and other underserved areas (Review). The Cochrane Library, 2009, Issue 1.

21. Gruen RL et al. (2003). Specialist outreach clinics in primary care and rural hospital settings. *Cochrane Database of Systematic Reviews,* 2003, (4).

22. Henderson LN, Tulloch J. (2008). Incentives for retaining and motivating health workers in Pacific and Asian countries. *Human Resources for Health*, 2008, 6:18.

23. Humphreys et al., (2007) *Improving primary health care workforce retention in small rural and remote communities: How important is ongoing education and training?*
24. Canberra, Australian Primary Health Care Research Institute.

25. Laven G, Wilkinson D. (2003). Rural doctors and rural backgrounds: How strong is the evidence? A systematic review. *Australian Journal of Rural Health*, 2003,
26. 11:277–284.

27. Longombe AO. (2009). Medical schools in rural areas – necessity or aberration? *Rural and Remote Health*, 2009, 9:1311.

28. Manafa, O., McAuliffe, E., Maseko, F., Bowie, C., MacLachlan, M., Normand, C. () Retention of health workers in Malawi: perspectives of health workers and district management. Human Resource for Health; 2009

29. Matsumoto M, Inoue K & Kajii E. (2008). Long-term effect of the home preference recruiting scheme of Jichi Medical University Japan. *Rural and Remote Health*, 2008, 8:1-15

30. Mangham LJ & Hanson K. (2008). Employment preferences of public sector nurses in Malawi: results from a discrete choice experiment. *Health Economics and Financing Programs*, 2008, 13(12):1433–1441.

31. Martineau T et al. (2006) *Factors affecting retention of different groups of rural health workers in Malawi and Eastern Cape Province, South Africa*. Geneva, World Health Organization / Alliance for Health Policy and Systems Research, 2006 (unpublished).

32. Mathauer I, Imhoff I: Health worker motivation in Africa: the role of non financial incentives and human resource management tools. *Human Resources for Health* 2006, **4:**34.

33. McAuliffe E, Manafa O, Maseko F, Bowie C, (2009). White E: Understanding job satisfaction amongst mid-level cadres in Malawi: the contribution of organisational justice. *Reproductive Health Matters* 2009, **17:**80-90.

34. Mrayyan MT (2005). Nurse job satisfaction and retention: comparing public to private hospitals in Jordan. *Journal of Nursing Management,* 2005, 13:40–50.

35. Ndetei, D., Khasakhala, L., Omolo, J. (2008). Incentives for health workers retention in Kenya: An assessment of current practice. Discussion paper 62.

36. Kotzee T & Couper ID (2006). What interventions do South African qualified doctors think will retain them in rural hospitals of the Limpopo province of South Africa?
37. *Rural and Remote Health*, 2006, 6:581.

38. Koot J & Martineau T. (2005). *Zambian Health workers retention scheme (ZHWRS) 2003-2004: Mid-term review.* 2005 (http://www.hrhresourcecenter.org/hosted_docs/Zambian_Health_Workers_Retention_Scheme.pdf, accessed 24 March 2010).

39. Lehmann U, Dieleman M, Martineau T. (2008). Staffing remote rural areas in middle- and low-income countries: A literature review of attraction and retention. *BMC Health Services Research*, 2008, 8:19.

40. Rabinowitz HK et al. (2005). Long-term retention of graduates from a program to increase the supply of rural family physicians. *Academic Medicine*, 2005, 80:728–732.

41. Reid S. (2004). *Monitoring the effect of the new rural allowance for health professionals – Research project report.* Durban, Health Systems Trust, 2004 (http://healthlink.org.za/uploads/files/rural_allowance.pdf , accessed 29 March 2010).

42. Salem B, Beattie K. (1996). *Facilitative Supervision: A Vital Link in Quality Reproductive Health Service Delivery. Engender Health Working Paper No. 10*. New York: AVSC International; 1996.

43. Seebah M: Migration of nurses from the public sector: causes/reasons for leaving and proposals for their retention – the Mauritian context. In Presentation at HRD Seminar: Presentation of research projects Cape Town: University of Western Cape; 2002

44. Soeters R, Habineza C, and Peerenboo PB. (2006). "Performance-based financing and changing the district health system: experience from Rwanda." *Bulletin of the World Health Organization* 84:884-889.

45. Wang L. (2002). A comparison of metropolitan and rural medical schools in China: Which schools provide rural physicians? *Australian Journal of Rural Health*, 2002, 10:94–98.

46. Watanabe M, Jennett P, Watson M. (1999). The effect of information technology on the physician workforce and health care in isolated communities: the Canadian
47. picture. *Journal of Telemedicine and Telecare*, 1999, 5(Suppl.2):11–19.

48. White et al., (2007). Making a difference: education and training retains and supports rural and remote doctors in Queensland. *Rural and Remote Health*, 2007, 7:700.

49. WHO (2006). *The world health report 2006 - Working together for health*. Geneva, World Health Organization, 2006.

50. Wilson NW et al. (2009). A critical review of interventions to redress the inequitable distribution of healthcare professionals to rural and remote areas. *Rural and Remote Health*, 2009, 9:1060.

51. Woloschuk W, Tarrant M. (2004). Do students from rural backgrounds engage in rural family practice more than their urban-raised peers? *Medical Education,* 2004, 38:259–261.

Additional Documents (consultant read through)

1. Human Resources for Better Performance of Health Services: the Rwanda "Akebo" approach. Government of Rwanda MINISANTE - Concept Note.

2. WHO, *Training Manual on Management of Human Resources for Health. Section 1, Part A. Geneva*. 1993.

3. Palmer D: Tackling Malawi's human resources crisis. *Reproductive Health Matters* 2006, **14:**27-39

4. World Health Organization: *Working Together for Health. The World Health Report 2006. Geneva*. 2006.

5. Payment of Lunch Allowance: A Case Study of the Uganda Health Service. A joint learning initiative; Human Resource for Health and Development. JLI Working Paper 4-2

6. Ministry of Health Uganda 2000. The Health Sector Strategic Plan 2000/01 - 2004/05

7. AMREF Uganda (2002). The Cost of Training a Comprehensive Primary Health Worker. Kampala

8. Rwanda MOH (Ministry of Health), National Institute of Statistics of Rwanda (NISR), and ICF Macro.2009. *Rwanda Interim Demographic and Health Survey 2007-08.* Calverton, Maryland, U.S.A.: MOH, NISR, and ICF Macro.

9. Government of Rwanda, Ministry of Health. 2004. *Mutuelle Health Policy.* Available: www.moh.gov.rw

10. Government of Rwanda, Ministry of Health. 2008. *National Community Health Policy*. Available: www.moh.gov.rw

11. Rusa L and Fritsche G. "Rwanda: Performance-Based Financing in Health." *In Sourcebook on Emerging Good Practice, 2nd Edition.* Managing for Development Results, 2007.

12. Benjamin William Mkapa HIV/AIDS Foundation; Strategic Plan 2008 - 2012

Appendix 1: Scope of work for consultancy

Title of the Activity: Documentation of Retention Policies, Programmes and Best Practices in Reproductive Health and Family Planning in three countries (Rwanda, Uganda, Tanzania)

Overall objective
To provide evidence based best practices in retention to inform promising incentive packages and practices for the health sector, so as to attract and retain skilled health workers especially in disadvantaged areas.

Specific Objectives
1. Determine the various retention strategies in the region
2. identify best practices in retention health workers, including those for reproductive health and family planning
3. Benchmark with best practices regionally, and internationally with a view to create a conducive environment for public health workers

Expected Outputs
The expected outputs from the activity will be a report with documentation of best practices.

METHODS
In preparation for the activity, terms of reference for a consultancy will be developed and an advert will be made to obtain applications from potential candidates. The applicants will be required to submit an inception report which also shows how they plan to document the best practices. Among other inception report requirements, they will be required to develop criteria for judging interventions/programmes as best practices and how they will obtain the information on retention strategies conduct the analysis and write the report. Among other things, the inception report should include:

- Introduction and background
- Methods and data collection tools
- Criteria for best practices
- Format for the whole report
- Format for writing up a best practice

The best practices will then be disseminated using various forums including the September 2009 Forum on Best Practices in Health.

DELIVERABLES
The following are the deliverables for the activity:

- An inception concept note with background, methods, tools and plan for implementing the activity
- A report of the activity with findings on policies, programmes and best practices
- A format/criteria for best practices

WORK DAYS ORDERED ARE 10 AS FOLLOWS:

- Finalizing the inception concept note - 2 days
- Conducting the reviews - 9 days
- Analyzing data and report writing - 3 days
- Presenting results at Forum on best Practices -1 day

Total 15 days

QUALIFICATION AND EXPERIENCE

The consultant should have:

- At least a Masters degree in related subject areas, for example health and social sciences
- Wide experience in policy, programming and implementation of health interventions, especially reproductive health and family planning
- Experience in HRH and retention issues
- Skills in of use of scientific enquiry methods
- Good writing skills
- Good facilitation skills

Appendix 2: List of individuals interviewed

TANZANIA

Dr. Adeline Saguti-Nyamwihura
Programme Manager
Benjamin William Mkapa HIV/AIDS Foundation
Health Workforce and Systems
Benjamin William Mkapa Pension Tower
3rd Floor, Wing B, Azikiwe Street
P.O.Box 76274
Dar es Salaam, Tanzania
Tel: +255 22 220 0010/1/3
+255 22 220 0074
Cell: +255 713 263 355
Fax: +255 22 220 0012
Email: asaguti@mkapahivfoundation.org

Dr. Gilbert R. Mliga
Director of Human Resource Development
Ministry of Health and Social Welfare
P.O.Box 9083
Tel: +255 22 2120261/7
Fax: +255 22 2139951
Dar es Salaam, Tanzania

Dr. Deo Mtasiwa
Chief Medical Officer
Ministry of Health and Social Welfare
P.O.Box 9083
Tel: +255 22 2120261/7
Fax: +255 22 2139951
Dar es Salaam, Tanzania

Dr. Catherine Sanga,
Director, Reproductive & Child Health Services
Ministry of Health and Social Welfare
P O Box 9083
Dar es Salaam, Tanzania

Dr. Fatma Kabole
Capacity Project-Tanzania
Off United Nations Road, Plot 455
Charambe Street Upanga,
Dar Es Salaam, Tanzania
Tel: +255 22-212-6850
Email: fkabole@capacityproject.org

Mr. Gusta Moyo
Registrar
Tanzania Nurses and Midwives Council
P.O.Box 9083
Tel: +255 22 2120261/7
Fax: +255 22 2139951
Dar es Salaam, Tanzania

Dr. Yahya A. Ipuge
Country Director
Clinton Foundation
Dar es Salaam, Tanzania

Dr. Edith M. Ngirwamungu
President, Medical Association of Tanzania
P.O.Box 701
Dar es Salaam, Tanzania
Tel: +255 22 2151835

Dr. Mohammed H. Makame
PATH Project Director
Skyways Building, 1st Floor, Ohio Street/Sokoine Drive
P.O. Box 13600
Dar es Salaam, Tanzania
Phone: +255 22 2122398
Fax: +255 22 2122399
E-mail: mmakame@path.org

Dr. Bergis Schmidt-Ehry
Programme Manager
Tanzania German Programme to Support Health
P.O.Box 65350
Dar es Salaam, Tanzania
Tel: +255 22 2152422
Fax: +255 22 2152420

Ms. Agnes Mtawa
Secretary General, Tanzania Midwives Association /Director of Nursing Services
Muhimbili National Hospital
Dar es Salaam, Tanzania
Tel: +255 754 629558

UGANDA

Dr. Kenya-Mugisha Nathan
Director, Health Services,
Ministry of Health
P.O.Box 7272
Kampala, Uganda
Cell: +256 772731751
Email: Kenya.mugisha@health.go.ug

Dr. Ndyamuba Refaya
Makerere University School of Public Health
Email : ndyamuba@yahoo.co.uk
Tel : +256-77465839

Dr. E. K. Kanyesigye
Assistant Commissioner of Health Services,
Human Resources Development
Ministry of Health
P O Box 7272
Kampala, Uganda

Dr. Miriam Sentongo
Assistant Commissioner of Health,
Reproductive and Child Health
Ministry of Health
P O Box 7272
Kampala, Uganda

Mrs. G. M. Ssendyona
Assistant Commissioner Human Resource Management
Ministry of Public Service
Kampala, Uganda

Dr. Francis Runumi
Commissioner Health Services (Planning)
Ministry of Health
P O Box 7272
Kampala, Uganda

Dr. Vincent Oketcho
Chief of Party
Capacity Project, Planning, Developing & Supporting Workforce
Kawalya Kaggwa Close, Plot 208, Kololo
P.O.Box 71050,
Kampala, Uganda
Tel: +256 312 299 641

Mr. Martin Namutso
HRIS Specialist
Capacity Project, Planning, Developing & Supporting Workforce
Kawalya Kaggwa Close, Plot 208, Kololo
P.O.Box 71050,
Kampala, Uganda
Tel: +256 414 347959

Ms. Margareth Chota
Commissioner Health Services Nursing
Ministry of Health
P.O.Box 7272
Kampala, Uganda

Ms. Enid Mwebaza
Deputy Chief Nurse
Ministry of Health
P.O.Box 7272
Kampala, Uganda

Mr. Patrick Okello
Ministry of Public Services
Kampala, Uganda
Tel: +256 776 417077

Dr. Sam Orach
Uganda Catholic Medical Bureau
Nsambya, Uganda

Mr. Isaac Kajimu
Uganda Catholic Medical Bureau
Nsambya, Uganda

Ms. Christine Tashobya
Ministry of Health
DANIDA Health Project
Kampala, Uganda

RWANDA

Dr. Agnes Binagwaho
Permanent Secretary
Ministry of Health
P O Box 84
Kigali, Rwanda

Dr. Eugene Rwabuneza
Head, Family Planning Unit
Ministry of Health
Kigali, Rwanda

Dr. Fidele Ngabo
Head, Maternal and Child Health
Ministry of Health
Kigali, Rwanda

Dr. Kathy Kantengwa,
Team Leader, MSH - HIV/PBF Project
Kigali, Rwanda

Mr. Louis Rusa
National Coordinator for PBF
MOH - PBF Support Cell
Kigali, Rwanda

Cedric Ndizeye
Monitoring & Evaluation Specialist
MSH - HIV/PBF Project
Kigali, Rwanda

Christine Mukantwali
Chief PBF District Coordinator
MSH - HIV/PBF Project Rwanda

Dr. Paulin Basinga
National University of Rwanda,
School of Public Health
Butare, Rwanda

Dr. Jeanine Umtesi Condo
National University of Rwanda,
Department of Community Health
School of Public Health
Butare, Rwanda

Appendix 3: Interview guide for key informants (MoH/ program stakeholders)

Date ----------

Name and Contact Address ----------

Introduction: I want to thank you for taking the time to meet with me today. My name is Sebalda Leshabari. ECSA HC is planning to document best practices on retention of health workers that can be shared and advocated for scale up in the region. Please take a moment to complete this form if you have/know a successful intervention ("Best/Promising Practice on retention of health providers") that is worth disseminating to others.

1. Name of your organization----------
2. Who developed this intervention----------
3. Type of intervention (e.g. NGO, public, private etc)----------
4. Funding source----------
5. Place and contact address of the intervention----------
   ---
6. Setting; urban or rural----------
7. When was it started----------
8. How was it started----------
9. Why was it started----------
10. What problems does the intervention address----------
    ---
11. What were the objectives----------
    ---
12. How many health workers under this intervention----------
13. What was done to retain health workers(list the main activities)----------
    ---

    ---
14. What skills or other resources are needed to implement or strengthen the intervention----------
    ---

15. What are the monitoring and evaluation measures which are used for the intervention----------
---
16. Do you have results (data) to demonstrate that this intervention achieved its objectives----------
---
17. What works on retention----------
---
18. What does not work on retention----------
---
19. What were the factors that led to the intervention success in retaining service providers----------
---
20. Why do you consider this a best/promising practice?----------
---
21. Why should it be replicated in other areas?----------
---
22. *Does intervention demonstrate;*
    a) *cost effectiveness*----------
    ---
    b) *sustainability*----------
    ---
    c) *effectiveness/ efficacy*----------
    ---
    d) *ethical considerations*----------
    ---
    e) *relevance*----------
    ---
    f) *replicability*----------
    ---
    g) *transferability*----------
    ---
23. What people or documents can be consulted for more information about the practice and how can they be accessed?----------
---

Appendix 4: interview guide for key informants (employees)

Date----------

Contact address----------

Introduction: I want to thank you for taking the time to meet with me today. My name is Dr. Sebalda Leshabari. ECSA HC is planning to document best practices on retention of health workers that can be shared and advocated for scale up in the region. Your organization has been identified among those with best/promising practices in retaining its health workers. I would like to talk to you about your experiences participating in this organization/project. Specifically, as one of the components of our overall program evaluation we are assessing its effectiveness on retaining health workers in order to capture lessons that can be shared and advocated for scale up in the region. The interview should take less than an hour. I will be taping the session because I don't want to miss any of your comments. Although I will be taking some notes during the session, I can't possibly write fast enough to get it all down. All responses will be kept confidential. This means that your interview responses will only be shared with research team members and we will ensure that any information we include in our report does not identify you as the respondent. Remember, you don't have to talk about anything you don't want to and you may end the interview at any time.

Are there any questions about what I have just explained?
Are you willing to participate in this interview?

1. How long have you been working in this organization/project?
2. Can you tell me how long you plan to continue working in this organization/project?
3. What are the factors that influence your decision to continue working in this organization/project?
4. What strategies, practices and/or tools which are used and you would consider to be key program elements in retaining staff in this organization/project?
5. Which of these strategies, practices and tools would you consider to be key program elements in retaining staff in this organization/project? *Please explain*
6. What strategies, practices, tools used for retention would you recommend be sustained and/or scaled up? *Probe for why in each of the recommendations given*
7. What strategies, practices, tools used for retention should be discontinued? *Why?*
8. What recommendations do you have for future efforts such as these?
9. Is there anything more you would like to add?

Thank you for your time!!

Appendix 5: ***Analytical checklist for judging the practices***

MEASURES	**Program offers (Best practice)**	**Likely to offer (Promising Practice)**	**Do not offer any of the two**
Cost-effectiveness			
Sustainability			
Effectiveness/ Efficacy			
Ethical considerations			
Relevance			
Replicability			
Transferability			