

TANZANIA HUMAN RESOURCE CAPACITY PROJECT (THRP)
HUMAN RESOURCE INFORMATION SYSTEM SUBPROJECT PROGRESS REPORT
(2009-2012)

INTRODUCTION

1. Purpose of THRP

The Tanzania Human Resources Capacity Project is a USAID funded initiative in Tanzania and is working with Prime Minister's Office-Regional Administration and Local Government (PMO-RALG) and Ministry of Health and Social Welfare (MOHSW) on the Mainland Tanzania and the Ministry of Health (MOH) Zanzibar in helping to strengthen and scale up central and district level interventions in implementing the MOHSW's, HRH Strategic Plan, the HR components of the Health Sector Strategic Plan III (HSSP III), and the National Costed Plan of Action (NCPA) for orphans and vulnerable children (OVCs). The project provides direct technical support to strengthen HRH systems within the public and private sectors that will support the delivery of primary health care services, including HIV/AIDS, family planning and reproductive health services as stipulated in the Primary Health Services Development Program (Mpango wa Maendeleo ya Afya ya Msingi-MMAM).

2. Specific objectives of the project:

- Assisting the MOHSW and PMO-RALG to orchestrate the implementation of the HRH Strategy and the HR components of the HSSP III, as requested by the MOHSW.
- Strengthening the capacity of the national and local government authorities to predict, plan for, and recruit the health and social welfare workforce.

- Improving the deployment, utilization, management, and retention of the health and social welfare workforce; and
- Increasing productivity of the health and social welfare workforce.

The HRIS Subproject

THRP started HRIS implementation in 2009. Department of Computer Science of the University of Dar es Salaam and IntraHealth provided the technical assistance in customizing the open source iHRIS to meet the needs of the Local Governments Authorities (LGAs) and the PMO-RALG. In 2011 the system became known as the Local Government HRIS (LGHRIS) to reflect its purpose in managing civil service employees across all sectors. To date the system has been deployed in 93 LGAs and 12 Regional Administrative Councils in 12 Regions. Upon completion before the end of 2012 subproject's targets to cover all LGAs and Regional Administrative Secretaries offices (RAS) countrywide. With a focus on sustaining system support beyond the THRP project period, the team successfully used PMORALG local ICT staff for the deployment exercise.

3. HRIS Subproject goals/objectives

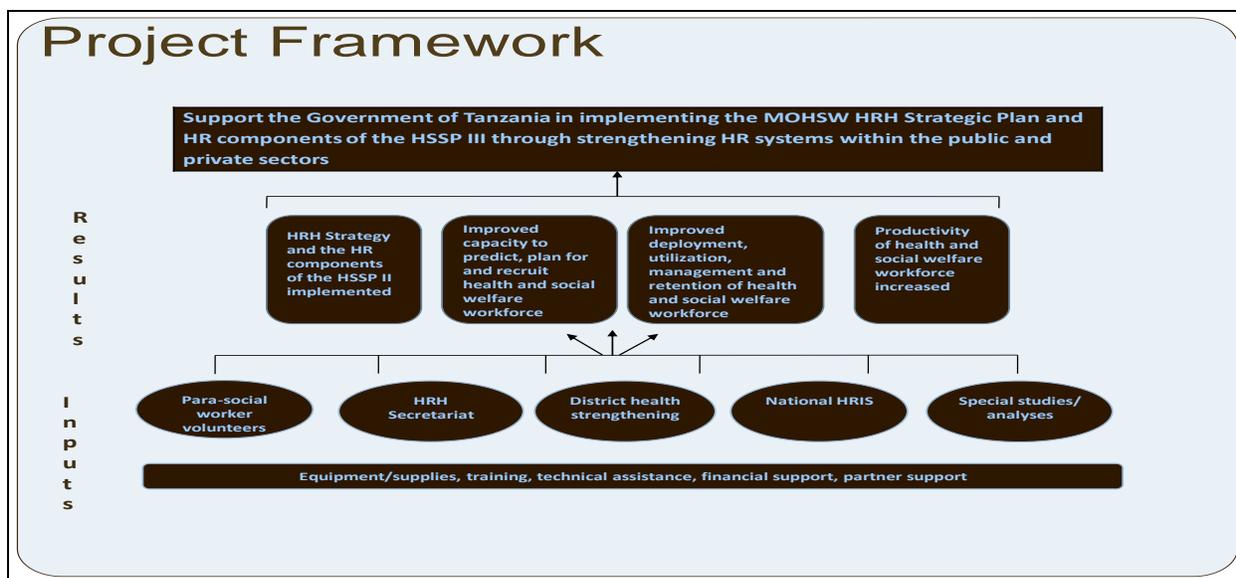
The HRIS subproject goal as part of the overall THRP is to contribute in supporting the GOT in implementing the MOHSW HRH Strategic Plan, the human resource components of the HSSP III, and the NCPA for orphans and vulnerable children. Specific HRIS goals includes supporting PMO-RALG Mainland and Zanzibar MOH to the implement routine systems to strengthen quality, availability and analysis of HR data as well as facilitation of linkages between district HRIS, training information systems and the district HMIS. The HRIS subproject focuses on two main objectives: Implementing the HRH Strategy

and the HR components of the HSSP III and assisting MOHSW department of HR, PMORALG, and LGAs in predicting, planning for, and recruiting the required health and social welfare workforce.

The HR management functions in the country are dispersed among a number of ministries, including the MOHSW, PMO-RALG, PO-PSM, MOFEA and MOEVT. This has resulted into inconsistently coordinated support on HR/HRH issues thereby hinder implementation of the HRH Strategic Plan and the HSSP III. The country's weak HRISs are indicative of the lack of coordinated information sharing between systems. Consequently, various government agencies are unable to adequately plan, track, and manage the health and social welfare workforce. Further, faith-based organizations (FBOs) are a major provider of services and health worker training in the country especially in rural and hard to reach areas. These entities suffer from similar HRH challenges. Disjointed and ineffective coordination among the private and public sectors aggravate the HRH challenges nationally.

4. Scope/ Limit of the Project

THRP addresses the current challenges that the country faces in developing an adequate health and social welfare workforce that comprises a complex yet coordinated system of public and private professionals and paraprofessional cadres and those in the non-formal sector. The project has built on the existing systems, worked within the country's policy framework and through local institutions, promoted government ownership, and engaged with partners to improve the delivery of health and social services as shown in the framework below:



5. People/partners

THRP is a local and international partnership putting together Intrahealth International, Benjamin William Mkapa HIV/AIDS Foundation (BMAF), Christian Social Services Commission (CSSC), Aga Khan Foundation (AKF) and other local agencies as needed and, Training Resources Group (TRG), Inter-church Medical Association (IMA), and Management Sciences for Health (MSH) as international partners. Since the project started in 2009 up to date, considerable effort has gone into catalyzing leadership and effective policy implementation at both the national and decentralized levels to foster greater ownership and implementation of the HRH Strategic Plan by local government authorities for long term sustainability.

CHAPTER ONE

OBJECTIVES OF HRIS PROGRESS REPORT

This progress report of HRIS subproject summarizes activities that have taken place since the project began in 2009 to April 2012. This report makes note of innovations and lessons that have been learnt in the course of implementation in order to inform further work of this project and similar projects.

Through this report we wish to document completed activities and their contribution towards the objectives of the project. This project managed to customize iHRIS Manage 4.0.0 software developed at Intrahealth International Headquarters originally designed to suit particular uses for Human Resource for Health management into a tool for management of the general workforce management tool for Tanzania.

It should be particularly noted that HRIS began with a core objective to benefit human resource for health but expanded to cover all cadres in local government. Why was this important? The customer, local government authorities, voiced the need. THRP managed to accommodate the need in the project portfolio. The result is a robust HRIS that has by April 2012 recorded data from more than 80,000 staff members from more than 100 local governments across Tanzania.

But, HRIS is not the only system capturing workforce data in Tanzania. President's Office Public Service Ministry runs a Human Capital Management Information System and the Ministry of Health and Social Services run its Human Resource Health Information System.

CHAPTER TWO

HRIS STATUS IN THE THIRD YEAR OF IMPLEMENTATION

1. Software Customization

In 2009 and 2010 University of Dar es Salaam department of Computer Science was involved in customization of iHRIS Manage 4.0.0 software to meet the requirements of the PMO-RALG office. System customization was important to bring a system that serves the real needs and that can be managed cost effectively and sustainably with locally available expertise. Five sites namely Kondo DC in Dodoma, Ludewa DC, Iringa MC, Njombe DC and Makete DC in Iringa Region were selected to implement customization. Upon successfully testing the system was rolled-out.

Customization was done in two main phases: Primary Customization and Secondary Customization

1 (a) Primary Customization

Following the assessment of needs in Makete and the primary piloting of the system in Kondo a number of initial customization work was done to address the requirements raised. This primary customization included:

Data Mapping Design:

After identifying the necessary data elements needed to facilitate HR management at ministerial level and at local governments, a unique data mapping diagram for the system was developed (see annex 1). The definition and mapping of the data elements provided an initial stage of customizing the HRIS system. After designing the data map a configuration of the database to reflect the data a map followed.

Localization of the System:

The feel and the look of the system was branded to reflect a Tanzanian look .This was accomplished by adding the official governmental logo and the Tanzanian national flag on the home page and other pages on the system. Apart from these, words PMO – Regional Administration and Local Government were include in the system title to reflect the main client of the system.

Translation to Kiswahili:

Also, to reflect the official language of communication in the government as well as to cater for information needs to external customers efforts to translate the system started. Now the system supports English and Kiswahili. To facilitate choice of language to users there system was customized to include a button for language selection found at the bottom left hand side of the system home page.

Apart from the flag and the government logo, the map of Tanzania is also added on the login page. The map shows the geographical span the system needs to cover. The developers' team also configured each LGAs or RS's system instance to reflect the name of the LGA or RS. The system allows users to access the system through the use of login credentials where they are prompted to type their username and password (see figure 2) as assigned by the human resource officer or the IT personnel administrating the system.

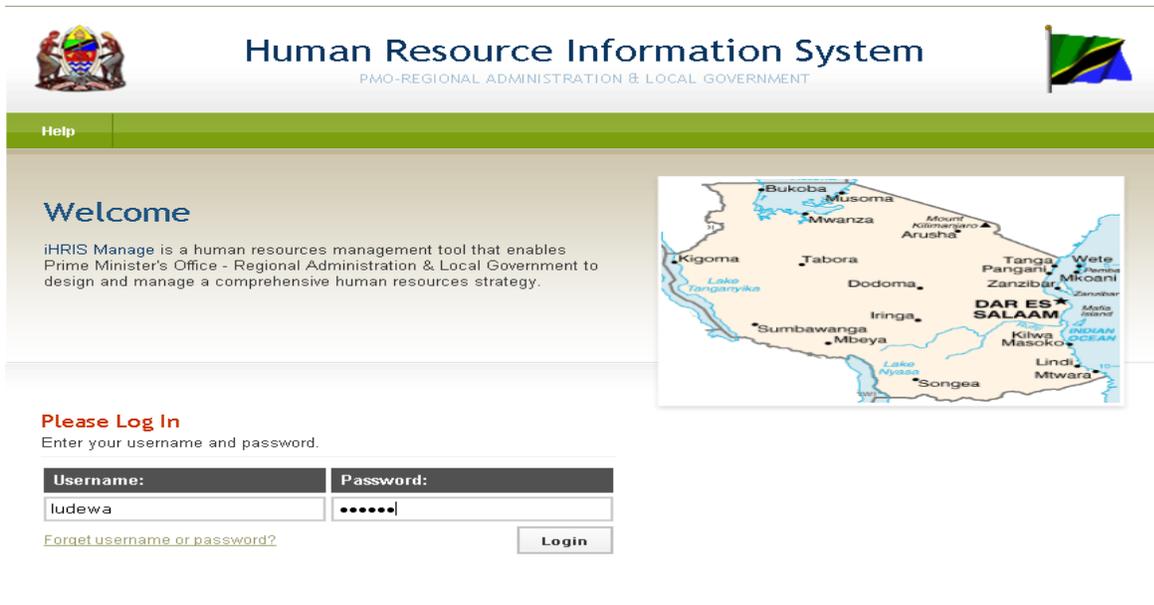


Fig. 2:- Login screen to enter username and password

Configuration of the system to cover a widened scope:

The original focus of the system was to capture health workforce data. But as the scope of the sub-project was widened to address all the other sectors such as agriculture, education, administration etc. the system was then customized to reflect the widened sectoral scope. All the cadres, job title, job positions, salary grade/scales etc for each sector was configured on the system.

HR Workflow Definition on the System:

The various business processes in the PMO-RALG and the respective local governments were identified and translated/ defined on the system. The system was configured to mimic a typical personnel personal file and the Curriculum Vitae in terms of its data content. varied thematic chapters based on the related personnel data. Some of thematic chapters configured on the system include the education history, personal information, employment history, salary grade etc.

Creating Standard Lists:

To ensure consistency of data entered on the systems, a number of standard lists were developed for standardised data such as salary scales, cadres, benefit schemes and job positions. The developers team made use of the official documents from PMO-RALG and the specific LGAs and RS to incorporate all the required data in standard lists such that the data entrants will only be required to select the data rather than type.

Configuring Standardised Reports:

A number of standardised reports were identified from both the PMO-RALG and the respective LGAs and RAS. These reports were then configured to be generated automatically by the system. Such reports include the IKAMA and TANGE (Seniority List) reports. Moreover, some ad hoc reports that proved to be the most popular reports in HR administration were also created as standardised reports whereby the user was able to just click and generate the reports rather than defining the report parameters first.

1 (b)Secondary Customization: Wider piloting and testing

As part of continued system customization and testing prior to the planned countrywide LGHRIS scale up, pilot sites were added to reflect a connected site environment. The secondary piloting took place in Njombe, Makete, Ludewa and Iringa municipal in Iringa region. This pilot work took into consideration lessons from the initial pilot in Kondo. Like the pilot in Kondo, the second pilot included installation of LGHRIS server, network and connectivity setup, LGA management and LGHRIS user sensitization, user training and initial data entry.

The secondary LGHRIS pilot in Njombe, Makete, Ludewa and Iringa municipal in 2010 showed that the system provided the opportunity for testing and demonstrating its

potential at LGAs and at Regional Secretariat as a powerful tool that can assist Human Resource Officers to review and audit staff data.

The secondary pilot study revealed particular findings as follows:

Missing fields in the seniority list report (TANGE). Previously configured and missing reports needed to be included in the system which were taken on board for system improvement. The missing fields included:

- Current Job Title (Cheo cha Sasa)
- Promotion Date (Tarehe ya kupandishwa cheo)
- Starting Work station (Kituo cha kazi cha awali)
- Current Salary Grade (Daraja la sasa)
- Relation (Uhusiano na mrithi)
- Supervisor name

New requirements for pre-configured/standardized reports arose and were included in the system accordingly. New key reports needed included:

- Labor turn over
- Staff specification (this report help in creating **Ikama**)
- Establishment and strength(**Ikama**)
- Confirmation report (including the alarm or alert to show when the staff are to be confirmed: The system to have a column which shows the date a staff is supposed to be confirmed- calculates 12 months from the date of employment. The next column will have two options to show YES/NO and if NO. Reasons for not been confirmed)
- Promotion report

The LGHRIS was installed and is currently in use Njombe, Makete, Ludewa and Iringa Municipal in Iringa region with wide-sectoral coverage flexibility based on the Makete HR need assessment in November 2009 that was supplemented by the Kondoa follow up assessment in March 2010. All these activities corroborated on the need for LGAs need to collect more information required for their own use over and above the central reporting requirements by stakeholders at ministerial level including PMO-RALG, MOHSW and PO-PSM.

Upon completion of the on-going data entry work, the system is expected to assist the LGAs in managing and planning for their HR needs operations as well as external reporting. The visits to deployed LGAs indicated a high level of enthusiasm by the DED, HRO, CHMT and other LGAs officials. Despite the observed challenges, a good starting point has been reached. As we plan for new implementations, follow up visits and support to the deployed LGAs these lessons will inform effort to upscale system utilization and realization of potentials towards assisting smooth HR information sharing for operational and strategic decision making.

Readjusting the System

To address the findings observed during the secondary pilot, the developers team customized the system again to include:

Additional data elements Mapping and Configuration:

Most of the additional data elements emerged due to the additional reports requested as well as some of the missing fields in the main TANGE report. The developers team configured these new data elements in alignment with the previous data elements.

Additional Reports configuration:

Additional reports identified above were configured in the system. These included defining the report parameters, designing the report templates as well as creating links on the system main reports menu to allow users to create such reports on the click of a button. A large percentage of the necessary data required to populate these reports were already being captured in the system.

Configuration of the missing TANGE fields:

The developer's team configured the missing fields in the TANGE report to have a comprehensive report. Configured fields that included: last date of promotion, supervision, current salary grade, relationship with the next of kin, current job title and starting work station.

Attempts to system inter-operability:

Apart from meeting the reporting requirements of the LGAs and the Regional Secretariats (RS) the developer's team also configured the system to generate an automatic report that can be imported on the PO-PSM system, based on the TUU reporting requirements. The report was completely customized.

After the detailed customization the HRIS was ready to be deployed to 24 LGAs in the THRP project areas.

2 Deployment in Local Government Authorities and Faith Based Health facilities on the Mainland

Phase I

After successful customization of the system deployment it in more local government authorities followed. Deployment was done in phases covering geographical

convenience. The first phase deployment covered the remaining four LGAs in Iringa (Njombe Town Council, Mufindi, Kilolo, and Iringa District Council and all LGAs in Lindi, Mtwara Dar es Salaam and Pwani. This was followed by phase two and three deployments which respectively covered Lake zone (Mwanza, Shinyanga, Mara and Kagera) and Northern zone (Arusha, Manyara, Kilimanjaro and Tanga). In total LGHRIS has been deployed in 103 sites to date.

Deployment involved training in hardware and software installation, connectivity and data entry work. On average the team took 7 days in each local government. Deployment team included system developers from Computer Science Department of the University of Dar es Salaam, an IntraHealth coordinator and more importantly HROs, Health Secretaries, ICT and selected LGAs officers from the relevant districts.

ICT and HR officers from districts got intensive training because they are operate the system and make it useful to senior decision makers. Their familiarity with the usage of the system is crucial to success and sustainability of the HRIS. As an incentive district HR and ICT staff who mastered the system were engaged in deployment in other stations.

General Observations and Lessons During Deployment

Most of the staff trained were relatively quick to learn how the system functions. However, a number of challenges stood out during deployment:

Insufficient computing infrastructure

Initial deployment regions were selected based on resource scarcity. The low level of computing infrastructure (computers and connectivity) was vivid. The project package of one PC and a printer to HRO boosted the situation. UDSM tested TTCL connectivity as

part of planned LGAs central connectivity to PMO-RALG. and encouraged LGAs to invest in these areas.

Shortage of Data Entrants

The training coverage was increased to involve registry and other select LGAs officers apart from the originally earmarked HROs, Health Secretaries and ICT officers. This helped widening the pool to pick data entrants.

Data availability and incompleteness

This was by far the greatest challenge. Fortunately this time the exercise went hand in hand with PO-PSM's initiated payroll data cleaning through EB1 Forms (of which HRIS pretest LGAs emerged best performers). This helped in speeding up the data entry process. However, the EB1 data has limited coverage mainly focusing on payroll management. A similar PMO-RALG's initiated process and continuous follow up and data updating by HROs are seen as the way forward.

Data entry completion

The pretest experience showed the need for DEDs increased support in the exercise. During the exercise the DEDs were taken on board as facilitators and activities sponsors and helped in setting data entry time frames. Each of the four councils trained were given a maximum of two months to finish data entry exercise.

During data entry the implementation team observed that most of the personnel files missed a lot of key information making the exercise difficult. A personnel data form was designed to be filled by each staff and checked by DHRO to assist with data entry.

Phase II and III

After a successful deployment in the Iringa, Lindi and Mtwara regions a huge deployment took place covering a four regions. The deployment exercise was carried out by a collaborative team composed of PMO-RALG ICT officers, UDSM programmers and IH HRIS specialist. Phase II covered 43 sites in Lake Zone regions-Mwanza, Shinyanga, Kagera, Mara while Phase III covered 33 sites in Northern Zone regions – Arusha, Manyara, Tanga and Kilimanjaro. The deployments went consecutively with the Lake Zone Deployment starting in January 2012 and the Northern Zone Deployment in March to April 2012.

In approaching this massive rollout of LGHRIS, the implementation was divided according to regions and small teams of three people were attached to three different but neighboring sites. Each team comprised of a PMO-RALG ICT officer, an HR officer and a programmer from UDSM .

Data Entry -All LGA sites with HRIS are entering data into the system. LGA staff with HR responsibilities received on-the-job training on system navigation and data entry. The HR officers in the respective LGAs are responsible to oversee the data entry process. Each site is at a different stage in data entry depending on when the HRIS was installed, available resources for date entry and commitment of HR officers and district leadership. By the end of March 2012 approximately 80,370 (41%) records out of 197,795 staff records at the 93 sites across 12 regions had been entered in the system. To improve the rate of data entry and gain leadership commitment at each site, the team has pursued a number strategies including a request to LGA leadership to sign a certificate of commitment for the duration of deployment to complete the task and identify a HR focal person to oversee HRIS implementation at the site.

LGHRIS Deployment	Region	Estimated number of employees	# of data entered	% data entered
2009/10	Iringa	17,816	11,075	62%
2010	Lindi	7,583	7,388	97%
2010	Mtwara	10,200	8,081	79%
2011	Pwani	11,383	2,110	19%
2011	Dar es Salaam	22,973	8,777	38%
2012 (Jan-Apr)	Mara	14,335	6,126	43%
	Kagera	17,634	7,021	40%
	Shinyanga	20,559	9,488	46%
	Mwanza	30,279	10,233	34%
	Arusha	15,253	3,670	24%
	Manyara	10,271	2,340	23%
	Kilimanjaro	19,509	4,061	21%
Total		197,795	80,370	41%

Deployment in all districts in Zanzibar

While Zanzibar is a part of the United Republic of Tanzania, it has a separate and independent Ministry of Health (MOH). Zanzibar is experiencing shortages of health care workers even more than on the Tanzania mainland. In 2002, WHO assisted the MOH to develop a *Human Resources for Health 5 – Year Development Plan*. The plan included development of HRIS.

In 2005, the Capacity Project conducted a needs assessment together with the MOH/Z HRH division to determine what technical assistance from Capacity might be most

useful. Of the priority areas presented for possible USAID assistance, four components were found to be suitable for Capacity Project intervention: 1) Strengthening the Mnazi Mmoja Referral Hospital, Human Resource Development Division, 2) Human Resource for Health Database and Human Resource Information System (or HRIS), 3) Productivity Improvement, and 4) Staff Retention. These commitments were translated into a MOU which the then Capacity Project continued to honor even after 2009 when project transitioned into the Tanzania Human Resource Capacity Project.

As part of the MoU with Zanzibar MoHS IntraHealth International, Inc. through THRP committed to develop and implementation of iHRIS manage software and supporting hardware at the MoH.

Since 2009 THRP worked with the Government of Zanzibar, capitalizing on tools piloted by its predecessor (the global Capacity Project,) to address the problem of the lack of quality data for making decisions on health workforce staffing. This included installation of a human resource information system (HRIS) and training of users of the system. More than 40 senior personnel who can make decisions based on HRIS reports have been trained. The management team of MoH said now they can generate evidence to justify their applications for recruitment and training needs.

Through its partner, the Department of Computer Science of the University of Dar es Salaam, THRP customized the HRIS to meet local needs; trained 30 district personnel in installing the system, entering data, generating reports, and maintaining the hardware; and supported extensive data verification exercises to ensure the quality of data in the system. Staff information entered in the system includes: personal identification (name, age, birth, dependants), employment history, level of education, cadre, professional training, current work station and many more.

As of March 2012 data on about 90% of health workers in Zanzibar has been entered into the HRIS. One report from the system showed a concentration of preventive medicine professionals in referral hospitals, while they are most needed to raise awareness on disease prevention in rural areas.

Moreover, HRIS data is used to determine staffing needs for 34 Primary Health Units which were being upgraded to PHCU+. This information will be used to develop a staffing plan of the upgraded PHCU+ centers. Across all districts decision-makers in the health sector now understand how useful the HRIS information is available for them to use and the Ministry of Health (MOH) in Zanzibar secured permits to hire 302 new staff in the financial year 2010/11. That number of new recruitments is the highest ever approved in one year-Health worker data has helped triggers evidence-based recruiting decisions in Zanzibar .

The Zanzibar MOH HRIS data status as of March 2012 stood at 3743 with break down as shown below:

Employee Status	Total
Active	3262
Contract	64
Death	26
Leave Without Pay	30
Retired	92
Seconded	5
Sick Leave	8
Study Leave	252

Suspended	4
Grand Total	3743

Deployment in Faith Based Health Facilities

Faith-based organizations (FBOs) manage 40 percent of health facilities in the country and provide approximately 50 percent of health services, but their facility and HR data have not been integrated with the national health information system. To successfully strengthen health worker information, Tanzania brought together FBO and government stakeholders to share information.

Starting in 2005, the Capacity Project explored ways to enhance health information sharing between the Ministry of Health (MOHSW) and the country’s largest FBO, the Christian Social Services Commission (CSSC), which provides approximately 40 percent of health care. As a result of several stakeholder leadership workshops, the CSSC decided to migrate its existing data on 850 facilities and 14,000 health workers into iHRIS Manage software, which will allow for integration with the MOHSW’s existing health management information system (HMIS). The Capacity Project responded by installing an iHRIS appliance, loaded with iHRIS Manage, at the CSSC headquarters in Dar. The Project’s efforts also supported a MoU between the MOH and the CSSC, with the aim of further integrating HR and facility information into a nationwide HR management system.

Like with the Zanzibar MOH work, this work transitioned to THRP which continued to work with the FBO sector and installed appliances in each of the CSSC’s 5 zonal offices. All of CSSC’s data can now be aggregated at the headquarters.

As part of THRP private FBO sector HRIS strengthening, the subproject worked with CSSC and UDSM in HRIS sensitization to CSSC five zones, APHFTA four zones and BAKWATA to enable CSSC, APHFTA, BAKWATA and facility owners have a clear understanding on the HRIS tool and data use. To date CSSC, APHFTA, BAKWATA collectively have a total of over 16,000 health workers entered into HRIS. The exercise also involved improving data collection and entry through training data entrant clerks. The subproject also made follow-up of routine CSSC and UDSM Management reviews commitments in collaboration with Finance Department with emphasis on the increased programmatic and financial accountability.

HRIS follow up visits were also made at CSSC Eastern zone (St Francis Hospital Ifakara), Lake Zone (Biharamulo Designated District Hospital and Northern zone (Kibosho Council Designated Hospital) with objectives of examining the functionality of HRIS hardware and software components, assessing the quality of the data entered and use of HRIS data in decision making process. The source documents were personal files. Findings from sampled 10 employees entered in the system showed by average, completed data was 60%, incomplete data was 30% and wrong data was about 10%. These percentages were based on the total number of field per report count, the number fields filled correctly to the system count, and the number of empty fields. The overall picture indicated that more needed to be done to improve quality of data in line with data usage for decision making.

Currently CSSC is coordinating 99 hospitals contribution 42% of health services delivery and over 400 education facilities including Universities, Secondary Schools, Seminaries,

Primary Schools, Vocational Training Institutions contributing 10% of educational services in the country as shown below.

Zone	No of Hospital	No of HC	No of DIS	TOTAL	Administrative Regions
LZ	22	22	116	160	Mwanza, Simiyu, Mara, Shinyanga, Geita and Kagera
WZ	12	11	68	91	Tabora, Singida and Kigoma
SZ	27	35	262	324	Mbeya, Njombe, Iringa, Rukwa, Katavi, Ruvuma, Mtwara and Lindi
EZ	18	16	135	169	Morogoro, Coast, Dodoma, Dar es Salaam and Tanga
NZ	20	17	116	153	
TOTAL	99	101	697	897	

Status of Data Entry in CSSC facilities

CSSC Zone	Total staff available	Number of staff entered in the system—as of 31 March	Percent of staff entered

			2012	
1	Northern	5565	4395	79%
2	Lake	5977	3928	66%
3	Western	2004	1894	95%
4	Eastern	2766	2604	94%
5	Southern	4942	3127	63%
	Total	21254	15948	75%

3.Capacity building: HRM and ICT

Capacity building in HRIS subproject can be differentiated into two categories. Capacity building for the THRP implementers and their supporters and capacity building to the system users. University of Dar es Salaam conducted internal capacity building to programmers and other members of staff. Students from computer science department of the University of Dar es Salaam were selected and trained on the use of iHRIS and how to customize system in order to increase the number of people who can serve and support LGHRIS.

Provide technical support to other project partners in implementation and customization of the system into their organization. E.g. CSSC, APHTA, BAKWATA, BMAF HRIS implementers attended workshops and meeting organized by various partners such as CSSC, APHTA, BAKWATA, BMAF with the aim of sharing and exchanging ideas and experience.

Different approaches have been adopted in addressing the capacity building issues for this sub-project. These includes formal training, onsite training and lastly through coaching and supervision. The capacity building strategy addressed the needs of the ICT officers and HR officers from the LGAs and from the LGAs and the PMO-RAL as well as the technical capacity within the developers team to enhance technical support locally.

Formal Training:

Three major trainings were conducted for the LGAs and PMO-RALG ICT officers. The first training was held in November 27-28, 2009 in Kibaha, Coast Region ICT officers from MOHZanzibar and MOHSW Mainland and PMO-RALG Head Office were oriented on iHRIS use, management and troubleshooting. 24 participants attended the training. The training focused on orienting the ICT officers on the basics of administration and support using FOSS technologies which is the platform supporting LGHRIS. The second training for the ICT officers from MOHSW Mainland and Zanzibar, PMORALG, UDSM and Mission Mikocheni Hospital was held in April 27-29, 2010, in Bagamoyo Coast Region which focused specifically on how to administer LGHRIS. The third training was held in Morogoro in January 26-31, 2011. Forty ICT officers from a LGAs, Regional Secretariats and PMO-RALG Head office were trained on LAMP Architecture, Open Source Programming, iHRIS use, management and troubleshooting as well as evaluation of the latest iHRIS updates in line with PMO-RALG's set checklist.

The ICT officers were trained on how to install LGHRIS, perform updating/upgrading of the system, how to backup the information contained in LGHRIS and also how to troubleshoot the system and the accompanying equipment (i.e the appliances and the routers).

Apart from the training to ICT officers, the HR officers were also trained on how to use the system.

Zanzibar MOHSW HR Officers and Senior Officers were oriented on HRIS use from May 3-6, 2010 in Zanzibar in an event that was officiated by the Minister and the PS. On the mainland the subproject facilitated training for District HROs and Regional Local Government Officers from all over the country in September 6-9, 2011 in Morogoro that focused on how to enter data on LGHRIS, how to search for data and how to generate reports. Also during the training the HR officers were also sensitized on the importance of having quality data since these are the primary collectors of data. Different scenarios whereby poor quality data was entered to LGHRIS were demonstrated. Much emphasis was put on the data collection tools and the process itself.

Onsite Training:

On each deployment exercise carried out as part of the exercise was an onsite user training conducted for three consecutive days. A number of local users selected by the respective LGAs or RSs were trained on how to use LGHRIS. Usually a group of nine to ten people were trained on site form each site LGHRIS has been installed. The training focused on data entry and some simple report generation techniques. Over 1000 LGAs and RSs staff have been trained.

Coaching and Supervision:

During the onsite training, coaching and mentoring took place to assist users on how to use LGHRIS. A supervised data entry exercise was conducted on each deployment to assist the trainees to grasp easily how to use the system. This was thought as a necessary approach since LGHRIS make use of a not commonly used platform (FOSS

technologies) hence it was envisioned that it will be difficult for user understand and start using the system easily and quickly. Apart from this reason, the activities also resulted into have preliminary data entry before the deployment teams leave the respective site.

Between July and September, 2010 the HRIS/LGHRIS subproject trained a total of 45 PMO-RALG's HRIS Project Team, Regional and ICT Staff in Dodoma as part the THRP sustainability plan and empowering them to use, manage and support the system facilitated by UDSM-CSD.

CHAPTER THREE

LGHRIS and other HRIS in Tanzania

Following HRIS/LGHRIS potential in bridging PO-PSM's centralized payroll system which was highlighted by the PMO-RALG/ UDSM-CSD visit to Coast and Dar es Salaam Regions which are pilot sites for the payroll system and HRHIS (MOHSW's chosen HRIS supported by JICA), IH had discussion with PO-PSM in July which included UDSM-CSD on the possibility of exploiting this potential. The LGHRIS subproject team advised PO-PSM to formalize the process through UDSM-CSD.

The subproject also coordinated HRIS/LGHRIS collaboration meetings with MOHSW, and JICA where IH agreed to support HRHIS in areas not covered by the JICA/MOHSW MOU for synergy and resources leveraging specifically in strengthening the quality of data entry; the quality of data analysis and reporting; and ongoing HR planning and system management. However, this initiative to which a related agreement was drafted required the approval of IH Head Office and USAID was not successful.

The subproject also contacted University Of Dodoma Department of Informatics Management for collaboration in spreading HRIS/LGHRIS knowledge and skills through delivery of the HRIS/LGHRIS Administrators Certification course in face-to-face and online (virtual) modes. The collaboration is expected to increase local HRIS experts on top of those produced by UDSM-CSD in line with THRP sustainability strategy.

CHAPTER FOUR

ON GOING WORK UNDER HRIS

1. Data Quality Assurance-Managers and policy makers need accurate and complete data to make informed decisions. Data entered into the LGHRIS system should be cleaned before generating reports for analysis and informed decisions.

THRP and PMO-RALG have pursued several strategies to strengthen the accuracy of data entered. A standardized personnel data form is now in place with each district using the same form. New staff complete the form upon arrival. HR Officers verify education and birth certificates. Districts have appointed a focal person for verifying the data entered in the system and supporting the data entry clerk. A review of sampled data, however, from four districts in Iringa indicates the need for a dedicated data cleaning exercise in all LGAs. Njombe TC and Iringa DC had a majority (more than 80%) of data fields data entered correctly. Iringa TC and Njombe DC had less than 40% of field data entered correctly (HRIS monitoring visit, October 2011).

Despite efforts to ensure clean data is entered in the system, a formal data cleaning exercise is required to verify the accuracy of data in the system against each the paper-based personnel forms. Districts need a quality assurance process which outlines standards and procedures for data entry and verification.

2. Data use in LGAs and faith based health facilities on the mainland

As part of THRP private FBO sector HRIS strengthening, the subproject worked with CSSC's Eastern zone (St Francis Hospital Ifakara), Lake Zone (Biharamulo Designated District Hospital and Northern zone (Kibosho Council Designated Hospital) with

objectives of examining the functionality of HRIS hardware and software components, assessing the quality of the data entered and use of HRIS data in decision making process. The source documents were personal file. Findings from sampled 10 employees entered in the system showed an average completed data was 50%, incomplete data was 35% and wrong data was about 15%. These figures are based on the total number of field per report count, the number fields filled correctly to the system count, and the number of empty fields. The overall picture indicates the more need to done to improve data quality in line with data usage for decision making.

3. Data Analysis & Use

The ultimate goal of the LGHRIS is to use data to inform decision making. This is only possible when the system generates reports with accurate and complete personnel data and managers have the skills and experience to manipulate the information to answer key HR questions and make decisions or advocate policy change accordingly. Not one of the districts has reached a stage of active data use. There is a clear need to expedite data entry, support a thorough cleaning process, and support the skills for data analysis and use.

4. Discussion with MOHSW about harmonizing HRIS with other HRM related systems

The existence and related complications of the three systems is well known by all parties, including the relevant GOT ministries, donor agencies including USAID and JICA. With a national directive for LGAs to use HCMIS system for public sector payroll management, it is currently enjoying financial public support. However, the payroll module is the only one being used universally with emphasis on the public sector over the private sector leaving the HR management gap filled by LGHRIS and HRHIS.

Developers of the HCMIS system have confirmed that the system has capacity to import data and the LGHRIS system can have the ability to export meaning the two systems should be able to work together at some point in the future. Recent HRIS developments in Namibia and the PMO-RALG visiting team showed that IntraHealth is supporting the rollout of HRIS for the private sector that can then be fed into the National HRIS system.

OVERCOMING CHALLENGES

Challenges/Gaps

A number of infrastructure, system and human resource management challenges/gaps have evolved over the project years with a number of improvement taken based on related lessons learnt over the years.

Infrastructure & System Challenges:

S/N	Challenges	Quick Success
1.	Insufficient Computing Infrastructure-most LGAs lacked sufficient computers and printers as well as internet connectivity necessary of data entry and LGHRIS system operation	The project support package of PC set, printer, scanner and data backup drive to HROs offices boosted the situation. Use of PMO-RALG's FIMS infrastructure for LGAs central connectivity and computing equipment budgeting was proposed as a sustainable solution.
2.	Data Entrants Shortage-there are no formal cadres of data entrants at LGAs	The training coverage was expanded to involve Registry and other select LGAs officers apart from the originally earmarked HROs, Health Secretaries and ICT officers. This helped widening the data entry pool and improve the data entry process. The UDSM developed data algorithm is still incomplete and further TA from Chapel Hill is in progress
3.	Data incompleteness & poor quality-Most employee's data files which are the	The LGHRIS team collaboratively developed employee's data sheets (see attached sample) shared to LGAs for employees

	primary data source appeared to have incomplete and poor quality of data thus making the data entry process slow and challenging..	filling helped in getting updated date and easing the data entry process although returns required HROs' consistent follow up.
4.	Missing RAS related cadres as the initial system focus was on LGAs and RAS have different structures	Input of missing RAS cadres by UDSM
5.	Inadequate Tange report filtering skills for seniority output and database servers misbehavior	Providing additional orientation on Tange reporting to HROs as the system capability was already there and server management skills to regional and LGAs ICT officers (where applicable)
6.	System backup	Automation of the system backup process
7.	UDSM LGHRIS technical over-dependency	Additional capacity building through HROs and ICT officers was put forward and additional orientation, more capacity building plan to reduce UDSM LGHRIS technical over-dependency and promotion of local support and sustainability

Human Resource Management Challenges:

	Challenges	Quick Successes
1.	Data Entry Completion Follow up	DEDs and CMT oriented on the system during the exercise and assigned the local project sponsorship role and them or their representatives were involved in setting data entry time frames and signing the PMO-RALG's obligation sheets (see attached samples). The speedy completion depended mainly on how the individual DEDs took the exercise seriously. The project consolidated support including PMO-RALG, RAS as well as M&E follow ups are expected to improve the situation.
2.	Lack of LGAs ICT Support Staff-Originally this LGAs' systems dependent cadre was not recognized by PO-PSM and was limited to regional level	With the current insufficient Regional ICT staff support dependence, PMO-RALG and LGAs were made aware of the importance of expanding the pool in order to meet LGAs increasing ICT support now that this cadre is recognized by PO-PSM.
3.	Biased choice of participants at LGA level	Some LGAs saw the project as an opportunity and played around with selection of participants which if passes would result into poor performance. DEDs intervention were sought to

		address the situation and participants screening was instituted
4.	Need for expanding remote LGHRIS Support	Institution of a working and Help desk unit currently managed by PMO-RALG
5.	Low LGHRIS Data Use for operation and other HR management decisions	Supportive supervision required to improve entered data quality and speed up the entry process in order to achieve this desired level of system usage for efficiency. This needs to be coupled with practical capacity building on the area

CHAPTER FIVE

CONCLUSION

1. Things going well

Deployment

The Human Resource Information System (HRIS) subproject has deployed HRIS in the Ministry of Health Zanzibar and Local Government HRIS in 103 LGAs and 13 RAS which represent is more than 70% of the country coverage. By the end of 2012 remaining LGAs and RAS are expected to be covered.

The data import algorithm

Development through the HRIS Advisor, UDSM and CH Technical team support is still incomplete pending further practical tests. When completed the exercise would held fast track the data entry process through import of the PO-PSM's cleaned data into LGHRIS thus simplifying the process with the start up data for LGHRIS deployment in the remaining LGAs planned for the next quarter.

2. Potential problems

Incomplete Systems' interoperability

Looking at the data duplication and related operational expenses from independent usage of the three existing HR systems (LGHRIS, HRHIS, and HCMIS). If managed this would be an exemplary shared resource approach towards improved data sharing, analysis and use for decision-making with the three systems complementarity.

Ownership of the project

In some sites staff views LGHRIS as an external project forced upon them and majority expected to be paid for data entry rather than considering LGHRIS a tool to assist in

their daily functions. This is resulting to lack of morale and motivation for data entry clerks due to lack of incentives

The current LGHRIS ability to more accurately and efficiently manage all district staff against its value addition to the LGAs ability to predict, plan for and recruit the health workforce as per the project objective given the presence of the HRHIS managed by the MOHSW.

3. Recommendations & the Way Forward

- Pushing for systems' interoperability looking at the data duplication and related operational expenses from independent usage of the three existing HR systems (LGHRIS, HRHIS, and HCMIS). This is an exemplary shared resource approach towards improved data sharing, analysis and use for decision-making with the three systems complementarity.
- Positioning LGHRIS to more accurately and efficiently manage all district staff against its value addition to the LGAs ability to predict, plan for and recruit the health workforce as per the project objective given the presence of the HRHIS.
- THRP's continued involvement in bringing the relevant line ministries together for strategic HRIS discussions despite the poor working relationship between relevant donors and development partners.