Challenges in Managing Health Workers in Sub-Saharan Africa: The Case of United Republic of Tanzania

By

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A Master's Paper submitted to the faculty of the University of North Carolina at Chapel Hill in partial fulfilment of the requirements for the degree of Master of Public Health in the Public Health Leadership Program

Chapel Hill

2014

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Date
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>APHFTA</td>
<td>Association for Private Health Providers in Tanzania</td>
</tr>
<tr>
<td>BAKWATA</td>
<td>Muslim Council of Tanzania</td>
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<tr>
<td>BMAF</td>
<td>Benjamin Mkapa Aids Foundation</td>
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<tr>
<td>CSSC</td>
<td>Christian Social Services Commission</td>
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<tr>
<td>CCHP</td>
<td>Comprehensive Council Health Plans</td>
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<tr>
<td>CHMT</td>
<td>Councils Health Management Teams</td>
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<tr>
<td>DAT</td>
<td>Districts Advocacy Team</td>
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<tr>
<td>GOT</td>
<td>Government of Tanzania</td>
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<tr>
<td>FMIS</td>
<td>Financial Management Information System</td>
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<tr>
<td>FTEs</td>
<td>Full time equivalents</td>
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<tr>
<td>HAF</td>
<td>Human Resource for Health Action Framework</td>
</tr>
<tr>
<td>HCMIS</td>
<td>PO-PSM’s Human Capital Management Information System</td>
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<td>HR</td>
<td>Human Resource</td>
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<td>HRM</td>
<td>Human Resource Management</td>
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<td>Human Resource Information System</td>
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<td>HRHIS</td>
<td>MOHSW’s Human Resource Information System</td>
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<td>Human Resource for Health</td>
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<td>HSSP III</td>
<td>Health Sector Strategic Plan III</td>
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<td>LGHRIS</td>
<td>Local Government Human Resource Information System</td>
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<td>LGAs</td>
<td>Local Government Authorities</td>
</tr>
<tr>
<td>MOU</td>
<td>Memorandum of Understanding</td>
</tr>
<tr>
<td>M&amp;E</td>
<td>Monitoring and Evaluation</td>
</tr>
<tr>
<td>MOH</td>
<td>Ministry of Health</td>
</tr>
<tr>
<td>MOHSW</td>
<td>Ministry of Health and Social Welfare</td>
</tr>
<tr>
<td>MVC</td>
<td>Most Vulnerable Children</td>
</tr>
<tr>
<td>NCPA</td>
<td>National Costed Plan of Action for orphans and vulnerable children.</td>
</tr>
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<td>OVC</td>
<td>Orphans and Vulnerable Children</td>
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<td>OPRAS</td>
<td>Open Performance Rapid Appraisal System</td>
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<td>PO-PSM</td>
<td>President’s Office Public Service Management</td>
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<td>PMO-RALG</td>
<td>Prime Minister’s Office Regional Administration and Local Government</td>
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<tr>
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<td>Pyscho Social Support</td>
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<td>PSWT</td>
<td>Para-Social Worker Trainee</td>
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<tr>
<td>THRIP</td>
<td>Tanzania Human Resource Capacity Project</td>
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<tr>
<td>UDSM CSD</td>
<td>University of Dar es Salaam’s Computer Science Department</td>
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ABSTRACT

This study documents results of four years (2009-2013) of implementation activities under THRP, a USAID-funded initiative that addressed inefficiencies in the systems and structures of central government and local governments that deal with HRH in Tanzania.

The initiative was a beneficial undertaking in Tanzania, a Sub-Saharan country facing the burden of a high maternal mortality rate, high incidence of malaria, HIV/AIDS and a host of other curable and preventable diseases; partly due to fact that the current systems and structures that manage HRH are not responsive enough to the insufficient FTE’s and low productivity of HRH. In 2009, the health system in Tanzania operated with 48 percent of the optimum workforce; in rural areas the vacancy rates reached up to 70 percent, threatening to negate national efforts to universal health care and health development goals. The THRP was, therefore, conceived to contribute to the realization of goals of the national HRH Strategic Plan for 2008-2013 by influencing and contributing to multi-sectoral efforts to strengthen the planning, deployment, management and efficient utilization of human resources.

The purpose of this paper is to describe overall strategic objectives of the project, the intermediate results, and to describe strategies that contributed to each of the project objectives.

Key leadership challenges and lessons learned included:

- A knowledge gap within the RHMTs on CCHPs and PlanRep3 tools, a computer based planning tool used by PMO-RALG, has resulted in poor quality of initial plans submitted by LGAs many of which were mitigated by retraining and follow-up online support.
- Increased workload for HR officers and other Local Government/Human Resource Information Systems (LGHRIS/HRIS) users due to the existence of multiple systems (HCMIS and HRHRIS) using the same staff for data entry and update of which the systems interoperability initiatives helped ease management burden and created resource sharing opportunities including data, computing infrastructure and capacity building.
- LGAs/Councils willingness to seek and budget for HRM/HRIS/MVC resource despite their deficit; once they were sensitized, understood and owned the project activities/outcomes.
- Lack of computing and connectivity infrastructure which was mitigated through partial provision of equipment and co-sharing to cover the missing items.

Key workable sustainability strategies included:

- Capacity building embodied as part of HRM/HRIS/MVC project activities, thus creating independent capabilities to manage and support the systems.
- Through USAID funding, THRP initially deployed the system to 91 LGAs and RSs. When this was successfully accomplished, PMO-RALG developed a cost sharing arrangement with IntraHealth to extend the deployment to the rest of LGAs and RSs in Tanzania, making a total of 154 LGAs.
and 21 RS offices with fully installed systems. This extension signaled a state of high demand and readiness and encouraged GOT ownership of the system.

- Through THRP, the UDSM-CSD and the *CapacityPlus* Initiative, the project organized an international HRIS open source training for Sub-Saharan Africa countries in Dar es Salaam this year as part of regional HRIS capacity building.

THRP has significantly contributed to bridging the HRH gap from over 50 per cent in the past four years to the current 40 per cent status [14]. Overall, the THRP initiative is a model that could be replicated in countries where such efforts are not yet on the ground in order to attain health related millennium development goals and other better health outcomes.
1. BACKGROUND

Inadequate and inappropriate deployment of health workforce poses significant challenges to the development of sustainable health systems in sub-Saharan Africa. Africa has only three per cent of the world’s health workforce and less than one per cent of the world’s health expenditures despite shouldering over 20 per cent of the world disease burden most of which is significant in the sub-Saharan Africa [1, 2]. Current data indicates that there are 2 doctors and 11 nursing/midwifery personnel per 10,000 populations, compared with 19 doctors and 49 nursing/midwifery personnel per 10,000 for the Americas, and 32 doctors and 78 nursing/midwifery personnel per 10,000 for Europe. And, whereas there are 28 doctors and 87 nurses/midwifery personnel per 10,000 in high income regions of the world, there are only 5 doctors and 11 nurses/ midwifery personnel per 10,000 in low income regions [3, 4].

Sub-Saharan Africa governments and development partners, including USAID, recognized the critical importance of ensuring an adequate health workforce to provide quality health services in the face of HIV/AIDS and other poor health outcomes that plague the region. USAID funded the Global Capacity Project to help governments and ministries of health plan, develop, and support the health workforce needed to improve access to quality health services. In that respect most sub-Saharan Africa Governments, in collaboration with development partners, have responded to the HIV/AIDS crisis and other pandemics affecting the region by supporting prevention, care and treatment initiatives.

For the past four years USAID/Tanzania has utilized the IntraHealth’s Global Capacity Project through the TTHRP to provide technical assistance to the GOT on multiple fronts to address its HRH challenges, including, but not limited to:
• Supporting the development of an HRH Strategic Plan; assessing bottlenecks in hiring, reviewing HR shortages for reproductive health services;
• Supporting the development of new social worker cadres to respond to the needs of OVC [3];
• Collaborating on HRIS initiatives; and documenting productivity and retention improvement interventions.

In collaboration with local partners, it supported the MOHSW to review the HRH component of the national supportive supervision tool and built capacity of local governments in HRH planning and management.

This project, courtesy of my working knowledge and experience with the THRP- looks forwards to the opportunity to contextualize sub-Saharan Africa HRH management challenges, sharing our experience with THRP implementation as well as observed challenges and lessons with related studies in related settings. The aim is to propose localized best practices and sustainable mechanisms for THRP work ownership and continuity to fast track closure of the existing and impending HRH gap in the country and the sub-Saharan Africa region as a whole. The study looks forward to discussing THRP interventions and outcomes in the two following areas: recruitment, retention and productivity of health workers; and Improvement of health workers efficiencies and effectiveness.
2. LITERATURE REVIEW

Numerous publications have illuminated the fragility of the global health systems, the insufficiency of the health workforce and mitigation factors [1, 2, 5, 6, 7, 33]. Many sub-Saharan Africa governments, including Tanzania, are deficient in leading, planning, developing, and supporting their health and social welfare workforce and most lack reliable and current human resource information to make strategic decisions about meeting current and future workforce needs [7, 33]. There remains much to be done to resolve HRH challenges for Tanzania.

A situational analysis using the USAID’s Capacity Project HAF [8] showed that the HR management functions in the country are dispersed among a number of institutions, including the MOHSW, PMO-RALG’s, PO-PSM, the Ministry of Finance and the Ministry of Education and Vocational Training. Coordination amongst these entities to support HRH issues has been inconsistent, thereby hampering implementation of the HRH Strategic Plan and the Health Sector Strategic Plans. Tanzania’s weak HRIS are indicative of the lack of coordination and sharing of information between systems, impeding the various government agencies from being able to adequately plan, track, and manage the health and social welfare workforce. Faith-based organizations in Tanzania such as CSSC are major providers of services and health worker training in the country especially in rural and hard to reach areas, and these entities suffer from similar HRH challenges. Social challenges posed by HIV/AIDS, malaria, maternal and child morbidity and mortality, and other diseases severely curtail life expectancy in Tanzania. Further, the existence of wage and associated forms of discrimination against female employees weaken retention, motivation and productivity of female health workers [8, 9], and needs to be identified and eliminated.
Weak human resources management is a key issue in Tanzania, and promising practices that the IntraHealth Global Capacity Project and THRP have noted and published include the strategic placement of HRH functions, strengthening the leadership and management skills of HRH managers and supporting governments through long-term technical assistance. The diversity of workforce strengthening approaches among stakeholders in Tanzania has been one of the obstructive factors to tackling the HRH crisis. HRH policy and decision makers are often overwhelmed with the number of complex problems in this area.

Tanzania’s health and social welfare worker shortages are astounding particularly in rural areas with deficits of 70 per cent or more for some cadres [10, 33]. With respect to the social welfare workforce, a 2007 Human Capacity Assessment [10, 33] revealed a dire need for personnel at the district and community level for basic competencies to address the needs for vulnerable children.

2.1 Methodology

In implementing the project, THRP applied the HAF depicted in Figure 1 and looked at the intricate health system situation in Tanzania that reflects inter-related elements that are essential components of any HRH development strategy: production, recruitment and retention, productivity, financing, management and leadership and policy and legislative support. Each of these areas impact on the health workforce, and changes in one may well affect the others in unpredictable ways [8]
This study highlights the achievements, challenges and recommendations for the future of HRH management components and how they contributed to better health outcomes as highlighted in the project organization system shown in Figure 2.
Through qualitative meta-analysis, I searched for articles published between January 2000 and September 2013, using subject headings “Human Resource Development”, “Health workers Management,” “Global Health Workers Deficit,” “Health Workers Deficit in sub-Saharan Africa,” as well as a combination of subject headings and keywords designed to identify challenges in managing health workers in sub-Saharan Africa and Tanzania and related strategies to improve the situation. The search yielded more than 30 published articles which were supplemented with unpublished THRP reports. I also consulted with THRP experts including fellow HR management and MVC subproject managers for undocumented supplementary information. These experts also independently reviewed these papers to identify studies that met eligibility criteria for inclusion in the meta-analysis.
3. INTERVENTIONS AND OUTCOMES

THRP worked within the auspices of the National Health Sector Strategic Plan III which identifies health workers as one of 12 priorities and with the National HRH Strategic Plan which focuses on planning, production, management and financing needs of staffing the health sector. Over the four years, THRP-through its lead implementing partner, BMAF- collaborated with the GOT to institute and sharpen the HR management systems and practices among district authorities. The project focused on identifying and removing barriers and strengthening the communications among and within central government entities with HRH responsibilities. It challenged district health managers at LGAs to introduce incentives with their own resources as well as innovating retention strategies. THRP successfully advocated for inclusion of HRM operational plans within district budgets. The annual CCHP now include deliberate and detailed employee orientation plans, retention tactics, workspace improvements and initiatives to increase supervision of professional conduct. Collectively, these interventions comprised the HRM District Strengthening component of THRP carried out in the 54 LGAs in Lindi, Mtwara, Iringa, Ruvuma, Mwanza, Kigoma and Mara regions.
Fig. 3 below outlines the project overall strategic objectives of the project, the intermediate results, and strategies contributed to each of the objectives.

**Fig.3 THRP Results Framework**

### Overall Objectives
- To assist the MOHSW and PMORALG to orchestrate the implementation of the human resource for health (HRH) strategy and the human resource components of the Health Sector Strategic Plan (HSSP) III, as requested by the MOHSW.
- To strengthen the capacity of the national and local government authorities to predict, plan for, and recruit the health and social welfare workforce.
- To improve the deployment, utilization, management, and retention of the health and social welfare workforce; and
- To increase the productivity of the health and social welfare workforce.

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**Implementing the HRH Strategic Plan**

The project focused on workforce management and utilization, policy and planning, leadership and workforce development.

**Aligning and supporting the health and social sector**

The project built the capacity of the health and social welfare workforce in order to provide quality health care services and address the needs of MVC respectively.

**Establishing a comprehensive Human Resource Information System:**

The project established a comprehensive HRIS that will provide routine HR data of health worker data to decision maker for proper planning and management of human resource.

**District HRH Strengthening and Development:**

The project introduced a comprehensive HRH strengthening program that will provide district managers with the needed tools, competencies and context to identify and tackle their own HRH problems.

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**Cross-Cutting Areas**

Knowledge Management: THRP knowledge resources

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Source: USAID/Tanzania Capacity Project Leader Cooperative Agreement, 2009
3.1 Health Workers Supply & Retention

3.1.1 Health Workers Supply

Under BMAF’s leadership with IntraHealth technical assistance, THRP identified knowledge gaps and addressed technical and operational challenges to strengthening the capacity of HRH management at central and district level. Early in the project, BMAF undertook several assessments: a baseline assessment, a recruitment bottleneck study, and an OPRAS assessment-[9, 10, 11, 12, 26] to expand the understanding of HRH management issues in the local context by central and district level officials. Recommendations from these studies informed the improvement of national HRH policies and guidelines. The baseline assessment identified several areas including staff planning, staff information management, orientation and supportive supervision, where HRM at district level systems could be improved. The recruitment bottleneck study found that in addition to poor infrastructure, institutional and organizational arrangements and poor follow-up and accountability hindered the successful deployment of competent health workers to rural districts. The study recommended a review of policies and guidelines to foster increased capabilities in recruitment and retention. The OPRAS assessment reported that the official appraisal system was not effective in instituting and encouraging employee performance largely due to an underdeveloped performance culture in Tanzania, the complicated OPRAS form, and no systematic linkage between employee productivity and rewards based on performance merit.

THRP developed a comprehensive program to address management issues within the span of LGA control. During the early project years and in close collaboration with the MOHSW, THRP developed a series of user-friendly tools for carrying out interventions in addressing HR supply challenges. The foundation of the HR toolkit is a comprehensive HRM training manual with 13 modules used to guide and improve HR recruitment and management practices.
THRP strengthened senior district leaders’ capabilities in negotiating the central recruitment process through development of more detailed plans and increased advocacy for more staff. LGAs now specify which cadre of personnel they need to MOHSW, they provide a profile of their district to attract staff candidates, and highlight what incentives are available locally. Other simple but effective changes to improve the process include: asking job applicants to provide mobile numbers and email addresses to facilitate communication and timely reporting. Moreover, LGAs can support their requests for more permits to recruit with data from the HRIS installed in each district.

3.1.2 Health Workers Retention

THRP engaged MOHSW, PMO-RALG and other HRH stakeholders in the following specific staff retention strategies:

**New Staff Orientation** - The MOHSW has a policy in place requiring a formal orientation for all posted staff. The ministry understands that unclear job expectations and weak or uncoordinated induction contribute to low reporting and retention rate of health care workers. However, various operational hurdles affect effective orientation. In close coordination working with the MOHSW, PMO-RALG, THRP selected LGAs, and the Tanzania Public Service College to develop, a standardized guideline for orienting new staff. The *Orientation Package of New Employees of the Local Government Authorities in the Health Sector in Tanzania* is a step-by-step guideline to familiarize new staff with their new work environment from the point of central-level recruitment to the district and eventually to the specific health facility level [15]. Applying this formalized guideline will provide clarity and uniformity of approach in settling staff, plus set expectations for ethical conduct, performance excellence and motivation. By the end of the project 49 out of 54 targeted districts had introduced stronger orientation practices for new employees [15].
Local Incentive Package - THRP engaged different stakeholders to identify what qualifies a locality to be defined as disadvantaged or underserved. The discussion is politically sensitive and far from conclusive. THRP synthesized experiences from the field with previous research, and added different sectoral perspectives to produce the publication, *Multisectoral Criteria for Defining Underserved Area* [16]. The publication reports LGAs' innovations to encourage health care workers to stay on the job in rural areas. It provides a critical analysis of existing contextual incentives with reference to WHO guidelines and lessons learnt from other countries and conclude with recommendations on criteria to define an underserved area. It includes guidance for designing locally appropriate and affordable monetary and non-monetary incentives for health care workers.

Project districts applied retention approaches as outlined in the study. Makete District now provides mattresses and blankets for new staff; Ukerewe District houses new staff in a local hostel or provides six months' rent; and Iringa municipality provides a month’s advance in salary and facilitates timely entry into the government payroll system. THRP documented local incentive packages that LGAs variously budge for and apply to retain new health care workers [17]. Commitment from district leadership is the common trend in all districts with retention program success. By June 2013 a total of 16 districts out of 54 implemented a form of local incentive strategy. (Refer to Appendix I showing some of the districts and implemented local incentive strategies).

HR Supportive Supervision- One aspect emphasized in the revised CCHP guidelines is the HR component of supportive supervision in LGAs. The *Baseline Study* [9] reported lack of depth and clarity in reporting HR management issues at health facilities and within LGAs; HR management urgently needed CHMT attention. Through engagement with CHMT, THRP advocated for clear management actions and clear
indicators to focus CHMT decisions and actions. All 54 project districts were oriented on the revised national supportive supervision guidelines. In Iringa municipality’s for instance, by requiring review of scheduled HR meeting minutes during CHMT supervision visits, the health secretary reported that now they receive fewer HR related grievances because many are dealt with at facility meetings. Iringa municipal, appreciating the importance of detailed HR supervision, have designed a specific HR supportive supervision process, scheduled quarterly. By the end of the project, 43 (75%) district health management teams were using the HRH supportive supervision system [18].

**Implementation of OPRAS**—The GOT introduced the Open Performance Review Appraisal System (OPRAS) approach in 2004 for public sector staff appraisal. Strength of OPRAS is the way it fosters openness through feedback and frequent communication between supervisors and supervisees. However, roll out to each employee stalled [19, 34]. The THRP baseline study reported that 70% of health workers interviewed did not do performance reviews with their supervisors in 2009 [9]. After alarmingly low adoption of OPRAS, PMO-RALG requested THRP to include the operationalization of OPRAS among its activities. THRP took on advocacy for and facilitating compliance of the system. THRP and key stakeholders designed and implemented several remedial interventions including clarification of the role between supervisory and managerial staff and employee. Consequently, half of the project districts (27) now use OPRAS and 87 percent of employees in these districts have completed their annual performance review.

**Improvement of the work environment**—Work climate improvement strategies were among actions and indicators included in the revised CCHP guidelines and in turn, CHMTs in project districts were encouraged to include work climate activities and indicators in their supportive supervision checklists. THRP conducted an assessment to examine HRM practices and working environment in health facilities.
in order to identify areas for intervention which would improve health worker productivity as well as the quality and efficiency of health care services [20]. The assessment [20] reported that clients spent more time waiting for services than receiving services from health workers, and up to 23 percent of staff time was used unproductively; staff reported lack of recognition or appreciation of their work and insufficient working tools. After the review THRP worked with CHMTs to review more specific working environment issues and identify potential actions to remedy inefficiencies that contribute to low retention rates of priority cadres. The assessment [20] defined criteria for identifying hard to reach areas and documenting incentive strategies to retain health care workers. It also provided a reference for criteria to use in determining locally appropriate and affordable incentives to attract health care workers in areas categorized as hard to reach.

**Fig. 4 Total budget share per Region and across Councils**
Figure 4 show that Dar es Salaam, the country’s business city, receives the highest allocation versus Katavi (a remote, hard to reach new region), with the lowest allocation. The 2012 population census lists Dar es Salaam with the highest population and Katavi with the lowest population numbers accordingly. However, the regions that rank two from the top and bottom, respectively in Figure 5, do not receive the second highest or lowest rank in the population census, demonstrating that other factors- such as poverty, burden of disease, and size of the region- also play a considerable role in the allocation of funds. The unequal distribution of health-related funds at the District level are results from taking various equity related variables into consideration such as the population size (accounting for 70%), estimated burden of disease (10%), poverty (10%) and the mileage of the route for the DMO to visit the health facilities (10%)[29]. Hence, the amount of funds a Council receives depends on the amount of people it is serving, under five mortality rates for the region, the number of estimated poor people in the Council, and the size of the Council’s land area. Recent population census and other studies will allow for an updated allocation formula. Hence, the population size, which determines 70% of the allocations, is the most significant factor to ensure equity.
Table 1. Summary of Health Budget allocated to priority areas 2013/2014

<table>
<thead>
<tr>
<th>Priority Area</th>
<th>Budget allocated</th>
<th>Percent allocation (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Medicines, medical equipment, medical and diagnostic supplies management system</td>
<td>50,766,740,937</td>
<td>11.24</td>
</tr>
<tr>
<td>2 Maternal, Newborn and Child Health</td>
<td>486,542,879,145</td>
<td>57.79</td>
</tr>
<tr>
<td>3 Communicable Disease Control</td>
<td>64,519,436,481</td>
<td>10.47</td>
</tr>
<tr>
<td>4 Non – Communicable Disease Control</td>
<td>8,391,533,327</td>
<td>1.64</td>
</tr>
<tr>
<td>5 Treatment and care of other common diseases of local priority within the Council</td>
<td>4,865,587,158</td>
<td>0.66</td>
</tr>
<tr>
<td>6 Environmental Health and Sanitation</td>
<td>7,696,821,051</td>
<td>0.95</td>
</tr>
<tr>
<td>7 Strengthening Social Welfare and Social Protection Service</td>
<td>2,572,639,429</td>
<td>0.32</td>
</tr>
<tr>
<td>8 Strengthen Human Resources for Health Management Capacity for improved health services delivery</td>
<td>20,292,896,136</td>
<td>3.56</td>
</tr>
<tr>
<td>9 Strengthen Organizational Structures and institutional management at all levels</td>
<td>51,004,165,156</td>
<td>6.32</td>
</tr>
<tr>
<td>10 Emergency preparedness and response</td>
<td>2,808,670,843</td>
<td>0.36</td>
</tr>
<tr>
<td>11 Health Promotion</td>
<td>1,868,172,151</td>
<td>0.21</td>
</tr>
<tr>
<td>12 Traditional Medicine and alternative healing</td>
<td>279,479,909</td>
<td>0.03</td>
</tr>
<tr>
<td>13 Construction, rehabilitation and Planned Preventive Maintenance of physical infrastructures of Health facilities</td>
<td>57,070,836,302</td>
<td>7.17</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>807,251,857,306</strong></td>
<td><strong>99.99</strong></td>
</tr>
</tbody>
</table>

Source: Comprehensive Council Health Plans (CCHP) Analysis Report for 54 THRP Districts in Tanzania Mainland 2012/13, BMAF.

Table 1 describes how resources have been distributed according to the priority health areas. The area receiving the biggest chunk of funds is the area of Maternal, New-borns and Children (58%). The main contribution in this area is commodities, especially EPI vaccines and Family Planning provided as in Kind. The second largest amount of funds (11%) is going to the area of medicines, medical supplies and medical equipment and reagents. The next most highly funded area is Communicable Diseases control (10% also includes the in Kind commodities of ARVs, Condoms, ACT, IRS, ITNs, MRDT and TB DOTS). A little more than 7% of funds are going into the area of construction, rehabilitation and planned preventive maintenance of physical infrastructure of health facilities. Closely followed, Organizational Structures and institutional management (6%). Next is Strengthening Human Resources for Health
Management capacity for improved service delivery (4%), Non-communicable disease control receives 1% of the Council Health Budget, while all other areas such as Environmental Health and Sanitation, treatment and care of common diseases of local priority within the Council, Social Welfare and Social Protection Services, Emergency preparedness and response, health promotion, and finally traditional medicines and alternative healing receive less than 1% for each area. When compared to the last year, Strengthening Human Resources for Health Management capacity for improved service delivery used to have the lions share because it used to combine budgets for medicines, medical supplies, medical equipment and reagents, and construction, rehabilitation and planned preventive maintenance of physical infrastructure of health facilities, which, beginning this year, has been separated according to the CCHP Planning Guidelines that had separated the two into different priority areas.

Table 2: Trend Summary of Health Facilities by ownership

<table>
<thead>
<tr>
<th>Type of Facility</th>
<th>2013/14</th>
<th>2012/13</th>
<th>2011/12</th>
<th>2010/11</th>
<th>2009/10</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Centres</td>
<td>152</td>
<td>150</td>
<td>145</td>
<td>130</td>
<td>110</td>
</tr>
<tr>
<td>Dispensaries</td>
<td>1,264</td>
<td>1,351</td>
<td>1,351</td>
<td>1,351</td>
<td>1,351</td>
</tr>
<tr>
<td>Hospitals</td>
<td>115</td>
<td>102</td>
<td>102</td>
<td>102</td>
<td>102</td>
</tr>
<tr>
<td>Total</td>
<td>1,581</td>
<td>1,547</td>
<td>1,547</td>
<td>1,547</td>
<td>1,547</td>
</tr>
</tbody>
</table>

Source: CCHP Analysis Report for 54 THRP Districts in Tanzania Mainland 2012/13, BMAF.

Table 2 above shows trend summary of Health facilities by ownership and the total numbers of health facilities extracted from PlanRep3 for year 2011 (2012/2013) whereby the Council found that not all facilities had entered their data in the PlanRep3. Those which had entered their data showed 5,052 health facilities, 3,505 of which are owned by the Government and 1,547 by non-Government actors (Some Council data are missing). For FY 2013/14 (data for 2012) the total number of health facilities reported is 6,287, the share of Government facilities were 4,726 increases significantly with little increase in non-government facilities is 1,561 for those councils which managed to fill their data in the
PlanRep3. This tendency is congruent with findings of the HSSP III MTR, however the number of facilities differ. According to the HSSP III MTR Analytical Report, by December 2012 there were 6,700 health facilities, based on the number of health facilities submitting HMIS data which is MOHSW’s disease statistics tool.

**Fig. 5 Number of Health facilities by Region**

![Figure 5](image)

Source: Comprehensive Council Health Plans (CCHP) Analysis Report for 54 THRP Districts in Tanzania Mainland 2012/13, BMAF.

Figure 5 above shows the number of health facilities by region. Taking a look at the number of facilities reported per region and comparing them with the 2012 population census it is evident that health facilities are not distributed according to population numbers.

### 3.2 Health Workers Efficiency and Effectiveness

The HRIS was an integral portion of THRP. As HRH data is crucial for predicting, recruiting and deploying health workers, access to this data is crucial in ensuring an appropriate number of health and social welfare professionals is available to serve citizens. THRP introduced HRIS in Tanzania as a means to close a gap in HR information management and gather information excluded by two other key Human
Resource Information systems, HCMIS and HRIS. HCMIS, a proprietary payroll system, deals with management of remuneration to all government employees. HRHIS, based at the MOHSW, caters exclusively to human resource information needs of the health sector. Each of these systems has technical capacities to meet its designated need but neither were designed to provide health-worker-specific information, especially in the local government and private sector. Therefore, the MOHSW specified the need for the development of a comprehensive national HRIS in its five-year National Human Resource for Health Strategic Plan (2008 – 2013).

3.2.1 LGHRIS in Local Government Authorities on Tanzania Mainland/HRIS in Zanzibar

LGHRIS was designed to fulfil the overarching objective of capturing worker-specific information and making it available in formats and places where PMO-RALG and LGAs can access it to facilitate prediction, recruitment and deployment decisions for all cadres of its workforce. Because LGHRIS was adapted from the global open source software, integrated human resource information system (iHRIS), it is versatile and intended to fill the gaps for specific staff information needs at LGAs level and in the private sector. It is designed to replacing the previous paper based HRIS. Therefore, interoperability between LGHRIS, HCMIS and HRHIS was crucial to the evolution of a functional, comprehensive, national HMIS. THRP forged strategic partnerships with UDSM, PMO-RALG, CSSC, Association of Private Health Facilities of Tanzania (APHTA), and National Muslim Council of Tanzania (BAKWATA) to facilitate interoperability. UDSM customized the open source iHRIS and they played a key role in setting up the hardware and training users in LGAs and RSs where the system was installed. PMO- RALG was a key partner throughout the process of establishing informational needs within the LGAs environment and at the central level. Once needs were determined, PMO-RALG also played a key role in installation and encouraging utilization of the system.
A parallel process was HRIS implementation in the Ministry of Health in Zanzibar which oversaw taking stock of the Isles 3,500 health workers data through a central Server based at the ministry and connects with 12 Isles Districts via VPN (See highlighted Zanzibar HRIS summary in Fig. 6). The LGHRIS/HRIS evolved through a number of key phases including:

**Customization of the Open Source iHRIS** - Preceded by initial establishment of information needs at LGAs and central government, THRP acquired and customized iHRIS in 2009 and 2010. The phased customization enabled the team to test, pilot and re-adjust the system to cater to the information management needs of users. Once fully customized, iHRIS was renamed LGHRIS. The system was also revised to adopted TANGE (the local seniority list), was translated into Kiswahili, and its aesthetics were attuned to government branding. Equally important, standard lists and standardized reports were configured into the system to reflect prospective data use [14, 31]. In response to feedback from the needs assessment and the pilot run in Kondoa district and Iringa region, the forms were created for capturing information and standard reports were also configured.

**Deployment in all 154 Local Government Authorities on the Mainland** - LGHRIS has been deployed in phases, to all districts in Tanzania and 21 regional administrative secretaries' offices with the exception of the newly formulated LGAs/RSs. Through USAID funding THRP initially deployed the system to 91 LGAs and RSs. When this was successfully accomplished, PMO-RALG developed a cost sharing arrangement with IntraHealth to extend the deployment to the rest of LGAs and RSs in Tanzania, making a total of 154 LGAs and 21 RS offices with fully installed systems. This extension signaled a state of high demand and readiness and encouraged GOT ownership of the system. Initially, data sharing between LGAs/RSs and PMO-RALG occurred via Internet, however, this presented a challenge for most districts as most found the costs prohibitive and many struggled with poor internet connection in their remote
locations. Through PMO-RALG (ICT division), the government intervened by creating its own Virtual Private Network (VPN) which connected all the LGAs and RSs to PMO-RALG HQ. This was a boost to LGHRIS as the new platform hastened data sharing between LGAs and PMO-RALG [21,31].

Deployment involved the installation of LGHRIS into servers and computers, as well as the process of connecting the LGA/RS server to PMO RALG's VPN. Training was offered during the deployment stage so PMO-RALG, IntraHealth and UDSM personnel-comprised deployment teams who installed hardware, software and conducted user trainings. LGA human resource personnel and IT personnel were trained on how to manage the system and enter staff data. To make data readily available to PMO-RALG in Dodoma, all LGAs data are automatically aggregated in Dodoma servers.

*Initial Interoperability with Pre-existent HR Systems*- LGHRIS Module is designed to interoperate (basically share data) with pre-existing systems. Ultimately interoperability integrated HCMIS and HRHIS with LGHRIS. The systems interoperability has eased data management burden to Human Resource Officers and Health Secretaries and create opportunities for sharing related resource including data, computing infrastructure and capacity building thus reducing the cost of supporting them and enhancing sustainability and ownership to LGAs. Key interoperability areas worked on includes: reports generation; data migration; geographical privileges enabling districts to access its own data/records and staff transfer.

*Users Skills Development*- Capacity building in LGHRIS supported skill development for implementers, their supporters and system users is critical. 1600 Human Resource Officers (HROs) and other LGA and RSs staff were trained in using the system. 60 ICT officers were trained in its maintenance and support.
Moreover, UDSM conducted internal capacity building to programmers and other staffs in order to increase the number of people who can support LGHRIS. 30 students from the UDSM were trained in using iHRIS and customizing it. In turn, during deployment UDSM programmers trained ICT officers in LGAs how to install the system, updating/upgrading, backing up and troubleshooting. Some of the trained staff does data entry while others are HRO who use the information in the system on a daily basis and some are decision makers.

**Data use in HRM Decision Making** - PMO-RALG has approximately 400,000 staff from various cadres and aimed to enter data from each employee into the system. Initial data entry of the bulk of the physical records was followed by perpetual updating. By end of August 2013 a total of 323,663 (81%) staff had their data filled in the system. The information in the system includes personal, professional and deployment information for each employee. From this information, users can generate different kinds of reports to assist with key HRM decisions such as hiring, retaining and workforce planning. Some of the standardized reports users can pull out of the system include: retirement planning, education qualification, and staff reports by cadre and designation.

Having learned the importance of data in HR plans and decision making, decision makers in LGAs gradually adopted the practice of consulting their HROs for particular data before making staffing decisions. There has also been increased collaboration between HROs and health leaders in the improvement of data quality in both LGHRIS and HRHIS. Similarly, LGAs now can oversee retirements in their workforce and plan replacement accordingly.
Fig. 6. HOW HRIS REVOLUTIONIZED THE MANAGEMENT OF THE HEALTH WORKFORCE IN ZANZIBAR

Overview
THRP worked with the Zanzibar Ministry of Health (MOH) to develop a robust HRIS based on open source information system. Before iHRIS, human resource information was recorded in manual personal files; between 1993 and 1996 a Personnel Information System based on MSDOS software Dbase IV was used, achieving data accuracy and versatility only to an extent.

The HRIS originates staff information from Training Data and Minimum Staffing Requirements for central level, primary health care facilities and hospitals to generate staff information that is entered in the HRIS as personal data (name/ID/date of birth/sex/nationality/contact), professional data (cadre/category/position/history/level of education) and deployment details namely place of work/department/facility name/level/district/zone. Preceding sentence is too long and dense. The detail could go in a text box or leave out entirely. By making use GIS maps the availability of different cadres of health staff in different health facilities of varying status. Through quarterly workshops of district health management teams, and daily updating of the information in the system and data audits, the information is up to 95 percent up to date.

Data Use
Decision makers have access to accurate reports generated from HRIS including aging of the workforce, staff planning, training plans, deployment and justification for new staff. Three committees in the MOH HR Department make use of the data: those are in a HRIS Bulletin for reference.

Using information from the system, HR Planning unit established available and required staff of all cadres. Using the data and data about age status of workforce, in 2010 the HR Planning unit built a case for asking for bigger number of more employment permits from the Department of Civil Servants. By analyzing data from HRIS in conjunction with WISN (Workload Indicators of Staffing Needs), a tool created by the World Health Organization, MOH’s officials saw that the population’s need for health workers was much greater than its current workforce and the 30 additional personnel the ministry was adding per year—in fact, it needed closer to 300 new workers every year. Thanks to these clear, data-based justifications for additional staff, the MOH was able to secure funds for an additional 315 employees of different cadres in 2011, 239 in 2012, and another 174 in 2013. The government is now recruiting an additional 169 health workers.

Because of reliability of the HRIS data in determining employees deserving risk and responsibility allowances, the MOH made a decision to reinstitute having removed them because often owing to lack of updated staff information the allowances were paid to undeserving employees. The information in the HRIS has enabled the HR unit respond to ad hoc requests for statistics from different international and local organizations.
3.2.1 HRIS in the Private Sector

In Tanzania, private and faith based health facilities account for more than 40 percent of medical services. CSSC coordinated installation of HRIS in private and faith based facilities, drawing from UDSM technical capacities. The partnership of IntraHealth International, central and local government entities (MOHSW and PMO-RALG, and LGAs), and three umbrella institutions (CSSC, BAKWATA and APHTA) demonstrated a unique relationship through close public/private partnerships and reflected the fact that HRH also pervades private and public facilities; therefore, standardized management norms should exist. By September 2013 HRIS matured into a robust system recording data for nearly 80 % staff countrywide through customization of the open source system and proceeding deployment to 154 LGAs and RSs.

Particularly concentrated in rural areas, faith based health facilities provide more than 40 percent of health services in Tanzania. By extending HRIS to the private sector (including FBO facilities and private facilities), HRIS has the potential to encompass the country’s entire health workforce. Working through their project partner CSSC, THRP incorporated worker-specific information into the system and eventually linked data from CSSC, APHTA and BAKWATA facilities to the public sector. This opened a new chapter in public-private partnership for both tracking the mobility of the health workforce as well as guiding policy decisions on prediction, recruitment, and deployment of health care workers.

HRIS was deployed in close coordination with many partners. CSSC deployed HRIS in its health facilities across its five zones of operation. APHFTA coordinated HRIS deployment and implementation in their selected Private Health Facilities in their six zones of operation. BAKWATA network is organized under regional and district administrative structures, with each member facility connected via individual (franchise) agreements. BAKWATA’s coordinated HRIS deployment and implementation efforts are
realized with and through their selected Muslim Health Facilities. Like the LGHRIS/HRIS in the public sector, the private sector HRIS implementation evolved through similar phases as highlighted in the following sections.

**Deployment in CSSC, APHTA & BAKWATA**—In the private sector, the demand for HRIS was built through FBO-run health facilities. CSSC coordinated these efforts, together with THRP coordinators in APHTA and BAKWATA. Through workshops, dissemination meetings, and high level meetings with senior leadership, the HRIS profile and demand increased among departments of health in the three bodies. This speaks volumes about the potential for HRIS continuity. In the final year of the project, demand increased in hospitals which were seeking HRIS capabilities to improve access to their own data. Other users intended to connect through the zonal servers or dedicate their own equipment for local installation.

**Users Skills Development**—To foster ownership and continuity of HRIS, a set of skills were developed to help users engage with the system. The first skill level was coordination and support involving staff from CSSC, BAKWATA and APHTA headquarters, zonal offices and health facilities. HRIS users were trained on how to access, utilize and maintain the system. The second level of skill is related to HRIS focal persons. At each health facility where HRIS is installed, data entry focal personnel received skills training to update, expand and verify facility HR data by employee’s personnel information. The HRIS Focal Person coordinates reporting and exporting data for higher level utilization, which also improves data quality. The third level included HR managers and administrators from CSSC, APHTA and BAKWATA health facilities who were trained on Human Resource Management practices to hone their ability in HRIS data use for HRM decision making. These data users coordinate and implement plans, people and practices and they use the HRIS reports to make their decisions. Level three trainings created interest in the
potential for an HRIS role in identifying a need for HRIS equipment to enter data and produce reports, with minimal involvement of CSSC’s THRP coordination [31].

**Expanding Public and Private Partnership** - Meeting data requirements and customizing HRIS to meet data needs in the FBO and private sector involved tackling inconsistencies between HR policies, available personnel and lack of IT competencies. These challenges notwithstanding, THRP private sector partners-CSSC, BAKWATA and APHTA-managed to develop consistent data generation and system standardization across the private HRIS and public sector HRIS. The private sector HRIS data entry form was designed on standard and salary scales from PMO-RALG in order to allow for potential integration of HR data in the future. However, collaboration between partners enabled customization and data development procedures for the HRIS to meet requirements of CSSC, APHFTA and BAKWATA health facilities.

**Data Use in HRM Decision Making** - The HRM management skills imparted to decision makers at facilities revolutionized how HRM decision making use data. Current and accurate data from HRIS translated into richly detailed, timely and accurate reports from facilities for informed HRM decision making as illustrated in the Figure 7.
The CSSC is using HRIS to track employees seconded by MOHSW in all its hospitals to verify their placement at faith-based Community owned and Designated District Hospitals and Referral Hospitals. After extracting basic employer information from the HRIS, CSSC used it to advocate for support at higher levels. By the end of the project 46 out of 48 CSSC facilities where HRIS had been installed were using the data for decision making [22, 31]. Figure 7 shows retirement projections at Cardinal Rugambwa Hospital from 2015 to 2020. Notice that the unknown figures represents incomplete data and reflects data entry challenges that requires revisions.
3.3 Introducing Para-social Workers to Bring Social Welfare Services Closer to Vulnerable Children

The GOT implements a National Costed Plan of Action for Most Vulnerable Children to address the challenges of children who are under the age of 18 years and falling under extreme conditions characterized by severe deprivation as to endanger their health, well-being and long-term development. Services to MVC have been far from optimum because of insufficient skilled human resource, funding, and difficulties in conceptualizing social welfare issues at district and village level. The MVC Program of THRP was born from the Government’s efforts to develop a voluntary PSWT and the PSWT supervisor - to address the shortages of human resource in the social welfare sector to serve Tanzania’s MVC [3, 27, 28, 33].

The MVC program focused its efforts in training and deploying PSWs and strengthening a multi-sectoral approach to advocating for MVC’s psycho-social services at district level. The high national prevalence of HIV/AIDS and consequent deaths of family breadwinners has overwhelmed the traditional social projection structure of the extended family. Therefore an institutional intervention at the village level became necessary. THRP equipped PSWs with foundational skills in social welfare. They learned how to identify psycho-social needs in communities and refer to community and governmental partners to address those needs. THRP worked with LGAs to establish a DAT in 27 project districts. A DAT comprises an official from different sectors: Education, Health, and Social Services, who bring MVC agenda in district planning and budgeting. The results of the initiative are detailed in paragraphs below.

*Para Social Workers in the HRH Workforce* - 4683 PSWs and 702 PSW Supervisors have been trained in Dodoma, Mwanza, Iringa and Mtwara regions and three additional districts-Nzega, Bukoba Rural and
Musoma Rural. PSWs provide valuable contribution to the management of MVCs and fill a gap in the current social welfare service system. The most frequent service PSWs give is psycho-social support (35,948 documented cases) [23]. Health support services follow psycho-social support, with almost half of the psycho social support cases. The PSWs role of linking needy children with service providers intertwines with PSS services. PSWs usually assist to improve the relationship between the child and their family members or school. Being present in the community and acquainted with local dynamics, PSWs give practical assistance in assessing needs, helping families and children overcome obstacles to access available services, and linking MVCs and their families to the district social welfare officers.

**A Formal Career Path for PSWs:** One outcome of the PSW program was the creation of a career track for PSWs into a professional position in government service as a Social Welfare Assistant (SWA). Because of project advocacy and the significant contributions of the PSWs, a Social Welfare Certificate Course at Kisangara Social Welfare Training College was begun. Graduates are eligible to apply for the newly created position of SWA. The inaugural class registered 35 PSWs, setting them on career path with government. This was possible because PMO-RALG had matched PSWs selection criteria for the minimum entry level required for academic training by the civil service in Tanzania. ISW educators prepared the PSWs training curricular, qualifying trainees, getting them for the formal certificate course.

**Most Vulnerable Children Benefit from PSWs Work** - After PSWs link MVC to services, the total services reported were 100,807. Services include psycho social support (35,948), education (15,025) and vocational training (14,918), food and nutrition (11,197), protection (10,399), shelter (9,028) and economic strengthening (4,289) [23, 28].
**Increased Social Worker Hires in Districts** - Another result of strengthening district capacity to conceptualize and notice the challenge of MVCs in their community is an increase in social worker hires in districts where the MVC Program worked. There are now 9 social workers in Dodoma region compared to 3 in 2008; there are 28 social workers in Mwanza region compared to 18 in 2008; social workers have increased from 13 to 20 in Iringa region [23, 29].

**LGAs Budgets for MVCs and PSWs Support** - Among other responsibilities, DATs represents MVC issues in district planning and budgeting meetings. A number of district councils have successfully incorporated MVC activities in their annual plans and some even set a budget to implement the activities. For example, by the end of THRP, 20 out of 27 MVC project districts allocated budgets to support PSWs and PSW supervisors [23, 24]. Additionally, a considerable number of activities involving collection of resources for MVC are coordinated by Most Vulnerable Children Committees (MVCCs) at the village level. MVCCs facilitate community development/social welfare department work since they have a platform to advocate for MVCs in their respective villages. They work together with PSWs and community members to identify MVCs and find locally appropriate ways to raise resources to meet their needs. There is anecdotal evidence of a notable faster progress in identifying MVCs and more activities to link them with local service providers (churches, CBOs, other NGOs) in communities.

**Formalized Network of Para-Social Worker Volunteers (PASONET)** - THRP supported and coordinated formation of a nationwide network of PSWS. The network, known as PASONET was formally registered in 2011. PASONET has initially found physical offices in Dodoma, Mwanza and Iringa. Through the results of the social welfare workforce assessment, a PSW database contains updated information about the
social welfare workforce database developed which is accessible through LGHRIS. Information in the database provides location and personal details of PSW including sex.

**Development of the Social Welfare Workforce Strategy**-THRP collaborated with the MOHSW’s Directorate of Social Work and FHI360, to assess the social welfare workforce [28]. Findings of the assessment indicate that LGAs are emerging as the major employer of social welfare workers in the public sector and that there is a need to streamline the roles and functions of social welfare workers and community development workers, particularly at local levels. Also, findings have shown the existence of a general shortage of staff for the tasks expected of social workers both in LGAs and in the regional social welfare offices. Consequently there is need for further professional training to enhance the technical capacity of the existing staff. The assessment provided a guide for development of a draft of the national social welfare workforce (SWW) strategy that focuses on three key areas: planning, training and development, and workforce management [28].
4. CHALLENGES & LESSONS

Within its four-year life span, THRP faced and confronted a number of operational and systemic challenges and learned useful lessons in the HRM, HRIS and MVC subprojects as described in the following sections.

4.1 Challenges

4.1.1 HR Management Subproject

- Most of the resources from National Programs in 2012/13 were not captured in the Planrep3, a computer based planning tool used by PMO-RALG because data is not available to CHPT to be included in their plans (Malaria, NACP - ARVs, TB, EPI, FP commodities under the Global Fund). This resulted into small [28, 29].

- Some budgeted activities were not addressing essential interventions. Targets were not addressing council identified health priority problems, priority problems were not formulated based on the data available on the situational analysis tables. The magnitude of the problem was not indicated by the data, targets were not addressing the objectives and not “SMART” and some had no measurable parameters. This was a shortcoming in the planning process and indicates that planning is a specialized skill especially when we need to have indicators of success and value for the money spent [29].

- Budgeting outside a Council account is not well understood by the CHMTs. For example, activities’ funding sources were linked to the wrong funders available in PlanRep3 (i.e. Central Government via Medical Store Department (MSD)/medicines, multilateral UNICEF, Global Fund...
and NGOs etc.) were either put on Other Charges or Development Budget[28, 29]. This error needs to be corrected through supportive supervision and targeted training.

- Some of the plan’s objectives were not linked to Performance Indicators available in the system and there were duplications of targets and activities within the same cost center under the same objective.

- Some of the targets had more than 20 activities in the same cost center that cannot be implemented in one year. Also, most councils didn’t allocate funds for MSD, medicines, equipment and supplies as per guidelines provided by the MOHSW.

4.1.2 HRIS Subproject

The major challenges that hampered smooth implementations of HRIS in many sites were:

- Increased workload for HR officers due to existence of multiple systems (HCMIS, HRHIS and LGHRIS) using the same staff for data entry and update.

- Employees from most newly formed LGAs are still yet to get file numbers belonging to new LGAs and data entrants were forced to use old file numbers which will later on force them to update these file numbers and replace them with file numbers that will be distributed to employees by new LGAs.

- Power outages: As usual in Tanzania power was an issue and several of these LGAs were unable to handle running costs for generators and hence the exercise was affected in one way or another.

- Poor working environment and insufficient resources to better the work environment. In some LGAs where difficult financial situations exist-lack of offices, and insufficient funds to finance
their departments’ plans- some of the new council headquarters are located in a place where there is scarcity of houses and other basic needs which forces staffs to stay far from their working stations.

- Shortage of staffs. Most of the new LGAs are lacking enough staff to handle day to day activity of the councils.
- Lack of ownership of the project in some sites

THRP has been working with PMO-RALG as part of project closure transition and sustainability, devising ways to address these systemic and operational challenges including the inception of Technical Internship Program and Data Centralization.

4.1.3 Most Vulnerable Children Subproject

Through working at the district level and village level on MVCs issues and social welfare in general, THRP noticed that abstract nature of social welfare demands a deeper insight and impetus to raise their importance in the ranks of government system. At the village level, the MVC welfare program was successful compared to the district level. Related implementation challenges included:

- District welfare departments and LGA leadership in general needed capacity to assess and analyze the welfare needs in their community. That capacity should be coupled with ability to report to top management and devise way to tap into available resources, or align available efforts to respond to prevailing social welfare needs.
- When working with government partners at all levels (national, regional, district, and community levels), message consistency is paramount for program success. District councils are
willing to support PSWs, especially in co-funding arrangements when planning coincides with the LGA budget cycle.

- District social welfare units do not have enough funds in their budgets and resources to perform the extent of necessary social work functions, but when councils were sensitized to these needs, they were willing to budget for the MVC and support PSWs.

- Selecting PSWs on eligibility criteria (Form Four education) produced lessons and challenges. The current Form Four standard for participation as a PSW excludes potential volunteers who lack academic qualifications but may have existing work experience with children or volunteer skill building, lowering the educational standards may increase the number of female PSWs as more male than females meet the education criteria. However, reducing the academic requirements below secondary education limits the potential for PSWs to pursue a career path and job opportunities as SWAs. It is possible that additional criteria can be added to the application process to help identify Form Four leavers who are 'grounded' in their community. This can both increase the number of female PSWs but it may also minimize PSWs drop out.

### 4.2 Lessons Learned

**Advocacy & Collaboration**

- The entire THRP team learned much from monthly meetings between BMAF, AKF, CSSC, PMO-RALG, UDSM, IntraHealth and other project partners. The meetings were a joint collaboration between FBOs, private and local government implementers, initiated and led by IntraHealth International and rotated between partner offices. They showed partners how good collaboration can strengthen project implementation and advocacy efforts. The sharing and exchange of experience during these meetings also contributed knowledge among partners about overall project activities, which greatly assisted advocacy at all levels and helped to
coordinate project implementation. This also enhanced good performance of system deployments, customizations and facilitated local government training led by UDSM.

- Another lesson learned relative to advocacy efforts between team partners was to promote advance communication to establish shared expectations. One example of this was that shared understanding of partner responsibilities earlier in the project could have helped avoid delays with initial partner agreements and each Memorandum of Understanding. Another lesson learned was to insist on advance partner communication with stakeholders in order to improve full participation in joint needs assessments and dissemination workshops.

- Partnering with local NGOs and USAID-funded implementation partners at all levels is important for establishing PSWs in their existing system of community services and exposing them to potential organizational resources. Moreover, USAID-funded OVC implementing partners recognize the role of PSW in supporting MVC and are recruiting PSW in their program where feasible; however, these groups do not have the budget to train PSWs to the standard of one PSW based in every village. PSWs need to be proactive and contribute to identifying local NGO networks. The career path of the SWAs is endangered if LGAs do not create more positions for that cadre.

**Users Capacity & Skills**

- In the first year of the project, CSSC zonal staff on the THRP included only the Secretary and a Data Clerk. CSSC realized that higher level IT capacity would be needed at zonal offices in the second year to support deployment of the HRIS to hospital levels. Therefore, the addition of zonal IT Technicians had been planned for year two from the beginning but, if they had been added in year one, they would have been able to facilitate zonal server set-up, strengthen customization and informed their knowledge for year two. While the IT Technicians greatly
improved HRIS performance quickly, the lesson was clear that having skilled IT Technicians in each field office where servers are being deployed should be planned from the start of a national information system project.

- A similar lesson was learned in the third year from HRM and TOT workshops that were performed at zonal levels. In these workshops, zonal Data Clerks and IT Technicians were learning together with hospital HR Managers and Focal Persons. This greatly strengthened links between these groups and empowered both to make tremendous improvements to project performance and data utilization in the fourth year. While HRM training was offered through the THRP in the second year, those trainings were in large group settings that did not allow for applied learning with the HRIS. If hospital HR Managers and Focal Persons had been trained on HR practice that was oriented to the HRIS, along with access to IT Technicians in the second year, performance, data quality and utilization would have improved faster.

Data Quality & Utilization

- Addressing data quality issues was also connected with guidance in how to effectively utilize HR data. Learning to emphasize this connection also helped THRP show the importance of utilization through their supervision efforts. This was especially helpful where data verification was most needed to cross check data quality because improved ability to utilize data could be seen as a direct result of the data quality improvements. Recognizing where these issues had to be addressed every time also guided priorities for follow up, coaching and mentoring at PMO-RALG, CSSC hospitals, APHFTA health facilities and BAKWATA HQ deployment accessing the HRIS. This learning also contributed to targeting CSSC advice in promoting addition of HR Focal Persons with a proper role in data collection and verification procedures where needed.
The THRP team also learned the valuable lesson that an iHRIS Manage implementation which prioritizes customization of this open system is more able to achieve positive results with data utilization. This became clearer as hospitals with quality data became more engaged with utilizing it by customizing HRIS reporting parameters to meet their specific internal and external needs for HR data in planning and decision making. This lesson was also highlighted by the misunderstanding of 2009 cadre and job standards against the old information at the hospital level since data consistency was needed in order to effectively aggregate and compare HR capacity across departments. Many of these issues came to the surface at the site visits where they needed staff category fields to link with information like check number, confirmation date, birth date and promotion date.

Data utilization difficulties at facility levels also helped HR Managers and Health Secretaries better understand the importance of adopting the 2009 Scheme of Service standards that had been missing in order to allow comparison between various other factors that relied on Cadre and Job Designation. This also further increased efforts on system update to replace 2002 Scheme of Service and other erroneous standards that existed in various locations.

Leadership & Knowledge Sharing

THRP set out to strengthen local government authorities' capacity to plan, budget and recruit health and social welfare staff while improving HR management practices to retain this workforce and improve its productivity. The overarching operational approach of the project involved complementary interventions at the central level and district level.

Involvement of LGAs in the recruitment process contributes to increases in the rate of new staff reporting and staying at their new work stations. LGA involvement included preparation of
district profiles, following up posted staff through mobile phones and involvement of districts in local recruitment initiatives e.g. lobbying students attending medical colleges in LGAs to stay and work in the area and take part in job fairs.

- THRP deployed novel and successful methodologies into the arena of system strengthening job fairs, knowledge sharing and coaching and mentoring. Consequently, these methods have been adopted by the MOHSW in rolling out HSS project nationwide.
5. SUSTAINABILITY

5.1 HRM Subproject

From the beginning of the project, THRP implemented activities within the existing government structures of its partners: PMO-RALG, MOHSW and implementing LGAs. The activities were carried out by local organizations in the consortium, developing their own skills as well as those of their government counterparts. By working with and within government structure and within existing policy framework, the project influenced policy change and made technical contributions to revision of HRH management processes both at central level (MOHSW, PO-PSM, PMO-RALG) and in LGA Council Health Management Teams. Some of the assistance at macro level policy and LGA technical assistance is likely to bear fruit in the long run.

The new staff Orientation package was tested in 54 districts under THRP and subsequently reviewed, published and adopted by the MOHSW. It will be available to all LGAs nationwide. Following initial efforts of the USAID-funded global Capacity Project in HRM training and its assessment of recruitment bottlenecks, the THRP accelerated the implementation of the national HRH Strategy and the HR components of the HSSP III. Through THRP’s technical contribution and review of the national CCHP guidance, HRH visibility has increased; it needs to be planned for and reported against by each district in its annual CCHP [25]. In the same vein THRP’s gains on OPRAS compliance have been strengthened by the PO-PSM directive those three consecutive years of implemented OPRAS needs to precede all recommendations for promotion. This procedure will intensify interest among managers and supervisors and staff to implement OPRAS.
5.2 HRIS Subproject

Now that the LGHRIS is running, sustaining its technical utility becomes crucial. Assisting users in troubleshooting is vital for sustainable support. UDSM and PMO-RALG worked out an arrangement to let the PMO-RALG's employees solve technical issues with minimum external support. Selected ICT officers from LGAs/RSs/PMO-RALG received advanced skills training in troubleshooting. Members of the cohort, picked by geographical zonal proximity (each zone comprising a number of neighboring regions), respond to incidents reported by fellow LGHRIS users in nearby districts. Dubbed 'help desk,' this arrangement takes advantage of PMO RALG connection to LGAs servers through VPN to communicate with users and solve issue online. Successfully attended cases are logged for reference in the future. Difficult cases are referred to UDSM programmers. Once they have been resolved, solutions are made available to all trouble shooters for reference. Common problems users face are: system failure, database server crash and server crashing.

5.3 MVC Subproject

The MVC Program benefited from the overarching approach of THRP. Similarly, engaging with relevant, established government systems and grounded non-government actors, the MVC Program carried out interventions within particular LGAs contexts under the PMO-RALG. These partners took part in the design, implementation and evaluation; this approach cultivated a sense of ownership over the process.

Some of the results of the intervention have been institutionalized. For example, the admission of PSWs to the inaugural Social Work Assistants Course at Kisangara Social Training College offers a career path for PSWs volunteers to become Assistant Social Welfare Officers. Moreover, formalization of PASONET-nationwide network of PSWs - gives volunteers a base to stand as members of a national organization.
Throughout the implementation of the program, techniques, skills and knowledge learned have been documented in various formats. The formats available for use include dissemination reports and the three years’ progress report. A report of the program review has practical information about what worked and what did not work. The program implementation guide gives a step by step lead on how to implement a similar program. It is encouraging to note that a number of organizations are interested, including World Education Initiative (WEI). In Karatu district, they have replicated the PSWs model and used MVC Program as the intellectual resource to train their first cohort. PACT and Africare have engaged PSWs trained through MVC Program to extend social welfare services in their programs. Since a PSWs database has been integrated at the Department of Social Welfare and PMO-RALG, other organizations can access and engage them in relevant activities.
6. CONCLUSION

During the project, THRP conducted a data quality assessment (DQA) – To assess quality data, reporting systems and progress in program implementation for selected regions (Dodoma, Iringa and Mwanza) and for selected core indicators. A standard IntraHealth DQA tool was used. The findings from each DQA were used to assist partners in improving data quality. The objective of the DQA was to assess quality of data, reporting systems, and progress in program implementation in three Dodoma districts, namely Bahi, Chamwino and Dodoma Municipal. Meetings were then arranged with key stakeholders, and, using these results, the report was submitted. This helped shed light on the critical issues and challenges, and efforts were made to address the issues. Similar DQAs were also conducted in Iringa and Mwanza resulting in development of tailored strategic plans for program implementation.

As referenced from the reviewed literature, studies were conducted to investigate underlying reasons for ineffective recruitment, lack of local incentives, OPRAS slow adoption, and criteria for defining underserved areas. Besides these studies, a baseline study was carried out way back in 2009 to observe the situation/performance on issues, policies, etc. that THRP aimed at focusing its interventions upon. From this research reports were written, reviewed, and their content put into publishable format. These formed crucial references to this study.

Lessons learned through these studies informed the content of subsequent tools and interventions. For instance, an orientation package for health care workers was developed from observations made in the Baseline Study and the Recruitment Bottlenecks Study. Findings from the Multisectoral Criteria for Defining Underserved Areas and baseline study findings about orientation provided empirical evidence about the potency of a formalized orientation. Consequently, An Orientation Package for Health Care
Workers was developed. It has been finalized, endorsed for use in not only THRP project districts, but all over the country.

Two dissemination meetings were organized in 2013. HRM components convened members of CHMTs and central government officials from the Ministry of Health and Social Welfare to give them feedback about what worked and what did not and how effectively LGAs applied the HRM practices included in the District Strengthening component. The PSW Program also organized a dissemination meeting in July, bringing together central government officials from the MOSW-DSW, PMO RALG, and Social Welfare Officers from project LGAs and Para Social Workers.

*National HRH Conference*-This is one national platform jointly organized by THRP, MOHSW in September 2013 where the project got its message and lessons learned across to policy makers and national leaders. Two important developments made the first HRH national conference well timed. First, was the participation of Tanzania in the third Global Health Workers Alliance forum in Brazil on November, 2013 a global event where Tanzania, like other states, was expected to declare its commitment to improving its HRH situation in order to reach health development goals; second is the ongoing process to write the National HRH Strategic Plan II. Lessons learned, best practices and methods tried during implementation of THRP- were built into the Conference agenda. Best practices and lessons learned under THRP were presented from the perspective of CHMTs where THRP worked. For example the success of OPRAS in Ukerewe district was presented.

The HRM District Strengthening model was rolled out countrywide under Global Fund Round 9, coordinated by the MOHSW and BMAF. This exemplified the usefulness of the initiative to the health
care system in the decentralized environment. Similarly the government has adopted the Para Social Worker Program guide as a reference to running similar programs in the future. The District Advocacy Team model that was introduced under THRP has been replicated by WEI in Tanzania. The Social Welfare Workforce Strategy that was developed with technical support from THRP has been finalized and will be used to guide management and utilization of the social welfare workforce.

HRIS has helped the MOH in Zanzibar to prove the need for more staff; consequently, the health workforce has grown by 27 percent between 2011 and 2013. On the mainland, the LGHRIS has recorded data for 99 percent of LGAs staff. Other HRIS systems that existed before had staff data, but not in as comprehensive format as LGHRIS, thus ongoing efforts to integrate various HRIS systems available in the public sector into a comprehensive system will draw personal information of employees from the LGHRIS, saving costs in data collection and storage.

Through a review of multiple policies and HR guidance documents, operationalizing national guidelines, leadership training at central level and strengthening the capacity of district-level health managers THRP reduced vacancy rates across 54 project districts between 2009/11 and 2011/12 from 45% to 36%; and increased HRM activities in annual district plans from an average of 13% in 2009 to 17% in 2012 in 54 districts [13]. Additionally, 32 enrolled rural nurses were upgraded to registered nurses in a pilot retention program, and 530 nurses received basic skills training [13].

Through the technical assistance of UDSM, the project provided PMO-RALG, the MOH/Zanzibar and the faith-based sector with customized open source HRIS. The Local Government HRIS is deployed nationwide in all 154 districts and 22 regional offices on the mainland; the iHRIS is in the 10 districts of Zanzibar and in 46 out of 48 hospitals managed by faith-based institutions. The MOH/Zanzibar increased
its health workforce by 25% between 2009 and 2013 as a result of decisions made from data produced by a functioning HRIS [31]. The high level of confidence in the data propels even further use and analysis of the data. The human resource information on the Mainland had records of 323,663 employees, including 24,671 health workers as of the end of September, 2013.

To bring skilled social work competencies to meet psycho-social needs of most vulnerable children, THRIP trained 4,700 village-level para-social workers and more than 700 supervisors, who in turn have served 100,807 MVC. The PSW program component spearheaded the development of the first Social Welfare Workforce strategy that will guide the development of appropriate structures and systems required for effective provision of professional social services. The project raised the visibility of the critical role that social work has in the health of Tanzania’s vulnerable populations and the need for a competent professional social welfare workforce deployed where it is most needed[23,32].

While the HRH Action Framework is applicable in all countries, the way it is used will be influenced by the country-specific elements and context (for example, the economy, the political situation), including the labor market (the capacity of the health workforce in general, international labor influences). The outcomes of applying the Framework will also be influenced by the strength of other components in a particular health system; for example, the availability of drugs and equipment, the level of technology available, and the number and condition of health facilities. Despite all the highlighted challenges, the initiative was a beneficial undertaking in Tanzania, a Sub-Saharan country facing the burden of a high maternal mortality rate, high incidence of malaria, HIV/AIDS and a host of other curable and preventable diseases shared characteristics with most sub-Saharan Africa countries. It is a model that could be replicated in some of these countries where such efforts are not yet on the ground; in order to attain health related millennium development goals and other better health outcomes.
### 7. APPENDICES

**Appendix I: Localized incentives and retention strategies from 9 local government authorities**

<table>
<thead>
<tr>
<th>District</th>
<th>Financial Incentives</th>
<th>Work Environment Incentives</th>
</tr>
</thead>
<tbody>
<tr>
<td>Makete DC-Iringa</td>
<td>NA</td>
<td>○ Provides tea for staff on night duty&lt;br&gt;○ Supplies charcoal for warmth for night duty staff</td>
</tr>
<tr>
<td></td>
<td>With funding from CUAAM (local NGO), implements pay for performance strategy for best performing health facilities&lt;br&gt;○ Pays salary advance to staff whose salaries are delayed for more than a month</td>
<td>○ Prioritizes difficult to reach areas when distributing bicycles, motorbikes&lt;br&gt;○ Provides transport new work stations&lt;br&gt;○ Pays a month full-board lodging for freshly reporting staff</td>
</tr>
<tr>
<td>Iringa DC-Iringa</td>
<td>○ Provides tea for staff on night duty&lt;br&gt;○ Supplies charcoal for warmth for night duty staff</td>
<td>○ Prioritizes difficult to reach areas when distributing bicycles, motorbikes&lt;br&gt;○ Provides transport new work stations&lt;br&gt;○ Pays a month full-board lodging for freshly reporting staff</td>
</tr>
<tr>
<td></td>
<td>o Pays nutrition allowance to health workers who are living with HIV</td>
<td>○ Stations new staff at the district hospital for six months before posting them to lower health facilities&lt;br&gt;○ Provides temporary accommodation for newly recruited staff</td>
</tr>
<tr>
<td>Ludewa DC-Iringa</td>
<td>○ Pays nutrition allowance to health workers who are living with HIV</td>
<td>○ Stations new staff at the district hospital for six months before posting them to lower health facilities&lt;br&gt;○ Provides temporary accommodation for newly recruited staff</td>
</tr>
<tr>
<td>Nachingwea DC-Lindi</td>
<td>○ Provides Tshs 300,000/- for each new staff, in addition to subsistence allowance&lt;br&gt;○ Provides salary advances to newly recruited staff before their names appear in standard payroll system</td>
<td>○ Pays for accommodation for new employees up to one month&lt;br&gt;○ Provides mattresses for newly employed staff</td>
</tr>
<tr>
<td>Liwale DC-Lindi</td>
<td>○ Provides salary advances to newly recruited staff before their names appear in standard payroll system</td>
<td>○ Allocated two houses as 'rest house' to accommodate new staff for six months</td>
</tr>
<tr>
<td>Kilwa DC-Lindi</td>
<td>○ Provides salary advances to newly recruited staff before their names appear in standard payroll system</td>
<td>○ Provides temporary accommodation to new staff for the first two months</td>
</tr>
<tr>
<td>Kishapu DC-Shinyanga</td>
<td>○ Provides allowance for paying house rent for newly employed staff</td>
<td></td>
</tr>
<tr>
<td>Newala DC-Mtwara</td>
<td>○ Provides salary advances to newly recruited staff before their names appear in standard payroll system</td>
<td>○ Provides tea for staff on night duty</td>
</tr>
<tr>
<td>Mbinga DC-Ruvuma</td>
<td>○ Rewards a bonus to health workers who performed well, based on OPRAS</td>
<td>○ 50% subsidy to buy motorcycle for health workers and other district staff&lt;br&gt;○ Placed water tanks in 20 health facilities for staff to get water in their houses&lt;br&gt;○ Provides airtime subject to position and amount stipulated in LGAs incentive policy and availability of funds&lt;br&gt;○ Provides accommodation to all newly employed health workers</td>
</tr>
</tbody>
</table>

Source: Attracting, Motivating and Retaining Health Workers in Underserved Areas of Tanzania, 2013 THRP
# Appendix II: Milestones during Human Resource Information System Implementation 2009-2013

<table>
<thead>
<tr>
<th>Year</th>
<th>Milestones</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>HRIS pilot in Kondoa District, project sensitization and deployment</td>
</tr>
<tr>
<td></td>
<td>Secondary HRIS Customization &amp; Testing - Makete, Njombe, Ludewa &amp; Iringa</td>
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<tr>
<td></td>
<td>PMO-RALG’s LG HRIS user acceptance test and signing of the MOU</td>
</tr>
<tr>
<td></td>
<td>The newest version of HRIS installed at central CSSC office and 5-Zonal Offices</td>
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<tr>
<td></td>
<td>Secondment of HRIS Advisor to PMO-RALG, Dodoma</td>
</tr>
<tr>
<td></td>
<td>Completion of HRIS deployment in Zanzibar MOH. HRIS accessible from in the MOH LAN and via zanhealthlink</td>
</tr>
<tr>
<td>2010</td>
<td>First phase deployment in Iringa region, Lindi and Mtwara</td>
</tr>
<tr>
<td></td>
<td>Completion of HRIS deployment in Zanzibar MOH. HRIS accessible from in the MOH LAN and via zanhealthlink</td>
</tr>
<tr>
<td></td>
<td>Trained 45 PMO-RALG’s HRIS Project Team, Regional and ICT officers as part of the sustainability plan, empowering them to use, manage and support the system facilitated by UDSM</td>
</tr>
<tr>
<td></td>
<td>The first high level HRIS meeting with PMO-RALG management led the PS and his two deputies in Dodoma for project brief and reporting progress</td>
</tr>
<tr>
<td></td>
<td>The first high level HRIS meeting with PMO-RALG management led the PS and his two deputies in Dodoma for project brief and reporting progress</td>
</tr>
<tr>
<td></td>
<td>Project introduction and awareness to stakeholders (PMO-RALG, MOHSW, Mainland &amp; Zanzibar, POM - PSM, Private FBOs, NGOs etc.)</td>
</tr>
<tr>
<td></td>
<td>60 Zanzibar MOHSW officers HRIS capacity building on the system use, data accuracy importance and use</td>
</tr>
<tr>
<td></td>
<td>The first DQA report on Zanzibar. HRIS data has enable MOH to justify for recruiting more health workers for FY 2010/11 compared to other years.</td>
</tr>
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<td></td>
<td>The first DQA report on Zanzibar. HRIS data has enable MOH to justify for recruiting more health workers for FY 2010/11 compared to other years.</td>
</tr>
<tr>
<td>2011</td>
<td>Third phase HRIS deployment covering 60 LGAs and 4 Lake Zone regions (Mwanza, Mara, Kagera &amp; Shinyanga)</td>
</tr>
<tr>
<td></td>
<td>Fourth phase HRIS deployment covering 4 Northern Zone regions (Arusha, Kilimanjaro, Manyara &amp; Tanga)</td>
</tr>
<tr>
<td>2012</td>
<td>Fifth phase HRIS deployment covering 8 regions (Dodoma, Morogoro, Kigoma, Tabora, Rukwa, Singida, Mbeya &amp; Ruvuma)</td>
</tr>
<tr>
<td>2013</td>
<td>Sixth phase HRIS deployment covering 4 new regions (Geita, Simiyu, Katavi &amp; Njombe) - Work in progress</td>
</tr>
</tbody>
</table>

Source: HRIS Subproject Final Report, THRP, 2013
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