

Article Information

Received date: Sep 26, 2016

Accepted date: Nov 07, 2016

Published date: Nov 10, 2016

*Corresponding author

Michael A Munga, National Institute for Medical Research (NIMR), Dar es Salaam, Tanzania, Email: mika.munga@gmail.com

Distributed under Creative Commons CC-BY 4.0

Keywords HIV; AIDS

Abbreviations HIV/AIDS: Human Immunodeficiency Virus/Acquired Immune Deficiency Syndrome; RCH: Reproductive and Child Health; NIMR: National Institute for Medical Research; MoHSW: Ministry of Health and Social Welfare; MDG: Millennium Development Goals; WHO: World Health Organization; KI: Key Informant; CNO: Chief Nursing Officer; DHRH: Director of Human Resources Development; DHS: Director of Hospital Services; DPP: Director of Policy and Planning; PMTCT: Prevention of Mother to Child Transmission; NACP: National AIDS Control Programme; RMO: Regional Medical Office; RAC: Regional AIDS Coordinator; DMO: District Medical Officer; DAC: District AIDS Coordinator; DNO: District Nursing Officer; DRCHCo: District Reproductive and Child Health Coordinator; MRCC: Medical Research Coordinating Committee; CDC: Centres for Diseases Control and prevention; MO: Medical Officer; AMO: Assistant Medical Officer; CO: Clinical Officer; ARV: Anti-Retroviral; VCT: Voluntary Counselling and Testing; CHMT: Council Health Management Team; MOI: Muhimbili Orthopaedic Institute

Research Article

Task-Shifting in the Provision of HIV/AIDS, Reproductive and Child Health (RCH) Services in Tanzania: Exploring the Views and Experiences of Health Managers

Jonathan M Mshana¹, Michael A Munga^{1*}, Adiel K Mushi¹, Tina A Mtui¹, Andrew M Kilale², Thuwein Y Makamba¹, Sia E Malekia¹, Vitus A Nyigo¹, John S Kunda², Judith Msovela¹, Stella P Kilima¹, Angela E Shija¹, Julius J Massaga¹ and Mwelecele N Malecela¹

¹National Institute for Medical Research (NIMR), Dar es Salaam, Tanzania

²National Institute for Medical Research (NIMR), Muhimbili Medical Research Centre, Dar es Salaam, Tanzania

Abstract

Background: Tanzania continues to work towards improving her health system in order to provide quality health services amid serious shortages of resources. A serious impediment towards attaining Sustainable Development Goals (SDGs) especially those related to HIV/AIDS, Reproductive and Child Health (RCH), is a shortage of health workers both in terms of numbers and skill-mix. While the problem of shortage is affecting the whole health care delivery system, we focus on the provision of HIV/AIDS and RCH services. The aim of this paper is to gather insights from health managers in Tanzania by exploring their views and experiences about task shifting practices in the delivery of HIV/AIDS and RCH services.

Methods: This was a cross-sectional exploratory study employing qualitative methods of data collection and analysis. It was conducted between June and August in 2012. The study involved interviews with health managers from national level, in nine regions and nine districts of Tanzania. The regions and districts were randomly selected. At the national, regional and district levels, key informants were selected on the basis of their potential to provide relevant information on task-shifting from practice and their experiences in the fields of HRH, HIV/AIDS and RCH. Analysis of data from in-depth interviews was an ongoing field exercise. Analysis had followed the principles of grounded theory and employed multiple coding.

Results: Task shifting practices are widespread in all health facilities across all cadres of health workers in Tanzania. HIV/AIDS and RCH services are available both in urban and rural areas. However health managers were of the view that due to huge shortage of skilled health workers in rural areas with higher levels of task shifting practices, quality of HIV/AIDS and RCH services in rural areas were considered to be low compared to services provided in urban areas. In addition, it was revealed that task shifting was implemented informally due to absence of policies and guidelines needed to guide the implementation, training and mentorship, monitoring and Evaluation. These guidelines are needed in order to ensure continuity of access and quality of health care services. Finally the study found that in some ways and on top of the acute shortage of health workers, ineffective strategies for attracting and retaining skilled health workers which characterize many rural areas, contribute to increasing the magnitude of task shifting practices in the country.

Conclusion: The absence of policies and guidelines for guiding the implementation of task shifting in the country affect planning and harmonization of important aspects of task shifting such as training, mentorship and supportive supervision. If such policies and guidelines are to be formulated, they can set up a framework to regulate, monitor and evaluate task shifting practices. In the context of professional, regulatory and other barriers to policy change, there is a need to address these challenges before formalizing task shifting practices. However, it is encouraging to see that the Ministry of Health and Social Welfare has committed itself and it is now engaging different stakeholders to ensure that task shifting policy and guidelines are in place by the year 2017.

Background

Tanzania is among the low income countries in the world with the 'sickest' health care systems in the world. Among the salient features which characterize the Tanzanian health care system is her acute shortage of resources for health both in terms of numbers and skills-mix. It is apparent that the shortage of human resources for health which in Tanzania has in many times described to amount to a 'crisis', will definitely impede the attainment of the Sustainable Development Goals (SDGs) especially those related to HIV/AIDS and Reproductive and Child Health (RCH) [1-3]. While the problem of shortage is affecting the whole health delivery system, we focus on the provision of HIV/AIDS and RCH services. The aim of this paper is to gather insights from health managers in Tanzania by exploring their views and experiences about task shifting in the delivery of HIV/AIDS and RCH

services. Our choice of these two services is influenced by the fact that their mode of delivery have recently been done through integration. In addition to the above argument and as numerously reported in the literature, task shifting practices introduces an 'innovation' which may improve provision of health services through integration. This, innovation had variously been commended to be among the strategies for improving the optimal use of human resources (and other resources) in the provision of health services, particularly HIV/AIDS and reproductive health services [1-3]. One of the main reasons for the Tanzanian health system to integrate the delivery of HIV/AIDS and RCH services, is to optimize the use of human resources for health and other resources, even when they perform their duties through 'informal task shifting' mechanisms [3].

For the purpose of this paper and the need to put our readers into perspective, the definition of task shifting is borrowed from the World Health Organization (WHO). According to the World Health Organization, "Task shifting involves moving specific tasks from highly-qualified health workers to health workers with less training and/or lesser qualifications. It also includes the redistribution of tasks between different cadres of professional healthcare workers and/or from a professional to lay health workers [2]. Task shifting is not a new concept as it has been practiced for many years, in different places with different names such as task delegation (community health workers) and task sharing [1-2].

Many countries have practiced (and are still practicing) task shifting in their health care delivery system. Acute shortages of health workers has galvanized many countries in the world to improvise additional cadres of health care workers in order to fill the health personnel gaps [1,2,4,5]. One of such improvisation is task shifting practices which in 2010, the World health organization provided recommendation on how to go about it if countries wish to adopt it [2].

Shortage of skilled health workers is not the only reason which pushes many countries to adopt task shifting in the general delivery of health services, not just those pertaining to HIV/AIDS and RCH as targeted by this paper. Many countries, particularly those described as low income, experience high burden of diseases relative to the number of skilled health workers [4,6]. While grappling with the unfinished business of communicable diseases, many low income countries are in the era of epidemiological transition whereby non-communicable diseases previously considered to be the diseases of affluence, are increasingly adding up to the current burden of diseases traditionally considered to largely be contributed by communicable diseases [4]. HIV and AIDS which is more prevalent in Sub-Saharan Africa had also added up on the burden of diseases [1-2]. The available health workers in many health systems in low income countries do not proportionally match with the traditional and new demands for health care services. In order to cope up with the shortages of health workers and the increasing demands for health care needs, many countries in Sub Saharan Africa had adopted task shifting practices in their health care delivery systems [2]. In so doing, tasks which were described to be under physician-clinicians are shifted to or shared to/ with non-physician clinicians such as nurses.

Task shifting practices have been so common in the delivery of HIV and AIDS services [7]. Its potential in the delivery of HIV/AIDS care and treatment services has been elevated by the WHO's

publication of integrated management of adult and adolescent illness guidelines which stated that nurses and clinical aids be trained to provide primary care for HIV/AIDS [7,8]; In 2008, this potential was further expanded and 'formalized' the joint WHO/UNAIDS/PEPFAR guidelines for implementation of task shifting as an immediate response to address the shortage of HRH while insisting on delivering health care services without compromising its quality [2].

In Tanzania, task shifting has been implemented for many years, albeit informally. To date, little has been documented on the implementation of task shifting in HIV/AIDS and RCH services which are delivered through an integrated model. In addition, a comprehensive analysis of health managers' views has not been done. This analysis gap limits policy makers to decide on which strategic direction to take towards addressing the problem of shortage of human resources for health while taking cognizance of the need to provide quality health care services. This paper attempts to partially address these knowledge and policy gaps.

The Context

Tanzania has a population about of 45 million inhabitants [9]. Majority (about 75%) of these inhabitants are residing in rural areas. According to the World Health Organization's report of 2006, Tanzania is one among countries with the lowest number of health workers per capita [4]. Health workers are also unevenly distributed between urban and rural areas, with rural and remote places being more disadvantaged [10]. Most of health indicators have for many years remained poor with HIV/AIDS and non-communicable diseases adding to the burden of diseases. Due to shortage of health workers and the increasing needs for health services, task shifting practices had been informally practiced in the country's health care delivery system. However, only one cadre of health workers known as Assistant Medical Officer has been formally recognized to perform. The views of health managers and health workers regarding these practices have not been systematically analyzed in order to provide a basis for strategic policy direction to take on whether to formalize task shifting practices or not. The rest of the paper is organized as follows: The following section describes the methodological approach used to collect and analyze data. This is followed by presentation of results. Finally, discussion of the major findings and conclusions are presented at the end of the paper.

Methods

Study design

This was a cross-sectional exploratory study employing qualitative data collection and analysis methods. It was conducted between June and August in 2012. The study involved interviews with health managers from national level, nine regions and nine districts of Tanzania. The regions and districts were randomly selected.

At the national level, Key Informants (KI) was selected on the basis of their potential to provide relevant information on task-shifting from practice and their experiences in the fields of HRH, HIV/AIDS and RCH. At the national level, the informants included the Chief Nursing Officer (CNO), the Director of Human Resources Development (DHRD), the Director of Hospital Services (DHS), and the Director of Policy and Planning (DPP), National program manager for Prevention of Mother to Child Transmission (PMTCT)

Table 1: Summary description of the informants/study participants by level.

Level		Gender		Mean age (Years)	Total (n) informants
		Male	Female		
National	Informants	6	4	43	10
Regional	Informants	10	8	39	18
District	Informants	12	9	40	21
			Grand Total (N)		49"

"Initially, we planned to interview 58 informants. However, the interviews were terminated after we had reached saturation levels.

Coordinator, Reproductive and Child Health (RHC) Coordinator, National AIDS Control Program (NACP) manager, Registrar of the Nurses and Midwives Council, Registrar of the Tanganyika Medical Council and the President of the Tanzania Laboratory Technologists Association. At regional level, informants included the nine Regional Medical Officers (RMOs) and nine Regional AIDS Coordinators (RACs) (Table 1).

From each of the districts selected, two health centers were randomly selected, one from a list of public/government health centers and the second from a list of Faith Based Organizations (FBO) health centers. From each district selected, health managers including the District Medical Officer (DMO), District AIDS Coordinator (DAC), District Nursing Officer (DNO), and District Reproductive and Child Health Coordinator (DRCHCo) were interviewed.

Data collection methods and tools

The Key Informants interviews were used to collect information on task-shifting practices; benefits, enabling factors, effects and challenges of task-shifting practices. The in-depth interview guide was used to collect information from key informants from national, regional and district levels on task-shifting practices in HIV/AIDS and RCH services across different health services/clinics and health workers involved. All the data collection tools were translated into Swahili for easy understanding. The information collected was then translated back into English during transcription, data analysis and interpretation of the research findings.

Data Analysis

Analysis of data from in-depth interviews was an ongoing field exercise. Analysis had followed the principles of grounded theory and employed multiple coding. Multiple coding ensured that the coding categories reflected the content of the data rather than the questions as designed in the interview guide. Commonalities and differences as reflected in the data were systematically analyzed so as to identify response patterns across key informants' diverse experiences.

Data collection and analysis flow chart

Ethical considerations

The study received approval from the Medical Research Coordinating Committee (MRCC) of the national Institute for Medical Research (NIMR). Similarly, the Centers for Diseases Control and prevention (CDC) Tanzania and the CDC Atlanta's Associate Director for Science also reviewed and approved the study before its implementation. Before interviews respondents were informed about the study aim and they were asked to consent verbally. Data collected

were stored and processed using an up-to-date standard software and hardware. In the period between data collection, analysis and writing up of this paper, confidentiality was maintained by assigning unique identification numbers to each respondent's views.

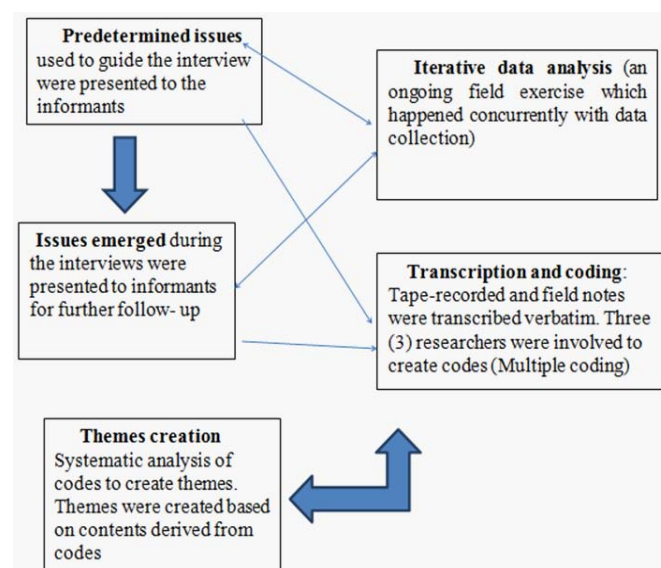
Results

This section presents the findings of the study. It starts by describing the availability of RCH and HIV/AIDS in health facilities. This is followed by a presentation of the experiences of key informants regarding task shifting across cadres at different levels of health care facilities. The question on whether there were policies and guidelines for task shifting in the country were answered in the sections that follow. Finally the paper presents key informants' experiences on how training, mentorship and supervision are managed in order to ensure that task shifting practices might not likely compromise the quality of health services provided.

Availability and accessibility of HIV/AIDS and RCH services in the context of task shifting practices

Majority of informants conceded that HIV/AIDS and RCH services were generally available and accessible to clients. However, it was noted that accessibility of HIV/AIDS services in rural areas was considered to be relatively low compared to urban settings because of a number of factors such as inadequacy of skilled health workers and drugs, and inadequate essential medical equipment. In addition, there were only a few health facilities in rural areas capable of providing HIV/AIDS services a phenomenon which forced majority of community members to travel long distances in search of such services. This was also true for RCH services.

"There is an obvious inadequate provision of health services in rural areas and mismatched levels of quality between rural and urban. This is due to serious shortage of health workers especially in rural areas to the extent that non-physician clinicians are forced to accomplish tasks which would otherwise be performed trained physician-clinicians". (Key informant, district level).



Data collection and analysis flow chart.

The rural-urban divide was observed to be a determining factor in the distribution of health facilities/health personnel and thus provision of health services by skilled health personnel. Majority of informants had the perception that residents of urban areas better accessed skilled health care services than their rural counterparts. This perception was largely linked to uneven distribution of facilities and skilled health workers.

“Regional, referral and tertiary hospitals are largely found in urban areas and thus urban dwellers are more likely to access skilled and sometimes specialized services than those in residing villages or remote settings” (Key Informant, Regional level)

Ineffective strategies to attract and retain health workers contribute to widespread informal task shifting practices

Lack of effective strategies to attract and retain qualified health workers in remote areas contributed to the mismatched levels of quality of care in rural and urban settings.” Skilled health workers are hard to attract and retain in rural areas, hence their tasks are more often performed by non-professionals” (Key informant-district level).

Poor health personnel retention strategies which was perceived to compound task shifting practices was also thought to be caused by inadequate human resources planning and management. Poor human resource planning and management was frequently mentioned by informants at district and regional levels to be an equally important impediment to provision of quality health services particularly those related to HIV/AIDS and RCH. According to the informants, lack of coordinated and comprehensive medical resources planning contributed to poor quality of services.

“Our main problem is not lack of human resources only, but also lack of strategic planning. Failure to take on board all important aspects of health service delivery in the planning process (holistic approach) has been an issue of major concern. This has resulted into what we are seeing now, a whole new health facility without a single health worker! (Key Informant, National Level)”.

Task shifting across different cadres and levels of health facilities

According to the informants, task shifting was widespread in all visited facilities. It was perceived by majority of informants that task shifting practices were more common in lower level health facilities particularly those located in remote areas. It was further revealed that the practices are implemented both within and between cadres.

“It is not surprising to find nurses performing the duties of clinicians due to shortage of specialized or designated personnel. In many dispensaries and health centers, medical attendant serves as an ART nurse and nurse counselor are who also provides MCH, immunizations and other postnatal services” (Key informant- District Level).

“Task shifting is unavoidable because the number of staff required for specific services is smaller than the actual needs, according to MoHSW staffing regulations. There is also unequal distribution of the few available staff between rural and urban areas. Some rural dispensaries might no longer operate if we had to wait for trained clinicians or nurses” (Key informant-regional Level).

“According to the MoHSW staffing regulations, it is required that Assistant Medical Officers (AMOs) and Clinical Officers be present in

a health center. However, this is not so because in a situations where you have only one CO and one Nurse Attendant, if a Clinical Officer is sick or absent for any reason, a nurse or a nurse attendant may do what would otherwise be done by AMO or CO. He/she can perform such tasks as prescribing and administering Anti-Retroviral drugs (ARVs) to patients etc” (Key informant-Regional level).

Key informants reported that the practiced task shifting was cutting across and within different cadres. Medical Officers and Assistant Medical Officers were the ones whose tasks featured as mostly being shifted to nurses, while tasks of trained nurses were shifted to medical attendants.

In line with reported task shifting practices, main workload was found to be carried out by medical attendants and nurses. These cadres were performing different duties beyond their job descriptions, such as PMTCT, Voluntary Counseling and Testing (VCT), supporting and follow up of Home Based Care (HBC), ARV prescription and dispensing and Provider Initiated Counseling and Testing (PICT). Interviewed health workers also reported that the overwhelming majority of the tasks were shifted between cadres e.g. clinicians to nurses, while the limited amounts of tasks were shifted within cadres for example MOs to AMOs.

In addition to the above observations, the reported forms of task shifting varied from those cutting across (lateral) to those happening within cadres (vertical). RMOs and RACs revealed similar accounts to that of Council Health Management Teams (CHMTs) in their respective regions. Medical Officers (MO) and Assistant Medical Officers (AMO) were the ones whose tasks featured as mostly shifted to nurses, while the same picture was reflected to trained nurses’ tasks falling in the hands of medical attendants.

“At district hospitals: Duties of the nurses are performed by Nurse Assistants and Medical Attendants. Clinical Officers carry out duties of Assistant Medical Officers and Medical Officer’s duties are done by Assistant Medical Officers. At health centers, the AMOs tasks are shifted to CO’s while the nurses or nurse attendants carry out CO’s tasks. Even our district hospital has neither a pharmacist nor a lab technician/technologist. Instead their tasks are performed by lab attendants” (Key Informant -District Level).

Policy and guidelines related to task shifting

Respondents at national, regional and district levels acknowledged the existence of task shifting practices in many health facilities, but conceded that the practices are not regulated by any policy or guidelines.

“I have no idea about the existence of policies or guidelines on task shifting but I know there have been some negotiations going on at the misery level involving some stakeholders” (Key Informant at National Level).

“I am not sure. So far, there are no clear guidelines. It depends on whoever is leading the program but we do not have clear guidelines. As we all know, in some facilities a nurse might be administering Anesthesia but you hardly find it written anywhere in the guidelines for nurses to do so. Also, during delivery majority of clinical officers and Assistant Medical Officers do conduct episiotomies and vacuum extraction but there is no clear guidelines for that” (Key informant – National level).

Majority of informants at the district level had the opinion that due to the unavailability of policy and guidelines for task shifting practices, this practice had continued to be implemented informally for life saving purposes. However for HIV and RCH services in rural areas, majority of tasks have been shifted to non-physician clinicians in order to increase service accessibility.

Training, mentorship and supervision related to task shifting

Training on the shifted tasks was said to be haphazardly and inconsistently done both in terms of duration and program's different needs and resources. However, majority of informants were not sure if the training was adequate and provided to right persons. Furthermore, supportive mentorship and supervision were said to be rarely done by the majority of informants.

"Training is conducted for health staff but I have doubts as to whether it is adequate and whether we are training the appropriate persons" (Key Informant- National level).

Because of lack of guidelines, there are training provided but they are not consistent, for example, training on how to administer anesthesia is provided hap hazard and inconsistently whereby a person can tell you that she/he got three months training from Muhimbili Orthopedic Institute (MOI), another one say s/he got six month training at Bugando teaching hospital, one year in KCMC etc. For the trainers one can tell you she/he is teaching nurses to administer it, another one teaches AMO or clinical officers to do the same. All these are done because there are no proper policy and guidelines. (Key Informant- National level).

Inadequate supervision or lack of it thereof, was a concern raised by majority of informants at all levels.

"There is no supervision because task shifting is only done in a situation of emergency" (Key Informant-National level).

Discussion

This paper explored the experiences of health managers in relation to task shifting practices in the provision of HIV/AIDS and RCH services in selected districts of Tanzania. The study for which its findings are reported in this paper forms part of numerous efforts by different stakeholders in finding lasting solutions to the existing problems of human resources for health in the country. An important contribution from this study is that although there is no legal or policy frameworks to guide, monitor and evaluate the implementation of task shifting, the practice is so common at all levels of health facilities, across and between cadres of health workers. The subsequent sections discuss the key issues presented in the results section.

Availability and accessibility of HIV/AIDS and RCH services in the context of task shifting practices

Access is a multidimensional concept comprising of availability, affordability and acceptability dimensions [11]. In this case, shortage of any inputs (skilled human resources, drugs and equipment and other supplies) will definitely affect access to HIV/AIDS and RCH services as it may be for other health services. One of the key findings presented in this study indicate that RCH and HIV/AIDS services are available but informants are doubtful about the quality of these services. This is an important observation which needs to

be considered when designing and implementing interventions to improve accessibility. This is crucial because, as indicated above, quality whether perceived or real has a negative effect on acceptability which is one of the key dimensions of accessibility. Findings have further shown that comparatively, informants perceived the quality of HIV/AIDS and RCH services provided by facilities located in remote areas to be lower than that in urban areas. This is however, not surprising because our findings has further shown that task shifting practices are more widespread in remote areas. In addition, informants had a general consensus that attracting and retaining skilled health workers in remote areas was not a trivial endeavour. This might be an obvious justification regarding why task shifting is more widespread in remote health facilities than those located in urban areas. As previously argued compromised quality of health services (due to shifting tasks to unskilled health workers and shortage of other important inputs for effective delivery of services) affects acceptability and thus accessibility of services [1,5].

Contrary to the above interpretation, studies conducted in other resource-constrained settings had concluded that task shifting may to some extent improve accessibility (coverage) of some intervention although quality concerns were also raised especially when unskilled health workers were assigned to perform complex medical procedures [1,5]. A more general recommendation by many of these studies was to conduct task analysis and decide on boundaries for which tasks can be shared or shifted within and between cadres [1-2].

Task shifting across different cadres and levels of health facilities

This study has highlighted the frequent implementation of task shifting practices in all levels of health facilities and across all cadres for the provision of HIV/AIDS and RCH services. This finding is consistent with studies conducted in Zambia and Mozambique which came out with similar conclusions [12-13]. Obviously, these tendencies (widespread practices of task shifting) do not occur by accident. Instead, they occur as an expected response to the shortage of skilled health workers which negatively affects the quality, acceptability and thus the general accessibility to health services, including those related to HIV/AIDS and RCH [1,5].

According to the experiences of the key informants, the pattern of task shifting has most been between cadres more than within cadres a phenomenon described elsewhere as horizontal and vertical task shifting respectively [14]. This finding implies that in each family of cadres of health workers say nurses or clinicians, there are no sufficient health workers relative to amount of tasks which are supposed to be performed relative to each health worker's job description and; this could probably be the reason why there is more and wide spread exchange of tasks between cadres than within cadres. In this study we observed from the experiences of informants that shortage of clinicians is bigger than non-clinician health workers a situation which as we presented in the results section leads to more tasks shifted from Medical Offices, AMOs and Cos to nurses and other non-physician clinicians. Studies in Tanzania have shown that among the skilled health workers, the nursing cadre (nursing officers and midwives) constitute the largest proportion. In addition, the most unskilled health workers (health attendants/medical attendants) constitute the largest proportion of the overall health workforce in Tanzania [10]. In a situation where the proportion of unskilled health workers outweighs the semi-skilled and skilled workers, it is not

surprising to find many tasks are shifted from well trained and skilled to unskilled health workers.

Policy and guidelines related to task shifting

Existence of effective policies and guidelines are essential for providing a framework for setting boundaries or limits for which task can be shifted from higher to lower cadres. In addition existence of policies and guidelines will provide a direction on aspects such as training and mentorship, supervision, monitoring and evaluation of task shifting model of service delivery. In this study all interviewed informants at all levels conceded that there are no policies for managing task shifting practices in Tanzania. This confirms earlier observations from other studies that in most sub-Saharan African countries task shifting is widely practiced for many years and widely recognized by health authorities, but not yet formalized [5]. This argument presupposes that, the existing informality of task shifting practices is to a large extent responsible to the failure to design and implement effective programmes for training, mentorship, supervision, monitoring and evaluation. If these programmes were present or if present they are effective, it becomes relatively easier to objectively evaluate the effectiveness and efficiency of task shifting model of service delivery. The subsequent sections which follow discuss further how training, mentorship and supervision in the context of task shifting are affected by lack of ineffective policies and guidelines.

Training, mentorship and supervision related to task shifting

Contrary to the World Health Organization's global recommendations on tasks shifting which among other things insists on training [2], the finding of this study show that training of health workers to whom tasks are shifted has been done haphazardly and inconsistently. This suggests the importance of having a policy in place which will form the basis for developing training curricula to be used for training health workers for specific health service programmes. If such policy is to be formulated, it can as well be used regulate, monitor and evaluate task shifting practices. However, in the context of professional, regulatory and other barriers to policy change, the chances for introducing such a policy to formalize task shifting in Tanzania are very slim. As a first step towards suggesting a strategic policy direction (whether to formalize task shifting or not), it is crucial to conduct a critical analysis of these barriers and other contextual factors in order to identify the entry points. In addition to this analysis, it is recommended that coordination and consultation with regulatory bodies such as medical and nursing councils as well as with relevant government ministries, are essential because legal changes in regulatory and professional bodies involves complex procedures and can take long time to be enacted [1].

In relation to training and supervision, studies have highlighted the importance of training for improving the outcome of task shifting practices (effectiveness and quality of health services). For instance, community health workers in South Africa reported a desire for better training and supervision in order to meet the alarming challenges posed by a synergy of HIV/AIDS, Tuberculosis and poverty [7]. Similarly, a study done in Zambia indicated that additional training needs were identified by about 85% of lay counsellors in order to increase their efficiency and effectiveness in delivering counselling services [15].

In Botswana for instance, the training of nurses to prescribe and dispense medication increased the uptake of ART treatment up to about 20,000 patients (from a lower number of patients) who received treatment as of December 2007 [16]. In Zambia, intensive training in task shifting in a 'task-shifted model of ART roll-out' significantly contributed to the expansion of access without compromising the quality of services provided [12].

Ineffective attraction and retention strategies contributes to increased task shifting practices

Our informants perceived that ineffective strategies to attract and retain skilled health workers in remote areas are also responsible for widespread practices of task shifting. On top of absolute shortage of health personnel, limited capacity to attract and retain health workers in remote areas might as well add up to the existing crisis. This suggests that, it is pertinent now to consider designing interventions which will increase the share of skilled health workers in remote areas and ultimately reduce the magnitude of task shifting practices which will in turn improve the quality of services, acceptability and thus; accessibility.

The literature has suggested a number of interventions which if adapted in different contexts, can contribute to increasing the share of skilled health workers in underserved remote areas. Selection and educational interventions can serve as a prototype for our suggestion. Selection interventions endeavour to identify individual characteristics that may increase the likelihood of medical students to take up a job in remote areas after graduation [17-19]. To implement these interventions, characteristics such as geographic origin (rural vs urban) and initial career intent indicating that a student has plans to work in remote health facilities, are usually used for implementation of selection based interventions. It has been confirmed that rural background of a medical or nursing student significantly increases the likelihood that a student will take up a job posting in remote areas after graduation [19]. A study in Tanzania by Munga et al had illuminated similar finding with slight variations. They found that in order to convince a nursing student to take up a job in remote area, her/his origin must be 'more' remote than the remote place that she/he is to be posted [20].

Educational interventions can be implemented through two approaches. The first approach can be through teaching of health workers with attached importance of providing medical services in rural areas [19]. To make this happen, policy makers and other stakeholders need to work to review the existing training curricula in order to see if rural medical practice is given its due emphasis. The second approach for implementing educational based interventions to increase the share of skilled health workers in remote areas is through emphasizing that clinical rotations and internship during training are performed in remote areas in order to acquaint students to rural working conditions [19]. In support of the above suggestions, more studies have indicated that rural exposure coupled with local guidance and supportive supervision may make educational interventions to be effective in increasing the share of medical students who are interested in working in remote areas [21-24].

Strengths and limitations of the study

The fact that this study recruited health managers (as key informants) from the national, regional and district levels; and that

regional and district key informants were drawn from all seven zones of the Tanzanian MoHSW, gives it the strength to present global and triangulated views of health managers in relation to their experiences of the implementation of task shifting in Tanzania. However, since the study was purely exploratory and qualitative, it has allowed authors to only suggest a more general approach for addressing the questions under investigation instead of suggesting specific policy interventions. A better way could be to recommend specific and strategic policy recommendations to address the problem at hand, than what we were able to do in this paper.

Conclusion

Task shifting in Tanzania is widespread both in urban and in rural facilities. However, the practices are more entrenched in remote areas than in urban areas because the former experience a bigger proportion of shortage of health workers than the later. HIV/AIDS and RCH services are provided both in urban and rural areas, but health managers are skeptical about the quality of services provided in rural setting because that is where the shortage of skilled health workers is huge; pushing the available fewer health workers to rely heavily on shifting tasks to low cadres and semiskilled/unskilled health workers. There are no policies or guidelines to guide, monitor and evaluate the implementation of task shifting in Tanzania-which concludes to its informality. The absence of policies and guidelines for guiding the implementation of task shifting in the country affect planning and harmonization of important aspects of task shifting such as training, mentorship and supportive supervision. If such policies and guidelines are to be formulated, they can set up a framework to regulate, monitor and evaluate task shifting practices. In the context of professional, regulatory and other barriers to policy change, there is a need to address these challenges before formalizing task shifting practices. However, It is encouraging to see that the Ministry of Health and Social Welfare has committed itself and is now engaging different stakeholders to ensure that task shifting policy and guidelines are in place by the year 2017.

Authors' Contribution

Jonathan M Mshana conceived the idea and led all the processes of study design, preparation of research tools, data collection, and analysis. Michael A Munga had participated in all processes from study design, preparation of research tools, data collection and analysis and had the responsibility of preparing first drafts of this paper. He has also managed all correspondences from submission to the editors' final decision. All other authors have participated in all processes of study design, research tools development, data collection and analysis. All authors have read and agreed the manuscript to be submitted as it is.

Acknowledgement

We are grateful to the Ministry of Health and Social Welfare (MoHSW) officials for their invaluable support during different stages of the implementation of this study. We also thank the NIMR management for its guidance and support that made it possible to design and implement this study successfully. Specifically, we would like to recognize the support we received from all the national and regional administrative authorities. Our sincere gratitude also goes to the district health and administrative authorities of the nine districts visited, namely, Muheza (in Tanga Region), Mvomero

(in Morogoro region), Makete (in Iringa Region), Rorya (In Mara region), Chato (in Kagera region), Urambo (in Tabora region), Kiteto (in Manyara region), Manyoni (in Singida region) and Tandahimba (in Mtwara region) for granting us permission to conduct the study in their respective areas. We are also deeply indebted to all of our key informants at the national, regional and district levels. Finally but also importantly, we acknowledge that this study would not have been possible without the technical and financial support from the Centers for Disease Control and Prevention (CDC).

The views expressed in here are solely those of the authors. They do not represent anybody or institution(s) mentioned in the paper nor do they represent the position of the institution(s) for which authors are affiliated to.

References

- Zachariah R, Ford N, Philips M, Lynch S, Massaquoi M, Janssens V, et al. Task shifting in HIV/AIDS: opportunities, challenges and proposed actions for Sub-Saharan Africa. *Trans R Soc Trop Med Hyg.* 2009; 103: 549-558.
- World Health Organization. *Treat, Train, Retain: Task Shifting: Global Recommendations and Guidelines.* Geneva-Switzerland, WHO. 2006.
- Prince Pius Mutalemwa, William N Kisinza, Michael A Munga, Jannesta AE Urassa, Stafford Kibona, UpendoMwingira, et al. Integrating reproductive and child health and HIV services in Tanzania: Implications for policy, systems and services. *Tanzania Journal of Health Research.* 2013; 15.
- World Health Organization: *Working together for Health-World Health Report.* Geneva, Switzerland. WHO. 2006.
- Munga MA, Kilima SP, Mutalemwa PP, Kisoka W, Melecele MN. Experiences, opportunities and challenges of implementing task shifting in underserved remote settings: the case of Kongwa district, Central Tanzania. *BMC International Health and Human Rights.* 2012; 12.
- Dominic A and Kurowski C. *Human Resources for Health- an appraisal of the status quo in Tanzania Mainland.* World Bank (unpublished report). 2005.
- Suri A, Gan K, Carpenter S. *Voices from the Field: Perspectives from Community Health Workers on Health Care Delivery in KwaZulu-Natal, South Africa.* *Journal of Infectious Diseases.* 2007; 96: S505-511.
- World Health Organization: *Integrated management of adolescent and adult illnesses* Geneva, WHO 2004.
- United Republic of Tanzania (URT). *Population and Housing Census General Report: Dar es Salaam.* National Bureau of Statistics. 2012.
- Munga MA, Maestad O. *Measuring inequalities in the distribution of health workers: the case of Tanzania.* *Hum Resour Health.* 2009; 7: 4.
- McIntyre D, Thiede M, Birch S. Access as a policy-relevant concept in low- and middle-income countries. *Health Econ Policy Law.* 2009; 4: 179-193.
- Morris MB, Chapula BT, Chi BH, Mwango A, Chi HF, Mwanza J, et al. Use of task-shifting to rapidly scale-up HIV treatment services: experiences from Lusaka, Zambia. *BMC Health Serv Res.* 2009; 9: 5.
- Assan A, Mussa A, Ramirez L, McKinney M, Nelson L. Task shifting mechanisms for scaling up HIV services in Mozambique. *AIDS 2008 - XVII International AIDS Conference. Abstract MOPE0798.*
- Manongi RN, Marchant TC, Bygbjerg IC. Improving motivation among primary health care workers in Tanzania: a health worker perspective. *Hum Resour Health.* 2006; 4: 6.
- Sanjana P, Torpey P, Schwarzwald A, Simumba C, Kasonde P, Nyirenda L, et al. Task-shifting HIV counselling and testing services in Zambia: the role of lay counsellors. *Human Resources for Health.* 2009; 7.
- Hulela E, Puvimanasinghe J, Ndwapu N, Ali A, Avalos A, Mwala P, et al. Task shifting in Botswana: empowerment of nurses in ART roll-out. *AIDS 2008 - XVII International AIDS Conference. Abstract WEPE0108.*

17. Robinowitz HK, Diamond J, Hojat M, Hazelwood CE. Demographic, educational and economic factors related to recruitment and retention of physicians in rural Pennsylvania. *Rural and Remote Health*. 1999; 15: 212-218.
18. Rabinowitz HK, Diamond JJ, Markham FW, Paynter NP. Critical factors for designing programs to increase the supply and retention of rural primary care physicians. *JAMA*. 2001; 286: 1041-1048.
19. Wilson NW, Couper ID, De Vries E, Reid S, Fish T, Marais BJ. A critical review of interventions to redress the inequitable distribution of healthcare professionals to rural and remote areas. *Rural Remote Health*. 2009; 9: 1060.
20. Munga MA, Torsvik G, Mæstad O. Using incentives to attract nurses to remote areas of Tanzania: a contingent valuation study. *Health Policy Plan*. 2014; 29: 227-236.
21. Erkel EA, Nivens AS, Kennedy DE. Intensive immersion of nursing students in rural interdisciplinary care. *J Nurs Educ*. 1995; 34: 359-365.
22. Diefenbeck CA, Plowfield LA, Herrman JW. Clinical immersion: a residency model for nursing education. *Nurse Education Perspectives*. 2006; 27: 72-79.
23. McDonnel Smedts A, Lowe MP. Clinical training in the top end: impact of the Northern Territory Clinical School, Australia, on the Territory's health workforce. *Rural Remote Health*. 2007; 7: 723.
24. Smedley AM. Becoming and being a preceptor: a phenomenological study. *J Contin Educ Nurs*. 2008; 39: 185-191.