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RESEARCH ARTICLE

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# Integration of community health workers into the health system in Tanzania: Examining the process and contextual factors

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## Abstract

Integration of community health workers (CHWs) into the health systems has become a global concern. Recently, the Government of Tanzania through the then Ministry of Health and Social Welfare initiated different strategies that aimed at integrating CHWs into the health system. This paper discusses the process and factors that influence the integration of CHWs into the health system in Tanzania. The study employed qualitative case study design using in-depth interviews ($n = 37$). In addition, various documents including health policies, Community-based Health Policy, community health workers guideline and Community health workers training curriculum were reviewed. Data were analysed by using thematic analysis. The findings indicated that potential CHWs were selected based on the National Council for Technical Education standards that required an applicant to have four (4) passes in the ordinary level examination. None of the CHWs who had undergone training had been employed by the government. This differed from what was prescribed in the CHWs guidelines. Integration of CHWs into health system in Tanzania has not been optimal because of inadequate preparations in terms of stakeholders engagement, infrastructure, legal and policy frameworks, technical expertise and financial resources. Effective integration of CHWs into the health system requires working with different actors to communicate objectives, achieve

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ownership of the stakeholders, manage conflict and cooperation, and sustain changes.

**KEYWORDS**
community health workers, integration process, health systems, Tanzania

## 1 | INTRODUCTION

Community health workers (CHWs) play significant role in improving health care services to the community. Globally the cadre of CHWs is now becoming a global concern due to the global health shift from treatment to prevention, health promotion and education. Tanzania and other countries have shown increased interests in integrating CHWs into the health system as part of the World Health Organization's endorsements to integrate them into the health systems.[1] Literature has shown that integrating CHWs into the health systems will make them more effective and sustainable.[2] The assumption is that when CHWs are defined and recognized in the national health care planning, regulation and implementation, they will be able to address the barriers to health care specifically in low performing health care systems.[2] In Tanzania, frontline CHWs are uniquely positioned to bridge the country's critical shortage of human resources in the health sector.[1] The CHWs have increasingly been recognized as an important frontline cadre in improving access to basic healthcare services and mobilizing community actions to address health needs.[3] The country has been recruiting, training and using CHWs for many years[4] but the major initiatives were observed after the declaration of Alma Ata in 1978, which introduced Primary Health Care (PHC) as an engine towards improving community health services.[5] The major goal of PHC was to ensure equal access to health services for all especially the rural communities.[6,7]

Despite the long history of using CHWs, Tanzania had not integrated them into the health system until recently. For a long time, CHWs had been used as community volunteers to support community mobilization programmes.[7] Recently, however, the Government of Tanzania, through the then Ministry of Health and Social Welfare initiated efforts to integrate CHWs into the national health system. To that end, different strategies were adopted to ensure that the integration process produces the outcome that responds to the health needs of the community as intended.[6] Some of these strategies include *National Community-Based Health Programme Policy Guidelines*[8] and its strategic plan for 2015–2020 that aims at the formalization of community health workers' cadre.[9] Other efforts include developing a training programme for the CHWs[10] and issuing directives to all districts and regions on how to recruit and train CHWs and ultimately integrate them into the health system.

Zambia, Brazil, Pakistan, Ethiopia and Ghana are some of the countries which have integrated CHWs into their national health systems.[11–14] In these countries, the integration of the CHWs was influenced by different factors such as the characteristics of the human resource for health crisis experienced within a country, good performance of the national Community-Based Health Workers (CBHWs) programmes in health services delivery, health system characteristics, and social and cultural factors.[15–17] Experience from such countries as Nepal, Ethiopia, Ghana, India and Pakistan shows that the integration of CHWs into health system has contributed significantly to improved access to basic health services to the community thereby reducing malaria, maternal mortality, childhood mortality and morbidity, and this has made the CHWs programme recognized in the national health care planning, regulation, monitoring, implementation and financing framework.[18–20]

Despite the efforts undertaken by the Ministry, there are limited studies which have been conducted on the process and contextual factors that influence the integration of CHWs into the health system in Tanzania. Previous studies on CHWs in Tanzania have focused on motivation and satisfaction among CHWS[21–23] and the impact of

CHWs integration into prevention of mother to child transmission of HIV.[24] This study aimed at investigating the process of integrating CHWs into the health system and factors that facilitate or constrain the integration process in Rukwa and Katavi regions in Tanzania.

## 2 | METHODS AND MATERIALS

### 2.1 | Research design and approach

The exploratory case study design was used to explore the process of integrating CHWs into the health system in Tanzania. Exploratory design enabled the researcher to acquire deep understanding from CHWs, professional health workers, policymakers and decision-makers about the integration process and factors that facilitated and constrained the integration process. This study adopted a qualitative approach due to the nature of the research; which explores the actual process of integrating CHWs into the health system and factors that facilitate or constrain the integration process. The qualitative approach was appropriate for the study since it provided an opportunity for the selected issues to be studied in a more detailed manner. Also, the approach was adopted because of its emphasis on understanding the in-depth and subjective experiences of the participants.[25]

### 2.2 | Study area

The study was conducted in Rukwa and Katavi regions. Rukwa Region was selected because of the highest number of trained CHWs in Tanzania ($n = 6090$) while Katavi Region had the lowest number of trained health workers ($n = 15$).[7] Two districts of Sumbawanga Municipality and Mpanda District Council were randomly selected to represent the regions. In each district, one ward was randomly selected; which were Ntendo in Sumbawanga and Kashauriri in Mpanda Municipal Council.

### 2.3 | Sampling technique and sample size

The study used purposive sampling techniques to obtain the potential participants.[25] The selection criteria included their involvement in the process of recruiting, training and integration of CHWs into the health system. The sample size of the study was determined during data collection when the saturation point was reached; meaning that when no new information came in the successive interviews.[26,27] A total number of 37 respondents constituted the sample of this study (Table 1).

### 2.4 | Data collection methods

Data were collected by the first author (Peter Mgawe) as part of his PhD studies at the Institute of Development Studies (IDS), University of Dar es Salaam. This study adopted in-depth interviews (IDIs) to explore the process used to integrate CHWs into the national health system. Interview guides were informed by the objectives of the study. The interviews were conducted in hospitals, homes and office premises of the participants or other places that the researcher discussed and agreed with the informants provided it was convenient and safe to both participants and the researcher. All interviews were conducted in Kiswahili language. The interviews were

**TABLE 1** Different categories of study participants

| No. | Respondents | Number | Reason for interviewing |
|---|---|---|---|
| 1 | Community health workers | 12 | They are key informants |
| 2 | Doctors and nurses | 6 | Supervisor of CHWs |
| 3 | Head of health education MoHCDEC | 1 | Policy makers and national overseers of the CHWs |
| 4 | Religious leaders | 4 | They stakeholders and influence the integration of CHWs |
| 5 | District CHWs coordinators | 2 | Coordinate day to day activities of the CHWs |
| 6 | Politicians | 2 | Influence community on CHWs integration |
| 7 | NGOs | 2 | Part of stakeholders and support training of the CHWs |
| 8 | Village leaders | 2 | Part of stakeholders |
| 9 | CHMT | 4 | Oversees and manage heath issues in the district |
| 10 | Tutor from CHWs training college | 1 | Trainers of CHWs |
| 11 | RHMT | 1 | Manage and oversee the integration process in the region. |
| | Total | 37 | |

Abbreviations: CHMT, Council health management team; CHWs, Community health workers; NGOs, Non-governmental organizations; RHMT, Regional health management team.

Source: Field data, 2019.

recorded using an audiotape (recorder) after seeking consent from respondents. In addition to interviews, various documents including Tanzania national health policies, National Community-based Health Policy, National community health workers guideline, Community health workers training curriculum and national health system strategies were reviewed. Documents were reviewed in order to compare policy and practice with regards to recruitments, training and deployment of the CHWs. Data were collected from June to November 2019.

## 2.5 | Data analysis techniques

Data were analysed by using thematic analysis.[28] The researchers followed the following procedures: First, both authors familiarized with the data, including reading and re-reading the interviews in order to get the depth of the dataset. Second, the first author (Peter Mgawe) developed a draft codebook (coding framework) guided by the objectives of the study. The codebook was refined by the experienced qualitative researcher (Stephen O. Maluka). The third step involved coding of the data set and thereafter collecting all the codes and relevant data extracts together for the late stage of analysis. The fourth stage was searching for themes and sub-themes in order to understand the patterns. The fifth step involved reviewing themes whereby researchers checked the candidate theme against the dataset for further refinement of the themes. The final step involved defining and renaming themes whereby the researchers developed a thick and detailed analysis of each theme working out the scope and focus of each theme and determining the story of each.

# 3 | FINDINGS

In this section, the findings of the study are presented. The key themes presented are the integration process and the contextual factors that facilitated or constrained the integration process.

## 3.1 | The integration process

According to the findings, there are various factors that triggered the integration of CHWs into the national health system in Tanzania. These were: human resources for a health crisis, a growing emphasis on preventive strategies and improvement of health seeking behaviour with the aim of improving health care services, especially in the underserved areas. There was also a growing international call to integrate CHWs mainly championed by the World Health Organization and Global Health Workers Alliance. Furthermore, the Government of Tanzania through the Ministry of Health and Social Welfare had decided to abandon medical attendants; and so the cadre was no longer trained in Tanzania. Earlier, medical attendants had been playing crucial roles in supporting the provision of primary health care services. Medical attendants normally received basic short courses lasting between 6 and 12 months. Given that circumstance, the CHW cadre was inevitable since it was seen as a game changer which would enable the Government of Tanzania to achieve universal health coverage, thereby improving health outcomes; as illustrated by a national level respondent:

> *There are different factors that led to the integration of CHWs into the health system and human resources for health problem remain to be the major one, followed by the desire to improve health service delivery, prevention and control of diseases and health problems. When we thought about this, there came question such as how this could be done in a more formal and systematic way. Then we thought of CHWs, but they were not formalized to be part of the health system. However, the Global wave on CHWs which was influenced by the World Health Organization and the Global Health Workers Alliance also made the country establish a move toward formalizing CHWs so as to be integrated into the health system* (IDI with Ministry of health official).

Another respondent added:

> *We had to embrace CHWs cadre because of the human resources for health crisis which the Ministry was experiencing especially in rural areas which made provision of health care services difficult. As a way of reducing the problem, we saw CHWs as a solution. Also, the elimination of medical attendants' training and employment was another reason since it widened the crisis to a large extent. Thus the Ministry thought that deployment of CHWs is a panacea toward reducing HRH problem and improving health care delivery* (IDI with Ministry of health official).

### 3.1.1 | Selection and training of CHWs

Analysis of interviews revealed that the process of selecting and training CHWs followed two different procedures; for the 1 year CHWs training programme, the selection did not follow the ministry of health guideline; rather, it was based on the guideline of the National Council for Technical Education (NACTE) whereby a person had to possess four passes in ordinary level secondary education of which one of the subjects should be biology; as illustrated by one respondents:

> *"I was selected to join CHWs training through NACTE. I was informed by my sister that there is a call for the application of community health programme which has been advertised by the Ministry of Health and the interested candidates must possess four passes of which one must be that of biology of which I thank God I had those qualifications. I applied through NACTE's online system. I was selected to join the training programme here in Sumbawanga.* (IDI with CHW 2, Sumbawanga District).

Interviews with tutors from the training institutions confirmed that the one year programme was based on the curriculum accredited by NACTE as illustrated by one respondent:

> *We are training students by using an accredited curriculum by NACTE where we are awarding students a Basic Technician Certificate in Community Health. Its contents prepare a graduate to become a CHW, social worker and medical attendants. It is a curriculum which comprises all important issues that prepare a graduate to have multiple knowledge and skills required of a competent community health care provider* (IDI with a tutor, Sumbawanga Medical College).

As for short courses which normally lasted for one to three months, the selection procedures followed the Ministry of Health guidelines whereby CHWs were part of villagers and were selected by the village members during village meetings. After attending training, they came back to serve the same villages as illustrated by one respondent:

> *I was selected by the village meeting to attend CHWs training which was provided by the JPiego and Care international on Uzazi Salama (Safe Motherhood) project. I remember we were told that they are looking for people who are form four leavers to attend CHW training. I went and registered my name to the village officer, and then during the village meeting, our names were mentioned. I remember we were ten (10) people and they needed only four. Then the village chairperson informed villagers to vote for four people who they think are trustful and can be ready to work for the villagers. I was among the four people, whereby two men and two women were selected. After finishing the training, we came back and worked as volunteers* (IDI with CHW 4, Sumbawanga Municipal Council).

### 3.1.2 | Capacity of tutors

The study also sought to understand whether the training institutions had competent instructors. The finding revealed that the number of the teaching staff were not consonant with the kind of competences which CHWs were supposed to have as per the accredited curriculum. The major weaknesses were observed in the field of social work and entrepreneurship where the college had to outsource social welfare officers from the municipal council to teach social work modules to CHWs as illustrated by one instructor:

> *When we started offering training for CHWs, we found that in the curriculum, there were social work modules which require a social work tutor. Remember by then we were offering health modules only; thus we found out we have no any tutor who could take social work modules. In order to make things work, I had to hire a social welfare officer with a bachelor degree in social work although she is not experienced in teaching. We also have a problem in entrepreneur and ICT modules. You know, when this programme was introduced, it had little preparation especially in training institutions in terms of employing new staff who could teach those new modules* (IDI with instructor, Sumbawanga Medical College).

Interviews with graduate CHWs and the Ministry officials confirmed the challenges facing training institutions in getting adequate and qualified instructors. Graduate CHWs confirmed that they were taught by the social welfare officer who had no teaching experience. Similarly, interviews with Ministry officials admitted that since it was the beginning, a lot of things have been learnt and the Ministry is in the course of reforming its curriculum and see how it could employ permanent teachers in the college so as to bridge the gap.

### 3.1.3 | Satisfaction of course content by CHW graduates

Students, especially those who attended 1 year training programme were generally satisfied with the content and their tutors. They argued that they understood well the training especially fieldwork practice where they were transforming theories given in class into practice. However, they recommended longer fieldwork to further prepare them to work with community members.

> *I think the training was good as it prepared us to be competent in all three areas of competences, namely CHWs, social worker and health attendants. We are prepared to work with the community, individuals and groups of people. We are also prepared to work in health facilities to deal with things such as antenatal, delivery postnatal care, dressing wounds, preparation of corpse and mortuary services in general. Our tutors try their level best to make us competent* (IDI with graduate CHW1, Mpanda Municipal Council).

## 3.2 | Contexual factors influencing the integration of the CHWs

### 3.2.1 | Employment of the CHWs

Findings revealed that none of the community health workers had been employed by the government on a permanent basis. They were mostly still being used as volunteers while others were doing different activities such as tailoring and taking care of their families. In Mpanda District, most of the CHWs who received one year training were employed as medical attendants and some were given other responsibilities such as office secretary in the wards. Most of them were not local people from Mpanda but rather from other regions such as Singida, Shinyanga and Tabora. Interviews with the Ministry officials confirmed that although they had managed to train more than 10,000 CHWs since 2015, they had not been employed. They pointed out that the CHWs cadre was not stipulated in the scheme of service. The scheme of service still recognises medical attendants who have, however, been stopped by the government and no college is still offering such a programme. Thus it is not possible to employ the trained CHWs unless the scheme of service is revised. It was further confirmed that from 2018, institutions have stopped training CHWs until the Ministry of health review the scheme of service.

> *Employment has become the major concern not only of the CHWs but also of the Ministry of Health. Actually, it does not make sense to train more than 10,000 CHWs who cannot be employed. It is a disappointment to students and parents who have paid fees for their children. That is why the government through the Ministry of Health decided to stop the training of the CHWs for a while so as to give room for the government to review the curriculum and scheme of service* (IDI with Ministry of Health official).

Further information from the Ministry of Health reveals that in addition to reviewing curriculum and scheme of service, the Ministry had recently piloted the integration of the trained CHWs into the health systems in selected districts, including Itilima, Chemba and Misungwi districts, which have been selected for a pilot study; and they have done well and CHWs have been employed. The programme is expected to be extended to Katavi, Njombe, Mbeya, Coast and Kigoma regions. During the pilot stage, CHWs will be employed for one year and data will be collected so as to make a baseline assessment after a year so as to see where it works and where it does not.

### 3.2.2 | Renumeration

Our findings revealed that CHWs who worked under the NGOs were given a token allowance but for those who volunteered in government health facilities were not given allowance rather they were engaged in outreach visits where they were only given transport allowance. However, despite lack of financial incentives, most CHWs were motivated largely because of respect they received from the communities. In most cases, CHWs reported that community's positive attitudes towards what they were doing gave them strength to continue working as illustrated by one respondent:

> *People in the village trust us a lot. When they experience health problem and you ask them to go to the hospital, they always request us to escort them. They say we should go together since we have experience and known by the health workers* (IDI with CHW 5, Mpanda District).

### 3.2.3 | Relationship with health professionals

There were different views from the health professionals regarding integration of the CHWs into the health system in Tanzania. While some health professionals supported CHWs being part of the health system others were against the integration process. Those who supported integration process had the opinion that CHW would fill the gap of the critical shortage of health professionals, particularly in the underserved health facilities. Thus they argued that CHWs would help to reduce their workload since the available few health professionals were overloaded with tasks in the health facilities. For example, in Mpanda, health workers went further by arguing that CHWs were very useful in outreach activities, particularly for providing vaccination and health education as illustrated by one respondent:

> *As a nurse, I can say that their contribution is noticeable as they help to reduce our workload. There is a time we had a lot of work; you need to provide education and give vaccine but now with CHWs you can delegate to CHWs and you can effectively deal with vaccination* (IDI with a Nurse, Mpanda District).

However, other health workers had different view. Their major concern was on the professionalism as CHWs were not seen to be competent to provide health services to the people. Some health professional argued that if the Ministry of Health had consulted them about integrating CHWs into the health system they would have advised the Ministry to spend this idea and instead employ health professional who have completed their college but have not been employed by the government as elaborated by one respondent.

> *It is surprising to see the government is training CHWs as a means of supporting health professionals in service delivery but if you look around the street you will see a lot of health professionals who have graduated but have not been employed by the government. How comes the government spend money to train more CHWs and integrate them into the system and leave the trained professional cadres? I don't know where the government got this useless idea.* (IDI with health professional, Sumbawanga District).

The negative attitudes of the health professionals was confirmed by some CHWs as elaborated by one respondent:

> *Some health workers do not want to see us even in the health post because they consider us as unprofessional who are given professional roles. In general they regard us as incompetent people who cannot provide effective health service to the community and when we give referrals to our patients they reject and tell the patients that they do not know us* (IDI with CHW6, Sumbawanga District).

## 4 | DISCUSSION

The study assessed the process of integrating community health workers into the health system and factors that facilitated and/or constrained the integration process in Tanzania. The study adds new knowledge on the integration of community health workers into health system in a resource-poor setting. The lessons learnt in this study regarding the integration of CHWs into the health system could be relevant to future efforts in Tanzania as well as to other countries undertaking similar initiatives. Evidence indicates that the process adopted in implementing any policy and contextual factors greatly influence its chances of success or failure.[29]

The findings of the study revealed that the process of integrating CHWs into the health system was largely influenced by the increased human resources for health crisis following abolition of the medical attendant cadre in the country. The Government of Tanzania through the then Ministry of Health and Social Welfare had decided to stop medical attendants and the cadre was no longer trained in Tanzania. The government's efforts to integrate CHWs into the health system in Tanzania was also influenced by the growing international call to integrate community health workers mainly championed by the World Health Organization and Global Health Workers Alliance. These findings corroborate earlier studies conducted in African countries, Brazil, India and Pakistan. These countries faced serious human resources for health crisis which precipitated the need for integrating Community-Based Health Workers into their national health systems.[30–32]

The finding of this study also revealed variations between the policy requirements and practice on the ground. For example, while the national guidelines required that potential CHWs be recruited in their respective communities, it was observed that this criterion was not followed since recruitment was mainly based on the standards approved by NACTE; which required applicants to have at least four passes in their ordinary level secondary education examination. The implication of the finding is that given the selection criteria by NACTE, potential CHWs cannot go back to the community since they have not been selected by the villagers. This would undermine communities' trust to CHWs since they will be regarded as strangers, and as a result, cooperation will be limited. In the end, the intended outcome of integrating CHWs into the health system will not be realized by the government as planned. Evidence shows that when CHWs are selected from the local area by members of the community, they become efficient, trusted and given support by the village members.[3]

The findings of this study revealed that while the country has trained many CHWs, they had not been formally integrated into the health system. Consequently, the trained health workers were still working as community volunteers or doing other activities which are not related to the provision of health services. This finding suggests that there was inadequate preparation for the implementation of the policy. While guidelines and policy documents were developed by the Ministry of Health and sent to the regions and districts for implementation, there seems to have little stakeholders' understanding and agreement on the integration of the CHWs into the health system. It is not surprising that the current scheme of service still recognizes medical attendants cadre, which was already abolished by the Ministry of Health some years back. The key important lesson which emerge from this policy is that the policy formulation and implementation are interdependent and that policy makers should consider them in combination. The implementation of a policy requires more than designing a set of standard operating procedures and providing instructions around a policy document but rather working with different actors and organizations to communicate policy objectives, ensure availability of resources, achieve ownership of the policy by implementers, manage conflict and cooperation, and sustain policy changes.[33–36]

Furthermore, lack of motivation and poor relationship between CHWs and health professional influenced the integration of community of CHWs into the health system. Tseng and colleagues also observed that lack of collaboration between supervisors and CHWs influenced the integration of CHWs into the health system in South Afica.[3] Moreover it can be suggested that ineffective implementation of the policy could be attributed to the change of the political regime since 2015. The policy was developed during the fourth phase government leadership which came to an end in November 2015; when the new government came into power and since then no significant changes

have been observed in terms of implementing the policy apart from training the CHWs. Policy studies in developed countries and low and middle income countries have underlined the influence of political regime change in policy development and implementation.[37–42] It might be the case that the current government has little interests in integrating CHWs into the health systems. Evidence shows that since 2015 there have been very few employment opportunities for many cadres, including qualified medical personnel. It may not be logical to employ community health workers amidst increased unemployment of qualified medical personnel.

### 4.1 | Strengths and limitaions of the study

This is an interesting study which is likely to inform improvement of the CHWs programme in Tanzania. The key limitations of the study is that it was conducted in the early phases of the integration of the CHWs in the health system. Since none of the trained CHWs was employed by the government, it was not possible to explore several factors that are known to affect integration of CHWs in health systems including financing, remuneration of CHWs, as well as relationship of CHWs with health professionals and the community.

## 5 | CONCLUSION

Integration of community health workers into the health systems was influenced by the government's desire to address human resources for health crisis in the country and pressure from international organisations. However, the process was constrained by inadequate preparations in terms of infrastructure, legal and policy frameworks, technical expertise and financial resources. The effective integration of CHWs into the health system requires more than designing a set of standard operating procedures and providing instructions but rather working with different actors and organizations to communicate policy objectives, achieve ownership of the policy by implementers, manage conflict and cooperation, and sustain policy changes.

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#### CONFLICT OF INTEREST

The authors declare that they have no conflict of interests.

#### DATA AVAILABILITY STATEMENT

The datasets are not publicly available because participants did not give consent for the public sharing of their information. However, summaries of the data are available from the corresponding author upon request. The data collection tools are also available upon request.

#### ETHICS APPROVAL

The study was part of the first author's PhD research at the IDS, University of Dar es Salaam. The research was approved by the University of Dar es Salaam. The research clearance was also approved by Regional Administrative Secretary in the study regions. During data collection verbal informed consent was obtained from the respondents from whom data was collected. In these settings, requesting respondents to sign consent forms would scare them and might have affected the data collection process.

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