ABSTRACT

**Background:** Globally, there is an increased advocacy for community-based health insurance (CBHI) schemes. CBHI refers to voluntary, non-profit health insurance, normally organized at local level where formal health insurance does not provide protection against the cost of illness. The community health fund (CHF) is a type of CBHI scheme which is being implemented in Tanzania since 1996. Despite this seemingly noble initiative, there is a growing concern that this scheme has not achieved its intended objectives. At present, enrolment rate in CHF is still low and there is also high dropout of members from CHF. This study explored the socio-economic, political, and health system factors that contribute to the low uptake of the CHF in Mtwara Region.

**Methods:** This study employed descriptive qualitative case study design. The study primarily relied on 2 data collection techniques, namely individual interviews (n = 49) and focus group discussions (n = 12). A thematic analysis approach was used to analyse the collected data.

**Results:** The findings of the study indicate that the most important factors which hindered the uptake of the CHF were: low household income, lack of knowledge of the CHF scheme and poor quality of health care services.

**Conclusion:** The study concludes that individual, community, and health systems factors contribute to the low enrolment in the CHF schemes. Therefore, increased enrollment in the CHF schemes requires collaborative efforts of community leaders, health providers and health system managers. This study underlines the need for continuous sensitization of communities. Therefore, local government authorities should make CHF a permanent agenda in community meetings. Likewise, the government needs to invest more in the health sector with a view to improving the quality of health care services, particularly availability of medicines, medical supplies and health care providers.

**Keywords:** Community health fund; Health care services; Tanzania

INTRODUCTION

Health care financing in low and middle-income countries (LMICs) depends heavily on out-of-pocket payments.1,2 This form of health financing has often raised a concern for equity as it limits the poor from accessing health services.3,4 Globally, there is an increased advocacy for community-based health insurance (CBHI) schemes. CBHI refers to voluntary, non-profit health insurance, normally organized at local level where formal health insurance does not provide protection
against the cost of illness. CBHI follows the common principles of insurance such as resource pooling, prepayment and risk-sharing, and negotiation with other partners in the health system to improve access and quality of health care services, financial protection and responsiveness of health services. CBHI schemes were introduced in many LMICs, especially in the 1990s and 2000s, as part of the health sector reforms. Most recently, many LMICs have included CBHI in their strategies towards Universal Health Coverage which advocates for countries to guarantee all people access to health care services without facing financial devastation.

The community health fund (CHF) is a type of CBHI scheme which is being implemented in Tanzania. CHF is a voluntary health insurance scheme mainly targeting informal and rural population; and it was first piloted in Tanzania in 1996. Later, the government made CHF a voluntary prepayment health financing mechanism by 2001 CHF Act. Accordingly, each District is responsible for administering its own CHF and defining the benefit packages and flat rate premium per year. The CHF membership is for the entire household members. The CHF receives subsidy in the form of matching grants from the central government. Membership is based on household enrolment and a single membership card is issued per household and the card is valid for a period of 12 months. The annual contribution from each household is defined by respective districts. The CHF scheme is subsidised by the government in the form of matching grants, complementing the members’ contributions with an equal amount. Membership allows the household access to medical services without further co-payments at the primary level. Inclusion of secondary-level and tertiary-level healthcare is at the discretion of the district. To ensure equal accessibility, poor households are supposed to seek for exemption through village and ward committees.

At the district level, the CHF is overseen by the Council Health Services Board (CHSB) which comprises representatives from the district authorities, public healthcare providers, private healthcare providers and the community. There is usually a CHF coordinator responsible for tracking membership levels and funds contributed across the district. At the ward level, the Ward Development Committee and the Health Facility Committee are responsible for mobilising people to join the CHF, tracking the membership base, overseeing premium collections, evaluating CHF operations, providing recommendations and granting exemptions.

Despite this noble initiative, there is a growing concern that the CHF scheme has not achieved its intended objectives. At present, across Tanzania enrolment rate in CHF is still low and there is also high dropout of members from CHF. The national CHF enrolment rate in 2015 was around 4.5% (Ministry of Health, Community Development, Gender, Elderly and Children, 2016); which was below the national target of 30% enrolment by 2015. In Mtwara, one of the typical region, located in southern Tanzania, the CHF enrolment is similarly persistently low. For example, since 2006 when CHF was introduced, Mtwara District managed to enroll 14,792 (23.5%) out of 62,829 the targeted households.

This study, therefore, aimed to investigate socio-economic, political, and health system factors that contribute to the low uptake of the CHF in Mtwara Region.

**METHODS**

**Study settings**

Primary healthcare services in Tanzania constitute the basis of the pyramidal structure of healthcare services. At the bottom of the pyramid, public and private health care providers...
are working in dispensaries and health centres. Whereas dispensaries provide preventive and curative outpatient services, health centres can also admit patients, and sometimes provide surgical services. As for district hospitals, they provide healthcare to referred patients and also provide curative and basic surgical services. Regional hospitals function as referral hospitals to provide specialist medical care. On the other hand, Zonal and National Hospitals offer advanced medical care and medical training.

The study was conducted in Mtwara District Council, Mtwara Municipal Council and Nanyamba Town Council in Mtwara Region. Mtwara Region was conveniently selected among the low CHF performing regions in Tanzania. The region is administratively divided in 5 districts, Masasi, Mtwara, Nanyumbu, Newala, and Tandahimba. According to the 2012 national census, the region had a population of 1,270,854.15

The study design
The study employed exploratory qualitative case study design. This design was adopted because of the nature of the study which aimed at investigating a phenomenon characterized by lack of detailed preliminary research.16

Sampling procedures
Convenient sampling was used to select Mtwara region among the low CHF performing regions in Tanzania. Within Mtwara Region, purposive sampling technique was used to select 3 districts, namely Mtwara Town Council, Mtwara District, and Nanyamba Town Council. In each district, 1 health centre and 2 dispensaries were randomly selected for in-depth analysis of the functioning of the CHF scheme. Purposive sampling technique was used to recruit respondents for in-depth interviews. Respondents were selected based on their roles in the management of the CHF scheme.

Data collection techniques
This study primarily relied on 3 data collection techniques, namely individual interviews, focus group discussions (FGDs) and review of documents. Data were collected from March to June 2018. Interviews and FGDs were digitally recorded with permission of the respondents and participants. Interviews were carried with key stakeholders involved in the management of the CHF scheme at the district, health facility, and community level. These key informants included members of council health management team, health facility governing committee members, in-charge of health facilities, coordinators of CHF scheme and the Community Development Officers. Interview guides were developed by the first author (Ndomba T) and supervised by the second author (Maluka S) and tailored to the specific type of the respondents. Interviews lasted between 15 and 30 minutes and were conducted by trained qualitative researchers. Interviews were conducted until saturation point was reached meaning that no new information was coming out in the successive interviews. Table 1 summarises the categories of respondents involved in the interviews.

<table>
<thead>
<tr>
<th>No.</th>
<th>Category of respondents</th>
<th>MMC</th>
<th>MDC</th>
<th>NTC</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>District health managers</td>
<td>5</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>2</td>
<td>Local government officials</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Health services providers</td>
<td>2</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>Health committee members</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>Users of health services</td>
<td>5</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Total key informants</td>
<td>16</td>
<td>18</td>
<td>15</td>
</tr>
</tbody>
</table>

MMC = Mtwara Municipal Council; MDC = Mtwara District Council; NTC = Nanyamba Town Council.
We also conducted FGDs with CHF beneficiaries and non-beneficiaries. FGDs were conducted separately for the 2 groups of people. Each FGD had 8–12 members and were facilitated by the first author (Ndomba T). Participants for the FGDs were recruited from respective health facilities with the assistance of health care providers. FGDs lasted approximately 1 hour. In total we conducted 12 FGDs in the 3 districts; that is 4 FGDs per district.

Furthermore, secondary data was collected through documentary review at district, ward and village levels. These documents included district and health facilities annual plans and budgets, CHF enrolment registers and district and health facility financial reports. Secondary data was mainly used to cross-check some issues which were reported by the respondents and participants during interviews and FGDs respectively.

Data analysis
A thematic analysis approach\(^{17}\) was used to analyse the collected data. The following iterative steps were adopted in the data analysis process. First, interviews and FGDs were transcribed verbatim by trained transcribers and they were checked for accuracy by the principal investigator (Ndomba T). Second, both authors read the transcripts in order to understand the depth and breadth of the data set. Third, the first author developed a list of initial codes based on the objectives of the study. Using NVivo 10 software, interviews and FGDs transcripts were then coded to these initial codes. Other codes which emerged during coding were added concurrently. Fourth, responses were then compared across different types of respondents and across the districts of the study. The key phrases and expressions of the respondents were retained and were used to support the presentation of the findings.

Ethics statement
This study received approval from the Regional Administrative Officers in the region and districts of study (Ref. No.: FA.73/258/011/203). Verbal informed consent was obtained from all participants. The collected data was only accessible to the team members. During the presentation of the findings, no individual identification was attached to the findings.

Data availability
The datasets analysed during this study are not publicly available since participants did not give consent for public sharing of their information. However, summaries of the information are available from the corresponding author upon request. The data collection tools and meeting reports are also available upon request.

RESULTS
This section presents the key findings of the study. The findings are organized into the following key themes: low income, lack of knowledge of the scheme and quality of health care services.

Low income
Low income was frequently mentioned as the reason for low enrollment in the CHF scheme in Mtwara Region. Non-insured respondents, especially those from Mtwara rural, who participated in FGDs categorically reported that they were unable to pay TZS 10,000 (equivalent to 5 USD) per annum. They argued that agricultural activities, which are the major source of their income, do not provide sufficient income to enable them pay for CHF.
According to FGD participants, there were virtually no savings made by the communities. FGD participants were of the view that the government should provide free health care services to the people, particularly rural communities who have unpredictable income.

“You know, people think that cashew nuts growers are very rich. We do not benefit like business men. We are exploited more by businessmen who come and buy our cashew nuts. We sell our cashew nuts in a loss to the business men, the system which is famously known as Kangomba. In this situation, do you think we can serve money for CHF?” (FGD MT 02).

This finding was supported by local government and district leaders. They reported that farmers do not benefit from selling their cashew nuts to business men as exemplified by some respondents.

“Peasants are exploited by business men. Although farmers’ cooperative societies exist, majority of people do not use these to sell their cashew nut. Instead, they sell cashew nuts directly to business men in order to get money quickly but then in a low price” (interview with a local government leader, NY 01).

“We miss a lot of revenues through Kangomba business. We are tired of it, we need to launch appropriate mechanisms to end the problem forever. Our district is becoming poor and households are not able to meet basic needs including health care services. We need to abolish this practice” (interview with a District Officer, MT 03).

However, FGDs with CHF members revealed a contradictory opinion. Participants argued that most of the community members give priority to social events and celebrations instead of paying for their health services. This practice is deeply entrenched in the culture of the Makonde community. According to our participants, although majority of community members do not own large cashew nuts farms, they could still save money from other sources to pay for CHF. Traditional ceremonies are a social recognition for households. During harvesting season, household members have to keep some amount of money for cultural celebrations, which are normally done after the harvesting season. According to our participants, traditional ceremonies could cost more than TShs 100,000 (equivalent to US $ 50). A CHF member narrated as follows.

“You know, when we sell our farm products, we must keep some money for organizing traditional ceremonies especially if you have a daughter or a son who is ready for initiation. It is essential to organize it; otherwise, you will not be recognized in our society” (FGD with CHF members).

**Lack of knowledge of CHF scheme**

The analysis of interviews and FGD data from both Mtwara rural and urban districts showed mixed results. Majority of respondents, especially non-insured had very little knowledge of the CHF scheme. In Mtwara urban, majority who participated in the FGDs reported that it was the first time they heard about CHF. Consequently, the respondents frequently asked the researcher to elaborate more about the CHF scheme. In some cases, FGD participants did not understand the differences between CHF and the National Health Insurance Fund (NHIF). Most frequently, respondents asked questions like: Does the CHF relate to NHIF? Where does the CHF operate and how can people join it? What if I paid and I do not fall sick? A few non-insured participants thought that paying money to the CHF is to invite sickness to the household. Unexpectedly, some participants related CHF with a political instrument used by politicians to reinforce their interests.
“This is a political plan of some people who try to convince us to accept their political interests. We can’t agree” (FGD with non-members).

According to the FGD participants, there was no sensitization in the communities about the CHF scheme. They argued that in most cases, political leaders were only active during election campaigns. Even during these campaigns, they rarely talk about the CHF scheme. The analysis of interviews revealed that even some members of the CHSB had little knowledge of the CHF scheme, thus.

“How can I sensitize people if I have little knowledge of the scheme? What will happen if they ask me technical questions? What kind of answer will I give them? We don’t know more about CHF. May be you as a researcher can advise the District Executive to give us seminars so that we can sensitize people to join CHF” (interview with CHSB member).

According to some FGD participants, in some cases, members of the CHSB were appointed based on the status they had in the village and familiarization with people or affiliation with politics. Therefore, knowledge of the CHF scheme was not considered as an important criterion for the selection process. One of non-insured community members commented.

“You know, we have some members who have been appointed to become members of Council Health Service Board. We know their background very well. They know nothing about CHF, may be they are good in politics” (FGD with non-insured, MT 04).

Interviews with health care providers revealed that they provided education about CHF every morning before starting clinics. For instance, heads of health facilities hold meetings with patients to elaborate the importance of joining CHF. Usually, those who attend health facilities receive information from respective health service providers. Analysis of outpatient records in the health facilities indicated that women attend clinics more frequently than do men. According to our participants, women were, therefore, more likely to receive information about CHF and other health issues compared to men. However, the vast majority of respondents and FGD participants had the views that women were not capable of influencing decisions at the family level. Thus, if such education was provided to men, it would result to increased number of household enrollment in the CHF. This is further illustrated, thus.

“I go to the hospital only when I fall sick. Perhaps you could ask women who always go to hospital. They may tell you about CHF. May be they are told at the hospital by doctors” (FGD with CHF members, MD 02).

It was evident from the FGDs that majority of CHF non-members had negative attitude towards the CHF scheme. The negative attitude towards CHF scheme was partly attributed to the influence of some community members who discouraged others from joining the CHF scheme. In some of the FGDs, it was evident that some prominent people could influence others not to join CHF. They always referred to others who were not in the discussion that they had been treated poorly in the health facilities. Sometimes they referred to the CHF beneficiaries who were not present in the FGDs that they did not receive proper health care services using CHF cards.

“My neighbor was asked by the nurse to buy medicine with his own money because the facility had no medicines. If members are lamenting for poor services, what could motivate me to join? I encourage my
colleague to save money and go to private hospitals where they can get good services” (FGD with non-members, NY 08).

**Poor services in health facilities**

Participants in the FGDs and interviews frequently reported that the quality of services provided in public health facilities was comparatively poor. In particular, participants reported severe shortages of health care providers in the health facilities. According to our respondents, it was common to find a health facility closed for a whole day because the health care provider has travelled to town to attend meetings, collect his/her monthly salary, documents, or equipment. The shortage of health care providers intensified waiting time in public health facilities. This situation discouraged members of the community from joining the CHF scheme.

“You know it is usual to find a health facility closed for a whole day simply because service providers have travelled to town to collect their monthly salaries. This creates chaos to the patients and discourages people from joining CHF” (FGD with non-members, MD 01).

Other participants added:

“You know, our dispensaries and health centres are run by Medical Attendants. These people are not capable enough to diagnose patients. We have many cases of Clinical Officer who were posted by the Ministry to work in our local facilities but have left their job. We can’t enroll in the CHF if health facilities are staffed by unqualified personnel” (FGD with CHF members and non-members, MD 10).

Interviews with district health managers as well as analysis of the district annual plans confirmed acute shortage of health care providers. The district health managers pointed out that besides the shortage of staff, there was also the problem of limited budget. This made it difficult for the district health managers to go to the villages to sensitize people about the CHF scheme.

“You know our budget for seminars and sensitization is very small. We want to reach every village but our cars have no fuel. So how can we conduct meetings with the villagers?” (interview with District health manager, MD 10).

FGD participants also reported poor customer care as one of the factors discouraging community members from joining the CHF scheme. It was frequently mentioned in the FGDs and interviews that community members were also disappointed by health care providers in public health facilities. In some of the FGDs and interviews, respondents reported that patients who paid cash were given priority in getting health services as compared to those who use CHF cards. This situation discouraged people from joining or renewing CHF membership.

“No need to enroll in the CHF because even those with CHF cards are not treated well. If you pay cash, you are given priority. You know I opt to use cash instead of CHF card. Using cash, I serve time for waiting for services” (Interview with non-CHF member, NY 16).

Another indicator of poor quality of services was frequent drug stock-out. Participants in the FGDs frequently reported that it was common to find health facilities running short of essential medicines or reagents. In most cases, patients were required to buy medicines from private pharmacies or drug vendors. Therefore, community members did not see the
importance of joining the CHF scheme. Sometimes patients had the feeling that these private pharmacies were owned by the health care providers.

“People do not see the importance of enrolling in the CHF because even those with CHF cards do not get services. Most often they are told to buy medicines in private pharmacies or drug shops. Why should one enroll in the CHF scheme while there are no health services? It is better to pay cash when you are sick” (FGD with CHF non-members).

However, FGDs with CHF members depicted a relatively different picture. Participants reported that health care services for the CHF members have improved remarkably. They reported that at the beginning, many people did not want to join or renew their CHF cards once they expired. However, services are currently relatively better and those with expired CHF cards are increasingly renewing their membership. They reported that comparatively now health facilities have enough medicines and medical supplies. They also reported that the benefit packages for the CHF members have also been expanded. For example, if a CHF member visits a particular health facility and finds that there is a shortage of medicines, she/he will be advised to go to a nearest health facility.

“My friends who are not registered in CHF I wish to tell important information, that there are a lot of advantages we get. Health care services are better than before. We can now decide to go to another health centre or dispensary we wish and get treatment. So far, there is no limitation provided that you have been registered within the district. You can enjoy services everywhere within the district” (FGD with members & non-CHF members).

This was further supported by health care providers. According to the health care providers, there was no shortage of essential drugs as it was before. They reported that although they provide free health care services to exempted groups in the community, health facilities had adequate medicines and medical supplies as exemplified by one staff.

“We know our people quite well. They talk without evidence. If you do an assessment, you will find that those who are lamenting are not members of CHF. You can see, since you came here almost one hour ago, no patient has come for treatment. But if you go to their villages, they will tell you that here there is no medicine or we are absent. Our stock is full of medicines and we can serve patients for 2 months from now” (Interview with health provider, MT 12).

**DISCUSSION**

This section discusses the key findings of the study in light of other studies on community based health insurance schemes in LMICs. The findings indicated contradictory views about low income as a key factor contributing to low enrollment in the CHF scheme. Several studies conducted elsewhere have reported that many household members are unable to pay annual premium.9,18-20 While majority of the people living in rural areas are generally considered to be poor, the findings suggest that low income was not a key factor for low enrolment. Indeed, many community members in the study area had not seen the importance of joining the CHF scheme. For instance, they could afford cultural rituals and ceremonies instead of joining the CHF scheme. The findings underline the need for continuous sensitization to the communities. Community leaders, including community health workers should be effectively used to provide education in the communities. In addition, local government
Community leaders, including community health care workers, should be effectively used to provide education to the communities. In addition, local government authorities should make CHF a permanent agenda in community meetings. Community members also need to see the importance of prioritizing their health over cultural rituals and ceremonies. Given the current government’s commitment to achieve universal health access, there is a need to make community-based insurance scheme compulsory for all members of the community. The government should thus devise mechanisms which will motivate community members to enroll in the CHF scheme. Furthermore, the government needs to invest more in the health sector with a view to improving the quality of health care services, particularly the availability of medicines, medical supplies and health care providers. Poor quality of health care services has been persistently cited as a key factor for low enrollment and high drop out of the CHF scheme.\textsuperscript{8,11,16,21}

Improved quality of health care services is likely to increase the willingness of the community members to enroll in the CHF and renew their membership as suggested by other studies.\textsuperscript{3,21} However, this would imply that in order to protect the informal sector against financial hardship, the government would need to design and implement mechanisms to temporarily exempt community members from user fees until certain level of healthcare quality could be guaranteed. This implies that the government needs to substantially increase the level of funding for healthcare services through the existing or new innovative health financing mechanisms.\textsuperscript{22} Such mechanisms may also have implications for several other components of the health system, including a potential increase in health care service utilization followed by a possible drop of quality of health care services.\textsuperscript{3,18,21} However, given the persistent problems with implementation of community based health insurance schemes in low and middle income countries\textsuperscript{7,24}, and CHF in particular, it could be worth considering conducting further research in this direction and advocate for the most pro-poor and cost-effective mechanisms. Categorically, further research could focus on understanding and comparing the cost and implications of abolishing user fees with the efforts required for effectively improving implementation of the community-based health insurance schemes, including CHF.

This study has several limitations. First, the study was conducted in few districts, which makes it difficult to draw a comparative conclusion. Mtwara Region consists of several districts which might be studied comparatively. Secondly, this study relied only on qualitative information, with little attention paid to quantitative information. For instance, the study has not captured the income per capital of households. Thus, more studies need to be conducted to ascertain the income of households in Mtwara Region. This will help to understand the reasons for low uptake from qualitative and quantitative point of view.

In conclusion, this study underlines the need for continuous sensitization of the communities on the importance of joining the CHF. Therefore, community leaders, including community health care workers should be effectively used to provide education to the communities. In addition, local government authorities should make CHF a permanent agenda in community meetings. Community members also need to see the importance of prioritizing their health over cultural rituals and ceremonies. Given the current government’s commitment to achieve universal health access, there is a need to make community-based insurance scheme compulsory for all members of the community. Furthermore, the government needs to invest more in the health sector with a view to improving the quality of health care services, particularly in terms of the availability of medicines, medical supplies and health care providers. Improved quality of health care services is likely to increase the willingness of the community members to enroll in the CHF and renew their CHF.
membership as suggested by other studies. However, this would imply that the government has to substantially increase the level of funding for healthcare services through existing or new innovative health financing mechanisms.

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