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Feasibility of a community health fund scheme in Tanzania: a qualitative analysis of policy prospects and local stakeholders' experience-based views in Kagera Region

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ABSTRACT

Objective: We undertook a study to analyze from perspectives healthcare managers and community stakeholders the feasibility of launching a community health fund (CHF) scheme in Kagera Region, Tanzania focusing on its acceptability and proposed membership fee payment modalities.

Methods: We collected data using group discussions with household members and hospital management teams (HMTs) and interviews with government officers at village, neighbourhood, ward, district and regional levels. Data were organized thematically and executed manually using a qualitative content analysis approach.

Results: All stakeholders had at least heard of a CHF scheme. There were mixed views regarding its benefits, majority expressed preference to join a CHF scheme to current out-of-pocket user-fee payment system. Doubt was expressed about poor household members' ability to pay (ATP) promptly if an annual premium rate of 10,000 shillings per household was officially approved. Payment in installments appeared to be an important option to encourage enrollment of those with low ATP the approved premium rate at once. However, HMTs viewed that a sizeable number of dishonest households still might not comply with installment payment system. Debate evolved regarding polygamous families and parents living under the same roof with their married sons/daughters paying same amount as small-sized families. In-kind payments involving non-cash products if allowed were perceived to relieve poorest households, but critics doubted about the acceptability of such a payment system among most service providers owing to inconvenience associated with storage and marketing products for cost-recovery. Household members expressed low trust in the quality of healthcare and CHMTs' capacity and accountability. Follow up interviews with regional officers performed ten years after the original survey confirmed experience with low enrollment rates to the launched CHF scheme in Kagera and reports reveal low community sensitiveness on insurance issues and trust in CHF scheme following experience gained from other regions in Tanzania.

Conclusion: CHF schemes are potential safety-net community insurance opportunities for protecting the poor, vulnerable and marginalized groups, but before launching them, target communities should be adequately informed and sensitized on them so as to build public trust such schemes including their management. Communities should also be involved in proposing CHF scheme's design and management system.

*Keywords***:** insurance, health financing, care reform, prepayments, equity, poverty, Tanzania

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BACKGROUND

Lower- and middle- income countries have since the 1980s been considering policy options that could provide for higher coverage, security and sustainability in health care financing suitable for protecting people against the impoverishing effects of illness [1]. Governments in the majority of these countries have been striving to achieve universal coverage through efficient, affordable and equitable financing mechanisms. The decision to introduce health insurance schemes was based on need to augment the traditional tax-based under-funded national health care systems. However, the financing options and delivery modalities to ensure easy access, equity and efficiency in favor of those in most need including those in underserved areas such as those employed in the rural and informal sectors has been, and have remained being a challenge in many countries [2-3]. Still, the outstanding question has been whether community-based health insurance (CBHI) schemes succeed to target and cover the eligible candidates [4]. Critics have rested their debate on how much individual members or their families should pay in order to enroll to the established CBHI schemes in Africa and for which types of service packages [5-6]. By a simple meaning, 'CBHI are a kind of community-based health-care prepayment (or insurance) schemes representing any programme managed and operated by a community organization other than government or private for-profit company. They are intended to cover the costs (or some part of) of health-care services' [7]. Evidence indicates that less than 10 percent of the informal sector population in developing nations is covered by CBHI schemes [1]. Meanwhile, other reports show that the implementation of community based health-care financing (including CBHI schemes) in LMICs has actually been slow, laborious and unsustainable without government or donor support [8-10]. In Africa as in other countries outside of Africa where CBHI schemes have been launched, relatively the enrolment rates have remained low [2, 11]. This has been partly due to lack of affordability and service packages that exclude coverage of particular diseases such as chronic diseases [12]. In some countries e.g. those in West Africa, such insurance mechanisms have lost popularity and membership [4, 13-14], and it is evident that a considerable number of the frontline health care service providers and community members have expressed distrust in either such schemes or between the two groups [15-16].

Until now, CBHI mechanisms are not so popular in many districts of Tanzania where many districts appear to be still in transformation stage. Apart from the out-of-pocket (cash and carry or user-fee) system introduced in the public health care system by Tanzanian government in July 1993, the government had a policy initiative leading to CBHI schemes through so called health care prepayment system. The latter scheme began with one district as a pilot, the success of which could be used as a model for scaling up to other districts in the country. In particular, the so renowned Community health fund (CHF) scheme in the country as documented in several publications and official reports was introduced around mid 1990s in Igunga district as a piloting phase. Each household willing to register to this scheme had to pay 5,000 Tanzanian shillings (TZS) as a matching fund or part of the annual CHF membership fee while the government contributed some amount for each of the registering household to complete the premium rate [17-21]. Once a household was registered, it was given a special card entitling the specified household members to access the defined package of curative health services throughout the year [17-22]. However, it has taken five or more years for other regions to consider initiating a CHF scheme in their districts. Until 2002 when the present study was commission to the present authors' team to be carried out, the CHF scheme has not yet had been introduced in Kagera Region. Under request for consultancy service from the Kagera Regional Health Management Team (RHMT) in liaison with the Ministry of Health (MoH), a team led by an Economist from the National Institute for Medical Research (NIMR) was approached to assess the feasibility of introducing a CHF scheme in that Region. Since the feedback from the survey to be undertaken was needed urgently, the terms of reference (ToR) for the study required the team to apply rapid assessment/appraisal techniques aiming at getting the viewpoints of key stakeholders in the Region. This paper, therefore, reports such a study that was carried out between April and May 2002 in Kagera Region. The ToR required the study team to come up with workable policy recommendations with potential options that could facilitate a successful launch of a CHF or scheme of a similar nature in Kagera Region. The specific objectives of the study were to assess the stakeholders' knowledge on the CHF concept, and their perceptions of the CHF scheme viability, including its acceptability and payment modalities potential to create chances for success in all districts of Kagera Region. Other aspects investigated include the stakeholders' awareness of the national CHF policy and its implementation; preferred CHF

premium rate and payment modalities implemented in other regions; socio-economic factors likely to have a bearing on the households' willingness to pay (WTP) and their ability to pay the officially recommended CHF premium rate; and types of benefit packages desired if a CHF scheme were officially launched in the districts of Kagera.

METHODOLOGY

Study Design and population

This was a cross-sectional exploratory study by design. It used a qualitative approach of data collection to seek evidence from different categories of stakeholders and as identified above, and these include members of households, hospital management teams (HMTs), district council health management teams (CHMTs), RHMT, and other district and regional level officers as identified later. The paper also rests on the evidence collected from other sources including use of secondary data obtained from studies that evaluated CHF implementation in other regions.

Study areas

Kagera Region is located on the western shores of Lake Victoria. This Region shares the borders with Uganda to the north and Rwanda to the West and Burundi to the South-west, and covers an area of about 40,000 square kilometers [23]. At the time of survey, the Region was divided into six administrative districts and these are Bukoba Urban (currently Bukoba Municipality), Bukoba Rural, Muleba, Karagwe, Ngara and Biharamulo. Recently, two more districts were born in the Region after separating the once larger districts. The newly born districts are Kyerwa that was part of Karagwe district and Missenyi that was part of Bukoba Rural district. The survey currently reported was done in all of these districts. Kagera Region is mostly inhabited by people of the *Haya speaking language* – the dominant ethnic group in the Region and mainly residing in Muleba, Bukoba Rural and Bukoba Urban. Other ethnic groups dialectically connected with the Haya speaking people with a connection of their ancestral origins but having been separated by geographical displacement and linguistic dialet are the *Abanyyambo* (Nyambo), *Abasubi* (Subi), *Abahangaza* (Hangaza). There are few people of *Sukuma* origin and mostly these are living in the South-eastern part of the Region, particularly in Chato [23]. Currently, Chato is a new district belonging to a new region – Geita wile previously it was part of Biharamulo district. Most of the residents are employed in the agricultural sector, growing coffee as the main cash crop while banana is the staple food. Malaria has been the major public health problem for decades in this Region, but

HIV/AIDS has since 1983 added the burden of disease [24-25]. Other problems of public health significance relate to maternal and child health (MCH), pneumonia in under-fives, diarrhea, intestinal worms, acute respiratory infections and enteric fever [26]. The current distribution of HFs in the Region indicates the significance of the private sector providers (Table 1).

Table 1. Distribution of health facilities in districts of Kagera Region, Tanzania

District/Council	Government	Religious	Parastatal	Private	Total
Missenyi	19	5	1	3	28
Ngara	33	2	0	0	35
Karagwe	39	9	5	3	56
Muleba	20	6	2	1	29
Biharamulo	13	2	0	1	16
Chato	15	2	0	2	19
Bukoba (U)	8	1	1	2	12
Bukoba (R)	22	3	1	1	27
Total	169	30	10	13	222

Study participants, sampling strategies and data collection techniques

Sampling methods

The study localities were identified through a multistage sampling system. The research activities including data collection were carried out in all districts in the Region **[**27**]**. In each district, at least one division with either a district designated hospital (DDH) or purely public hospital was identified for study, the target being members of HMTs. In total, six hospitals from six districts were covered. At least two wards were randomly selected in each division from which a total of 24 lower localities (villages in rural areas and neighborhood in urban areas) were selected through a simple random sampling technique. A similar approach was adopted to identify households from such localities for participation in group discussions. Purposefully, we included the localities found in far remote settings (>5km from an urban center) and those found close to HFs. This allowed chances for capturing possible varied opinions/experiences from the residents of different localities. From each of the selected villages/streets, focus group

discussions (FGDs) were held with heads of households or their representatives. Overall, 24 FGDs with such household members were covered in Biharamulo, Karagwe, Bukoba Rural, Muleba and Bukoba Urban districts. In Ngara, this was not possible due to time constraint. At the district capital level, two local government leaders particularly the District Council Executive Director (DED) and District Planning Officer (DPLO), as well as district CHMT members were involved. Overall 12 district local government officers and 6 CHMTs were involved in the Region. A CHMT is headed by the District Medical Officer (DMO) and usually comprises of 7-8 officers [28]. A purposeful sampling technique was also employed to identify the Regional Administrative Secretary (RAS), CHMT and HMT members for inclusion in the study, by particularly considering their administrative positions.

Data collection methods

One key informant interview (KII) was held with the RAS who also represented the Regional Commissioner (RC). District level local government leaders participated in KIIs while the CHMT members participated in FGDs. Separate FGDs with male members of households were conducted from those with their female counterparts in attempt to allow for more freedom of expression by each member. In addition, a group discussion (GD) comprising 3-5 participants as methodologically recommended [29] was held with members of the HMT at each hospital. The RAS was involved as the officer in-charge of personnel administration in the Region and as a member of RHMT. The visited study localities in each of the districts are as documented elsewhere [27].

In the earlier survey prior to CHF introduction in the Region, study themes based on which the study questions were designed were related to: (i) participants knowledge on CHF scheme and perceptions if the CHF scheme were introduced in their districts; preferred CHF premium rate and payment modalities by comparing cash-payment promptly (at once) or by installment; WTP if the official premium rate amounted to 10,000 TZS per household per annum as compared to out-of-pocket user-fee payment system for HFs; acceptability of in-kind payment mechanisms such as cash crops or disposal of other property (e.g. bicycle, animals like chicken or animal products) if such forms of payments were allowed for the households wishing to pay that way; socio-economic conditions/factors likely to influence households' WTP and ATP the officially agreed CHF membership

premium rate; and desired quality of care at the accredited facilities for delivering the services fundable under CHF. Another aspect investigated includes the participants' views on what could be done to enhance household enrollment to the CHF scheme. The survey was followed by a workshop organized by the RHMT. The workshop was held in Ngara Town, the capital of Ngara district and was planned in advance as part of the dissemination of the present study findings. At this workshop, the stakeholders participated in the discussion of the findings and provide suggestions on the way-forward. This workshop was complemented by a lecture on possible alternative health care financing options the Council local government (LG) authorities could think of in their comments regarding the way-forward in relation to alternative financing options for health care in Kagera Region. The workshop was attended by the DANIDA Technical Adviser for Kagera Region by then (the lastly listed co-author in the present study), CHMT members from all the six districts, and the Mayor of Bukoba Municipal Council. The latter represented the Regional Commissioner and LG authorities in the Region. The lecture at this workshop was given by a health economist (first author in this paper) in collaboration with another candidate – a physician with public health specialty (lastly listed co-author in this paper). Next, were the telephone based interviews with regional and district health officers in Kagera as a follow up assessment of the current situation of CHF scheme being implemented in all districts. The aim was to solicit more and updated information that could supplement or validate the data collected almost a decade ago. This would also provide for comparisons to be made between the concerns expressed by the stakeholders during the earlier survey before CHF introduction and current situation after the scheme has been launched.

Data Handling and Analysis

Data handling and analysis were done manually. The field notes that have been taken by hand were coded. This was after being organized according to themes and this was accomplished by looking at the key points of the contents of the notes taken. These were supplemented with transcripts from record-tapes taken during FGDs and KIIs. However, the final and comprehensive analysis was conducted after completion of the data collection exercise, using a qualitative content analysis approach [29-31].

Ethical Clearance

Study participants at community level were asked for their consent to participate willfully (voluntarily) in the study. This was after they were given all the necessary explanation about the study [22]. The telephone based interviewees during the follow up phase were also asked to participate voluntarily after having been sent/given the study questions in advance electronically through email system. The research proposal was approved by the national and regional bodies concerned and finally by the Medical Research Committee of the Ministry of Health through NIMR.

RESULTS

Participants' knowledge on, and perception of, a CHF scheme

During the initial survey, different levels of awareness about the existence, structure and operations of the CHF were obtained. This involved different categories of the study participants. Majority of the village and neighbourhood (community) level participants were aware found being that the CHF scheme was one of national health care financing strategies introduced in the 1990s. Most of these discussants expressed their experience with the user fee system for the services delivered in the HFs that were owned or run by faith-based organizations (FBOs). Referring to one hospital owned by a FBO, village FGD participants in Karagwe, Bukoba Rural and Muleba viewed the government introduction of the cost sharing policy in the public health care sector as having influenced the FBOs to change the user-fee structures for their services. The changes reported to have been made in the fee structures include either the providers concerned having introduced new fees for services previously delivered for free or having increased the rates of existing fees. This move was perceived to have partly discouraged poorest people to access basic services due to lack of money.

A considerable number of community level participants and HMT members could not distinguish between CHF scheme and the then advocated and promoted national health insurance fund (NHIF). While, the CHF rested on enrolling members who showed up for registration on voluntary basis, the NHIF was done on compulsory contract terms. This scheme was introduced in November 2001, beginning with provision of the insurance cover to formal sector employees before it could be extended to other categories of customers from formal and informal sectors. Participants from community localities and HMTs acknowledged to have heard adverts about CHF scheme through the national radio - namely 'Radio Tanzania Dar es Salaam (RTD)', currently under the Tanzania

Broadcasting Corporation (TBC) – Channel 2. However, some of the latter categories of the participants thought that the CHF scheme was intended to cover civil service sector workers and not the rest members in the informal and private sector, as one of the statements given refers:

> "*We hear about CHF in the radio, but just for civil servants. For us as community members, it is the first time to hear from you about health insurance for the community*" (HMT member, supported by other members, Isingiro Mission Hospital, Karagwe District, but now located in the new district of Kyerwa).

Most of the discussants at community level in all districts claimed that civil servants were complaining against their salaries being deducted for them to contribute to the NHIF but ending up not benefiting from the healthcare services at the accredited facilities. Other experiences reported by the complainers were related to the inconvenience faced by the members of the NHIF at the accredited HFs. The concerned identified were relating to frontline health service staff at the accredited facilities sometimes showing poor courtesy to the insured patients; long waiting time at HF since the clients who were served first were those with cash in hand, the rest could be attended thereafter.

HMT members in Biharamulo and their respective CHMT reported to have been completely uninformed about how the CHF scheme operated. However, their counterparts from other districts were at least aware and these acknowledged to have either had an opportunity to attend seminars where CHF issues were discussed or to have made official study tour to other districts e.g. Igunga where the CHF schemes were introduced earlier in Tanzania. Community level participants in all places visited and several HMT members asked the investigators during data collection process to explain the difference between CHF and NHIF schemes. Only the DEDs and DPLOs for all of the districts visited were adequately informed and could distinguish between CHF and NHIF. For instance, the DED of Biharamulo was highly confident that launching a CHF scheme was a good policy idea and that the scheme might be feasible if properly planned in terms of having realistic premium rates and management structures set in advance involving community members even at grass-root levels. His based his argument on the lessons learned from Mwanga district in Kilimanjaro Region while he was working there before as the DED before being transferred to Biharamulo.

In Karagwe, the DPLO and DED revealed that there was a plan to introduce a CHF scheme. These officers acknowledged the guidance obtained from the authorities of the Kagera Community Development Program (KCDP), a non-governmental organization (NGO). This NGO was receiving financial and technical support from the Belgian Government and the European Union (EU) on various poverty eradication initiatives including those promoting the establishment of community health financing mechanisms. Sharing his experience, one officer highlighted on the previous community survey done to collect public opinions that later facilitated the introduction of some health-care prepayment arrangements at the HFs run by the Evangelical Lutheran Church of Tanzania (ELCT). The arrangements made include the Grandmother-Elderly Support Scheme implemented at the Nyakahanga DDH in Karagwe and Ndolage Hospital in Muleba with support from the British Department for International Development. Both the KCDP and Grandmother Elderly Support Scheme were commended for having demonstrated the possibility of implementing similar payment modalities in other districts of Kagera Region. This opened prospects for a high community support to and sustainability of the scheme. In the follow up interviews made between October and December 2012 with some of the CHMT members for other districts e.g. Chato (a new district now in Geita Region), Muleba and Ngara, the officers approached pleaded the government to consider the possibility of mobilizing external support from the potential partners such as donors who could help the district councils to secure supplementary budget to support the rolling forward of the CHF scheme. Citing some examples, they pinpointed such other districts as Kyela and Tukuyu, both being located in Mbeya Region and several districts in Dodoma Region whereby bilateral organizations have helped to support CBHI schemes in liaison with the CHMTs. Without giving actual figures to support their claims, the district officers of Biharamulo and Chato districts also perceived that Karagwe district was so far performing better in relation to CHF implementation than the rest of the districts in Kagera Region. As argued, this is obvious because the Karagwe District Council received financial aid from a foreign agency as an initial capital for supporting the launching and rolling forward the CHF implementation. This includes aspects relating to payment for community sensitization and registration cards, opening the CHF account for depositing the target members' contributions, and supporting each

community representatives with motorcycles to facilitate their movements while working to coordinate the CHF affairs.

Furthermore, in both the initial survey done about ten years ago as well as in the follow interview study phase, the district level and HMT officers acknowledged the team involved in the present study for having helped to stimulate the people in the local communities in the study districts. It was claimed that the team made the community and service providers and their managers see the importance of community participation (CP) in community-based health care prepayment schemes. Giving more clarification on this, it was claimed that normally local people tend to admire foreigners visiting their villages and seeming eager to know about the perspectives in relation to health, education and other fields of development. They therefore look at the researchers as external (foreign) people to their environment and are either sent by the government or donors to seek public opinions on matters of priority or great importance. In this way, community members and health care workers get to be enlightened on various issues that are new to them. Research on CHF in the community was therefore important since people get a chance to think about alternative financing mechanisms that are a potential for increasing their ability to pay for their health-care needs especially in the event of emergency. The research becomes an entry point in the community when a new idea is being introduced and this works better than they would have been sensitized by the local health personnel and government leaders whom they are too familiar with and some of whom might no longer be trusted. A similar impression was noted during the workshop conducted in Ngara district with key regional stakeholders whereby the participants were happy with the results presented by the member from the present study team who also provided a lecture on issue relating to possibilities of trying health care financing options alternative to the current user-fee system and the payment modalities possible for Kagera Region.

Perceived willingness and ability to pay in order to register to a CHF scheme

Responding to the question about what they thought was the most appropriate premium rate for registering a household to a CHF scheme that could be afforded and accepted by at least majority of the households in the community, the stakeholders from all the levels visited in the region gave somehow different views: some perceived 10,000 TZS as being too high due to the apparently high poverty situation facing most of the

households; others were in favour of the rate proposed. Several villagers and HMT members wanted to get clarification before they could express their views on the perceived benefits and costs of opting to register or denying registering to a CHF scheme. In short, the key questions raised are as listed (Table 2), followed by the discussion about them later.

Majority of CHMT and HMT members were of the view that if the rate of 10,000 TZS were passed by the CHMT authorities to start being implemented officially, two installment payment systems would be fine and affordable to most of the families. Community level participants shared almost same view as the latter one, but thought that four payment installments could be much better. Other participants at that level suggested five phases on ground that it was difficult to mobilize the cash on monthly basis while coffee was no longer a reliable income generating cash crop in their areas due to deteriorating prices and poor harvests. The problem of facing hardship in mobilizing the cash money in rural areas was reported as increasingly been common, as also confirmed by the district level officers and local people through personal communication and follow up interviews held between mid-2011 and December month of 2012.

Table 2. Key questions study participants asked in attempt to get a picture on what the CHF scheme would take before they could express the position of their households on whether or not to join a CHF scheme if introduced in Kagera Region

♦ Will household members registered to a CHF scheme operating somewhere be allowed to access health-care services delivered elsewhere using their CHF membership card;
♦ Will allowance be given for the members wishing pay by installment their premium fee to a CHF scheme?
♦ Suppose a member who has not completed paying by installment payment needs health-care, would s(he) be allowed to access medical services?;
♦ Would the households with larger number of the family members pay the same amount as those with a few members?
♦ Would all members living under the same roof of household be allowed to access the medical services regardless of the family sizes and age levels?
♦ Would polygamous families contribute higher amounts of premiums than the rate charged to the monogamous households?
♦ Will the government continue topping up the districts with additional financial budgets and other supplies after the CHF has started;
♦ Will referral services be part of the CHF service packages defined for members?

HMT members and their superiors at district (i.e. CHMTs) and regional levels (i.e. RHMT) were of the common opinion that a premium rate of 10,000 TZS could be reasonable to the majority of the households. However, this could be possible if the heads of households who normally are the bread winners and keep the family money took it seriously to save the little money they mobilize in their families for health care savings as they sometimes spend much of the money on procuring alcohol, smoking and other unnecessary expenditures of personal rather than of family nature. This view negated the view expressed by those who said that poverty was strikingly hitting the majority of families:

"*Consider those who spend a lot of money on drinking or other luxurious things, can you say that these are poor*?" (Maternal and Child Health Coordinator, Murugwanza DDH, Ngara).

The foregoing point validated the quantitative data from the same study indicating that households could on average spend at 1,400, 2,500, and 6,800 TZS on non-basic consumption such as local brews, cigarettes and modern brew (beer), respectively per month [27]. With examples, the village participants in Biharamulo also considered the 10,000 TZS to be appropriate and would widely accepted if installment payment system was allowed:

"*Look, at the private facilities we know, one patient visit costs not less than TZS 3,000 for the services. So, why should we worry about 10,000 TZS for the services we can get throughout the year if there is assurance of good quality care*?" (a female FGD participant, Katoke Village, Biharamulo).

In contrast, some of the village residents, for instance, at Karukwanzi Village in Isingiro Division in Karagwe by then (now in new Kyerwa district) had the following to comment:

> "*Mr. Researcher, we should make things open! I don't know why should people fear to say while we are everyday complaining, oh…oh…oh! They seem to suggest things here without considering the price for coffee - our main cash crop which has been falling from year to year, and now people are thinking of cutting the coffee*

trees down as the government still puts a lot of restrictions for whoever attempts to sell their coffee in the open markets such as in Rwanda and Uganda" (a participant, then supported strongly by the rest of the FGD members).

Other CHMT members viewed that accepting TZS 5,000 as the starting point would lead to some of the services being left out to be covered. This happening could force people to make top ups by paying out of their pockets at the service delivery counter. Similar views were obtained from the HMT members of Rubya DDH in Muleba district who gave the following justification:

> "*Suppose a person suffers from malaria three times a year and gets admitted three times at this hospital. Now, let us look at how it may cost him: care = 3,000 TZS, quinine drugs = 500 TZS, Blood smear = 300 TZS, hospitalization = 900 TZS, panadol/other antipyretics =100 TZS, other minor services = 200 TZS. The total cost would be 5,000 TZS per visit which equals to 15,000 TZS per year. And for outpatients, blood smear = 100 TZS, quinine = 500 TZS, examination = 500 TZS, paracetamol = 100 TZS, therefore, costing 1,400 TZS per person per one trip, which sums to, 4,200 TZS per three visits per person per year. Now consider how many people are in the household and if all of them suffer at least malaria which is common*? (Hospital Secretary, Rubya DDH, Muleba).

The foregoing group participants proposed 20,000 TZS if communities are adequately sensitized about the costs they have actually been incurring by paying user fees directly at the HF following the onset of illness. Supporting this point, district officers commented during follow up interviews in 2011 and 2012 that if at least two installments were officially allowed to be made coincidently with time at which people are receiving their money from coffee, 20,000 TZS could not be a problem at all.

Until 2012, the actual CHF premium rate that was being charged in Kagera districts, as reported by health and medical officers of Chato, Ngara and Muleba districts is 5,000 TZS per household. This amount enables at most five members per household (including three children under eighteen years and two adults – actually the parents/caretakers of such children) to benefit from the predefined service package throughout the year. The services covered include those of essential nature such as minor illnesses and injury while the essential services for women during pregnancy and under five children are provided free of charge, and not chronic diseases. Only costs for the services not specified to be covered under the CHF arrangements including, for example, specific complicated surgical procedures or those which a patient can demand in extra, have to be borne by the patients concerned. In Karagwe, the follow up interviews performed in 2012 also established the presence of different premium rates imposed to different groups of people: a standard family is counted to have a total of six members and these include two parents – (husband and wife) and their four children who are aged less than 18 years do pay. Interestingly, controversial reports were obtained from different sources about the premium rates paid by household members for CHF scheme in Karagwe district. According to reports from the officers interviewed in Biharamulo district in relation to knowledge about CHF practice in neighbouring districts, an ordinary family in Karagwe district has to pay 20,000 TZS per annum. If the family is too large (e.g. >6 members), then each additional family member is required to pay 7,500 TZS for the same purpose. This explanation was corrected by another officer based and working in Karagwe district who revealed that an individual household registered to a CHF scheme is required to pay 15,000 TZS per annum, and if the household concerned seems to have more than six people, then any additional persons living in that household is considered to belong to another household and therefore having to pay the same premium rate as that paid by other member households. As reported, the reported CHF premium rates were agreed upon unanimously by the district council authorities. Community

members through their local leaders as their representatives at various district council meetings as well as CP at various local meetings could be informed of and allowed to discuss various health issues relating health care financing modalities according to community needs.

The questions relating to where CHF members would get health care services also emerged during the survey. The argument given is that people are usually mobile (moving from one place to another). This includes their occasional traveling from one place to another for various socio-economic or business commitments. Therefore, it would have been much better if CHF members were allowed to get services where they happen to be when they fall sick or get injury. Follow up interviews made between 2011 and 2012 to all districts established that CHF is already in place in all district, and each CHF member has a personal ID (identify) card which entitles him or her upon presentation to the accredited health care providers anywhere and anytime as need arises. The CHF members who may not have an ID while needing the service are allowed to receive the services by showing a letter from their local government leader. Earlier also, CHMT members in all districts appealed to the government to support the scheme with supplementary funds to rescue it from collapsing within a short time after it has been launched. They anticipated this possibility based on their experience with various social charity sorts of financing arrangements that tend to fall apart shortly after they have been initiated. For instance, several critics viewed that most of the rural households especially the female headed ones had little access to cash for meeting basic needs such as school fees for their children even at primary school level and domestic requirements. CHMTs were also in favour of two-installment payment arrangements if the rate of 10,000 TZS per annum were arranged for the individual households, especially female headed ones.

Reliability of payment by installments

Considering the unreliability of cash incomes due to seasonally poor crop harvests, downfall of crop prices, HMT members in all districts expressed doubt about the suggestion given by other stakeholders that the households wishing

to pay on installment basis should have better been allowed as a way of increasing the enrollment rates and retain the customers for a long time. The doubt given was based on the argument that occasionally some patients visiting HFs were on humanitarian grounds being allowed by the service providers or HF management to settle their health care bills later within the agreed period either during emergency situations. This was done after the clients/patients presented their requests to the hospital management authority, but sadly the dishonest ones never come back or if they do they tend to give wrong names or home addresses in attempt to avoid being easily identified and followed up for payments. This has disappointed the service providers to continue offering the relief to other customers.

Cultural values with potential hindrance to acceptability and practicability of CHF

During the first round of the survey that was conducted about a decade ago, community level and HMT participants perceived that larger families could consume disproportionately more of the health care services than the small ones. Therefore, such families should have been forced to pay more if the scheme/system were to be equitable, acceptable to all, and sustainable. Otherwise, small family members could complain and possibly refrain from continuing with their membership to the scheme y feeling to be exploited by the large families. The same view was expressed about membership of polygamous families to the CHF scheme and the rate such families should pay as compared to monogamous families. The general view was that in situation whereby one man was married to several women (and possibly possessed children from each wife/spouse), there was need for treating each family independently/separately. Regarding the several wives and many children of one man as belonging to one family, even if such members were living under different roofs could raise complaints from monogamous and small-medium sized families. Furthermore, it was viewed that households should be allowed to access the prescribed services insurable under the existing arrangements even if they had not completed paying their bills. This opinion was challenged by HMT members on ground that some of the

residents were not honest to settle their bills later. The issue of polygamous families was also raised with concern by CHMT members in all districts as to whether or not each wife and her children could be counted as a separate household from the other wife of one husband. The following example refers:

> "*What about those with unregistered wives and children, will they be excluded from the services under CHF "scheme arrangement*" (a male community FGD participant, Katoke Village, Biharamulo).

Presence of men exercising polygamy and those having unofficially recognized spouses or children was reported as being common in Kagera Region, as the following statement reflects:

> "*If a husband who has two wives is offered one card for his household from a CHF scheme, what will happen if one of his wives decides to keep the card in her house and does not agree to disclose the card for use by another wife and children belonging to her shared husband?*" (female FGD participants, Katoke Village, Biharamulo).

Participants falling under different categories – from community until regional level were concerned about what would be decided on the issue of payment for CHF membership to the families whereby parents live in the same house with their sons and/or daughters who are married or have children. Others are not yet married, but are too old to be regarded as children as they are above 18 years of age. Parents and their old daughters/sons living the same house being a common behavior in Kagera Region was perceived to cause challenges when it comes to planning contributions for CHF membership. Some of the CHMT and HMT members did not find this to be a problem as long as the policy stated that any person aged eighteen years or above was supposed to pay. The critiques maintained that counting all these members as one household/family for them to be allowed to pay the specified premium rate could not be realistic. Answering to these concerns during follow up interview

phase conducted in December 2012 after the CHF scheme has been in operation at least for several years, the health officers in Chato district commented that currently, polygamous families were somehow treated separately from single wife families. In the case of single wife households, each household is required to pay only 5,000 TZS annual premium rate. In the case of polygamous families, the arrangement is that if the number of members is larger than six people, every extra member will be treated as a member of another household and such a household will also be required to pay 5,000 TZS. This has helped to clear the prevailing doubts. In Biharamulo, it was lamented that in the polygamous family case, one wife is linked with a shared husband, but each wife and her children (maximum four) under the age of eighteen years, are counted as a separate household.

Intra-household decision-making power relations were perceived to influence households' WTP and ATP in order to register their membership to a CHF. All categories of the discussants in all districts underscored the male dominance (patriarchal) character limiting the power of women in the family to keep money and control non-monetary wealth. It was revealed that culturally women in Kagera wait for permission and financial support from their spouses in order for them to make decision on the use money for basic household needs, including expenditures on their own or their children's health. Therefore, having a prepayment system where everybody in the family can access health care at the time of need would be redemption to women and small children.

Acceptability and reliability of in-kind payment option

Contrary to expectations, the majority of the participants in the discussions held in all districts were not in favour of the non-cash payment mechanisms for households interested in joining a CHF. Concern was raised about the inconvenience that might be faced when handling such materials as farm crops or other property, e.g. clients carrying the materials and service providers' readiness and ability to store and market the materials concerned in order to recover health care expenditures and other operational costs. Proponents

claimed that allowing such payments might help those who face difficulty to mobilize cash for prompt payment. HMT, CHMT and RHMT members warned that the vulnerability of agricultural and animal products to weather, diseases, markets, and handling such materials such as chicken eggs or chickens, leading to possible damage were possible kinds of inconvenience which the health care providers might avoid. In Biharamulo, some FGD participants at village, HMT and CHMT levels proposed products like rice and coffee as possibly acceptable because they do not perish easily and are not much vulnerable to damage while handling them. Others commented in contrast:

"*We have kept several bicycles here at the hospital for about 10 years now which have been left by their owners who failed to settle their medical service costs. I think there is need to establish bylaws so that after some days, property like that can be sold to recover the bill*" (Assistant Matron, Biharamulo DDH).

Experience with similar in-kind payment system administrative challenges for the patients who were treated on credit was reported from HMT at Rubya DDH in Muleba and Nyakahanga DDH in Karagwe. The idea of accepting in-kind payments was shared by the district local government council officers in all of the study districts and the Regional Administrative Secretary (RAS). In Ngara, the DED and DPLO claimed that special arrangements could be made by the respective district health authorities in liaison with the authorities of local cooperative unions whereby farmers often sell their coffee, maize and beans. Therefore, money for CHF could be deducted from farmers' earnings.

Desired quality of care at the accredited health facilities under CHF scheme

According to the interviews made as part of follow up of this study in 2012, the reservations regarding quality of care after CHF implementation still prevail. In Chato, one officer related the reservations reported to be so far experienced by the community members with drug shortages at the accredited facilities and part II poison shops/stores. Other reasons given include the seemingly patients long waiting time at

service delivery points. A similar report was obtained from Biharamulo, Muleba and Bukoba Rural districts. Such reservations reflected why some community members were reluctant to join the CHF scheme. The officers from Chato and Biharamulo reported the difficulty faced by their CHMTs and collaborating agencies to supervise all accredited providers and reach community members living in scattered remote and bushy places. Use of local radios in districts of Ngara, Karagwe and Bukoba could have helped to pass the message immediately to many people, but still in there is none of such media organs in Biharamulo and Chato districts.

The majority of the community level participants in all the villages reacted vigorously when they were asked for the views on particular issues. One of such issues was for them to discuss how they could feel if the CHF scheme excluded services for major surgical operations, cost of referrals, treatment of chronic (and mostly non-communicable) diseases, some communicable (including infectious) diseases, and accident associated illnesses including physical trauma whose costs were relatively higher than the value of the money needed for one household to join a CHF scheme. Thus, all CHMT approached in all the study districts felt that continued public health education and sensitization on the benefit package was crucial. It was made clear by the district medical and health officers interviewed later in 2011 and 2012 admitted that still effective CHF schemes or mechanisms needed more time and more concerted measures for it to be realized. For example, Biharamulo district serious shortage of laboratory personnel disappointed many people who wish to be screened and given reliable results. This has reduced people's trust in the CHF scheme. Drug shortage was argued with concern by some of the district officers interviewed around December 2012 and was attributed to the weaknesses of the national Central Medical Stores Department (MSD):

"*The MSD is letting us down by receiving our orders but not responding immediately and adequately. It may even may ends up saying that it is out of stock of what we need. It seems to care the less since it directly receives part of our*

budget paid by the Ministry/government. *This limits our ability to immediately address shortages and answer burning questions from the community*" (a CHMT member in another district).

In Chato and Muleba Districts, community complaints about being asked to contribute a little money for MCH related services such as paying one hundred shillings to compensate the extra duty and travel costs incurred by HWs visiting outreach clinics was reported. This seemed to have been triggered by some politicians who want to raise their political popularity in the community by misleading people about the introduced payment systems. They perceived that any payment for MCH services was illegal as it was contrary to the national public health service policy, and since, a considerable number of community members believe so they eventually refrain/abstain from paying the required fee however little it seemed to be. In Karagwe, complaints about laboratory diagnostic services were almost non-existent, according to the DMO interviewed in December 2012. This is because there is a college for the laboratory attendants at the Nyakahanga DDH whereby each year a number of graduates are approached and motivated by the Karagwe DC to accept being recruited to work at primary HF run by the District Council at least temporarily while waiting for their official government employment/posts. The workers concerned receive allowances for subsistence and other basic needs to keep them motivated to work in the places where they are posted. This has made a difference in Karagwe since the CHF scheme was initiated as the money paid to such staff is part of the CHF contributions. It was estimated that about 60% of the primary HFs in Karagwe district were facing an acute shortage of skilled workers including clinicians, nurses and other paramedical staff.

Private-public public partnership in health care services financed under a CHF

Doubts have been expressed, reflecting participants' viewing the CHF scheme to bring confusion about which services to be delivered at public HFs and which ones at private facilities. This is because people seemed to have been contacting both types of facilities at their own choice or were forced by some conditions to do so, for instance when a

public facility was not near to them as compared to a private facility. Reports from the health management system of Ngara district obtained in December 2012 showed the arrangements to have been in place for ensuring that patients/clients whose prescriptions need drugs from sources other than the accredited HFs could receive such services elsewhere such as at part II poison stores/shops. This includes procedures on how to compensate the accredited service providers, and the duty of ensuring this was accomplished has been in the hands of DMO's office and office of the District Health Board. Already at community levels, there are health care committees and boards which execute the CHF transactions issues and are overseen by district health board and district CHMT.

Capacity of, and trust in, CHF management

A number of the participants in all categories of the study groups who were met at different levels earlier in 2002 expressed fear that the established CHF scheme management authorities might fail to account for the revenue collected if asked to give feedback to CHF members. HMTs at all hospitals viewed that even if a strong management capacity existed at local level, the problem might arise at district level where administrative bureaucracy of processing the claims from the clients would be excessively and regrettably high. In contrast, CHMT members were of view that centering CHF scheme management at community level without close supervision by the district authorities might eventually lead to the collapse of the scheme. Testimony was given by some officers about announcements once heard from Radio Tanzania that in other areas where CHF scheme was launched earlier, communities got disappointed with reports about misuse of the funds by some of the local committee members. This seems to provide a good lesson to some of the district local government authorities in Kagera to learn before they officially recommended CHF's implementation in the region. From Biharamulo, for example, the following statement from one of the district health officers interviewed in December 2012 confirms the facts:

> "*The DED for Biharamulo is very serious with the issue of CHF as the previous ones have been, by requiring us to keep records and report progress to him for each month. He is determined to make sure CHF becomes one of the financing alternatives to boost the coverage of desired services to community members, and the issue of local health committees and health board to function effectively is one of the things he makes close follow up*" (a respondent, Biharamulo district).

Karagwe district was mentioned as an example for having a better functioning CHF scheme than the rest of the district councils in Kagera. As commented, there are coordinators for CHF at each community level in Karagwe who use the motorcycles obtained from donors to move around regularly, connecting the community with the district council authorities when it comes to passing message to sensitize local communities, mobilize potential contributors, collecting the premium contributions, and reporting to the in-charge of CHF management at district level. This way, leakages or shortcomings are kept at minimum.

HMT and CHMT in all districts proposed the need for the each district implementing the CHF scheme to open a separate account for CHF revenue collected from the members. This idea was supported by the regional level officers (RAS and RHMT). Reports obtained during follow up interviews phase in 2012 show that the districts have a special CHF account. Nevertheless, this account called 'Miscellaneous Services Account' includes the money collected from sources other than CHF collections as well. Therefore, while the aim was to improve efficiency in the management of the funds, bureaucracy still seemed to exist because no withdrawals for expenditures could be made by the DMO's office without approval from the necessary committees and then the district health board. These steps usually take several days and affect timely access to funds for use to improve the services demanded by the CHF members.

Trend of membership rates to the CHF scheme since it has officially been launched

During follow up interviews conducted in 2011 and 2012, each time the officers were approached reported to have had no statistical data indicating the rates of CHF enrolled members in their districts. The data for these districts were searched if they could be found online through internet system, but they could not be found. However, it was reported from Biharamulo and Chato districts that <50% of the households have so far been registered. A similar proportion was estimated to be the case for Bukoba, Muleba, Ngara and Bukoba Rural. In Karagwe, the rate was reported to be >50% of all households. The trends of registration and maintenance of membership to CHF seemed to fluctuate from time to time, in several occasions dropping in the enrollment rates. In Biharamulo and Chato the tendency to drop out (withdraw) from the CHMT members was attributed mainly to the perceived low quality of care and low community sensitiveness to possible health risks coverable by insurance. Even in Karagwe where there seemed a high community positive response to enroll, reports were obtained about the downward trend in number of CHF registered members. According to the Karagwe DMO, predominance of faith-based HFs contributes to discourage people to continue holding their CHF cards or to register for CHF membership. This is because the FBOs seemed reluctant to accept treating the patients based on the ID cards presented to them and instead they preferred accepting fee-for-service payments at the counter or any other payment arrangements they preferred or were used to. Recognizing the pinch the communities were facing, arrangements were put in place for enrolling a little matured primary and secondary school children in Karagwe after sensitizing them to participate in paying at least a little money at a particular time interval in order for them to be enrolled for CHF membership. The annual premium rate for each child is 2,500 TZS for them to receive an ID card for use when they need services. If six children decided to join together in order to pay as a single household, they would in total pay 15,000 TZS which is exactly same as that being paid by the rest types of the households to enroll to the scheme.

However, people seemed to prefer paying directly for health care out-of-pockets in form of user-fees to prepayment schemes such as CHF or NHIF. They felt that once they have paid their money for future health care needs, they risk even more for not being sure of the service they would get. They also felt that if the money prepaid for health care needs would be benefit the health authorities collecting it.

DISCUSSION

Acceptability of any health intervention and its successful practicability may not be realized if the key stakeholders have either little knowledge or are uninformed about it, apart from being concerned about its cost and impact on their health [9]. This is evident from the present study whereby it seems that knowledge about CHF issues was still inadequate to both the health managers and target community members. There seem stakeholders' speculations about the CHF scheme's failures to deliver based on rumors about the challenges people in other districts where the CHF scheme was introduced earlier. This speculation may turn to be a reality if the reported challenges regarding unreliability of cash earnings among households, weak management capacity at lower community levels, unfulfilled promises of quality care at the accredited facilities, and other drawbacks to household enrollment to the scheme or maintenance of their registration status prevail. Lessons about this could be learned from other districts in Tanzania [19, 32-35], other East African countries e.g. Uganda [5, 33] and Nigeria and elsewhere in SSA [16, 36-37].

Experts in voluntary CBHI schemes suggest that for the insurance mechanisms instituted to achieve the predetermined objectives, the health managers, care providers and policy-makers should think systematically about a wide range of initiatives that could enhance trust and caring and put appropriate structures in place. The arrangement made should ensure an interface between consumers and providers [9, 38]. Trust in any newly introduced or proposed financing system could be lowered by weakly accountable management structures to please the customers. A bad experience discourages volunteerism while a good one might encourage/attract potential

volunteers [39]. The reported trend of CHF membership to decline in the present study districts reflects the low trust or distrust communities have/had in the scheme's ability to meet their expectations, apart from the reported politicians influence. This seems to be the case in other African countries where similar schemes have been instituted, for instance in Nigeria [36-37].

From the previous survey reported in relation to the present study prior to the follow up interviews made in 2011 and 2012, one can see that different premium rates were considered to be affordable and acceptable to most of the households in the study districts. This is normal in contingent valuation sort of analyses whereby judgment usually rests on hypothetical answers [40-41]. Also, the different modalities of payments including installment payments for those who cannot afford to pay the stated premium rate at once is validated by reports from other places in East Africa [42] and West Africa [4]. In these countries, payment being spread out over the year has allowed poor households to pay for CBHI. However, reports from Tanzania reveal that despite the possibility of allowing installment payments, still fewer than expected number of poorer individuals have become insured while in effect such payments mostly have benefited the moderately poor [4, 43]. Meanwhile, other reports show that in Tanzania the logistics of installment payment system might is difficult [44-46]. In other countries within SSA, evidence shows that the poorest segments of the population have benefited less from the existing insurance schemes while they are the most sufferers, and in reality insurance schemes have failed to meet the expectations of the enrolled members in terms of service benefit packages [6]. Meanwhile the question of who should pay and who should pay what remains in other SSA countries and therefore the insurance designers need to be careful by ensuring that they understand the nature of the communities in which the insurance schemes are intended to be introduced [5].

On the other hand, the reported possibility of instituting in-kind payments for health-care at the HFs, especially those run by FBOs should be looked at very cautiously as some of the

present study participants warned. The scale at which farm crops could be accepted by cooperative unions or health care providers and to which scale creates another gap in terms of practical evidence. Already there are reports from other places in Tanzania about the management practicability challenges in relation to such kinds of payment arrangements [47-48]. Lessons could be learned from India whereby in-kind payments including acceptance of products such as rice and sorghum from small farm workers or casual labour time allowed the individuals concerned to access some protection of insurance systems [49]. In Ethiopia, Asfaw and Braun report such forms of payments to have existed as well in relation to insurance for the poorest [4, 50].

It is worthwhile to discuss the usefulness and shortcomings of the present study. To begin with the usefulness, this study shows several strengths. For instance, by providing very important findings for international readership as a basis for comparing with other evidence reported from elsewhere within and outside of Tanzania. It was also a demand-driven study as it originated from the Regional health authorities. The decision to involve CHMT representatives in the fieldwork to hear themselves directly about what was actually spoken of by the community and HF level stakeholders was acknowledged by the RHMT and all CHMTs of Kagera Region. Approaches like this do provide an opportunity for the potential program implementers to interact with the researchers by raising questions which eventually might contribute to their understanding of pertinent issues in the system they have previously been poorly or not informed of. They may receive some explanation to help them clear their long time or temporary doubts. However, the present study can be challenged for a number of limitations. It was conducted when the CHF scheme was still a new topic in Tanzania and a set of health sector reforms were still being proposed or piloted. This means, the views expressed by the study participants might have been influenced by these two conditions, therefore, were largely more hypothetical or speculative than real life situations. Even the premium rate of 10,000 TZS as used for investigating the perceptions of the participants was just hypothetically

decided for study purpose. The approach of involving CHMT members in the data collection could introduce bias if the study participants were all informed that there was a CHMT member in the investigation team. However, stakeholder involvement from initial stages of policy design before its implementation helps to avoid any negative reactions that could be showed by the target implementers of the policy in question if they felt that the policy has been superimposed upon them from above [51].

CONCLUSION AND POLICY IMPLICATIONS

In general, it is interesting that the stakeholders in Kagera Region were in favor of CHF scheme as an alternative health care financing option to the user-fee system as long as the premium rate, payment modalities, managerial capacity, and accountability conditions, were reasonably arranged. The doubtful or controversial opinions expressed by the stakeholders reflect or mirror a warning stakeholders provided regarding CBHI systems in a least developed country. Thus, regional and district authorities concerned should find best mechanisms by learning from feasibility studies carried out in various places incorporating respective stakeholders. In light of the present study findings, it can be argued that success of a health sector reform is context specific - each place requires to be clearly studied of its situation before appropriate mechanisms are officially instituted to implement the reform. Setting affordable premium rates for CHF to household members might be realistic if the amount payable is able to cover at least basic services while providing the room for cross-subsidization. Introducing co-payment mechanisms could be another possible option. Nevertheless, this requires careful marketing to educate and sensitize the target service users adequately. Co-payments may focus on such areas as major surgical procedures, medical check-up, ambulatory services, and sensitive services related to dental and eye problems.

As reported by some of the respondents about the seemingly better implementation of CHF scheme in Karagwe district, the bilateral and multilateral agencies and other NGOs seem to be important collaborators in the

health financing reform programs by providing at least the initial support to the districts. This includes support related to planning for, and eventually, implementing community development initiatives, pushing the health policy agenda forward, supporting policy discussion forums and in actual financing by either providing the start-up capital or providing operational guidelines, training and supporting periodical evaluations. At the end of the day, the owners of the reforms should be the communities concerned and this is possible if the communities are given chance to participate in planning, implementing, financing and even evaluating such reforms. The CBHI business promoters/advocates and subscribers need to reach consensus on issues seeming to be critical including finding out possible solutions or remedial measures if high enrollment and sustainability have to be realized [8]. One of the practical measures could be to ensure that the policy planned to be introduced is properly communicated to all key actors/stakeholders, ensuring that guidelines for implementation are in place, instituting responsive and prudent management authorities that can command sufficient trust from the target customers, and having acceptable quality of care at the designated/accredited facilities [37]. Acknowledged is the advice that there is need for undertaking further research/evaluations to identify what is the mix and weight of factors driving people to refrain from joining financing schemes and adopt policy strategies to mitigate the existing affordability, accessibility, equity and management challenges [12, 51-56].

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COMPETING INTERESTS

The author declares no conflict of (or competing) interest in this paper. All read the paper before approving it to be submitted for publication.

AUTHORS' CONTRIBUTIONS

GMM was a Principal Investigator (PI) in this study and was assisted closely by JB while working as DANIDA Technical Advisor for Kagera Region. GMM participated in all stages of the study, including study design, data collection, analysis of the original and follow up interview data, report writing and drafting the first and final versions of this manuscript (MS). JB made substantial comments on both the main research report and this MS. Other comments were obtained from JSK and WNK.

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