Health-seeking behaviour among adults in the context of the epidemiological transition in Southeastern Tanzania
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General discussion and recommendations
This study set out to assess cultural aspects shaping health-seeking behaviour for malaria and diabetes among adults in Tanzania, a country undergoing the epidemiological transition. A narrative review was conducted to provide an inventory of how the country’s public policy environment, health system and the community’s actions against illness can be used as platforms for addressing the emerging non communicable diseases (NCDs) as a consequence of the epidemiological transition. In addition, primary data was collected to gain emic perspectives from the people themselves about their illness experiences with malaria and diabetes and the meanings they attach to the diseases. A main goal was to understand how people respond to the illnesses in terms of their health-seeking behaviour and the reasons for the practices they employ. In this chapter, a summary of the main research findings is presented, followed by theoretical and methodological reflections. The chapter concludes with a discussion of implications of the study findings and recommendations for health policy and public health and suggestions for community initiatives and future research directions.

9.1 Summary of the main findings

9.1.1 Platforms for response to NCDs in Tanzania (Research question 1)

The narrative review on how public policy environment, health systems and community actions against illnesses can be used as platforms for NCD responses revealed that Tanzania had been fighting – already for decades – the burden of infectious diseases such as malaria, TB and AIDS, on top of poor maternal and child health conditions. As presented in chapter four, the long dominance of these conditions and their consequences in the communities explained the focus of the existing platforms on the prevention, management, and control of the conditions. Success has been seen in terms of decreasing morbidity and mortality trends for the most infectious diseases such as malaria [1] and HIV/AIDS [1]; as well as in terms of improvements in maternal and child health [3]. However, these conditions continue to be major causes of suffering in the country and the main focus for disease prevention, treatment and control strategies.

Our narrative review gave an overview of the challenges posed by the emerging chronic non-communicable conditions to the government, health system and communities. It was evident in the narrative review that the lack of a national NCD policy in the country has led to fragmented efforts in the prevention and control of the conditions. The review demonstrated the absence of systematically coordinated efforts on NCD prevention and control across different sectors despite the acknowledged multifaceted nature of the NCDs conditions. This
narrative review showed inadequate preparedness of the health systems to accommodate the requirements of the emerging NCDs, especially the primary-level health facilities that were characterized by insufficient availability of trained personnel, diagnostic equipment and treatments.

The findings of this review suggested that the use of over-the-counter medicines for self-medication and treatment of chronic infectious disease was common and people consulted the health professionals only when the illness symptoms worsened. Our narrative review could not find evidence of the role of self-care, management and medication use and continuity of use with respect to NCDs. There is limited information on community involvement in the prevention and control of NCDs, of community perceptions of NCDs, and of people’s health-seeking behaviour. This narrative review identified a need for anchoring research and public health interventions in the policy, health system and community platforms for a holistic response against NCDs.

The results of the narrative review helped in the analysis and synthesis of the primary data. The sub-sections below are organized according to the research questions and they represent the sequences of the different chapters in the thesis.

9.1.2 Motives for malaria self-care (Research question 2)

This study explored how the underlying cultural motives shape the individual decision-making process in their choice of malaria self-care practices. In chapter five, the theoretical concept of self-care was adopted in addition to the Health Belief Model (HBM) components (see section 2.2.1 – 2.2.7) in order to better explain the actions shaping self-care practices. Self-care in the study is defined to include: assessment of symptoms, self-diagnosis, self-treatment (including non-medication treatments and self-medication), self-referral, and consultation with non-medical practitioners and medical professionals as previously described by Segall and Goldstein [4]. In assessing the motives for self-care practices, the study focused on malaria, a common infectious illness in Tanzania [5, 6]. The biomedical knowledge of malaria’s signs and symptoms were found to be acculturated into the community’s cultural meaning system and schemas about the condition. This cultural meaning system informed the individuals’ perceived susceptibility (see section 2.2.1) to malaria and triggered their self-diagnostics, self-medication and treatment practices. The shared schemas on malaria in the community and the individual experiences of the condition triggered these self-care practices. However, the persistence and the perceived severity of the symptoms prompted individuals to consider other self-care options.
The cultural schemas on malaria symptoms and the perceived susceptibility to other, non-malaria fevers such as typhoid and or urinary tract infections motivated individuals to self-refer to malaria tests in the private facilities before administering anti-malaria medicine. It was the individuals’ perceived benefits (see section 2.2.4) of specific anti-malarials, their perceived self efficacy, and people’s preferences for single doses that shaped their choices of anti-malarial monotherapies over “ALu”, the recommended anti-malaria combination therapy. However, the individuals’ assessment of the perceived benefits and perceived barriers associated with accessing services from the public health facilities, as well as the perceptions on the quality of those services, motivated the use of private facilities (such as the drug shops for sourcing anti-malarials and the private laboratory facilities for malaria tests) and their self-care practices in general.

9.1.3 Meaning giving to diabetes symptoms (Research question 3)

Considering the acuteness and chronic nature of malaria and diabetes, health-seeking behaviour for diabetes may display a different pattern from that observed with malaria. To explore health-seeking behaviour on diabetes, in chapter six the underlying cultural context that informs the meanings given to the emerging diabetes symptoms and shape the individuals health-seeking behaviour was examined. Knowledge and awareness about the diabetes signs and symptoms was limited among the communities in the study settings. The prevailing cultural meaning system and schemas on infectious diseases such as malaria and HIV and AIDS in the communities were found to inform the meanings given to and the interpretations made on the emerging chronic diabetes symptoms. Schemas on body image informed the meaning given to diabetes symptoms similar to those of HIV/AIDS because of the severe weight loss. The community’s cultural meaning system about malaria signs and symptoms (such as headache, fever and tiredness) informed individuals’ perceived susceptibility (see section 2.2.1) to malaria and the perceived benefits (see section 2.2.4) of their initial use of anti malarial medicines.

Misdiagnosis of diabetes symptoms was found to be common; not only did the patients not recognize the symptoms but the health care professionals also frequently misdiagnosed the condition. Patients reported being misdiagnosed and treated for urinary tract infections and or typhoid before they were actually diagnosed with diabetes. When the cultural meaning system could not aid in assigning meaning to the diabetes symptoms experienced, it informed the individuals’ decision to consult traditional healers and or associate the symptoms to witchcraft causes. The use of the prevailing cultural meaning system and schemas on infectious diseases in assigning meaning to the diabetes symptoms contributed to delays in prompt diagnosis and initiation of the appropriate treatments.
9.1.4 Lived experience of medication use and continuity (Research question 4)

A further exploration of the health-seeking behaviour for diabetes was conducted in chapter seven, specifically examining diabetes patients’ medication use and continuity of use in a setting with limited access to diabetes services. In defining access in this study, the Peters et al.,[7] definition “the timely use of services according to the need” was adopted. In explaining the context-shaping diabetes patients’ behaviour on medication use and continuity; the HBM components of perceived severity, perceived benefits, and perceived barriers were combined with Penchacky and Thomas’s 5A’s of access to care dimensions[8]. As linked to the HBM (see section 2.2), the perceived severity of diabetes (see section 2.2.2), and the perceived benefits (see section 2.2.4) associated with the use of the diabetes medications shaped diabetes patients’ acceptability for using the recommended diabetes medications. However, the perceived barriers (see section 2.2.5) associated with the affordability of the medications limited patients in their medication use and continuity.

Geographical accessibility and availability of diabetes services, including the availability of diabetes medicines at the primary level health facilities, were the other perceived barriers that hindered medication use among the diabetes patients, especially those from rural villages. The accommodation of the diabetes services in the district in terms of their organization and provision were additional perceived barriers that contributed to intermittent use of the medications and the general diabetes services. However, due to the individuals’ perceived severity of diabetes when not on medications, diabetes patients reported several behavioural practices as coping strategies to perceived barriers to affordability to ensure their use of medications. Those included: spending less on their family needs; selling their farm produce and or other family property; requesting advances; and using less of the required dosage and or dose omission, as well as sharing the medicines amongst themselves.

9.1.5 Illness experiences of diabetes in a context of malaria (Research question 5)

In chapter eight the illness experiences of chronic NCDs such as diabetes in the context of malaria as a predominant condition were explored. In describing the illness experiences, the concept of Cultural Schemas was combined with the Kleinman’s patient explanatory model of illness to aid explanation of how the illness experiences are embedded in the social and the cultural context of the individuals. According to Kleinman, patient explanatory model (EM) provides emic perspectives on the patients’ understanding of the illness and their experiences as shaped by their social and cultural context[9]. The cultural meaning system and schemas on acute infectious illnesses such as malaria shaped the individuals’ perceived severity of malaria and diabetes. These perceptions in turn informed the explanatory model of illness in terms of severity and chronicity of both conditions. However, malaria was indicated as being relatively bearable because of its acuteness and shorter duration compared to diabetes.
Diabetes was shown to have large impact on the individuals’ daily life due to its chronic nature and the perceived severity after the clinical manifestations of the condition. Uncertainties about current and future life and the increased risk of severe malaria and other illnesses impacted diabetes patients’ and their families’ illness experiences. Unpredictable health conditions, decreased sexual desire, and functional incapability were health problems pronounced more for diabetes than for malaria patients. Feelings of helplessness, quick temper and limited social life shaped most of the accounts on diabetes patients’ illness experiences.

9.2 Concluding remarks on the main findings

The findings of this study show that cultural, individual, and health facility aspects shape health-seeking behaviour for malaria and diabetes. The communities’ schema on health and illness are used to inform and shape practices engaged when the need for seeking health service is realized. When looking at malaria beliefs and perceptions as well as at the malaria self-care practices employed, the same codes emerged from Viwanjasitini, the semi-urban village and from Namwawala, the rural village, as well as among men and women. This consistency in malaria self-care in the various study sites could be explained by the higher awareness of this condition and its treatments.

Regarding diabetes, the different nature of the participants in semi-urban and rural areas (i.e. involvement of diabetes patients and their neighbours and or people related to diabetes patients from Viwanjasitini, the semi-urban village, and of patients from the rural villages as recruited through the diabetes clinic at Ifakara town) limited the study’s ability to gauge differences between the semi-urban versus rural community perspectives on the disease. The reason for this different recruitment strategy was that the pilot revealed that awareness on diabetes was non-existent in the general community and therefore recruiting general community members would not provide any insights on perceptions of the disease and how people would assign meaning to the symptoms. However, the issue of unavailability of the diabetes services and the accompanying economic challenges in accessing these services was evident among all diabetes patients, and was more pronounced among the rural patients, especially women.
9.3 Theoretical and the methodological reflections

9.3.1 Theoretical reflections

The study applied the Health Belief Model (HBM) \cite{10} and the concept of Cultural Schemas \cite{11} to guide the line of inquiry on health-seeking behaviour for malaria and diabetes among adults in rural settings of Tanzania. The use of the concept of Cultural Schemas enabled the study to elicit insights into how the cultural meaning system and views about disease and illness in the wider setting shaped the individuals’ health-seeking behaviour for malaria and diabetes. According to D’Andrade (1992), the cultural meaning system of the community is formed by the individuals’ shared schemas \cite{11}. These schemas motivate individual behaviour and provide direction as to how they should behave when they face familiar and new things \cite{11} including diseases. The schemas about diseases and illness in the broader community informed individuals’ perceptions and beliefs about signs and symptoms of the diseases and about the perceptions of the health services and their quality.

The HBM was applied in the study in order to facilitate the understanding of individual risk perceptions and decision-making processes. The HBM is one of the most commonly used behaviour change models to explain health-related behaviours \cite{12, 13}. This model was originally developed by the US Public Health Department in the 1950s in an attempt to understand why people did or did not use preventive health services that were provided for free, namely screenings for tuberculosis \cite{14}. The assumptions of the model are that people are more likely to change their behaviour 1) if they believe they are susceptible to a disease, 2) that the disease is severe and 3) that the behaviour change will help to cure or prevent the condition \cite{15}. The HBM consists of the following components: perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action and self-efficacy. Being a psychological health behaviour change model, its strength lies in the ability to explain the individual decision-making processes that are involved in adapting health behaviours \cite{12}.

Although many studies that have used the HBM used the components of this model as a whole to understand health behaviour change, in this study, the different components of the model are applied separately to assess individual risk perceptions and the decision-making processes. In chapter five and six, risk perceptions are examined through the assessment of the individuals’ perceived susceptibility and perceived severity of malaria and diabetes. This assessment provided in-depth information on participants’ awareness and knowledge about signs and symptoms of these conditions. In chapters five and seven, the decision-making processes are assessed by eliciting individuals’ perceived barriers and perceived benefits for adopting specific health-seeking behaviour on malaria and diabetes. This helped clarify the
context that informs the individual decisions and shapes the health-seeking actions. In chapter five, six and seven, cues to action are assessed through the inquiry into what information participants had about malaria and diabetes, and the sources thereof, whether internal (symptoms, past experiences) or external (advices from health care worker, friend, relatives, mass media). This allowed insight into the aspects that informed individuals’ risk perceptions and prompted their decisions regarding seeking health care and continuing medication. In chapter five, individuals’ self-efficacy is assessed through the examination of their own perceptions of their ability for employing specific health care-seeking practices. This elicited insightful information on specific individual aspects that motivated them to seek health care services for malaria and diabetes and to continue medication use.

Despite its wide application in public health to investigate health behaviour \[12\], HBM is criticised for its focus on individuals while ignoring other social and cultural aspects that shape the way people think and act \[16, 17\]. To accommodate the social and cultural aspects that shape individual behaviour, the concept of Cultural Schemas has been adopted in this study. The application of this concept served as a lens for the HBM components, allowing them to be seen as being culturally embedded, to reflect the realities of the social context. This could not have been achieved if the model were used on its own. The combination of the concept of Cultural Schemas and the HBM components strengthened this study by providing noteworthy insights into the intricate relationship between the cultural meaning systems (macro level) and the individual perceptions (micro level) vis-à-vis health and illness.

### 9.3.2 Methodological reflections

The theoretical concepts explained above, Cultural Schemas and the HBM, shaped the study’s research objectives and questions and informed the conceptual framework (see section 2.4). This framework was critical in shaping the design of the data collection trajectory, namely the decision to conduct focus group discussions (FGDs) first, followed by the in-depth interviews (IDIs). The HBM components that were part of the conceptual framework were operationalized into questions and probes that formed part of the topic guides. These topic guides were used to collect data during the focus group discussions and in-depth interviews. The study was divided into two rounds of data collection. The first round involved conducting focus group discussions, the results of which were used to sharpen topic guides that were used during the second round of data collection involving the in-depth interviews.

The study participants were purposively recruited with intentions to capture semi-urban and rural perspectives in the district. However, due to the remoteness of the district, in this study
the research site as a whole is referred to as rural. The purposive recruitment technique used to recruit study participants provided the opportunity to identify a diverse set of participants that included people with diabetes and or recent malaria patients, general community members, neighbours and or relatives and family members of diabetes patients. The use of FGDs and IDIs to collect data for this study uncovered unique perspectives on health-seeking behaviour and revealed in-depth information on the topic. The data collection trajectory made the study methodologically strong: the plan of first conducting FGDs, followed by a detailed exploration of the issues through IDIs, broadened the richness of the findings by fully utilising the strength of each method. The saturation points that were achieved when no new information was yielded in each specific disease and among men and women during the data collection provided evidence that the number of participants recruited and the data collected was adequate.

The conceptual framework guided the research not only in the design and data collection phase, but also in the analysis. The integrated application of the concept of Cultural Schemas and the HBM facilitated in-depth explanations on how the community’s cultural meaning system (Cultural Schemas) informed the individuals’ perceptions (the HBM components) of malaria and diabetes: the perceived susceptibility, perceived severity, and their perceived benefits and the perceived barriers: to adopting particular health-seeking practices.

During data analysis, inductive and deductive codes were developed. The code development process involved sharing the emerging codes between the researcher and the three supervisors who were based in Tanzania and in the Netherlands and the process continued until no new codes emerged. After developing codes, the next step was to code the data, followed by code categorization. The coding and categorization of the codes into themes and family codes continued until no new themes or categories emerged. Most of the themes represented new concepts that emerged inductively from the data while the family codes reflected the components of the HBM that informed the data collection topic guides.

The new concepts of self-medication and treatment, access to health services, and illness experiences emerged as important aspects that shaped individuals’ health-seeking behaviour, beyond their own beliefs and perceptions. These emergent concepts suggested a need for additional theoretical concepts, as these issues could not be explained adequately by the former theoretical concepts. Additional theoretical concepts such as self-care (chapter five), the 5As of access to care dimensions (chapter seven), and the explanatory model of illness (chapter eight) were adapted to aid interpretation of the emergent concepts.
9.4 Concluding remarks on theoretical and methodological reflections

To my knowledge, this is the first social science study to combine the theoretical concepts of Cultural Schemas and the HBM to assess health-seeking behaviour with respect to malaria and diabetes among adults in rural communities of Tanzania. The use of these theoretical concepts and the conceptual framework that was developed enabled the study to gain in-depth information on how the wider community aspects (macro level) interrelate with the individual aspects (micro level) to shape the observed health-seeking behaviour for malaria and diabetes in the communities. The additional theoretical concepts that were applied broadened the explanations of the individual actions, contexts and experiences beyond their beliefs and perceptions. Methodologically, the use of FGDs and IDIs in studies of health-seeking behaviour is not new. However, the methodological trajectory of combining cognitive behavioural concepts, Cultural Schemas and the HBM, and the theoretically informed data collection guides in health-seeking behaviour studies is new, especially in the context of epidemiological transition and specifically in the setting of rural Tanzania. This trajectory makes a unique methodological contribution to health-seeking behaviour studies. The grounding of the data collection guides and the research methods into theories contributes to increasing the credibility and validity of the study findings.

9.5 Some considerations on the choice of study site

The initial plan of this study was to engage adult community members from the general population in the FGDs about diabetes and the related health-seeking behaviour. However, the main finding from the pilot study suggested limited awareness and knowledge about diabetes signs and symptoms among the members of the general community in both the semi-urban and the rural villages. This observation led to changing the type of participants for the diabetes focus group discussions; we therefore had to change the site for participant recruitment, as well. To ensure participants were aware of the condition and for easy follow-up during the discussions, neighbours, diabetes patients and or people related to diabetes patients were recruited for the focus group discussions instead of the general community members. Although this change meant a shift to those who were aware of the condition, it gave strength to the study by getting the intimate opinions and views about the condition from participants who had directly or indirectly experienced the diabetes condition. To capture the rural perspectives on diabetes, the diabetes clinic in Ifakara town was involved as a replacement for the rural village in order to provide access to diabetes patients who were coming to the clinic from the surrounding rural villages for their monthly clinic visits. Findings were reported to represent the perspectives on diabetes based on the views, opinions and experiences of the diabetes patients themselves and their neighbours and/or people related to them and their family members.
This study was conducted in a district with a long history of malaria infections \textsuperscript{[18-20]} and more than 50 years exposure to intensive malaria prevention and control interventions \textsuperscript{[20-22]}, by the Ifakara Health Institute among other malaria control and prevention stakeholders. The district is also experiencing emerging conditions of diabetes, among other NCDs \textsuperscript{[20, 23]}. This setting provided a unique opportunity to see how cultural aspects in such a context shaped disease perceptions and the related health-seeking behaviour, especially with the decreasing malaria trend and the emerging NCDs such as diabetes. While the characteristics of the study settings are unique, the health-seeking behaviour and the illness experiences reported in the study are likely to be relevant to other rural settings in Tanzania and SSA because of the shared strains of malaria and diabetes. Using the findings from this study to develop a survey would be recommended.

9.6 Implications of the findings, recommendations, and future research directions

This section is divided into three sub-sections examining how the study findings could make important contributions to inform current efforts towards strengthening health-seeking behaviour for malaria and diabetes and thereby improving the patients’ wellbeing in Tanzania. These include health policy implications and recommendations; public health implications and recommendations, and implications for community initiatives and future research directions.

9.6.1 Health policy implications and recommendations

Tanzania adopted a new malaria treatment policy in 2006, like most of the SSA countries, to respond to the increasing antimalarial treatment resistance. The new policy is in line with the WHO recommendations on the use of artemisinin combination therapy (ACT), the efficacious antimalarial medicines, in the management of patients with uncomplicated malaria illnesses. A fixed dose-combination of artemether-lumefantrine (ALu) is recommended in Tanzania for treating such uncomplicated malaria cases. However, the findings of this study showed that the recommended anti-malarial treatments are not used because of the perceived fears about side effects from the new treatments and because of the preference for “single doses”. Future anti-malarial treatment policy changes can consider providing continuous information about the safety of the new treatments in the community and take into account the communities’ preferences for dosage durations. Taking people’s perspectives into account in the treatment policy changes is more likely to strengthen the uptake of the new treatment recommendations in the community.
The narrative review findings in the study showed that NCD prevention and control efforts in the Tanzania are fragmented due lack of an overarching national NCD policy. The findings of this review demonstrate the multifaceted nature of the NCD risk factors and their social determinants and underline the need for a national policy on NCDs that would acknowledge the multifaceted nature of the NCD conditions and promote a multi-layered approach to their prevention and control. The narrative review results show that most of the NCDs risk factors are modifiable behavioural risk factors (such as tobacco use, physical inactivity, unhealthy diets and alcohol abuse) and indicated the need for an NCD policy that could provide room for community empowerment and engagement throughout the process of NCD prevention and control.

9.6.2 Public health program implications and recommendations

The study findings showed that communities’ cultural meaning system and schemas about malaria motivate malaria self-medication and treatment practices with the use of anti malaria monotherapy treatments. The continued use of the anti malaria monotherapy treatments in this study has implications for inappropriate use of anti-malarial medicines that could undermine treatment outcomes by stimulating development of drug resistance and treatment failures, as well as prolonged illnesses. This study finding suggests a need for public health programs on malaria control to consider community schemas vis-à-vis malaria self-care practices and to continuously emphasize the advantage of taking the recommended treatments. Such efforts are likely to contribute to informed decisions about which antimalarial treatments to use and will encourage the uptake of the recommended treatments in the community to improve patients' health outcomes.

The findings of the study showed that awareness and knowledge about diabetes signs and symptoms is limited to the community and that the prevailing cultural schemas on infectious diseases are used to interpret and assign meaning to the emergent diabetes symptoms. This contributed to misdiagnosis of diabetes by the patients themselves and informed them to use anti-malaria medications, to consult traditional healers, and to attribute the emergent symptoms to witchcraft causes, and to HIV and AIDS. Furthermore, health professionals were misdiagnosing the condition, which contributed to a delay in the initiation of appropriate treatments. The findings of the study demonstrated the role of cultural schemas with respect to diseases in the community, insofar as they clearly shape individuals’ attitudes and responses, including health-seeking practices.

Public health programmes could capitalize on the existing cultural meaning system and schemas on diseases, health, and illness, and empower communities by 1) raising their
awareness and knowledge about signs and symptoms of diabetes and the NCDs in general; 2), addressing the associated stigma by explaining how NCDs such as diabetes differ from the infectious conditions like HIV and AIDS in their symptoms, and 3), engaging traditional healers by raising their awareness about diabetes signs and symptoms and seeking their collaboration in referring patients with such conditions to the formal health care facilities. Such programmes could be accompanied by strengthening of the health professionals’ knowledge on diabetes signs and symptoms and the integrated and improved availability of the NCD services including those of diabetes at primary level health facilities. This is because the higher awareness of diabetes and the NCDs in general may trigger higher demand of the related health services due to patients’ increased use of the primary level health facilities. These efforts could in general encourage prompt and appropriate health-seeking behaviour, enhance the quality of the services patients receive and minimize the delays experienced in diagnosing their conditions and initiating appropriate treatments and care.

Additionally, public health programmes could consider implementing intensive health promotion interventions on lifestyle changes to prevent diabetes/NCDs and their related complications. Changing dietary practices was encountered as a belief among participants in this study, as a way to delay and/or avoid complications from diabetes. Public health programmes could build on this existing knowledge by promoting healthy food patterns in the community with the aim of enhancing the adoption of preventive measures against diabetes/NCDs.

The inclusion of some diabetes medicines in the national essential medicine list (NEMLIT) (chapter seven) suggests the governments’ intention to improve general access to these medications in the primary level health facilities, specifically for the rural populations. Notwithstanding this implication, in this study it was found that diabetes medicines and the services in general are not available in the rural areas. This study finding underlines the need of the government to improve availability of these medicines in the rural areas by taking actions to ensure effective implementation of NEMLIT.

The findings of this study showed that the affordability of the diabetes medications is the main challenge to diabetes patients’ medication use. Several behaviour strategies (such as dose omissions, using less of the required doses, sharing medicines among patients, borrowing cash and using up family assets) are employed as coping mechanisms by diabetes patients to ensure the continuity of medicine use. These practices can be detrimental not only to the patients’ social and economic welfare but also to their health. This study finding suggests a need for ongoing public health education programmes to empower people with diabetes to
make informed decisions on the use of their medication by elaborating on why patients need to take their medication: as per the medical professional recommendations, in order to prevent and/or avoid the associated complications. Efforts could be devoted to strengthening community risk pooling mechanisms such as community health insurance schemes and or public health subsidies for free care for patients with NCDs. This could contribute to reducing patients’ out-of-pocket payments to access their medications and thus ensure their likelihood of actually continuing the use of medicines as needed.

The study findings showed that the accounts on illness experiences regarding the day-to-day living with a chronic NCD such as diabetes is shaped by unpredictable health outcomes, functional incapability, frequent loss of consciousness, libido and memory, limited social life, and increased stress and tension. This study finding suggests that public health interventions targeting the improvement of patients’ quality of life could learn from the patients’ perspectives through the patients’ explanatory model of illness in order to achieve a better health outcome. At the individual level, clinicians could be more attentive to the patients’ emotional, psychological, economic and physical health experiences, as these can influence the way patients respond to the illness.

9.6.3 Implications for community-driven initiatives and future research directions
Community participation in health promotion is one of the important aspects of improving community health and wellbeing and is a key aspect for the success of primary health care initiatives. However, effective community-driven initiative programmes require effective advocacy strategy to encourage communities to play an active role in disease prevention, management and control. The findings of this study could contribute to shaping such advocacy programmes for community initiatives to prevent and control malaria and diabetes conditions. The perceptions associated with diet, for example, in the development of diabetes and its complications could inform advocacy activities for promotion of healthy eating in the community. The findings on the use of medications and continuity of care could be used to inform advocacy strategies for the development of community care and support groups in the treatment and management of the conditions. The current initiatives in the country to use Community Health Workers (CHWs) to provide maternal and child health services could be strengthened to incorporate the provision of diabetes services such as blood sugar monitoring and medication refills. These CHWs could also act as a bridge between the community and the primary health facilities by raising community awareness on signs and symptoms of diabetes among other NCDs, encouraging prompt and appropriate care seeking and use of the medications, and encouraging practices leading to lifestyle and behaviour change in the community.
The public health challenges that we face in the 21st century in terms of the infectious and chronic non-communicable diseases are complex and require a broadened approach in their prevention and control. Engaging community perspectives and voices and encouraging community partnerships and actions in identifying mechanisms and ways to solving the health problems could be among the important aspects for such approaches. With respect to this study in particular, it would mean that policies and public health programmes for strengthening health-seeking behaviour would need to:

- Promote informed decisions on the choice of which anti-malarial medication to use and encourage the people to use them in the correct way, taking into account the existing cultural knowledge and behaviours in which these choices are embedded.

- Improve the general understanding of the differences between the symptoms of infectious diseases versus chronic non-communicable diseases, as well as their manifestation and management. This could also help communities broaden their understanding of the risk factors associated with these conditions and develop locally embedded programmes for their prevention and control.

- Empower people with diabetes to make informed decisions on their use of medications and continuity with care. This should be accompanied by a strengthening of the diabetes health services by ensuring their affordability and their consistent availability, especially in the rural settings

- Consider patients’ accounts on emotional, psychological, economic, and physical health vis-à-vis their illness experiences when tailoring interventions to help patients and their families cope with their illness conditions

The depth of understanding of health-seeking behaviour of malaria and diabetes in this study raises some concerns that could guide future research directions. Specifically, there is a need for (i) understanding the underlying motives for people’s choice of specific anti-malarial medicines for self-medication and treatment. Such information would contribute to tailoring targeted interventions for encouraging the use of appropriate and effective anti-malarial medicines; (ii) assessing how the medical professionals diagnose diabetes among their patients. This assessment could help in identifying knowledge gaps on diabetes’ diagnosis and treatment among the medical professionals and contribute to developing specific interventions for strengthening early diagnosis and treatment of the condition; and (iii) assessing how chronic NCDs such as diabetes impact families’ relationships, function and
economic well-being as well as how different socio-cultural factors impact the illness experiences. Obtaining this information could help in developing context-specific strategies for making living with diabetes less challenging and for improving the relations, functional and economic well-being of the patients and their families.

9.7 Concluding remarks on study implications
This study provides important findings for a greater understanding of the decision-making processes and health-seeking behaviour for diabetes in the context of infectious conditions like malaria as a predominant illness in rural settings. Such information is important for policy makers and for public health practitioners and those concerned with improving the quality of life for all people. It can also contribute to designing interventions that could help people with chronic illnesses live a better life. In general, the findings of this study can contribute to shaping context-specific interventions for (1) strengthening peoples’ decision-making process for malaria self-care practices; (2) raising awareness about the emerging signs and symptoms of diabetes and NCDs in general; (3) strengthening the behavioural practices that shape the experiences of medication use and the continuity of care; and (4) improving illness experiences of people with chronic NCDs such as diabetes for improved health and well-being. The findings of this research thus make an important contribution to future research and policy formulations.

References


