



# A study into the effectiveness of Outreach Clinics in addressing access to health services for rural communities in Malawi: A perspective of Mzimba and Salima communities' access to health services.

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## Abstract

This study investigates the effectiveness of outreach clinics in addressing access to health services for rural communities in Malawi: a perspective of Mzimba and Salima communities' access to health services. Access and utilization of health care is essential for the maintenance of overall health and prevention of chronic diseases. Long distances to the nearest health facilities by communities living in rural and hard to reach areas is a prevalent challenge in Malawi. The Government of Malawi-Health Sector Strategic Plan III, 2023-2030, outlines the plans to improve access to health services for all by providing mobile outreach clinics in rural areas. The theoretical and conceptual frameworks were used to explore the effectiveness of the scheduled outreach clinics in designated places in villages and provide health services to community members.

Specifically, the study focused on three objectives as follows; the effectiveness of the scheduled mobile outreach clinics in hard-to-reach communities; the community satisfaction in the frequency of the provision of health services in the targeted communities, and identify perceived reasons for low sustainability of the outreach clinics in rural hard-to-reach areas.

A combination of descriptive, correlation was used to objectively acquire and deduce conclusions about the study topic. A quantitative survey using a structured questionnaire administered to the sampled general population and Key Informants. 406 respondents from areas of T/A Kampingo Sibande and Khombedza which represented 32% males and 68% females. A total of 10 community health workers were interviewed.

Upon careful analysis and examination of the study's finding and discussion, the research identified key

factors that affect the efficacy of the mobile outreach clinics. These factors include the lack and inadequate consultations of communities' members on the scheduling of the dates which should be convenient to both service providers and the communities; The inadequate engagement of community development structures i.e. village health committees, village development committees on dates and place for the clinics; The low integration of the services provided during the clinics; The health authorities being not sensitive to the preferred services, and being not sensitive to the prevailing and common illnesses in the targeted communities.

The implications of these findings, along with the corresponding recommendations, have the potential to shape policies and strategies aimed at improving the access to integrated health services, and effectively improving the quality of services that are context specific and meet the needs of the communities. The health authorities should have prioritized the community preferred schedule related to other community events or integrate it with other community contextual issues through community engagement.

**Key words: access to health services; mobile outreach clinics; community participation**

## I. Introduction

Malawi is one of the world's least developed countries with Gross Domestic Product (GDP) estimated at 11.6 billion US dollars (United Nations Development Programme, 2014). It borders Mozambique, Zambia and Tanzania. The country is compounded with a number of health-related challenges. Access to timely and quality healthcare remains a development challenge. Chronic child malnutrition, maternal mortality rates and HIV/AIDS



prevalence remain high (Munyua, Rotich & Kimwele, 2015). Average life expectancy is estimated at 46.3 years, adult literacy (64%), GDP per Capita (USD 667), and the proportion of under-five who are underweight remains high (22%) (United Nations Development Programme, 2014).

According to family health international (FHI360), An outreach clinic is a **need-based model of service delivery**. In this model, clinical services are provided usually to a group of 20 to 50 SWs in one or more adjoining sites who are unable to access services at the static clinic.

An outreach clinic means a facility designated by a regional contractor to provide covered medical services or cover support services in a setting other than a regional clinic. Therefore, it involves going to the community conducting clinics, providing physiotherapy and issuing various appropriate appliances for various disabilities to the rural masses. This takes place in designated structures/shelters agreed by the local authorities. These act like peripherals to the hospitals, health centers and mission hospitals in a specified catchment area. Unlike marketing, outreach does not inherently revolve around a product or strategies to increase market share rather it is the effort by individuals or group to connect its ideas or practices to the efforts of other organisations, groups, specific audiences or the general public. Outreach services are one of the possibilities to enhance access to health workers and to improve overall retention at country level (Geoffrey et al 2014).

Malawi has had several grand development strategies since independence. What is striking is the fact that whereas community development was clearly and sharply articulated and prioritized in the first-generation grand development strategies, it has almost disappeared in the second-generation grand development strategies (Kayuni and Chinsinga, 2008). Access to health services is one of the focus areas in the strategy. Over 84% of Malawian population lives in rural areas, depend primarily on the fixed government health facilities (Geoffrey and Kizito 2014). According to studies, these rural dwellers travel a minimum of 5km to access these health facilities, as most of these facilities are not in their vicinity. Long travel in seek for health facilities put the lives of these individuals at risks of either being sexually abused or harmed. Leading to higher occurrence of sexually transmitted infection. Therefore, there is a need of outreach Health Clinics to help in solving some of these health problems.

In September 2015, the General Assembly adopted the 2030 Agenda for Sustainable Development that includes 17 Sustainable

Development Goals (SDGs). Building on the principle of “leaving no one behind”, the new Agenda emphasizes a holistic approach to achieving sustainable development for all. One of the key sustainable development goals of focus is goal number **3- Ensure healthy lives and promote well-being for all at all stage**. The Sustainable Development Goals agenda was accepted by all members of the United Nations in 2012 at the Rio De Janeiro Council Meet with an aim to promote a healthy and developed future of the planet and its people. It was in 2015 when the Sustainable Development Goals were implemented after a successful fifteen-year plan of development called the Millennium Development Goals. The government of Malawi is a signatory to the sustainable development goals.

The ministry of health is mandated to provide the services in all the district councils. The service is done in the health facilities which are at different levels, i.e. health post, health centers, rural hospitals, district hospitals, and referral hospitals. The integrated outreach clinic services have even considered in order to reach out to rural communities with health services thereby improving the access to health services to rural communities that live in the hard- to- reach areas.

The government of Malawi through the Ministry of Health and its partners is implementing the integrated outreach clinics in targeted communities which have limited or no access to health facilities in the country. The aim is to reach out to communities with limited or no access to health services, considered that these services are provided in the tailor-made facilities. This is some attempts to meet the commitments on universal access to health and well- being (Geoffrey and Kizito 2014.)

## II. Literature Review

According to different studies on public health conducted in Malawi, it has proven beyond doubts that Malawi is in deficit of health workers and health facilities, especially in rural area. This factor has led to more burden on prevalence of issues of Malaria, Cholera as well as human immunodeficiency virus (HIV) infection. Over 84% of Malawian population lives in rural areas, depend primarily on the fixed government health facilities (Geoffrey and Kizito 2014). According to studies, these rural dwellers travel a minimum of 5km to access these health facilities, as most of these facilities are not in their vicinity. Long travel in seek for health facilities put the lives of these individuals at risks of either being sexually abused or harmed.



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According to Alejandro Jimenez, 2019 in his rapid review suggests that mobile healthcare models have been shown to be valuable assets in providing healthcare services to underserved populations throughout the nation. The included literature also supports the claim that mobile clinics are a cost-effective and successful healthcare model. Through the careful planning and assessment of the needs of the community, mobile clinics can assist the community in ways other healthcare models cannot. The ability to drive to the patient has been shown to increase trust between patients and providers among those who are most vulnerable. Mobile clinics have also been shown to improve the overall health of underserved populations when compared to patients seeking care at other facilities. Continuous research is needed to address the limitations of mobile healthcare clinics so that the scope and capacity of these clinics can be improved (Jimenez, 2019). Integration of mobile clinics into existing healthcare systems, can help address and reduce their limitations, allowing them to combat the healthcare disparities that affect this nation.

Lemaire (2011), stated that, mobile Health initiatives have reached in far remote areas and is meeting the health needs of the vulnerable populations in so doing, improving the health of these individuals. In addition, according to WHO (2011), the implementation of mobile Health programs has also demonstrated positive impact on health outcomes in Africa, such as reducing mortality, decreasing the rate of contracting diseases, and leading to long life spans. Studies have also shown that, mobile Health initiatives have also managed; to address and overcome disparities in health services, inadequacies of infrastructure within countries, shortages of professional health workers, high cost of accessing health services, and limitations on the availability of financial resources (Mendoza, et al, 2013). In Malawi, mobile health cares have been used to expand access to HIV and AIDs health services (Geoffrey et al; 2014).

Although mobile health clinics are significant in improving lives, but there are meeting resistance in their implementation. There are issues of resistance in adoption of mobile health in most of African communities (Aitken, 2015). Studies done by Nyemba-Mudenda and Chigona (2013) found that mobile health clinics are on a rise in Africa, but the majority of the initiatives are not implemented and most of them are abandoned during pilot phase, hence

failing to deliver accessible healthcare services. In testing the efficacy of this initiative, mobile clinics have been introduced in different areas, but in most of these areas, there have been no to less effective results, due to inadequate personnel, lack of adequate monitoring and evaluation, lack of incentives, low literacy levels, cultural barriers, and inadequate finances to up scale the projects. In addition, lack of interoperability, privacy and security issues remain the major impediments to the success of mobile Health in Africa (Kaller, et. al., 2013).

### III. Statement of the problem

The research problem might occasionally be used as synonym for research gaps. However, it focuses on the function as an input for research since a research problem is a problem statement that is resolved by the means of a research (Jacobs, 2011) A problem statement represents “a gap in sets of information that, when examined carefully, results in a call for action for action or resolution” (Jacobs 2011, p.127), and “research seeks to resolve the desperate sets of information through the generation of new knowledge and the introduction of theory” (Jacobs 2011, p.128).

In this study, the researcher is exploring the efficacy of mobile outreach services which aim at improving access to health services in rural communities which are hard to reach. Access to health services is rural Malawi. The health services are often provided in facilities which are tailor made to provide a continuum of support to provide relief and cure to illnesses. These facilities are often located in centers with access to electricity and safe water which in most cases are trading centers. The population in rural areas which are often at a distant of not less than 10km to the nearest health facility (Government of the Republic of Malawi, Health Sector Strategic Plan III, 2023-2030, reforming for Universal Health Coverage, First Edition). The Ministry of Health through the District Health Office often include monthly outreach clinics to the hard-to-reach areas, which are very far from the nearest health facilities, in their plans. These scheduled mobile outreach clinics are in some cases also supported by partners i.e., Malawi Red Cross Society. As Jacobs notes, research problems must be derived, for example, by means of literature reviews, therefore, research can also be conceived as an output.

Jacobs (2011) identifies six kinds/forms of research problems; Provocative exception, contradictory evidence, knowledge void, action-knowledge conflict, methodological conflict, and theoretical conflict. Despite the schedule mobile outreach clinics to the rural communities by the



health authorities, there is little knowledge on the effectiveness of this approach to address the access to health services and satisfaction of the rural communities.

#### IV. Significance of the study

The concern is that the rural communities' morbidity from different illness is constant and on almost daily basis, however, there is little knowledge as to whether the Ministry of health approach through integrated outreach clinics on the monthly basis is effectively addressing the health services needs of the targeted communities. Efforts have been put in place to ensure that communities sustain the health living are attended to when they have ill health (DHIMS 2022), however there is little knowledge on community satisfaction of the periodic health services offered and how it is consistently conducted.

It is based on the above problems as the rationale for proposing to carry out the research to find out and explore factors on the effectiveness of the mobile outreach clinics in the hard-to-reach areas as the health authorities. The community satisfaction and sustainability of the initiative will be explore using the Mzimba and Salima perspective under the project supported by Malawi Red Cross Society in Khombeza and Kapingo Sibande.

The scientific evidence through this research study, will help policy makers, community-based project implementers and donor community to realize the need to support the community needs in accordance to the priority needs ranking, rather than generalized interventions if the sustainable development goals (SDGs) are to be attained, thus drawing lessons from failure to attain most of the Millennium development Goals (MDGs).

#### V. Scope of the study

It is based on the above problems as the rationale for proposing to carry out the research to find out and explore factors on the effectiveness of the mobile outreach clinics in the hard-to-reach areas. The community satisfaction and sustainability of the initiative will be explore using the Mzimba and Salima perspective under the project supported by Malawi Red Cross Society in Khombeza and Kapingo Sibande.

The study focused on the effectiveness of the mobile outreach clinics bordering on the scheduling of the clinics, places where the services are provided, the actual services being provided and by what combination of the cadres of the health workers. The involvement and participation of the community structures and the population at large was

reviewed to link with the sustainability of the initiative. The study looked at the reason for any actions or plans not being consistent with the plans for the services.

#### VI. Objectives of the study

The main objective of the study is to explore and assess effectiveness of Outreach Clinics in addressing access to health services for rural communities in Malawi, A perspective of Mzimba and Salima.

##### Specific objectives

The following are specific objectives for the research;

- I. To assess the effectiveness of the scheduled mobile outreach clinics in hard-to-reach communities.

- II. To explore the community satisfaction in the frequency of the provision of health services in the targeted communities.

- III. To identify perceived reasons for low sustainability of the outreach clinics in hard-to-reach areas.

#### VII. Methodology

The goal of this research is to generate data, analyze it so that information is deduced for the research paper in order to arrive at a meaningful conclusion of the problem or questions. A clear step by step procedure leading to empirical evidence and deduced conclusion and recommendations helps to influence authorities to improve on the health service delivery to rural hard to reach communities. As outlined above, the explicit knowledge in literature about the effectiveness and community satisfaction on the mobile outreach clinics is limited. Thus, additional information is required to enable the construction of empirical evidence for decision makers. This research will employ both deductive and theories as a methodology.

##### a. Sampling size and area

The study areas of Mzimba and Salima are in the northern and central region of Malawi. The Northern Region is less densely populated (63 persons per km<sup>2</sup>) but Salima, which is situated in the Central Region, shows a much higher population density of 155 persons per km<sup>2</sup> and a corresponding lack of safe water and poor sanitation, particularly in schools. The terrain of Mzimba is hilly, undulating and landlocked with a moderate climate; Salima is flat at the lakeside, with a hot climate.

The researcher will explore the targeted study areas where the outreach clinic services are being offered by the local health authorities in line with the health sector strategic plan III (2023-2030).



These are the areas where government partners i.e., Malawi Red Cross Society support the local authorities to execute the plans.

These areas are selected from the districts of Mzimba, in Northern part of Malawi, and Salima in the Central region of Malawi. Specifically, T/A Kampingo Sibande and T/A Khombedza respectively.

The population for Mzimba is 703,677 with 57,079 for T/A Kampingo Sibande; and Population for Salima is 478,346 with 91,000 for T/A Khombedza.

In order to collect primary data, the questionnaire survey technique will be used. For the purpose of this study random probability sampling was selected. As Rescoe (1975) cites in Sakaran (2000:296), "sample sizes larger than 30 and less than 500 are appropriate for most research". Having in mind these limitations, the sample size consisted of about 406 community members, and 10 health workers from the targeted areas in the two districts of Mzimba and Salima.

#### **b. Source and method of data collection**

For the purpose of this research, and in order to achieve the objectives, both primary and secondary data was collected. The secondary data contributed toward the formation of background information needed by both the researcher, in order to build constructively the conclusions project and, the reader to comprehend more thoroughly on the survey outcome.

Primary data was collected in two ways. Firstly, a questionnaire survey was administered to individuals, and community influential people/gatekeepers, in the impact area. Secondly, interviews were carried out with key service providers and focus group discussions.

The data collected was entered and analyzed using statistical packages of SPSS 20.0 to generate means, standard deviations, frequencies, percentages and cross tabulations on the efficacy of the outreach clinic services. And this was complimented by R-Project to test the hypotheses. Conclusion was based on analysis of parameters (refer to the tables and figures in chapter 5). Microsoft excel was also used to formulate some figures.

Components of sustainable Assessment Criteria was used in the analysis and drawing up conclusions. (Shediac-Rizkallah et al, 2008).

For the qualitative data which looked at the satisfaction of the mobile outreach clinic services from the perspective of community health workers, the Researcher analyzed the data using content analysis which is a method for identifying, analyzing, and reporting available patterns and themes within the responses. The responses were transcribed them verbatim in MS Word 2019 (Microsoft Corporation,

Inc, Redmond- Washington). The data coding was carried out manually by researcher familiar with qualitative studies. The sentence was considered as the unit of analysis in the current study. After the initial coding, classifying the codes and extracting the themes were conducted by all team members in two stages: individually and in group discussions. For this purpose, each team member first classified and themed the initial codes based on a process pattern. In the next step, the team members shared their perspectives with each other. After discussing each case, the final ranking was compiled. The steps of the analysis and coding of the data included the following:

- I. Familiarity with the responses in the satisfaction indicators matrix,
- II. Identification and extraction of primary codes related to the indicators (identification and extraction of more related data to primary codes),
- III. Identification of themes (placement of primarily extracted codes in the associated themes),
- IV. Reviewing and completing identified themes, naming and defining them, and,
- V. Ensuring the reliability of codes and the extracted themes (reaching an agreement between the two coders through discussion and resolution of disputes in the research team).

Data collection-raw data was done through ODK. Preparation-the data cleaning was automated and skip method in ODK was used to remove unnecessary and inaccurate data.

Input- entry using ODK uploaded in smart/android phones. The data was then stored in to an online central saver. The data was then downloaded into excel sheet ready to be exported into SPSS 20.0 application for processing.

Processing- After the data is entered/exported in SPSS. It was properly coded and further screened using the computer-based SPSS 20.0. Automated analysis was done to give outputs in line with the objective of the study. Several tests to be run to give further outs and help to prove or disapprove the hypotheses. Batch processing is being used  
Output –With the SPSS the desired results or outputs were displayed in the readable form like graphs, tables in this study. (Refer to example in the next slide that follow)

Storage- The data in this study is stored in the online saver and personal computer for backup and is being retrieved for further analysis.

The correlation and regression were used to test the hypotheses suggested as the researcher attempted to answer the research questions.



- (i) The effectiveness of the scheduled mobile outreach clinics in hard-to-reach communities is not consistent.
- (ii) The community satisfaction in the frequency of provision of health services in the targeted communities is not good.
- (iii) The sustainability of the schedule mobile outreach clinics in hard-to-reach areas is very low.

### c. Research Question

The question(s) which necessitates the study are as follows;

What is the effectiveness of Outreach Clinics in addressing access to health services for rural communities in Malawi, a perspective of Mzimba and Salima

I. Is the approach effective enough in addressing the access to health services for the rural communities and reduce mortality rates of common illnesses?

II. Is the approach sustainable and have adequate participation of the community members in meeting the access to health needs?

III. Is the community satisfied with the approach and the health services being accessed through the mobile outreach clinics. (i.e., scheduling frequency etc.)

### VIII. Limitations

By definition these are characteristics of design or methodology that will have impact or influence the interpretation of the findings from the proposed research. The anticipated study limitation are as follows;

Limited access to data- The availability of the key informants was a challenge as the researcher had to wait a long period to be granted interviews for administration of the questionnaire. While others were not available and did not give feedback for those that were

Inadequate previous research conducted on the selected topic.

Insufficient sample size for statistical measurements.  
Time constraints as it has to be balanced with work schedule.

Issues with research samples and selection.

Like many other quantitative and qualitative studies, the present study faced limitations, including the fact that only two hard to reach areas were investigated in central and northern Malawi. Therefore, extending the results to other regions may not be reasonable.

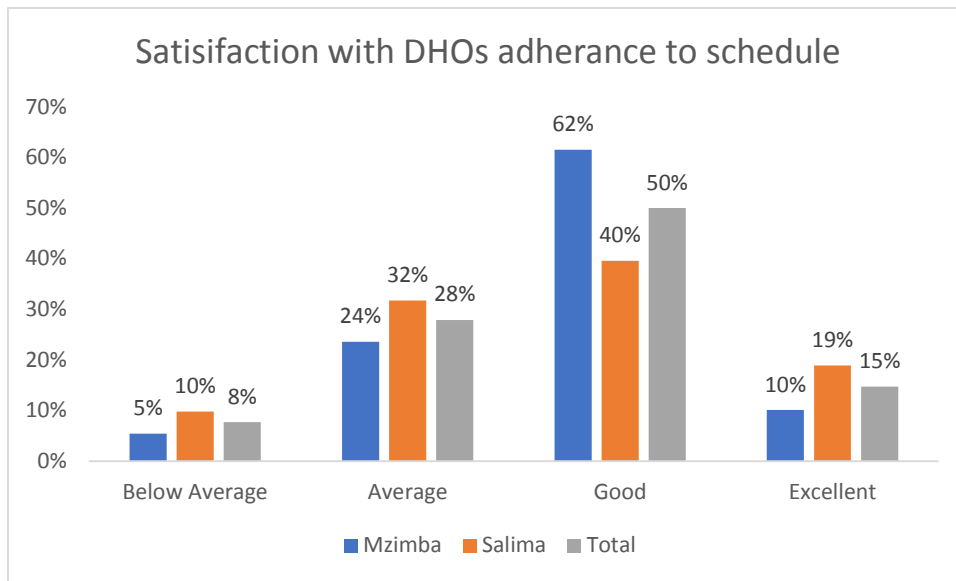
On the other hand, there is a lack of structured documentation systems based on which the experiences and performance of the health system in attracting community participation in primary health care can be extracted. To solve this issue, we tried to interview all the experienced individuals in the district health network and record their oral experiences

### IX. Discussions of Findings

The provision of the services in the community regarding the frequency of the mobile outreach clinics is monthly according to respondents from Mzimba who are at 93.1% as compared to the respondents from Salima at 58.4%. There a significant number of the respondents (33.9%) in Salima who responded that the services are being provided on weekly basis with Mzimba at 3.5%. (Figure 2). There were also a considerable number of the respondents that are not aware of the frequency the health authorities provide the mobile outreach services (1.5%) of the total respondents in both districts; whereas 4.4% reported as the services being offered every two weeks in their respective areas. This overall results on the frequencies have disparities in responses which may suggest that not all communities are aware of the frequencies of the outreach clinics.

The study also looked at the consistence of the scheduled mobile outreach clinics. 84% of the respondents were able to say that the schedule clinics are consistent with the plan which the health authorities do set. The remainder of the respondent (16%) said the schedule is not consistent and attributed it to the following reasons; Inadequate transport, Inadequate Fuel, Inadequate health personnel, and Not a priority by district health office.

The satisfaction of the respondents regarding whether the district health authorities who are responsible for arranging the mobile outreach clinics in the community is varied. Overall, the respondents rated as good at 50% of them satisfied with schedule of the clinics, and 27.9% of them rated average regarding the adherence to the set schedule of the mobile outreach clinics. The results have shown that the health authorities are not consistently organizing the and providing the services as per schedule. Salima rated 39.6% of the respondents as good regarding the adherence to the schedule which is slightly below the average aggregate for both districts which is 50% (Refer to Figure below)



The results are indicative that the clinics are not consistent and has an effect on the sustainability of the services in the communities.

The involvement of the district health office in choosing the venues. The study result has shown that almost equal responses regarding the involvement of the communities on the choice of the venue convenient to the community. The result has shown that 51.5% of the respondents were not involve in the choosing the place to be conducting the mobile outreach clinics. 48.5% responded as being involve and or aware of the community structures being involve in choosing the place for conducting mobile outreach clinics. The community participation on the place is related to the choice the specific day for the outreach clinic.

The study also looked at the involvement and participation of the community structures in supporting the mobile outreach clinics by the health authorities. Key relevant community structures i.e., Village Health committees (VHC), Community Health Action groups (CHAGS), Village

development committees, Area development committees (ADC), Community-Based Child Care centres committees, mother groups etc., are very important and contribute to the improvement of health seeking behaviors. The 60.2% respondents in the study two study areas mentioned VHC as the lead community structure that support the district health authorities during the outreach clinics, village development committees were at 31.6% followed by CHAGs at 21.5%. There are notable variations among the respondents from the two study areas regarding the activeness and involvement of the community structures regarding their involvement in the provision of the mobile outreach clinics. For example, a small portion of the respondents mention CHAGs at 8.7% in Mzimba, whereas respondents from Salima, 31% mentioned this structure. One key structure which is very key to developmental issues in the community is the ADC. 8.2% Respondents in Salima mentioned the ADC structure as being involve in the support for the provision of the outreach clinics.

#### Community Structures Supporting Clinics.

District name	VHC	CHAGS	VDC	ADC	Others
<b>Mzimba</b>	109	15	64	42	25
	63.00%	8.70%	37.00%	24.30%	14.50%
<b>Salima</b>	135	72	64	19	26
	58.20%	31.00%	27.60%	8.20%	11.20%
<b>Total</b>	245	87	128	61	51
	60.20%	21.50%	31.60%	15.10%	12.60%



In relation to the participation of community structures is the actual utilization of the facility during the sessions. This also is linked to the awareness of the existence of the outreach clinics which are conducted and scheduled in their respective areas.

## X. Suggestions and Recommendations

The results are indicative that the scheduled mobile outreach clinics are not consistent in adhering to the set dates and has an effect on the sustainability of the services and the full commitment in the communities. The communities are not sure of the availability of the services on the set dates. (Ling et al 2015) recommended the following in their study;

**Strong Community Partnership:** Community volunteers and other stakeholders such as Village headmen were not included in the initial planning of the mHealth projects (Ling, Karnowski, Pape, & Jones, 2015). Therefore, the Ministry of Health should develop a strong partnership with community members to enhance local ownership that is a precursor for the sustainability of the mHealth programmes at both local and national level.

• **Frequent Monitoring and Evaluation:** From the projects piloted, it is not clear how many times these projects were evaluated and what tools and methodologies were employed. Using effective monitoring and evaluation tools and methodologies may help analyze long-term impacts and measure the success or failure of mHealth interventions in the country (Nyemba-Mudenda & Chigona, 2013). Similarly, frequent monitoring and evaluation mHealth projects need to be conducted not only for feasibility purposes, but also for the overall impact of health outcomes.

The participation of community members and their leadership through community structures should be enhanced and this will ensure that services provided through the mobile outreach clinics are context based and tailor made to address the health needs of the specific communities.

The is need to review the way integrated mobile clinics are organized and run by the health authorities as results from the study has revealed that the clinics provided in the study areas are selective and limited in services provided.

## XI. Conclusion

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