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*Full Length Research Paper*

# Health Information needs and health information seeking behavior among small farmers at Kilimanjaro Region – Tanzania.

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The purpose of this study was to investigate the health information needs and health information seeking behavior of small scale farmers. In a survey questionnaire that was triangulated with interviews and observation, a random sample of 241 small scale farmers - 150 men and 91 female - were selected from 264 households in two (2) nearby villages namely; Marangu and Rombo. The Statistical Package for Social Sciences (SPSS) was used to analyze quantitative data. The research considered the mechanisms, procedures and methods to effectively identify health information needs and seeking behavior. The results showed that a predominant 90% had little or no formal education (standard seven, 42%; and not educated, 48%) whilst there were no significant differences between genders at different educational levels compared. Sources/formats of information available to respondents were found to be inappropriate and did not adequately meet their health information needs (books, 31%; magazines, 28; and seminars, 14%). The three most appropriate and preferred formats/sources of respondents' health information needs were found to include radio (47%), television set (15%) and village clinic (18%). The purposes for which respondents required health information included disease prevention, 32%, treatment of disease, 23%, transmission of disease, 23%, the care and support for disease, 14%, and disease counseling, 8%. Poverty and low level of education were the two most dominant factors that were found to have significant influence on respondents' information needs and information seeking behavior. Suggestions made to improve the information needs of farmers included a community radio service, a community clinic, and functional literacy programs, training in the use of mobile phones that will facilitate communication of health information between and among respondents. The use of community health outreach services through community health meetings, workshops or seminars have also been recommended to help to improve on the health information gap of rural farmers. It is envisaged that these suggestions, if implemented, will go a long way to positively impact on their health information needs, enable them stay healthy and improve on their farming business for self as well as socio-economic development.

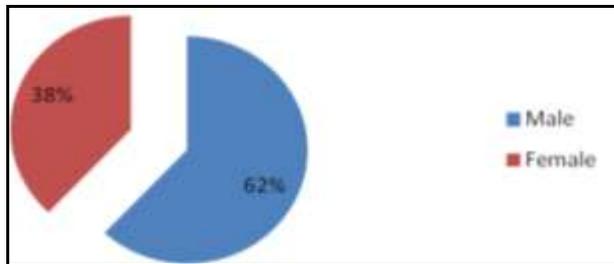
**Keyword:** health information needs, small scale farmers. socio-economic development

## INTRODUCTION

Health care has changed significantly over the last few decades, with greater emphasis on self-management for long time health conditions and personal responsibility for maintaining good health (James, 2010). Small farmers who constantly manage their farm businesses in order to remain competitive in a changing world require a variety

of health information in order to remain healthy to perform their farming activities. In the observation of Hirsch (2000), access to appropriate, relevant and preferred sources of health information are critical among small farmers who need to build confidence in caring and maintaining good health. Hirsch (2000), notes that rural farmers social context and low level of education revealed problems of accessing and identifying appropriate health information.

According to Smith and Dumant (2009), level of education and social group are important in navigating



**Figure 1.** Gender Distribution of Respondents

health systems and in getting the right care when needed. Low health information literacy levels are likely to be more prevalent among ethnic minorities, older people, low socio-economic groups and those with long-term health problems and disability. In addition, low health information literacy levels impact a number of aspects of health for individuals, including knowledge, health status and the use of health services. Understanding of everyday health information is not necessarily enough to enable an individual to make sense of their health needs, treatments and services (Smith & Dumant, 2009). The need for health information among small farmers is just one of the elements of effective, empathetic and honest communication between public and health personnel. Johnson et al (2001) reports that, health related topics are relevant to a diverse array of people. This has made health information seeking a rich area to study on how people look for information and create interventions in support of their wellbeing. The concept of everyday life information seeking (ELIS) suggests types of information seeking that individuals are engaged in to solve problems or orient themselves in daily life and which are not directly related to their occupational information tasks (Savolainen, 1995). An important role of health information is to allow individuals to cognitively and behaviorally attempt to gain control over health related events (Johnson et al, 2001). Small farmers use health information seeking behavior to collect a range of health information from a number of sources. This paper, hence, focuses on the needs and the seeking behavior of health information among small scale farmers.

### Statement of the Problem

The ever increased rural-to-urban migration has resulted in small farming being left in the hands of few rural dwellers who are mostly children, the aged and poor people. Such people suffer from chronic diseases and also lack health information and communication. Most studies on health information needs and health information seeking behavior have been found to focus on urban people and specialized groups such as students, females, or health workers. There is very little research on the information behavior and needs of small

farmers and rural people. Indeed there are no known studies of this nature in the study setting. The purpose of the study, therefore, is to assess how small farmers identify their health information needs and preferable sources of health information for their health development. Health information needs and information seeking behavior of these small farmers need to be assessed, documented for policy interventions, and amended in pace with the emerging digital world and culture!.

## METHODOLOGY

A convenient sample of 241 respondents was randomly selected in two rural villages of Marangu and Rombo for the study. This is made up of 150 men and 91 female. A self-administered approach was adopted for the survey.

## ANALYSIS

### Gender distribution of Respondents

The gender distribution of respondents showed that, of the 241 respondents, there were more male, 150 (62%) than their female counterparts that were recorded, 91(38%). This information is presented in figure 1. The study assessed the level of education among respondent farmers. The results in figure 2 and 3 present the results of the general level of education among respondents and the distribution by gender. The results in figure 2 indicates that, almost half of the distribution representing 48% did not have the benefit of any formal classroom education in which case, they were complete illiterates. This is followed closely by 42% that attained only standard seven educations, 10% for form four and only 1% who attained university education. In other words, a predominant percentage of 90% attained only either standard seven or is not educated at all. This indicates a low level of education among significant respondents.

The results of the gender distribution by educational level however did not show any significant differences among the respondents as illustrated in figure 3. Apart from the fact that no woman attained up to university level, the results at all the other levels of education appear to be similar.

An assessment of the sources/formats of information available to these rural farmers reveals very interesting results which did not appear to adequately meet their health information needs. The three most readily available formats available included books, 31%, magazines, 28%, and seminars, 14%. Since the farmers indicated that, these are not the preferred formats for their health seeking information; the study requested respondents to indicate what they think are the appropriate formats. Close to half of the distribution

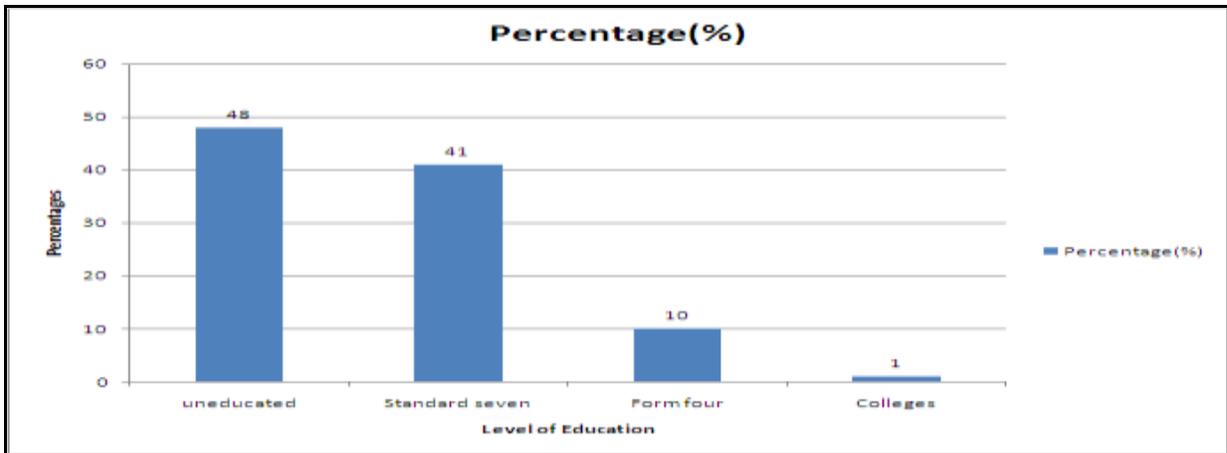


Figure 2. Level of Education of Respondents

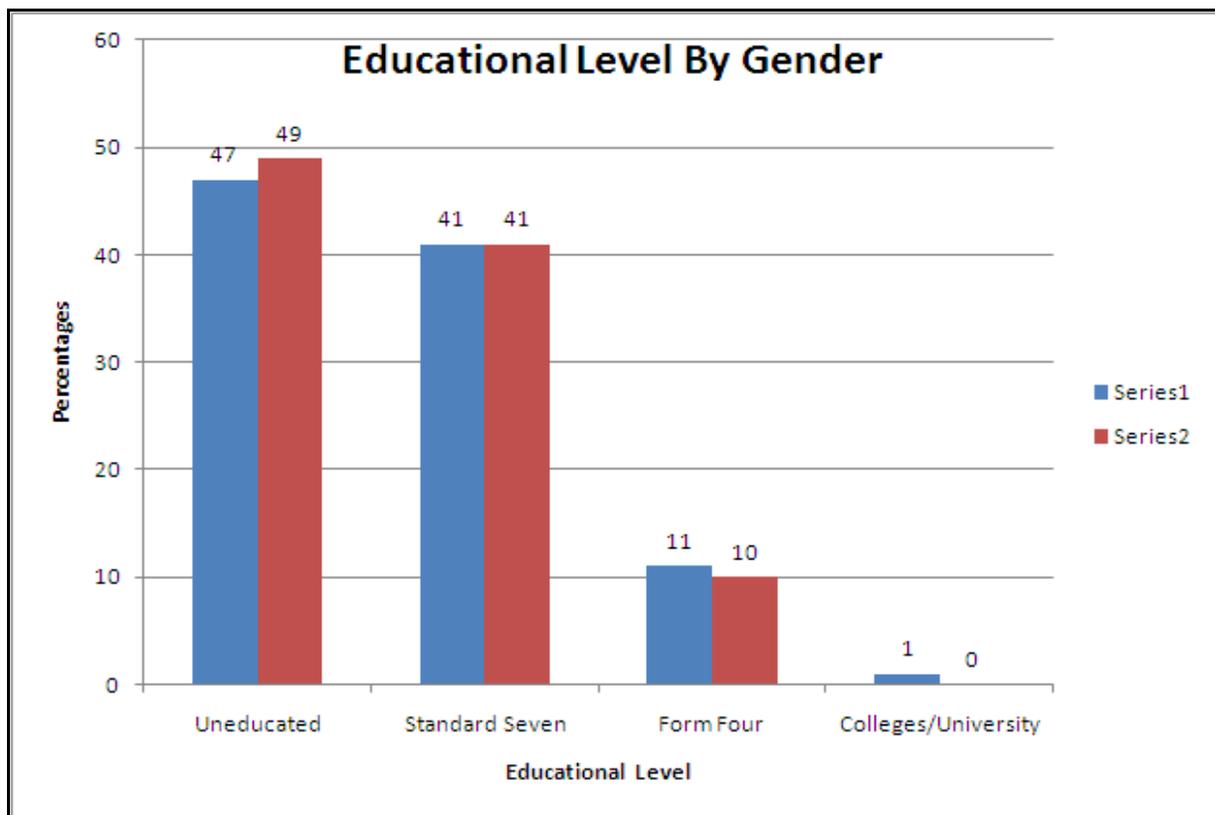


Figure 3. Distribution of Educational Level by Gender

representing 47% have their choice as radio and 18% would prefer a village clinic even though the facility is not available for now. The third most preferred source was television set. The rest were health workers, 12% while books and magazines recorded 3% each and the least preferred format was the village leaders (2%). The findings have been clearly illustrated in figures 4 and 5.

Figure 6 presents the results of the purpose for which

small scale farmers require health information. The results clearly show that the need for health information for the purpose of disease prevention, 32%, leads the list of seven (7) identifiable reasons. Treatment of disease and for transmission of disease each recorded 23%. This is next higher to disease prevention. Fourteen percent (14%) was recorded with respect to the care and support for disease whilst the least reason recorded was the

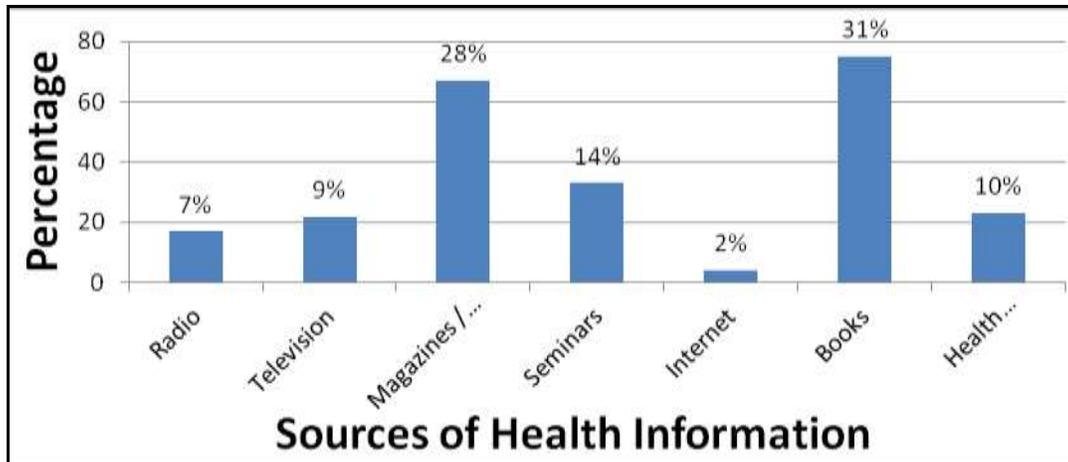


Figure 4. Sources of Health Information

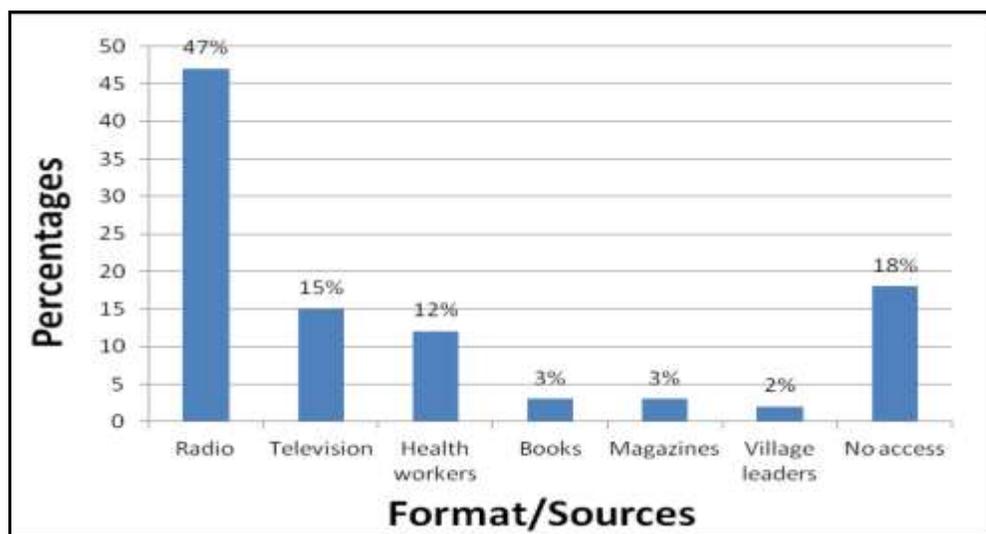


Figure 5. Preferred Format/Sources for Health Information Access and Use

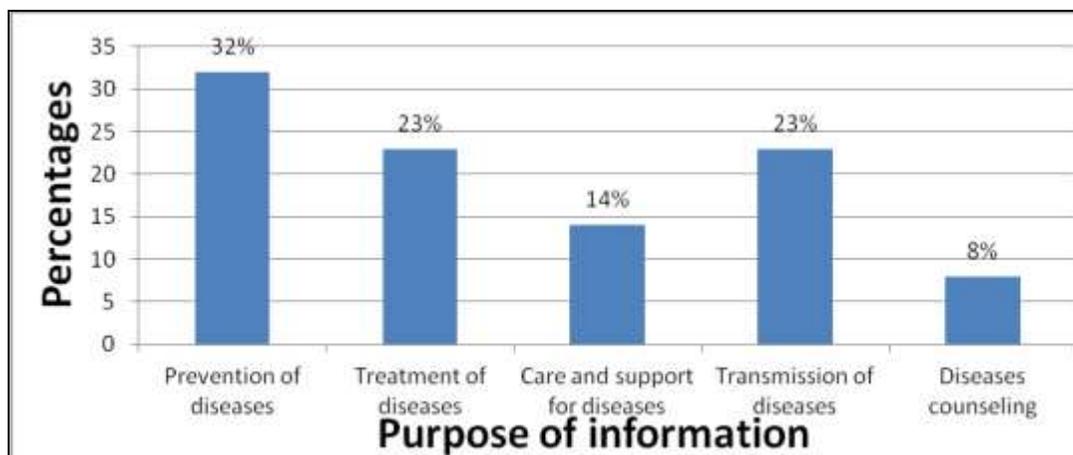
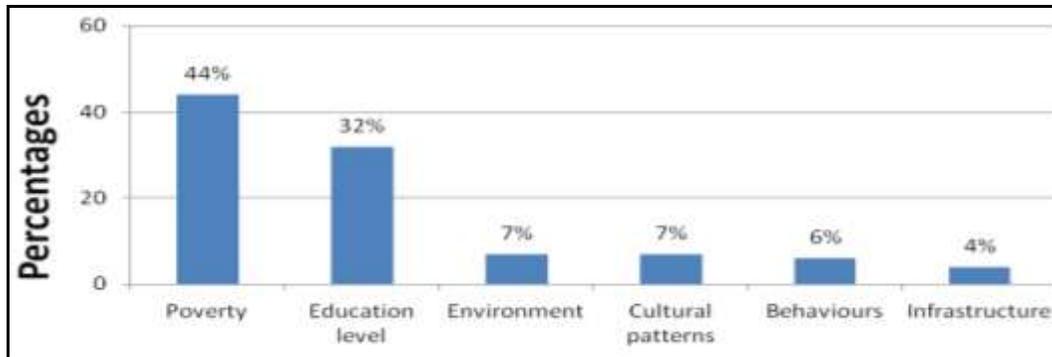


Figure 6. Purpose for Which Health Information is Sought



**Figure 7.** Factors Influencing Health Information Needs and Information Seeking Behaviour among Small Scale Farmers

need for disease counseling, 8%.

The study has also investigated three factors that influenced small farmers' information seeking behavior and information needs. Figure 7 illustrates the results of this enquiry. The two most dominant factors were found to include poverty by 44% and educational level which accounted for 32%. Thus, poverty and the low level of education together accounted for a dominant percentage of 76%. The social environment and cultural beliefs and practices accounted for 7% each, whereas behavior and infrastructure accounted for 6% and 4%, respectively.

## FINDINGS

The following constitute the main findings of the study:

- The educational level of respondents was found to be generally low. Together, a predominant 90% has little or no formal education (standard seven, 42%, and not formally educated, 48%)
- The results further showed no significant differences between genders at the different educational levels compared.
- Sources/formats of information available to respondents were found to be inappropriate and did not adequately meet their health information needs. The three most readily available formats of books (31%), magazines (28%), and seminars (14%) could be the appropriate ones for rural farmers of very low educational.
- The three most appropriate and preferred forms/sources of respondents' health information needs were found to include radios (47%), television sets (15%) and village clinics (18%),
- The purposes for which respondents required health information included disease prevention, 32%, treatment of disease, 23%, transmission of disease, 23%, the care and support for disease, 14%, and disease counseling, 8%.
- Poverty and low level of education were the two most dominant factors that were found to have significant

influence on respondents' information needs and information seeking behavior.

Additionally, information obtained through interviews and observation to supplement the survey questionnaire revealed the following findings:

- Most of villages spend a lot of their time in doing farming activities leaving little time to search for health information.
- The respondents noted bureaucracy as one of the bottlenecks in getting health information from available health centers which are usually very far. According to this study, health workers were found to be uncooperative in assisting farmers in accessing health information.
- Lack of modern information technology literacy among small farmers created difficulties for them to use the electronic information. Besides, this e-information was equally not readily available.
- Some of the requests for health information lacked specificity. These were more of general than specific to a certain disease. Information about cancer is a good example in this case.
- Lack of a central reference point such as information centers, libraries or offices where respondents can have access to health information was a notable concern to respondents.
- Most farmers lacked health Information literacy - the ability to obtain, process and understand basic health information and services to make appropriate health decisions.

## DISCUSSIONS

### Level of Education

Unlike in most developing countries where it is not unusual to find that many men are multiple folds higher in the academic ladder than females, the results in this study have shown quite to the contrary. The results are

similar across the levels of the educational continuum recording percentage ratios of 47: 49. 41:41, 11:10 and 1:0 of male to female for the “formally uneducated”, “standard seven”, “form four” and “college/university” in that order. In effect, considering the ratio of a male to female sample of 120:90, it is observable that in relative terms, the females have recorded a more favorable level of education than their male counterparts

### Health Information Needs

Most of small farmers require health information on disease prevention, nutrition, specific medical conditions, breast feedings and mental health. Farmers have found treatment cost to be expensive since access to hospitals and health centers are far and distant. Morbidity and mortality rates are therefore high. As a result, therefore, farmers wished they had ready access to health information for disease prevention, since according to them, disease prevention is far less costly and, therefore, better than cure. Some of the diseases that were found to be common included; malaria, tuberculosis, blood pressure, diabetes, mental illness, and HIV/AIDS. Farmers noted that Sexually Transmitted Diseases (STDs) including HIV/AIDS could be easily prevented if awareness was high and relevant information readily accessible for them to take precautions such as safe sex, number of sexual partners and condom use. Women respondents claimed that they required health information about HIV/AIDS in order to educate their husbands concerning safe sex. They said lack of health information has worsened the ignorance of their husbands who practice polygamy and having unsafe sex with young girls by giving them money and small gifts. Information about diet was also recommended. They claimed information on balance diet would help promote better health.

### Sources of Information

Respondents were of the view that the sources/forms of health information readily available to them were highly inappropriate for majority of the farmers whose educational level is low. Most farmers (47%), would rather prefer locally convenient sources such as radios, village clinics (18%) and televisions (15%) among others. Aalai et al (2008) have in similar study, noted that, the emergence of infectious diseases such as SARS, avian flu, and HIV/AIDS which can spread quickly among local communities emphasizes the need for current and relevant information.

Consumer health information is indeed, very vital for community health in a world of an ever increasing burden of disease. In order to maintain a healthy population and to preserve quality of life, a multi-disciplinary approach to public health is necessary Aalai et al (2008). Information is, thus, a basic right and “health for all is the priority throughout the world”. Any challenging obstacles to these

rights are a primary goal. The combination of the two elements, “health” and “information”, from an ethical point of view is, therefore, more than the arithmetical sum of the two factors. This is according to Giovanna (2008).

### Information Infrastructure

Lack of access to information remains a big problem in most rural areas in Africa and in developing countries. Notwithstanding, it is notable that a well-structured health information system is an important component in the processing and dissemination of health information in any social system. It was very obvious from the results of the study that there was no permanent place where villages could get health information or educated about health issues. It was particularly notable that, there was no organizational structure at the district level. That is, the district has no inbuilt structure that allows efficient coordination and sharing of health knowledge across different communities of interest and, thus, has no strategy for managing health information and knowledge at village levels. Several other authorities have similarly noted the information famine in rural communities which they alluded to, have been one of the main problems of the underdevelopment in Africa since these rural settings form the unglues of these African nations (Mchombu, 1993 and 2003; Corriera et al, 1997; Okiy, 2005).

Current and accurate health information avoids misinformation about diseases while sharing of strategies and networking are critical aspects of information provision. However, all these were lacking in Marangu and Rombo villages, respectively. Leadership is an important element in the strategy to manage health information, but, unfortunately that type of leadership with the required expertise and commitment to deal with health information was also found to be lacking in both the villages.

### Information Gap

Information and Communications Technology (ICT) has made information much easier to access and use (Healey, 2003). ICT can be used to give quick access to ideas and experiences from a wide range of people, communities and cultures. Information gap is due to deficiency and impossibility in technological access or ownership of information. It is a gap which is produced between those individuals that have access to information and communication tools such as televisions, mobile phones, radios and internet; and those do not. Access to information includes knowledge of where to locate information, how to access information and how to use it (Ellis, 2008). Respondents mostly reported lack of access to health information. There is information gap among people in rural areas (Moshia, 2010). Major International organizations such WSIS and UNCTAD bodies are working towards forming consensus to work

on factors which increase the gap between “the information-haves” and “the have-nots”.

## CONCLUSIONS

A survey of small scale farmers have shown that, these farmers are in need of health information. Availability and access to health information and dissemination events such as workshops and seminars were found to be useful. Most of the information sources or forms available to these farmers did not conform to their preferred modes. There is an existing problem in accessing health information by respondents due to lack of enough time and mostly lack of IT literacy. Health information needs and information seeking behavior among small farmers offer special challenges for individual health information seeking. Small farmers may need certain information in order to preserve their own health and the healthy environment of their surroundings.

An intensive and field survey and research are needed to device the most effective mechanism of health information dissemination among and to the said small scale farmers. The extension of the proposal to areas beyond the case study is also a sought possibility.

## RECOMMENDATIONS

In view of the findings of this study, the following recommendations are made: -

- i. The findings reveal the need for a community radio and a clinic that will help promote health among rural farmers and to provide them access to timely and reliable health information;
- ii. Based on (i) above, it is therefore prudent that health authorities make steps to ensure the provision of these facilities;
- iii The predominantly low educational level of rural farmers also suggested the need for community functional literacy programs that will help provide farmers with agricultural information to help improve on their farming activities whilst at the same time enhancing their ability to access health information and the health of their environment for a better wellbeing;
- iv. With improved literacy levels, respondents will be able to learn and use simple information technologies through mobile phone services to share personal information on health and disease treatment and prevention;
- v. The study observed that the use of mobile phones has become common even among these rural dwellers. Some training in the effective use of these phones could therefore, go a long way to improve information access and dissemination among respondents. Through social responsibility of organization’s programme, this initial training could be facilitated by telephone operators who are now common in the community;

vi. Community health outreach services are recommended to provide rural farmers with health services and health education at their door steps. Such initiatives will enhance interaction and increase rapport between rural farmers and health workers who are a reliable and competent source of quality health information; and

vii. Occasional health meetings, workshops or seminars with small farmers will go a long way to promote the health of the rural farmers and their surroundings whilst at the same time serve as an avenue for health information access.

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