

Full Length Research Paper

The Relevance of Community Education in Guinea Worm Eradication Effort in Savelugu District

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Guinea worm is a dreadful disease which the world is making every effort to eradicate. Ghana is ranked second most infected country in the world and Savelugu district is recorded as topping the list of infected areas in Ghana. This exploratory study, through interviews and observation attempted to find out why Guinea worm disease was persistent in Savelugu district, and the effort put in place to address the disease. It was noted that, socio-cultural attitudes and practices constituted a major drawback in an effort to eradicate the disease. The study found out that through the efforts of Jimmy Carter, a former U.S president, a 'Guinea worm Containment Centre' had been established to help treat those infected. In addition there was existing government hospital at Savelugu, but those infected were not willing to patronize the hospital and the Containment Centre. Initially those infected with the guinea worm disease refused to patronize the health centres because they were of the view that the cause of the disease was through a curse or caused by a witch. The study found out that it took a lot of education to get the community to accept the orthodox medicine and to report cases of infected persons. The paper therefore strongly recommends that health is a social construct and therefore community health education and health literacy should play a major role in prevention and management of diseases.

Keywords: health education, Health literacy, community education, guinea worm, diffusion innovation

INTRODUCTION

Guinea worm is a dreadful disease that is not only a problem for the victims or patients alone but the whole country. The World is making effort to eradicate the disease. In the 2008 Ghana was ranked second most infected country in the world and that was a great source of worry. Much effort has been put up by stake holders to eradicate the disease but not without challenges as new cases crop up along the line.

The solution to the problem of the persistent of the disease cannot be left with the health workers alone as the causes and the spread of the disease go beyond the health sector. It is not only a clinical issue but also socio-cultural and environmental one. A multi-prong approach has to be adopted if the disease can be eradicated, because the rise and spread of Guinea worm relates to poor drinking water,

poor environmental sanitation, unhealthy lifestyles, illiteracy and ignorance, negative cultural practices and lack of access to medical care. Education has a crucial role to play in reducing or controlling guinea worm infestation.

Community education will help people living in infested areas to adopt healthy lifestyles and seek medical care when infected. Education will help society to become aware that the disease is not caused by witches but by worms, that one can avoid being contaminated and those who are infected can be cured. Community education attempts to enrich the lives of individuals and groups living within a geographical area and or sharing common interest to develop voluntarily a range of learning, action and reflection opportunities, determined by their personal, social, economic and political needs.

The study sought to find out the attitudes and socio-cultural practices that have contributed to the persistence of Guinea worm disease in Savelugu District in Northern Ghana. The paper seeks to find answers to the following questions;

1. What are the perceptions of the people in Savelugu about the causes of Guinea worm?
2. What do they do when they contract guinea worm disease?
3. What role does hospital/clinic and other organizations play in eradicating guinea worm and what are the challenges confronting them?
4. What role does education play in the effort to eradicate guinea worm diseases?

Literature Review

Health as a social concept

It is argued that health is a socially constructed concept. Though people perceive health and illness as different entities it should be seen as integrated activity. The dominant model of health worldwide is the medical model that stresses on training health personnel, making research on causes of diseases so as to find solutions to them. Associated with the medical model is the production of pharmaceutical drugs and medical technology, including clinics, hospitals, training of professional nurses and medical officers.

The social model of health acknowledges that health is determined by social and environmental conditions. The social model looks at creating the conditions that promote health and reduces possible outbreak of diseases. Diseases are most effectively treated when living standards are improved, when people eat nutritious food and drink clean and treated water. Again good health requires personal hygiene, improved public health, proper waste disposal and clinical medical intervention. Preventive health policies are needed to control the outbreak and spread of diseases (Adjei, 2009; Mckeown, 1974).

Rather than waiting for the outbreak of diseases and using expensive drugs to cure, the social model of health attempts to use available knowledge and community resources to develop conditions that are favourable to good health.

There is the need to ensure the integration of both traditional and orthodox medicines and health practices, since both have important role to play in health delivery system. It can be argued that it is not enough to publish in books and journals the ill effect of certain habits but communication, dialogue and adult education are needed to secure positive habit formation. (Akordor, 2006; Nabor 1995) In the same way Brookfield (1986) noted that adult education contribute to social change, including positive action towards healthy lifestyle. He sees adult education as

helping community members to identify and confront community problems. In essence, many diseases can be prevented with effective education in the communities (Adjei, 2009)

1:2. Underlying the social concept is the need for **health education** that seeks to empower communities to identify and prioritize their health problems and to design appropriate and cost effective solutions to address the problems identified. Health education is the profession of educating people about health. It is the principle by which individuals and groups learn to behave in manner conducive to a healthy lifestyle. It involves a combination of planned learning experiences based on sound theories that provide individuals, groups and communities the opportunity to acquire information and skills needed to make quality health decisions. It is also about communication designed to improve health literacy and the community health (Donatelle, 2009; Mckenzie, et.al, 2009).

Health education uses appropriate strategies and methods to facilitate the development of policies, procedures and interventions conducive to the health of individuals, groups and communities. It aims at informing people of health risk and ways of avoiding them.

Health education enables individuals and groups of people to learn to behave in a manner conducive to the promotion, maintenance or restoration of health. The aim of health education is to facilitate positive behavioural modification and a sense of responsibility for health conditions among members of a family and community. (Joint Committee on Terminology, 2001; World health organization, 1998).

In communicable disease control such as the guinea worm infestation, health education is needed to appraise the level of knowledge of the community about the disease, assess their habits and attitudes and present vital information to remedy any observed deficiency.

Community Health Education

Community health education is seen as a most humane and economical means to health. While medical science provides an array of preventive, therapeutic and rehabilitative facilities and methods, human health continues to depend largely on translating knowledge into individual behaviour and lifestyles.

Education designed to encourage appropriate health behaviours can effectively prevent much suffering and disability and check waste in economic and medical resources.

The major purpose of community health education is to promote programmes which result in positive healthy behaviours. Community health is broad comprising primary health care (interventions focusing on individuals and family), Secondary health care (focusing on

environment and sanitation), and tertiary health care which involves interventions taking place at the hospital.

The community connotes a collection of people differentiated from the total population by a common interest. The community exists when a group of people perceives common needs and problems, acquires a sense of identity and has common interest or common sense of objectives. Community is also viewed as an area of social living marked by some degree of social coherence. (Heller, 1998; Brookfield, 1983).

Community education for development represents the how, (practice and programmes) and why (theory and principles) of teaching social and behavioral technology to local groups for the sake of facilitating individual learning, solving of group problems and building of the community. There is a natural point of congruence between an increased awareness and the practice of healthy lifestyles and a fully educated person.

A fully educated person is expected to be fully aware to critically examine issues that affect his welfare and concerns. Such an educated person will be motivated to express his knowledge in practical terms. He will be expected to take positive actions on matters that would affect his health. Community education is therefore linked to social change. Participants of adult education programmes are expected to identify their needs, discuss their problems and seek amicable solutions to them.

Community education employs the services of an adult educator to promote or create awareness in the community, identify community problems and the weakness of individuals in order to address them. Learners acquire the skills of reading, writing and computing and more importantly knowledge necessary for them to take action. The objective is to heighten the motivation and capacity for self-direction in individuals and the community as a whole so that learners, through meetings and discussions, would increase their understanding to the principles and practice of their work and stimulate personal and community improvement, especially on matters of health .

Development connotes progressive change. Change is a social action and should be culturally interwoven. It should be both qualitative and quantitative. The key concept must be to improve the quality of people's life. (Brookfield,1983)

Health literacy

Literacy is seen as an instrument for liberation and development (Okedara, 2001). Related to health education is health literacy which is seen as ability to understand scientific concept of health research, health care and using community resources and knowledge in health decision making. Health in this way is seen as a social concept that offers opportunity to reduce inequities in health. (Wikipedia, free encyclopedia, 2011).

Health literacy is the wide range of skills and competencies that people develop to seek out, comprehend, evaluate and use health information to make informed choices, reduce health risk and increase quality of life (Zarcadoolas et al, 2006)

Health care professionals also need health literacy to be well informed and at the same time to be able to communicate important or relevant health information to those who need them.

Health Literacy is thought of as a theory of behaviour change that can empower individuals to address disparities in health in their family lives, community and the nation.

Health literacy is the ability of people to act on information in order to live a healthy life. This includes listening, writing, speaking, critical analysis, communication and interaction skills. Improving health literacy can contribute to more informed choices; reduce health risks, increased prevention, wellness and improved quality of life. (Centre for literacy, qc.ca. Health lit.inst/Calgary, 2009).

Literacy has been defined as the ability to read and write with understanding, simple statement in one's own Language. UNESCO defines literacy as the ability to identify, understand, interpret, create, communicate, compute and use printed and written materials associated with varying contexts. It goes further to indicate that "Literacy involves a continuous of Learning in enabling individuals to achieve their goals, to develop their knowledge and potential and to participate fully in their community and wider society". (Wikipedia, 2010)

Illiteracy is a common phenomenon the world over but more pronounced in Africa.

Okedara and Adepoju (2001) alluded that poverty and all other signs of under development cannot be eradicated or reduced if people cannot be provided with abilities to read, write and calculate as measures to combat problems they face daily. Literacy is an indispensable means for effective social and economic participation, contributing to human development and poverty reduction (UNESCO;

Literacy, Wikipedia, Tompkins, 2006).

The significance of literacy has been stressed by many writers (Adjei, 2009; Roy-Sing,1990; Rogers,1992) as crucial in any nation's manpower development; a literate society has a higher socio-economic status.

Diffusion theory

Health literacy alone would not help people to adopt new ideas. According to the diffusion theory, also known as diffusion innovation, the spread of new ideas and technology through culture would depend on the many qualities in different people that cause them to either reject or accept innovation. There are also many qualities in innovation that can cause people to readily accept them or resist them. The theory proposes five stages of diffusion, which are awareness of innovation, persuasion, decision

making, implementation and the final decision to continue or not to continue to practice what one has been taught, base on one's own personal experience. The implication is that there is the need for continuous education if people are expected to change their attitude towards healthy living ([wise seek.com/diffusion theory.htm](http://wise.seek.com/diffusion-theory.htm))

Community education

Community education plays a vital role in enhancing health literacy skills of the public. Community education enables learners to manage their daily lives and address their health needs, including that of the entire community.

Health issues can be integrated into lessons that deal with core reading, writing and calculation skills. The classroom setting provides a safe and trusted environment for learners to explore health issues and to seek common solutions to problems that confront them.

Community education exists to facilitate the learning and participation of adults and children so they can improve their lives and their community. It brings community members together to identify and link community needs and resources in a manner that helps to raise the quality of life in their communities. Education seeks to improve the quality of life by providing life long learning opportunities for all members of the community. Lifelong learning connotes that people are learners at every age and are entitled to pursue educational opportunities that are meaningful to them. Community education uses both formal and non-formal ways to facilitate learning and social development work among individuals and groups in their communities.

The purpose of community education is to develop the capacity of individuals and groups through their actions to improve the quality of life. Underlying principles are empowerment, participation, inclusion (equality of opportunity) self determination and partnership (with other supporting agencies).

METHOD OF INVESTIGATION

This is an exploratory research conducted in Savelugu that attempted to find out the reasons why guinea worm was so prevalent in Savelugu, a town so close to Tamale, the regional capital of Northern region. The study was conducted between May and October 2011. The study adopted various strategies to gather data. Information was sought from review of literature; articles, books, encyclopedia and the internet. Health experts in the Ghana Health Service in Tamale were interviewed. In addition, the investigator interviewed the health workers at the Carter Containment Centre, the hospital staff in charge of guinea worm treatment at Savelugu hospital and some community members who had something to do with guinea worm disease.

This was done after two research assistants were sent to Savelugu to interview opinion leaders, and staff of the Carter Containment Centre on the causes, treatment, perception and challenges of the guinea worm disease eradication effort. Observation was also used as a tool for investigation by the investigator. The source of drinking water was examined, the treatment Centre was visited and further consultations were done in Savelugu.

DISCUSSION OF FINDINGS

Guinea worm disease

Guinea worm is water borne diseases that affect people who consume contaminated water. The worm is like a thread and measures between 17 – 2mm in diameter and about a meter in length. It is a parasitic worm infection that occurs mainly in Africa. It is also called dracunculiasis.

Mode of transmission

People get infected when they drink standing water containing tiny water flea that is infected with the even tinier water larvae of the guinea worm. Inside the human body the larvae mature, growing as long as 3 feet. After a year the worm emerges through a painful blister in the skin, causing long term suffering and sometimes crippling after-effect.

Any one who steps into stagnant water contaminated by infected guinea worm patient can also contract the disease. Infected persons do not have the symptoms until about a year after drinking the contaminated water that is infected with the fleas.

Where is Guinea Worm Disease Found?

In 1986, Guinea worm disease was found in twenty (20) countries in Africa and Asia and were predominant in nine countries, all in Africa, Sudan, Ghana, Mali, Niger, Nigeria, Togo, Ethiopia, Burkina Faso, Cote d'Voire. Nigeria has shown remarkable progress, reducing the number of reported cases by 62 percent from 2002 to 2003. Out of 32,050 Guinea worm reported cases during the year 2003, Sudan was first with the highest number of cases (20,299) followed by Ghana with 8,285 reported cases. Nigeria reported 1,459. Mali - 324, Togo- 622, Niger- 279, Burkina Fasso-175, Cote d'voire-42, Benin-26, etc.

The figures have gone down with time. In 2008 the figure on total reported cases was 4619; in 2009 it reduced to 3190. Currently, Sudan tops the figures with 273, Ghana recorded 242; Mali had 186 and Ethiopia 24. Ghana is still the second most endemic country in the world. It accounts for 8 percent cases worldwide and nearly 53

percent of cases outside Sudan in 2009 (www.cartercentre.org, 2009).

Guinea worm in Ghana

In 2003, Ghana reported more cases of Guinea worm disease than any other country. By the end of 2003, the remaining endemic countries, excluding Ghana and Sudan, had reported 53 per cent fewer cases of Guinea worm disease than during the same period in 2002. Of the reported cases, 95 percent were in only 15 of Ghana's districts. With enhanced interventions in 2003, 70 percent of cases were contained within 24 hours of emergence by the Guinea worm Containment Centre. (Guinea worm eradication centre. Emory magazine, summer 2004).

Savelugu cases

The figures shown below in Table 1, give a breakdown of reported cases in Savelugu district.

The figures above, Table 1, show that reported cases went up in 2007 despite efforts put in in 2006, due to re-infection after treatment and unhealthy practices.

Table 2 also shows figures from neighboring towns and villages within the district. Significantly Savelugu which is the capital town of the district recorded the highest figure of 1634, during the same period, 2007 to 2008'. The figure for 2009 is 47 and the recorded figure for 2010 is six. This shows that there has been a dramatic improvement the reduction effort due to a change of attitude on the part of the people of Savelugu.

How is Guinea worm disease contracted in Savelugu district?

The main cause of the Guinea Worm Disease in the Savelugu district and other Guinea worm prone areas according to the Carter centre is fetching and drinking from affected waters i.e. ponds and dams infected with the guinea worm larvae. A person contracts Guinea worm when he or she drinks stagnant water that is contaminated with microscopic water fleas that carry infective larvae. Inside a person abdomen, Guinea worm larvae mature growing up to three (3) feet in length. Also a year after infection, a Guinea worm will slowly emerge through a painful blister it creates in the skin. The contamination cycle begins again when victims, seeking relief from the burning sensation caused by emerging worm step into pond and release larvae into the water. Water fleas eat the larvae, and people who drink unfiltered water from the pond become infected. (www.dhpe.org/infect/guinea.html; field research by Adjei, 2010, Savelugu).

How is Guinea worm treated?

There is no vaccine or medication to treat or prevent Guinea worm. A person infected with Guinea worm disease will not even realize it until a year after drinking contaminate water, he or she develops a painful blister and a thread like worm emerge from it.

Once worm begins to emerge, a local health worker will wrap the 2 – 3 foot long worm around a stick and extract it from the infected person's body. The long painful process of extracting the worm often takes two months. In Savelugu, patients have opportunity to attend Government hospital or Carter guinea worm containment centre, but due to traditional beliefs they tended to stay at home and consulted the spiritualist.

The Carter Containment Center

The Guinea worm containment center has been established in Savelugu town. It is performing a number of useful roles in ensuring that the Guinea worm disease is completely eradicated from the affected areas of the district.

For instance, in Savelugu alone, there are about 100 volunteers recruited by the Center and equipped with filters to go around from house to house educating town folks on the guinea worm disease, on the dos and don'ts when infected and on the use of filters. They also make sure that torn out filters are replaced. Among some of the roles of the volunteers is to give daily treatment to patients who cannot go to the center for treatment due to the limited number of patients the center can admit (20 at a time, four rooms).

There are also nurses at the guinea worm center who dress the sores of admitted patients as well as supervise the slow but painful daily removal of the worm. This role needs a lot of patience and tactfulness to avoid any complications like the tearing of a worm into two parts which can cause the leg of a patient to get swollen.

Most of the admitted patients to the center were children and so the nurses as part of their role make sure that, they are taken to and from school daily as long as treatment lasts.

The nurses, as a routine, give medication to all admitted patients. The Center also sprays the affected water sources periodically to abate the larvae that cause the worm.

Lastly, mosquito nets and two bed-sheets are given to each patient on the day of discharge from the Center. It must also be noted that, all patients on admission to the center are fed free of charge. Filters are also given free of charge. This is to encourage patients to report cases to the center.

Table 1. Total Cases Recorded in Savelugu District

MONTH	2006	2007	2008/2009
January	99	666	27/ 2
February	156	313	53/ 1
March	111	341	22/ 1
April	116	168	25/ 4
May	124	126	---/18
June	126	126	---/12
July	58	48	---/5
August	18	13	---/1
September	10	8	---/1
October	23	4	---/1
November	91	16	---/1
December	20	20	
Total	1182	2049	127/47

Source, Guinea Worm Centre, Savelugu

Table 2. REPORTED CASES WITHIN THE DISTRICT

LOCALITY	2007	2008
Savelugu	1634	44
Gusheigu	40	11
Diare	310	12
Kadia	7	3
Tanpiou	72	2
Zoggu	60	1
Nanton	5	1
Tootenyili	1	1
Lahigu	2	2
Chahi Yapalsi	2	1
Nyetua	0	1
Nabogu	0	1

Source, Carter centre, Savelugu, April, 2008

Other organizations

Apart from the Carter guinea worm center which is deeply involved in the eradication of the Guinea worm infestations, there are other organizations that play meaningful role in the eradication of the disease. The Ghana Health Service through its regional and district health directorates continue to offer logistics and supervisory roles in helping to check the spread of the disease. The Savelugu hospital also provides its traditional role of treating various ailments and reported cases in the area.

The Savelugu District Assembly has employed a few guards who guard the Dam (The source of drinking water in Savelugu) from being entered by the people whenever they want to fetch some water. They also make sure that the waters' are filtered at the pond/dam before they are taken home. These guards unlike the volunteers are paid by the Assembly.

Peoples' attitude towards the disease

According to the Center, the attitude of the people in Savelugu towards the causes and treatment of the disease

has been a major drawback to the eradication of the disease.

Most of the people in the community believe they get the guinea worm from their own blood, from eating fresh meat or insect bites and that, it is caused by witches. Some of them also believe that when one eats soup prepared from Baobab leaves one is likely to get infected by the guinea worm.

The people also have similar attitude towards the treatment of the diseases. Whereas some of them try treating the disease with some green leaves and shea butter, whose efficacy is unknown, others stay at home and attribute the disease to the work of witchcraft instead of reporting to the Center for treatment. Yet still others believe that guinea worm disease does not have treatment, they are of the view that even after they have been treated and discharged the disease can recur. They believe that cure can only come from God and not the Center.

With much education through the radio and community fora complications of the diseases are reported to the Center and quite interestingly, only few cases of the guinea worm diseases are not handled by the Center and its volunteers. However, most of the admitted patients are children with the adults receiving daily treatments in their homes. Most of the infected adults, according to the Center, are very difficult to deal with as they are fixed to their beliefs, lack understanding as to the cause and solution to the disease, and therefore feel reluctant to go to the Center for treatment. Most of them also refuse to use the filters unless under strict supervision from the volunteers. For instance about 36 worms, according to the center were removed from a patient at a sitting and the person has since then been infected again. Reinfections of the disease are quite regular because some people refuse to adhere to advice on precautionary measures to be adopted to avoid re-infection.

Though boiling water before drinking is a very effective way of curbing the disease, some of the people complained about the lack of money to buy fire wood and charcoal to enable them boil their water before use. Others claimed they did not have time to boil the water before drinking.

Community practices

According to the Center, in recent times only few people in the area resort to the use of their own medication. These include a personal effort by patients to remove the worm from the skin by tearing it with strings against their affected parts (legs). Some also, as stated earlier on, apply some local or traditional concoctions made from some green leaves (herbs) mixed with shea-butter. Due to intensive education within the district the people now report to the Centre for treatment.

OBSERVATIONS

Source of drinking water

The people of Savelugu, at the time of visit, did not have access to pipe-borne or treated water. They had a bore hole as a source of drinking water but the boreholes were not enough and some of the suburbs do not have access to the boreholes. They therefore fetch water from a nearby dam which is the main source of drinking water to both human and animals. The dam is said to be infested with the guinea worm germ and residents have been advised to filter or boil the water before drinking. Efforts are also made by the District Assembly to prevent people and cattle from stepping into the dam. Those who could afford can also purchase filtered sachet water from the store or market for domestic consumption.

There is the need for commitment on the part of the Government especially the District Assemblies in providing more bore-holes and pipe borne water to the town folks to enable them have access to clean water which may go a long way in eradicating the disease.

Challenges

The prevalence of guinea worm disease in Savelugu affects the development of the town, as poor attention and attendance to farm can lead to reduction in food production and hence family income. It endangers food security of the community and may generally lead to poor nutrition.

In addition, education of the child is also negatively affected as those infected with the disease find it difficult to be regular in classes and this may lead to poor performance. Worse still, classrooms can become empty as teachers refuse posting to affected communities, this can lead to poor examination results at both the junior and senior high schools.

The major challenge facing the people of Savelugu is how to have access to good drinking water. Most of the inhabitants rely on rain water and a dam as the source of drinking water. Unfortunately for those who rely on the dam, they compete with those infected as well as domestic animals. The challenge is how to get the infected persons to understand the need to keep away from the dam in order not to contaminate the only source of drinking water. There is also the need to ensure that somebody is always standing by the dam to make sure roaming animals do not step into the water to abuse it.

Educating both the infected and uninfected to change their lifestyles is very critical in addressing the problem of ignorance, apathy and health illiteracy on the causes and spread of the disease.

Strategic interventions

By and large effort has been made to contain or eradicate the disease in Ghana as reported cases has dwindled from 180,000 in 1989 to 242 in 2009. Currently there are no reported cases. Various strategies have been adopted to address the spread of the disease. Among the strategies are health education by health workers, volunteers, government and non-governmental organization officials, distribution of household water filters, pipe filters, monthly treatment of stagnant water, radio messages, advocacy with water organizations, safer hand dug wells, as well as monthly surveillance to identify and report infected cases for remedial measures to be taken, (the Carter Centre. org. 2010; field survey by Adjei, 2010. Savelugu)

CONCLUSION

This paper attempted to look at the perceptions and attitude of the people of Savelugu with regard to the causes and spread and management of guinea worm disease. One was worried about the fact that Savelugu was a big town and not very far from Tamale, the northern regional capital but was leading the country in reported cases of guinea worm disease. The town was also having a district hospital with qualified nurses and a medical officer. In the centre of the town is Carter Containment Centre geared towards preventing and treating guinea worm cases.

Investigation however showed that the beliefs and traditional health practices was a major factor in the persistence of the disease.

When people are not well informed about the causes of a disease they will find it difficult to prevent or manage it when it occurs. The studies revealed that initially people infected thought they were bewitched and therefore they were not ready to seek medical help but to resort to traditional practices which could not solve their problems.

Secondly, some of the people who had no access to good drinking water were not ready to change their attitude with regard to filtering and or boiling of water before drinking. They gave flimsy excuses. The Community at large also did not help to contain the disease as they kept on contaminating the local pond which was a source of drinking water. Cattle could be observed competing with human beings for the same water in the pond.

RECOMMENDATIONS

Various stakeholders, the Government of Ghana, the Carter Containment centre, the Ghana Health Service, the Red Cross and individual volunteers, have put in much effort to eradicate the guinea worm disease in Savelugu,

but it behoves the people of the district to change their attitudes with respect to healthy lifestyle; they have to report to the hospital when they are sick, they should respond to medical care, avoid practices that will lead to re-infection after receiving treatment. The people, however, will not willingly change their attitude and behaviour unless they are well informed about the consequences of their action.

Health literacy and community education needs to be vigorously pursued if the citizenry are to be well informed about healthy living. Community educators are therefore needed in the effort to eradicate guinea worm as the problems associated with diseases are not only clinical but socio-cultural.

Even though guinea worm has successfully been eradicated from the country since 2012 the need for the citizen to maintain a healthy lifestyle is very essential

It is also necessary to ensure that the people have access to quality and treated drinking water so they would not go back to pond for water for domestic use.

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