A STUDY OF COMMUNICATION APPROACHES OF VOLUNTEER COMMUNITY MOBILIZER NETWORK ON POLIO INTERVENTION IN SABON GARI LGA, KADUNA STATE, NIGERIA

BY

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A DISSERTATION SUBMITTED TO THE SCHOOL OF POSTGRADUATE STUDIES, AHMADU BELLO UNIVERSITY ZARIA, IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER OF ARTS (MA) DEGREE IN DEVELOPMENT COMMUNICATION

DEPARTMENT OF THEATRE AND PERFORMING ARTS,

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ZARIA

AUGUST, 2018

DECLARATION

I, **Daniel, Kuyet Janet** declare that this dissertation entitled ***A Study of Communication Approaches of Volunteer Community Mobilizer Network on Polio Intervention in Sabon Gari LGA; Kaduna State, Nigeria***is a product of my research. It has not been presented in any previous higher degree programme. Sources of information have been acknowledged by means of reference.

_____ _____

Daniel Kuyet Janet **Date**
(P13ARTP8022)

CERTIFICATION

This dissertation entitled ***A Study of Communication Approaches of Volunteer Community Mobilizer Network on Polio Intervention in Sabon Gari LGA, Kaduna State, Nigeria*** by **Daniel, Kuyet Janet (P13ARTP8022)** has met the requirements for the award of Master of Arts in Development Communication, Ahmadu Bello University, Zaria and approved.

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DEDICATION

This research work is dedicated to Almighty God for His faithfulness through this academic pursuit. Secondly, my lovely and adorable parents Mr. and Mrs. Daniel Iliya Boman and the entire family for their support, guidance and patience.

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ABSTRACT

Poliomyelitis has over the years been proven to be one of the most contagious and dreaded childhood diseases. The effect of this disease ranges from general health discomfort due to physical deformation of legs, paralysis and early infant mortality. The adverse effects of Polio on children propelled intensive campaigns on the acceptance of Polio vaccine in order to mitigate the hazardous health impact of the Polio virus on children. This was done by breaking down the campaign channels into components such as the Volunteer Community Mobilizer Network for poliovirus intervention. Therefore, the study sets out to assess the communication approaches of the Volunteer Community Mobilizer Network as a channel for polio intervention and to strengthen the acceptance of polio vaccine in the study locations through the deployment of effective change communication platforms. The objectives of this study are; to investigate the knowledge and perceptions of polio disease in the study locations; to explore the factors militating against the acceptance of polio vaccine in the study locations; identify and analyze the communication approach of the Volunteer Community Mobilizer Network for polio intervention in the study locations and devise ways that Polio can be more effectively communicated for a lasting and sustainable result. The theoretical framework used for this study is the Health Belief Model by Becker (1974) from the work of Rosenstock (1966). The theory states that the perceived level of susceptibility, severity, benefits and barriers are factors that influence an individual's likelihood of adopting a new health practice. The study employed both quantitative and qualitative research methods of Questionnaire, Focus Group Discussion and Key Informant Interview. Findings of this study revealed that Volunteer Community Mobilizer Network (VCMN) in Sabon Gari LGA utilize multiple communication platforms such as home visits, compound discussion, distribution of leaflets and messages via cassette and phone. The study established that despite the efforts of VCMN and the viable communication methods they deploy to create awareness on Polio and the importance of the vaccine, there is still considerable refusal or non-compliance of Polio vaccine in the communities and the residents are aware and concerned. It was discovered that the people in the communities do not accept the vaccine because it is free while they pay huge sums of money to be treated in hospitals. Interestingly, others still believe it is an evil attack not a health problem. The study recommends that VCMN should engage educational institutions, especially secondary schools, to create health clubs for awareness on health issues like polio. Also, VCMN should carry out a study and interact with community people to agree on the time for awareness and vaccination rounds.

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CHAPTER ONE

GENERAL INTRODUCTION

1.0 Background to the study

Poliovirus is a disease that has been ravaging the health of children within zero to five years over a long period of time. This is due to the damage it inflicts on the nervous system which results in paralysis and sometimes, death of a victim. Globally, this disease has been declared deadly and different measures to curb the spread of the disease and administer the required vaccine became important and paramount.

Diseases affecting the society such as Malaria, Tuberculosis, HIV/AIDS, Cholera and Poliovirus among others have caused millions of deaths of adults and children. Attention of countries in the world has turned to eradicating the Poliovirus disease and safe-guarding the society for healthy living. Bill and Melinda Gates Foundation (2011) recorded that, since 1988 the World Health Assembly established the goal of eradicating Polio as one of the infectious and fatal diseases that paralyzed about 350,000 children annually through different Polio eradication initiatives globally. Mass vaccination campaigns which led to the cut-down of Polio cases by 99% was achieved by the coming together of some organizations that formed a large public health initiative. It consist of WHO, UNICEF, CDC, USAID, Bill and Melinda Gates Foundation, Non-Governmental Organizations and more.

Nigeria National Immunization Coverage Survey (2010) reported that, the Nigerian Expanded Programme on Immunization (EPI) was initiated in 1979 to address Polio crisis. Some progress was made with the Universal Child Immunization in the 1980s, followed by a significant decline in the 1990s. In an effort to enhance the effectiveness of the programme and to meet the global

challenges of immunization, the EPI was restructured and renamed National Programme on Immunization (NPI) in 1997. Following the Federal Government Health Sector Reform, NPI was merged with the National Primary Health Care Development Agency (NPHCDA) in May 2007. The mandate of the NPHCDA is to protect children from vaccine preventable diseases through the provision of vaccines. This led to the immunization coverage survey done in practically all Nigerian states to ascertain immunization performance level. Evidence from the immunization survey indicates that variations exist in routine immunization performance across the country's zones with the South West and South East zones showing higher performance and the North West and North East showing low-performance. The Independent Monitoring Board of the Global Polio Eradication Initiative Report (2016) shows that there are high risk local government areas such as Zaria, Sabon Gari and Chikun in Kaduna State and Wamako, Sokoto North and Sokoto South in Sokoto State with highest prevalence of non-compliance.

Poliovirus disease is an extremely infectious disease caused by a virus that attacks the nervous system. Children younger than 5 years old are more likely to be infected by the virus than any other group. There are three types of Polio infection: Sub-clinical, Non-paralytic and Paralytic. Sub-clinical and Non-paralytic do not affect the brain and spinal cord (central nervous system) but Sub-clinical patients may not experience any symptoms while Non-paralytic produces only mild symptoms and does not result in paralysis. However, Paralytic is the rarest and most serious form of polio, which produces full paralysis in the patient. Poliovirus is often transmitted from person-to-person through faecal matter. Areas with limited access to running water or flush toilets are prone to contact the virus. The virus that causes polio is so contagious that anyone living with an infected person will likely become infected also. More so, it is transmitted through drinking contaminated water and eating contaminated food that contains the virus (Healthline

Newsletter on Polio 2016). In the same vein, Ogden (2011) stated that the disease has the capacity to disfigure and paralyze its victim after an attack by the virus. It has the tendency to survive for two months outside the body and is transmitted in an area with open sewers and drains in filthy areas with poor sanitation. It can be spread undetected and reach the brain and spinal cord resulting in paralysis or death.

Communication of polio is critical in ensuring that children are fully immunized and simultaneous immunity is attained and maintained across large areas with high risk of the disease. The process uses communication strategies such as interpersonal communication, social mobilization and media campaigns among others. The communication approaches try to engender outreach to the population, raise awareness concerning the virus and create demand for vaccine, preventing misinformation and doubts in Nigeria but there are communities with the problem of non-compliance. Interventions are intensified and funded in the country yet there is household non-compliance or resistance of vaccine and missed children. These communication approaches have recorded success but there is a need to fast-track activities in order to fight non-compliance in some rural communities.

Hence, it is pertinent for Polio communication approach of organizations to arm local communities with information on the mode of transmission of Poliovirus; the need for immunization; prevent misinformation and most especially, change beliefs, perceptions and attitude of people. Human beings are mostly ascribed and sometimes, known by their attitudes.

Jegede (2014:18) posits that:

> Attitudes are the ingrained habits, perceptions, beliefs, pattern of existence, feelings and emotions that we have accumulated and internalized over time. Attitude is a state of mind or feeling and it forms the basis of most human actions. It is the mental position individuals take as they relate with the world.

It is how people perceive the situations in which they find themselves. Attitudes are sometimes hidden and not directly observable in themselves, but they act to sort out or provide direction to actions and behaviours that are observable. Jegede (2014:18) believes that when attitudes come in contact with stimuli, they are expressed in behaviour. In other words, behaviour is the physical and external expression of attitude.

It is important to know that attitude which is mostly shaped by environment, norms, ideology, cultural background and religion could be harmful or non-harmful. Human attitude is ever changing. Changing attitude is one of the most difficult steps to take; a willing person today may turn out to be unwilling tomorrow. Therefore, health communication approach should take into cognizance the important role effective communication process plays in any intervention that leads to sustainable change in the attitude of people in the society. Del Castelo and Mathais Braun (2006:39) posit that:

> Effective communication in a development process cannot be one-way because it requires feedback and continuous exchange of information between partners and interest groups, communities and official entities. Proper participation creates understanding, connectivity and commitment and thus synergies without which communication remains at a basic level without participation and commitment. It helps focus knowledge creation on the most important targets and shortens the time for integration of knowledge and conversion into action.

The above assertion makes it explicit that effective communication is not top-down but bottom-up and gives room for exchange of information between parties involved thereby creating a platform for feedback. Yazachew and Alem (2004:52-53) assert that:

> Common barriers to effective communication include language difference and vocabulary use, age difference, attitudes and beliefs among others. We cannot avoid or overcome all these barriers but we have to find ways of minimizing them. The community may be misguided by expectation that health extension workers are supposed to do everything for them or that they know too much or do not require services.

Inappropriate use of the communication form, cultural beliefs and attitude of a people can influence the rate at which they accept and adopt new ideas and skills. For this reason it is necessary for the health extension workers to be aware of the attitudes and beliefs of the communities they are working with.

The above emphasizes the need for health communication approach to be designed in a way that health challenges, which are mostly motivated by human attitudes, can be addressed properly. Overtime communication approaches of health workers follow the conventional modernization style whereby health messages are mostly 'one way' top down flow from their organizations and agencies to the general public. These experts and policy makers take communication merely on awareness creation for a particular health issue which they have conceived without fully recognizing the place of attitude which mostly, enhance or hinder the adoption of desired healthy practices. A communication approach that is properly channeled can reveal people's attitude, behaviour, norms and traditional beliefs which could enhance or hinder the acceptance of desired health practice.

Major community stakeholders and people when actively involved in communication process could bring forth sustainability of health intervention. Fraser and Villet in Balit (2004) believe that people will feel they are being trusted with issues that affect their health and given the opportunity to make a change. That is to say, health intervention that is targeted to create sustainable attitude change takes participation as a key component.

The Polio Network (2012) submits that Volunteer Community Mobilizer Network (VCMN) was created by UNICEF in 2012. It was saddled with the responsibility of communicating issues around Polio, the need for and administering the vaccine. They communicate to families and communities about the importance of taking the oral polio vaccine to prevent polio infection. To extend human resource capacity in high risk states, about 7000 volunteers have been hired and they constitute the Volunteer Community Mobilizer Network across the country. This emergency system requires the support of volunteers in different communities to intensify communication activities on Polio eradication intervention until the goal is reached. Volunteer Community Mobilizer Network (VCMN) sets out to ensure a poliovirus free society and nation through dissemination of information on modes of contracting and transmission of Poliovirus, prevention of the disease and other vaccine preventable diseases. They identify and characterize chronically missed children and non-compliant parents through a community-friendly approach to prevent the transmission of Poliovirus.

It further stated that, core of the volunteers' work is interpersonal counseling on pre-natal and ante-natal visits to the hospital by women, immunization and promotion of key households practices such as hygiene, treatment of diarrhea, prevention of malaria, and breastfeeding form. Volunteers from their respective settlements, preferably female volunteers, are trained to work as "change agents" in the community and are responsible for house-to-house mobilization for polio and routine immunization.

1.2 Statement of the Research Problem

The performance of polio vaccination has been improving even though Nigeria remains endemic among 3 other countries in the world (Nigeria, Pakistan and Afghanistan). In 2012, Nigeria

reported 122 cases of wild poliovirus (WPV), representing 95% of the total reported cases in Africa and 54.5% of the cases reported globally. Nigeria recorded in 2013 58% reduction in the number of cases compared to 2012. Overall, there has also been a 50% reduction in the number of infected Local Government Areas in 2013 compared to 2012. In 2015, Nigeria had no record of polio outbreak but evidence from the immunization survey indicates that some Northern states have shown low-performance in administering vaccine. The Independent Monitoring Board of the Global Polio Eradication Initiative Report (2016) revealed high risk Local Government Areas such as Zaria, Sabon Gari and Chikun in Kaduna State among others with highest prevalence of non-compliance.

Various campaigns have however been done and are still ongoing by Government and Non-Governmental Organizations trying to create awareness on Polio crisis and the need for the vaccine. More so, records show resistance or non-compliance in some parts of Northern Nigeria. There exist practices and beliefs that pose threat to the fight against Poliovirus. Beliefs such as infertility caused by oral polio vaccine, children falling sick after receiving vaccine while some feel their children are not sick therefore, they do not need the vaccine. Practice such as eating germ-infested food, drinking unhygienic water and living in an unclean environment aid the spread of the virus.

The negligence of some parents on the issue of complete vaccination of their children or wards is a factor that needs immediate attention. Some children receive some doses but it would not be effective because they do not consistently receive all the doses that they should. Some settlements are left out and children missed during routine immunization days because of the lackadaisical attitude of some vaccinators. This has brought about the need to look into the polio

communication approach used by organizations to influence people toward the acceptance of polio vaccine especially in rural communities in northern Nigeria.

1.3 Aim and Objectives of the Study

The aim of the study is to strengthen the acceptance of polio vaccine in local communities through effective deployment of change communication approach.

The specific objectives are:

i. To investigate the knowledge and perceptions of poliovirus disease in the study locations.
ii. To identify and analyze the communication approaches of the Volunteer Community Mobilizer Network for poliovirus intervention in the study locations.
iii. To explore the factors militating against acceptance of poliovirus vaccine in the study locations.
iv. To suggest ways that Polio eradication can be more effectively communicated for a lasting and sustainable result.

1.4 Research Questions

i. What are the perceptions and knowledge of people on poliovirus disease in the study locations?
ii. What is the communication approaches deployed by Volunteer Community Mobilizer Network for poliovirus intervention in the study locations?
iii. What are the factors hindering the acceptance of poliovirus vaccine in the study locations?
iv. How can polio eradication be more effectively communicated to communities for a sustainable change?

1.5 Justification for the Study

Investing in the health of people remains a high priority for government throughout the world. However, most developing countries like Nigeria have experiences which have shown that effective health intervention requires an attitudinal change. The study brings to bare some practices that contribute to the resistance of polio and possible ways that such practices could be addressed. Thus, solving health problems requires that people understand their environment and are motivated to adopt or change certain attitudes. At the early stage of Polio vaccination controversy in northern Nigeria (Kaduna), WHO declared the vaccine safe and emphasized that it was not going to administer medicine without consent of the people. This stresses the importance of local acceptance of the campaign among beneficiaries of the polio vaccination initiative. This study is significant because it benefits polio communicators and Organizations to realize that effective communication; changing attitude, practices and beliefs will enhance the acceptance of polio vaccine leading the nation to a polio free country. Also, it will contribute to the spread of knowledge and help others carry out further research in the academia.

1.6 Scope of the Study

There are different organizations across the nation committed to the fight against Polio through their various programmes among which is Volunteer Community Mobilizer Network. This study

focuses on Volunteer Community Mobilizer Network (VCMN) in Sabon Gari Local Government Area of Kaduna State. Among the areas covered by VCMN within Sabon Gari Local Government Area, the study is limited to settlements within Muchia and Chikaji wards. This study tends to look at the perceptions of people on poliovirus disease and the communication approach used by VCMN in Sabon Gari Local Government Area to ascertain its strength and weaknesses with a view to suggesting ways on how polio eradication can be more effectively communicated for a sustainable result.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.0 Introduction

This chapter reviews several literature onhealth communication, communication for polio eradication intervention and immunization, poliovirus intervention and communication framework by UNICEF and polio vaccine supply.

Central to human survival is maintaining a good health for better productivity. Health is a state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity (WHO 1948). Global attention is on health communication especially communicating Polio eradication to achieve Polio disease-free and healthier society. Children are the future leaders of tomorrow and the effect of Polio results in physical impairment of the arm or leg. Hence, it is paramount to communicate the dangers of Polio and importance and use of the vaccine for a healthier society.

2.1 Contextualizing Health Communication

Before delving into health communication, it is pertinent to explain the term communication itself. Communication is essential because it is vital in the existence of mankind. Communication involves sharing, understanding and knowledge creation between people. It is a process of transmitting and receiving information on a particular issue between people. Communication for Development Roundtable Report (2004:7) postulates that:

> Without communication, there can be no democracy and without democracy, there can be no liberation and development because communication is important to development and nation building. Communication holds the key to progress, change and stability of democratic institutions upon which life, liberty and the pursuit of happiness of the nation rest.

Communication paves way for participation and sustainable development through behaviour and attitude change which will bring about nation building. People must be given the right to communicate because if people lack this right then democracy seizes to exist. The right to

freedom of speech brings about proper understanding of a people or individual and what they know and believe. As Igbuzor (2006) stated 'education is a right that should be accorded to all human beings solely by reason of being human.' More so, communication is a right that should be accorded to all human beings solely by reason of being human. The public needs to exercise this right of being human by expressing their concerns and knowledge about issues that affect their lives as well as how it should be communicated. Information from health practitioners and local people should be harnessed for the benefit of all. This right needs to be given to them through proper communication approach. Sharing of information between rural dwellers and health experts on health matters bridges the gap of distrust and creates an enabling environment for decision making that will enhance adjustment of behaviours for better health condition.

Health communication has been defined in different perspectives by different people. According to the Office of Disease and health Promotion (2015:87):

> Health communication is the study and use of communication strategies to inform and influence individuals and community decisions that affect health. It links the fields of communication and health and is increasingly recognized as a necessary element of efforts to improve personal and public health. It is a technique and a field of study involving the communication of health related information to a variety of audience with different levels of education in health and science.

Health communication uses different approaches to reach its audiences in order to share health related information with the aim of influencing and persuading individuals, communities, policy makers and the public to introduce, adopt and practice new attitudes and behaviours that will eventually improve health outcomes. Health Communication empowers people by providing them with knowledge and understanding about specific health problems and interventions. Healthy People (2010) illustrate the rising significance of health communication and projects that health communication is seen to have importance for almost every facet of health and human

well-being which includes disease prevention, health promotion, health care policy and quality of life. This has gone beyond the activities of the policy makers and government to promoting health by equipping the public with the necessary information needed. Therefore, massive efforts to improve knowledge about detection, prevention, and treatment have been undertaken.

Andreasan cited in Punam A. K. and Donald R. L (2008:117) pointed out that 'there is a growing realization that health communication strategies need to be tailored to specific segments.' However, Abrams et al cited in Punam A. K. and Donald R. L (2008:117) believes 'there is no general guide to the design of segment-focused health communication but this could help communicate specific health issues for easy comprehension of the specific message by the audience or recipient of the message.' In agreement, Jegede (2014:8) postulates that:

> Health communication is an approach to reach different audiences and share health-related information with the goal of influencing, engaging, and supporting individuals, communities, health professionals, special groups, policy makers and the public to champion, introduce, adopt, or sustain a behaviour, practice, policy that will ultimately improve health outcomes.

These strategies are used to inform and influence individual and community decisions for public health improvement. Health communication has attributes such as sharing meanings or information, influencing individuals and community, creating information, motivating target audiences, exchanging information, changing attitude and behaviour and empowering people about health problems and intervention. Health communication activities are increasingly being used to support the prevention and control of communicable or infectious diseases. Health communication can take many forms, both written and verbal, and can be directed toward individuals, communities or entire nations.

In addition, health communication is an integral component of health promotion, health education, health protection, disease prevention and treatment and is recognized as a core competency in public health and health promotion practice, playing a pivotal role in achieving public health objectives. Health communication initiatives must use the most effective and efficient strategies for the promotion, education, protection and maintenance of health through the use of the best available evidence at practice and policy level. Public health practitioners, programme managers and policymakers need to be aware of what is known about the strengths, weaknesses and costs of health communication interventions aimed at the prevention and control of communicable diseases so that impact can be enhanced and opportunities maximized for strengthening evidence-informed action. Health communication has been recognized as an important component of health promotion. (Healthy People (2010)

Concurring with the above statement, Jackson and Duffy (1998) postulate that 'health communication is relevant in a number of contexts that include health professional-patient relations, individuals' exposure to, search for and use of health messages and campaigns and can contribute to all aspects of disease prevention and health promotion.' Health promotion is the process of enabling people to increase control over and to improve, their health. It supports personal and social development through providing information, education for health and enhancing life skills. By so doing, it increases the options available to people to exercise more control over their own health and over their environments and to make choices conducive to health. Health promotion enables people to learn throughout life, to prepare them to cope with chronic illness and injuries that will come which are essential. This has to be facilitated in school, home, work and community settings. Action is required through educational, professional, commercial and voluntary bodies, and within the institutions.

Health promotion goes beyond health care. It puts health on the agenda of policy- makers in all sectors and at all levels, directing them to be aware of the health consequences of their decisions and to accept their responsibilities for health. Its policy combines diverse but complementary approaches including legislation, fiscal measures, taxation and organizational change. It is coordinated action that leads to health, income and social policies that foster greater equity. Joint action contributes to ensuring safer and healthier goods and services, healthier public services, and cleaner, more enjoyable environments. Also, the policy requires the identification of obstacles to the adoption of healthy public policies in non-health sectors, and ways of removing them. The aim must be to make the healthier choice the easier choice for policy-makers as well (Ottawa Charter for Health Promotion, 1986; Better Health Channel Ottawa Charter for Health Promotion Reproduced 2015).

Health promotion focuses on achieving equity in health. Health promotion action aims at reducing differences in current health status and ensuring equal opportunities and resources to enable all people to achieve their fullest health potential. This includes a secure foundation in a supportive environment, access to information, life skills and opportunities for making healthy choices. People cannot achieve their fullest health potential unless they are able to take control of those things which determine their health. Health promotion works through concrete and effective community action in setting priorities, making decisions, planning strategies and implementing them to achieve better health. At the heart of this process is the empowerment of communities, their ownership and control of their own endeavours and destinies. Community development draws on existing human and material resources in the community to enhance self-help and social support, and to develop flexible systems for strengthening public participation and direction of health matters. This must apply equally to women and men.

Health promotion is the process of empowering people to make healthy lifestyle choices and motivating them to become better self-managers. To achieve this, health promotion strategies focus on patient education, counseling and support tools. Examples of health promotion strategies in primary practice include education and counseling programs that promote physical activity, improve nutrition or reduce the use of tobacco, alcohol or drugs (Guide to Health Promotion and Disease Prevention: Primary Care Initiatives 2006 Ontario).

2.2 Communication for Polio Eradication Intervention and Immunization

According to WHO (2011) poliomyelitis hit its peak in 1988 with 125 countries and almost 1000 new cases were recorded daily, with predominance in India, Pakistan, Nigeria and Afghanistan. It further affirmed that since 1988 the world has come very close to eradicating polio through the Global polio Eradication initiative, a programme in which communication interventions have played a consistently central role. Mass media and information dissemination approaches used in immunization efforts worldwide have contributed to this success. However, polio is still endemic in Nigeria and issues that pertain reaching the hard-to-reach, the poorest and most marginalized, and those without access to health services remain a critical challenge in the country and have pushed eradication efforts to explore increasingly research driven and innovative communication strategies.

UNICEF-WHO Immunization Summary (2006) states that refusal or non-compliance remains an active challenge in several states in Nigeria and many children are missed due to poor service delivery during house to house immunization coverage. Other reasons for missed children include poor planning and mapping of settlements and inability to refrigerate vaccine due to lack of electricity supply. More so, Endurance A. et al (2014) added that ‘among the greatest

obstacles to Polio eradication in Nigeria is the lack of basic health infrastructure which limits vaccine distribution and delivery, as well as internal strife and oppositional stance.' Another challenge has been maintaining the potency of live vaccines in extremely hot or remote areas.

The challenge of health facilities have lingered and considered a reason for poor service delivery especially in hard-to-reach communities. Such communities are located in places that delay the reach of health workers as a result of distance to distribute the vaccine. The government must endeavour to build functional health facilities in communities like that in order to enhance vaccine delivery. However, raising health structures is not an indicator that they will accept the vaccine because there are people who do not consider Polio a health problem. This is as stated by Olsen and Miller (2009) and Jegede (2010:274) that some people do not consider polio eradication a health concern and a section of the educated elite continues to oppose the intervention programme in Nigeria. Polio intervention has a lot of other hindrances like political obstruction especially in the Northern part of Nigeria. Such obstructions were seen in India, as Ogden (2006) contends that polio intervention efforts examined in India and Pakistan between 2000 and 2007 show how social and behavioural factors have contributed to increased levels of polio resistance and the information suggests how communication strategies should be designed. Also, Arvind (2013:7) reveals that:

> Efforts to eradicate polio globally and in India, received a big setback when a 2003 fatwa issued by influential Muslim clerics in the West African nation of Nigeria warned their communities to avoid polio vaccination for it would, they said make children sterile. A minority of Muslim leaders in India also supported the fatwa.

Fatwa is a muslin religious practice- a legal opinion, ruling or decree which helps to mould the thoughts and actons for a paritcular community or person on any special issue which affects scoial, economic and personal interest. This explains the relationship that exists between people

of the same religion whether close or far from each other. The resistance in Nigeria affected other parts of the world like India. In a bid to clear the misinformation in India, UNICEF and other partners had to intervene. Arvind further stated that UNICEF and partners joined hands with premier Muslim institutions like Jamia Milia Islamic University; Aligarh Muslim University to address and overcome misguided fatwas or other ostensibly faith-based oppositions.

Polio intervention at different levels has supported improvements in the collection, analysis and use of data analyzed for communication interventions and inclusion of communication expertise in polio communication process. These provide useful spaces to step back occasionally to review the communication approaches and develop recommendations to further strengthen polio intervention communication approaches. Evidence-based and planned communication strategies such as intensive interpersonal communication, the use of influencers and opinion leaders have contributed to reducing polio incidences in the country. In agreement, Athar (2007:67) believes that:

> The use of mass immunization campaigns in the early year's initiatives and the annual decline in polio cases led many to the expectation that polio eradication was forthcoming. Mass media campaigns continue to ensure national visibility and public awareness of the initiative.

According to Athar, the role of media in communicating immunization is very important and tries to ensure awareness nationally. Piotrow et al. cited in Bankole (1994:1), adds that mass media can be a powerful tool not only for creating awareness about innovations but also for stimulating desires in people for more information and for facilitating their efforts to apply the information to their own behaviour. In agreement, Newbold and Campos (2011:5) posits that in the past few decades, electronic media have stepped to the forefront of communication and

public health communication has evolved. Mass media began the process and efforts of bridging the knowledge gap on Polio in the society but has been faced with the challenge of reaching the grass root or rural communities that do not have the means of getting information via mass media. This brought the integration of other communication media to support and compliment the mass media.

To support the mass media in communicating Polio, the use of interpersonal communication has become crucial to reach the unreached populations in the society. Interpersonal communication involves sending and receiving messages between two or more people. Tubbs and Moss cited in Williams F. Y. (2011) see interpersonal communication as encompassing many kinds of relationships from the most casual to the most long-lasting. Contrary to him, Defleur and Dennis cited in Williams F. Y. (2011) point out that it is a process of using language and non-verbal cues to send and receive messages between individuals that are intended to arouse particular kinds of meaning. Sharing of idea between two parties leads to understanding and development in any field and platform. This is seen in the research conducted by Williams F. Y. titled Effective Communication for Reference Service Delivery in Academic Libraries. It revealed that interpersonal communication is the bedrock of successful reference service and an avenue for understanding users' queries and meeting their information needs.

Interpersonal communication stands out as a medium that bridges the knowledge gap between people. It paves way for information sharing; to have new ideas from people and share information with them for development in every aspect of life. Trained health workers and interpersonal communicators have been intensified to address the context in which the polio virus thrives through interpersonal communication as well as other channels. That is why, in coordination with local health authorities, social mobilization networks in communities teamed

up with vaccination teams for routine follow-up of families. Activities include planned, intensive and repeated interpersonal communication in selected sites using house-to-house visits as well as systematic and sustained mobilization of community and religious leaders and influencers.

Several evaluation studies show how these activities have contributed to the initiatives efforts. Communities where social mobilization activities were conducted are consistently less likely to refuse oral polio vaccine, to report positive attitudes towards oral polio vaccine and higher perception of polio risk, compared with families in communities without these activities, hence, contributing to lower incidence. The communication strategy refocused on reaching women through interpersonal communication with an emphasis on oral polio vaccine safety and efficiency and its benefits to children. Trained female health workers spearhead intensified efforts as communication support persons. They communicate directly with female caregivers or indirectly through females in the community, with support from male and religious leaders. The female teams were effective in influencing caregivers as shown by reports of improvement in attitudes towards oral polio vaccine and perceptions of risk of polio in some target areas. Even so, there are some areas with non-compliance.

2.3 Poliovirus Intervention and Communication Framework by UNICEF

After World War II, European children were faced with famine and outbreak of diseases which brought about the need to create an agency to support the displaced. United Nations Children's Emergency Fund (UNICEF) was created in December 1946 by United Nations (UN) to provide food, clothing and health care to her people. It became a permanent part of the UN in 1953 and the general assembly of the UN extended her mandate to operate globally. UNICEF is a leading humanitarian and development agency working globally for the rights of every child. Child

rights begin with safe shelter, nutrition, protection from disaster and conflict, pre-natal care for healthy births, clean water and sanitation, health care and education. UNICEF has spent nearly 70 years working to improve the lives of children and their families and is active in more than 190 countries and territories through country programmes and National Committees. Working with and for children through adolescence and into adulthood requires a global presence whose goal is to produce results and monitor their effects (UNICEF.org)

Furthermore, it partners with leaders and policy makers to help all children realize their rights especially the most disadvantaged. Improving the health of children is one responsibility among many in the fight against poverty. Healthy children become healthy adults; people who create better lives for themselves, their communities and their countries. Improving the health of the world's children is a central part of her objectives. Significant progress has been made in immunization; improving child health with community-based treatments of diarrhea, pneumonia and malaria, improving access to quality care for newborns and pregnant women, child health in emergency settings, and strengthening health systems to better serve the needs of women and children. They have an extensive global health presence, and strong partnerships with governments and non-governmental organizations at national and community levels. On a daily basis they work to bring practical solutions to the women and children at greatest risk and know what it takes to ensure the survival and health of children and women. Immunization is one of the most powerful tools to end preventable child deaths.

The Convention on the Rights of the Child states that all children have the right to live and have equal access to quality healthcare. Today, four out of five children around the world are vaccinated against deadly diseases, compared to only 20 percent over 30 years ago. Yet

immunization is a critical, unfinished agenda in child health. Nearly 1 in 5 infants is still left out of the life saving benefits of vaccines and is exposed to a far higher risk of death and disability. An estimated 1.5 million unvaccinated children die each year (UNICEF.org).

UNICEF applies Communication for Development (C4D) approaches that embrace a systematic; evidence-based, strategic planning and implementation process to effect positive and measurable change in individual and community behaviors. According to Communication Handbook for Polio Eradication and Routine EPI (2001:6), communication for development is a researched and planned process, crucial for social transformation. It seeks not only to transfer messages but to promote interaction around the messages for target audiences to understand them better, accept and practice the healthy behaviours proposed, not once but long enough to reap the benefits that such behaviours bring. Therefore, the ultimate goal is a behavior change that is, to bring about and sustain the desired health behavior. Hence, for polio immunization initiatives, the most promoted behaviour is to take children for immunization regularly according to the immunization schedule.

Key to Communication for Development successes are the application of social and behavior change theories, utilization of data and consistent adherence to participatory techniques. Mario A. Chris M. and Paulo M. (2007:9) point forward that C4D is first and foremost, about people and the process needed to facilitate their sharing of knowledge and perceptions in order to effect positive developmental change. It is based on dialogue which is necessary to promote stakeholder participation. It follows the two-way, horizontal mode and not the traditional one-way, vertical model of sender-message-channel-receiver. It uses a number of tools, techniques, media and methods to facilitate mutual understanding and to define and bridge differences of

perceptions. Communication for development approach incorporates a mix of communication strategies in response to observed social and cultural behaviors in national and local contexts. It operates through three main strategies: advocacy, social mobilization and programme communication.

Advocacy is utilized to raise resources, political and social leadership commitment for development goals. Advocacy is a continuous and adaptive process of gathering, organizing and formulating information into arguments to be communicated through various interpersonal and media channels with a view to raising resources and gaining political and social leadership acceptance and commitment for a development programme, thereby preparing the society for acceptance of the programme. It aims at getting the interest of leaders at different levels in the society to key into the programme initiated for societal acceptance. This implies that the presence and recognition of such individuals to the initiative is a great factor for general acceptance.

Social mobilization creates ground for wide participation of people and ownership of development programme initiated. Social mobilization is a process of bringing together all feasible social partners and allies to identify needs and raise awareness and demand for a particular development goal. It involves enlisting the participation of different actors-institutions, groups, networks and communities in identifying, raising and managing human and material resources thereby increasing and strengthening self-reliance and sustainability of achievements.

Programme communication is a research based consultative process of addressing knowledge, attitudes and practices of people. This is done through identifying, analyzing and segmenting audiences and participants in the programmes by providing them with relevant information and

motivation through well defined approaches such as interpersonal approach, group approach and mass- media channels and or an appropriate mix of the different approaches that include participatory communication methods. Engaging programme communication thoroughly, will ensure changes in knowledge, attitude and practices of specific participants in any development initiative. (Communication Handbook for Polio Eradication and Routine EPI (2001)

These approaches creates the opportunity to engage families, communities and larger social networks through dialogue and consultation to identify key issues, challenges and opportunities, and to take action themselves in their own communities leading to outcomes and potential that will cause change for effective polio eradication. The approach aims to reach the most at-risk populations and it holds the key to the global goal of polio eradication. C4D approaches give the global initiative the tools and understanding necessary to reach these populations and ensure every last child is immunized. Children who missed out on vaccinations are often the most deprived. They typically also lack food and clean water, live in poor housing, do not go to school and cannot access even basic health care. Gaps in immunization affect children in rural and urban areas, and in poor and middle-income countries. Conflict can also make it impossible for vaccinators to reach children. Others are excluded because they are from ethnic minorities, or live deep in city slums, where health services operate poorly if at all. Religious or traditional beliefs can lead some communities to refuse vaccination, while others, such as nomads, refugees or migrants, are continuously on the move (UNICEF.org).

The above implies that communities and families are faced with different challenges that result in children missing immunization therefore approaches embedded in communication for development on polio intervention must address the challenges.

2.4 Polio Vaccine Supply

Vaccines keep children alive and healthy by protecting them against the disease. Immunization is especially important for the hard- to -reach families as it can also support the delivery of other immunization supplies for mothers and children in isolated communities such as child nutritional screening, Insecticide Treated Nets (ITN) and vitamin A supplements. Immunization is one of the most successful and cost-effective public health investments we can make for future generations. Vaccines are protecting more children than ever before. But, in 2012, nearly one in five infants (22.6 million children) missed out on the basic vaccines they need to stay healthy. Low immunization levels compromise gains in all other areas of health for mothers and children. The poorest, most vulnerable children who need immunization the most continue to be the least likely to get it. Almost one third of deaths among children under 5 are preventable by vaccine. UNICEF and its partners are working to change these numbers and ensure that all children are successfully protected with vaccines. But, if immunization is not prioritized, the most marginalized children will not get vaccines (UNICEF.org).

Endurance, A. et al (2014) pointed out that under the National Polio Immunization (NPI), the first mandate is to support the states and local government in their immunization programmes by supplying vaccines, needles and syringes, cold chain equipment and other things and logistics as may be required for the programmes. However, the supply of vaccines has been problematic for Nigeria, primarily because funds were not sufficient and were not released on time. For example, in 2001 the whole amount was approved but only 61% was released. The late release of funds meant that vaccine had to be bought on spot market at inflated prices. He further stated that in 2002 no funds were released and by March 2003, the funding cycle had only reached the stage of

getting the budget approved. NPI could not supply any syringe for Rubella infection in 2005. The study revealed that the last quarter of 2003, UNICEF began supplying vaccines based on agreement however, that has not solved the problem of vaccine shortages. For example, cerebrospinal meningitis vaccine was not supplied in time to allow the immunization take place before the meningitis season. Measles vaccine also arrived too late to limit the effect of measles outbreak in the north and an insufficient quantity of the vaccine was supplied to Abia.

As the world's largest provider of vaccines for developing countries, UNICEF is uniquely suited to procure sufficient quantities of Oral Polio Vaccine (OPV) to ensure adequate supplies. UNICEF supports governments who hold primary responsibility for vaccination programmes to target unimmunized children and provide for both the cost of vaccines and for their delivery. UNICEF's "Reaching Every Community" strategy helps focus immunization activities and resources on the most vulnerable and excluded communities so that all children are protected from vaccine-preventable diseases, regardless of where they live. Reaching every child with life saving vaccines together with its partners, UNICEF has outlined a clear goal for expanding immunization coverage: reaching 90% of children under the age of one nationwide with routine immunization, and at least 80% of coverage for every country district by the year 2020. This mission is to improve health by extending the full benefits of immunization to all people, regardless of where they are born, who they are or where they live. More than 100 million infants are immunized each year, saving 2-3 million lives annually. Since 2000, an estimated 15.6 million child deaths have been averted through measles immunization. Maternal and neo-natal tetanus has been eliminated from 35 out of 59 high-risk countries since 1999 through vaccination(UNICEF.org).

Despite the aforementioned immunization coverage, there are still gaps. Remote locations with weak health services, lack of education and conflict can prevent children from getting the vaccinations they need to survive and thrive. Many developing countries, Nigeria inclusive struggle to maintain cold chains and provide the most favorable temperature control for storage because it is highly expensive.

Endurance A. et al (2014) in a study titled "Current Trends of Immunization in Nigeria: Prospect and Challenges", found out that over the years, Nigeria has received huge quantities of cold chain equipment. Despite this support, much of the cold chain appears to be beyond repair. This is partly due to the focus on Polio eradication, which uses freezers. In one zonal store, only one of the three cold rooms was working, with a single compressor operational. He reported that substantial numbers of solar refrigerators have been bought in the last few years; although, a useful addition amounts to $5,000 each and prone to breakdown. At state level, the cold stores are poorly equipped and badly managed. More than half of the refrigeration equipment is either broken or worn out. In the eight states visited, 47% of the installed solar fridges were broken and $205,000 worth of solar equipment remained uninstalled.

The research by Endurance A. et al brings to bear the state of vaccine storage and maintenance. Although Nigeria has support from different donors or sponsors, there is poor attention given to the cold chains. Cold rooms are given less attention; poorly maintained ad managed. In this light, there is need for appropriate interest in managing the cold rooms as expected to secure the potency of the vaccines administered and or to be administered to children.

For this reason, Oli A. N. carried out a study to investigate the potency of Polio vaccines from the cold chains in Nigeria. A study by Oli A. N. (2017) titled: "How much Immunogenic are the Oral Polio Vaccines Sourced from the Central Cold-chain Facilities in South-Eastern Nigeria"?,

revealed there is need for continuous monitoring and validation of pharmaceutical products (including vaccines) in circulation in every country. Vaccines must be maintained in cold-chains from the manufacturer to the end user. However potent a vaccine may be, if cold chain is not maintained from the manufacturer to the place of vaccination, the vaccine efficacy greatly suffers. The study concluded that the cost of immunizing a child is heightened by the cost of maintaining the cold chains using the alternative power supplies to the national power grid. The transport, storage and handling of vaccines needs constant power supply for a continuous cold temperature for the vaccines. He further recommends a continuous monitoring of the efficiency of the cold chain maintenance as well as vaccine potency testing that would translate to good vaccine strategy and successful childhood immunization programme in Nigeria.

Immunization is aimed at the prevention of infectious diseases; hence there should not be setbacks in managing storage facilities meant for storing and safeguarding vaccines. The government must ensure the safety of vaccines through proper monitoring of cold-chain facilities; solar refrigerators and other equipments. Achieving and maintaining high levels of immunization coverage must be a priority of all health systems and protection of vaccine is important.

2.5 Theoretical Framework

The Health Belief Model (HBM) developed by Becker (1974) from the work of Rosenstock (1966) was used to underpin this study. The HBM attempts to explain and predict health behaviours. This is done by focusing on the attitudes and beliefs of individuals. It explains the process of change in relation to health behaviour as well as abilities and motivation to change health status. The model proposes that in order for an individual to take action to avoid a disease he would need to believe that:

(i) He is personally *susceptible* to it. This defines an individual's beliefs and perception that a health problem is personally detrimental will contribute to taking the required action to prevent the health problem. There should be activities that will increase the person's perception of one's vulnerability to the health condition. For example, people who perceive their children to be susceptible (at risk) to poliovirus disease would more likely accept the vaccine to protect their children from contracting the disease.

(ii)The occurrence of the disease would have at least moderate *severity* on some component of his life. One's beliefs of how serious a condition and its consequences are would determine a call to action. If an individual realizes the magnitude of the negative consequences; serious physical and social implications of a condition, the person could take the necessary actions to avoid these negative consequences. For example parents must perceive poliovirus as a serious disease that could cause severe health damage on children's physical and social lives, before they would accept the vaccine.

(iii) Taking a particular action would be *beneficial* by reducing his susceptibility to the condition or, if the disease occur, by reducing its severity. This refers to one's viewpoint on the effectiveness of the proposed action to reduce the risk or seriousness of impact of the health

problem. A person is influenced by beliefs regarding the effectiveness of known available alternatives in this case, accepting polio vaccine. The person needs to believe that accepting polio vaccine is the only means to avoid or prevent poliovirus disease. It is this belief that gives a person confidence to take the action because of the expected outcomes (poliovirus free society). Furthermore, an individual may feel likely to adopt the available alternative which is beneficial but at the same time, that action itself is perceived as inconvenient, expensive, unpleasant, painful or upsetting. This explains that there are *barriers* that affect people's decision to take particular health actions. Perceived barriers to health actions include fearful reactions, physical as well as emotional barriers, accessibility factors, personal opinions etc. Whatever is a hindrance to engage in preventive behaviour is seen as perceived barrier. Therefore, it is when parents realize that they have the ability to deal with their perceived barriers, that they would be able to take the necessary actions and as such accept poliovirus vaccine for their children.

HBM is a suitable theory for tackling negative behaviours that induce health concerns such as the consequence of refusal of polio vaccine. Therefore, adopting the HBM, outlined are four factors that need to take place for a change in refusal of polio vaccine:

1. The person must feel there is a 'risk' of continuing the current behaviour that is refusing to accept polio vaccine. Therefore, refusing to accept polio vaccine especially in a high risk area, children would be at risk of contracting the disease now or in nearest future.
2. The person must perceive that the health problem is very serious that is poliovirus disease is highly detrimental to a child's health. People must perceive poliovirus as a serious disease that could cause severe health damage on children's physical and social lives, before they would accept the vaccine.

3. The person must believe change will have benefits and these need to outweigh the barriers to change. People should understand that accepting polio vaccine means their children will be protected from the attack of the virus all their lives therefore barriers such as vaccine causing sickness and infertility (which are not true) and opinions of other people should not outweigh the benefits.

Additionally, the HBM suggests that there is a 'cue to action' that would prompt a behaviour change to take place. It is necessary to involve a cue, or a trigger for appropriate action. The combined levels of susceptibility and severity provide the energy or force to act and the perception of benefits with less barriers, provide a preferred path of action but some instigating event is needed to set the process in motion. In this case, a cue for accepting polio vaccine could be consistent interpersonal interactions, providing incentives; the impact of media of communication etc. The HBM also presents that there are some modifying factors central to behaviour change that include educational status, environment, family and societal orientation etc. They are variables that control a person's understanding of the disease susceptibility, severity, benefits and barriers which are likely to affect the decision-making process.

The reason for the selection of the HBM as a framework for this study is due to the fact that it reinforces the need for compliance as it provides the template for attitudinal change especially to health related challenges.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

The importance of methodology to a research work cannot be over emphasized, as it is very necessary for a researcher to have a designed arrangement as regards the way to gather data. This study explored qualitative and quantitative research methods to generate data. These methods are suitable because they engender adequate interaction with the respondents to get hold of salient and underlying information on the study.

3.1 Study Population

The population used for this study included inhabitants of settlements in Muchia ward with population size of 4554 and Chikaji ward with the population size of 2329 (Volunteer Community Mobilizer Micro Census December 2015) in Sabon Gari Local Government Area where Volunteer Community Mobilizer Network operates. Also, members of Volunteer Community Mobilizer Network; supervisors, communicators and vaccinators among others, also constitute the population of this study.

3.2 Sampling Technique/ Size

For the purpose of this study, cluster sampling being a probability sampling technique was used to choose Muchia and Chikaji wards which share similar characteristics and are located in same Local Government Area where Volunteer Community Mobilizer Network operates. In reducing the population to a sample size used to investigate the phenomenon, the Raosoft Online Sample Size Calculator (2016) was used to determine the sample size of the known estimated population of 6883 persons (a total of Muchia and Chikaji population size). Thus, the sample size of 364 was adopted for this study. In order to determine the sample size for each ward, the proportional sampling size method was further used to allocate the reduced sample size to each area. Since the percentage of Muchia population from the total population is 66.2% and that of Chikaji is 33.8%.

This formula was used to share the sample size to the two communities respectively. Proportional percentage sampling = % x P÷100 (Note, P is the sample size). That is the sample size for Muchia is 66.2x364 ÷100 = 241 while the sample size for Chikaji is 33.8x364÷100=123.

3.3 Research Instruments

3.3.0 Questionnaire

The questionnaire in this study was structured into four sections. Section A consists of the demographic characteristics of the respondents, Section B consists of questions aimed at answering the first research question and Section C consists of questions aimed at answering the second research question while Section D is made up of questions set to answer the third research question. Similarly, section E is a construct of questions targeted at answering the fourth research question. Three hundred and sixty four (364) copies of questionnaire were distributed

3.3.1 Focus Group Discussion (FGD)

Focus group discussion is a qualitative research strategy aimed at understanding the people's attitude and behaviour. It involves an interview with six to twelve (6-12) people in a group who share certain characteristics, qualities and interests; they could be streamlined based on age, language, sex, gender and more (Wimmer and Dominic, 2003). Such group discussion gives room for opinion sharing about a phenomenon among a group of people.

Two FGDs were conducted in this study, one for each community (Chikaji and Muchia). Chikaji is tagged FGD A and Muchia is tagged FGD B. This study was gender sensitive therefore; women and men were engaged. The discussions were guided by the researcher introducing the topic and helping each member of the group to participate actively, in so doing, issues around the

study ranging from their knowledge and perception on poliovirus disease, beliefs of people about poliovirus vaccine, channels from which they get information on poliovirus as well as why non-compliance lingers in the society among others were discussed. More so, it disclosed the communication approach used by Volunteer Community Mobilizer Network as it accommodates the people's cultural realities hence, revealing how issues of Polio should be communicated efficiently with a huge positive impact on the people through polio vaccine compliance.

3.3.2 Interview Method

Interview is an interaction process which involves at least two people (interviewer and interviewee) in a face-to-face discussion with the aim of obtaining information from the interview. Interview has the potential of generating further discussions as it brings up salient issues concerning the study at hand. This instrument permits follow-up questions to be asked by the researcher and respondents for clarification on the study. This instrument was deployed by the researcher to capture wide-ranging perspectives on the study. Interview was conducted with six volunteers and two ward supervisors.

3.3.3 Observation Method

It is a system of data gathering by watching attitude, behaviour and events in their natural environment and occurrence. This study utilized documentary observation method. The

researcher observed VCMN's relevant documents aimed at addressing non-compliance. The researcher observed expressions of the community people during the discussions.

The research instruments mentioned above were important because seeing the respondents, interacting and interviewing them, gave the researcher first-hand information. The face-to-face approach was an advantage to the research work as it provided depth and quality to the study.

3.3.4 Sources of Data

Sources of data are classified into two; primary and secondary. Primary data for this study were collected through engagement with members of Muchia and Chikaji communities as well as officials of Volunteer Community Mobilizer Network in Sabon Gari Local Government Area. Secondary data on the other hand, are already existing data. Therefore, Secondary data for this research included reports on Poliovirus situation globally and in Nigeria, books, journals and internet sources.

3.4 Guide for Analysis

The data collected in this study were analyzed quantitatively and qualitatively. Tabulation and percentages accompanied by descriptive analysis were used in the presentation of responses from respondents for easy analysis and interpretation. These tools were used because they were suitable for breaking down and analyzing qualitatively and quantitatively the data generated.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.0 Introduction

This chapter deals with the presentation of results and discussion of data gathered for the study. This study adopted both the quantitative and qualitative methods of research for the data collection and analysis. The quantitative data gathered through questionnaire were analyzed while the qualitative data from the conducted focus group discussion and key informant interview were used to support the findings of the quantitative data.

The researcher conducted interview with Volunteer Community Mobilizer Network (VCMN) supervisors as well as some staff (volunteers) of VCMN. The data collected using the quantitative approach was interpreted using frequency tables and percentages while data collected using the qualitative approach was interpreted using descriptive analysis to support the former for better understanding. This study employed four research instruments for data collection. These include Focus Group Discussion (FGD), Key-Informant Interview, Questionnaire and Observation.

The researcher conducted two focus group discussions with men and women in the two communities; Chikaji (tagged FGD A) and Muchia (tagged FGD B), having six (6) for each community, making a total of twelve (12) participants for the focus group discussion. The Key-Informant interview was conducted with members of Volunteer Community Mobilizer Network. Six (6) volunteers and two (2) supervisors were interviewed altogether. A total of 364 copies of questionnaire were distributed to the inhabitants of Muchia and Chikaji communities. Two hundred and forty one (241) copies were administered in Muchia but two hundred and thirty copies (230) were retrieved while one hundred and twenty three (123) copies were administered in Chikaji but one hundred (100) copies were retrieved.

4.1 Presentation of Data

The data gotten using the research instruments were analyzed as presented below:

Section A: Demographic Characteristics of the Respondents

Table 1 Demographic information of respondents from the study areas

Variables	Chikaji		Muchia	
Age	Frequency	%	Frequency	%
15-20	7	7%	27	11.7%
21-25	26	26%	58	25.2%
26-30	35	35%	77	33.5%

31 and above	**32**	**32%**	**68**	**29.6%**
Total	**100**	**100%**	**230**	**100%**
Sex				
Female	**52**	**52%**	**129**	**56.1%**
Male	**48**	**48%**	**101**	**43.9%**
Total	**100**	**100%**	**230**	**100%**
Marital status				
Single	**33**	**33%**	**91**	**39.6%**
Married	**52**	**52%**	**108**	**46.9%**
Divorced	**15**	**15%**	**31**	**13.5%**
Total	**100**	**100%**	**230**	**100%**
Level of education				
Primary	**8**	**8%**	**48**	**20.9%**
Secondary	**31**	**31%**	**70**	**30.4%**
Tertiary	**15**	**15%**	**67 29.1%**	
Arabic/Islamic School	**46**	**46%**	**45**	**19.6%**
Total	**100100%**		**230**	**100%**

Source: Field Data 2017.

Age distribution of respondents

The table above represents the demographic characteristics of the respondents which are necessary in order to capture the age range, marital status, sex and their level of education. The significance of the age distribution here is to ensure that the different age ranges within the communities are accessed in the survey.

The table reveals that in Chikaji, 7 respondents fall within the age range of 15 to 20 years, representing 7%; 26 respondents fall within the age range of 21 to 25 years representing 26%

while 35 representing 35% respondents fall within the age of 26 to 30 years and 32 representing 32% respondents fall within the age range of 31 years and above. In Muchia, 27 respondents fall within the age range of 15 to 20 years representing 11.7%; 58 respondents fall within the age range of 21 to 25 years representing 25.2% while 77 representing 33.5% respondents fall within the age of 26 to 30 years and 68 representing 29.6% respondents fall within the age range of 31 years and above. (**See Table 1; Page 38**)

The majority of the respondents falls within the age range of 26 to 30 representing 35% in Chikaji and 33.5% in Muchia which means that this is the age and time to instill the right knowledge and equip them with information about poliovirus disease and the importance of the vaccine. They are the leaders of tomorrow therefore they need the right information to pass unto the next generation and fight against poliovirus disease. Likewise, ages 31 and above representing 32% in Chikaji and 29.6% in Muchia, constitute another important group of people in the society that can hinder or enhance the acceptance of poliovirus vaccine in their respective society. It is paramount to reach out to this group of people because they are parents and guardians.

Distribution of respondents based on their Sex

Distribution of respondents based on sex is highly necessary in order to have views from both sexes. In Chikaji, result from the table shows female respondents as 52 representing 52% and male respondents as 48 representing 48%. In Muchia, the table reveals female respondents as 129 representing 56.1% and male respondents as 101 representing 43.9% respondents. This implies that there is a reasonable representation of both male and female in the study. (**See Table 1; Page 38**)

Distribution of respondents based on marital status

The table shows single as 33 representing 33% respondents; married as 52 representing 52% respondents and divorced as 15 representing 15% in Chikaji. The table shows single as 91 representing 39.6% respondents; married as 108 representing 46.9% respondents and divorced as 31 representing 13.5% respondents in Muchia. Deducing from the table, the highest number of respondents constitute the married and should be well informed because they have the right to decide whether their children will receive the vaccine or not. Nevertheless, those who are not married need the information for the nearest future as well as the divorced. (**See Table 1; Page 38**)

Educational levels of respondents

The table revealed the level of education of respondents as follows: primary educational level as 8 representing 8% respondents; secondary educational level as 31 representing 31% respondents, 15 representing 15% respondents for tertiary educational level while 46 representing 46% respondents have Arabic/Islamic educational level in Chikaji. Also, the table revealed primary educational level as 48 representing 20.9% respondents; secondary educational level as 70 representing 30.4% respondents, 67 representing 29.1% respondents for tertiary educational level while 45 representing 19.6% respondents for Arabic/Islamic educational level in Muchia.

From the table above, it is evident that the respondents have different educational background ranging from primary education to Arabic/Islamic education. This implies that the respondents will have different views concerning polio depending on the previous knowledge from the different educational background and people they interacted with in the school environment. (**See Table 1; Page 38**)

Section B: Investigate the knowledge and perception of the study areas on poliovirus disease.

Table 2 Are you aware of poliovirus disease?

Variable	Chikaji	%	Muchia	%
Yes	**91**	**91%**	**227**	**98.7%**
No	**9**	**9%**	**3**	**1.3%**
Total	**100**	**100%**	**230**	**100%**

Source: Field Survey 2017.

From the table above, the respondents who are aware of the existence of poliovirus disease in Chikaji community amounted to 91 representing 91% while 9 representing 9% are not aware of its existence. The respondents who are aware of the existence of poliovirus disease in Muchia amounted to 227 representing 98.7% while 3 representing 1.3% are not aware of its existence. The data from the table shows that majority of the respondents in Chikaji and Muchia are aware of the existence of poliovirus disease. In agreement, discussants in FGD (B) disclosed their knowledge of the existence of poliovirus in their community. They posit that:

> The surrounding is filled with different diseases that affect our body and cause people to fall sick and poliovirus disease is one of such diseases. There are children and adults who have been affected by the disease in our communities that is how we got to know that the disease exist therefore, we have to do our best to fight it. (Translated *FGD Response, Muchia, Sabon Gari LGA, January 2017*)

Also, FGD (A) discussants disclosed that:

> We are aware of poliovirus disease in the community because a child was affected and that opened our eyes to its existence. At first, it was not known until she fell sick and started having problem with her legs then she was taken to the hospital. The doctor said she has poliovirus disease and it has affected her legs. The doctor explained better and since then, we always go to the hospital for our children to be checked because we do not want our children and grandchildren to be affected again. (*Paraphrased FGD Response, Chikaji, Sabon Gari LGA, January 2017*)

However, from table 2 above; 9 representing 9% respondents in Chikaji and 3 representing 1.3% respondents in Muchia seem not to be aware of its existence. To buttress the above statement, some discussants in FGD (A) pointed out that:

> Story told by our fore fathers is that when a child begins to have problem with his/her legs and arms, it is called “shan inna”. It is an attack from an evil spirit that affects the legs and arms. It is not a sickness rather evil spirits have taken control of the child’s body and makes the child useless to the family and in life. (Translated *FGD Response, Chikaji, Sabon Gari LGA, January 2017*)

Also, KII with Halima Dabo supervisor of Muchia ward, support the above view that:

> There is evidence of poliovirus disease in the community but some inhabitants do not agree. Mostly, people in the community who do not believe its existence say it is an evil attack. They believe the victims of poliovirus disease are being possessed by evil spirit therefore; the victim has to be taken to the imam for prayers. (Translated *Researcher’s Interview with Halima Dabo, Muchia, Sabon Gari LGA, February 2017*)

Deducing from the data from the questionnaire, the FGDs and KII conducted; it implies that poliovirus disease is a known disease whereas there are people who disagree based on previous knowledge and understanding of the disease. These people could be lacking information on poliovirus disease, are ignorant and or do not want to accept its existence as poliovirus disease. Without changing such negative knowledge on poliovirus disease in the society, there will still be non-compliance and refusal of poliovirus vaccine in some communities.

Table 3 Children from 0-5 years old should receive poliovirus vaccine?

Variable	Chikaji	%	Muchia	%
Yes	91	91%	227	98.7%
No	9	9%	3	1.3%
Total	100	100%	230	100%

Source: Field Survey 2017.

From the table above, the respondents who agree that children from 0-5 years old should receive polio vaccine in Chikaji ward amounted to 91 representing 91% while 9 representing 9% did not agree. Consequently, in Muchia ward, 227 representing 98.7% respondents agree that children from 0-5 years old should receive the vaccine while 3 representing 1.3% respondents disagree. This implies that majority of the respondents in Chikaji and Muchia know the importance of the vaccine and support children from 0-5 years old to receive poliovirus vaccine. To buttress the above, findings from the FGD (B) revealed the following:

> The vaccine is very important because it helps to keep our children strong and prevent the disease from affecting our children. It is vital to ensure that children from zero to five years get polio vaccine along-side other vaccine preventable diseases because there are other diseases apart from poliovirus disease. (Translated *FGD Response, Muchia, Sabon Gari LGA, January 2017*)

In the same vein, discussants in FGD (A) disclosed that:

> Over time, few children are seen having such problem as it were. It is because of the vaccine given to them therefore, we appeal to those who do not comply in our community to change for the society to get rid of poliovirus disease completely. Vaccine is important for the complete survival of children at their tender age. (Translated *FGD Response, Chikaji, Sabon Gari LGA, January 2017*)

Supporting the findings above, Maryam Haruna (the supervisor of Chikaji) revealed that:

> Poliovirus vaccine is important for preventing the disease. Without the vaccine children are at risk of the virus because an infected child could infect other children who did not

receive the vaccine in the same community. (Translated *Researcher's Interview with* Maryam Haruna of VCMN, Chikaji, *Sabon Gari LGA, February 2017*)

On the contrary, some discussants in FGD (A) disagree. The discussants postulated that "children who are crippled are affected by demonic spirit; therefore, they need help from Imams." Data from questionnaire, FGD and KII make it evident that there are people who have little or no information on the importance of poliovirus vaccine and its effect on the society. It implies having such group of people in the society will make it difficult to put a stop to poliovirus disease affecting children.

Table 4 Through which communication medium do you get information on poliovirus disease?

Variable	Chikaji	%	Muchia	%
Radio	**35**	**35%**	**66**	**28.7%**
Television	**15**	**15%**	**63**	**27.4%**
Non-governmental Organization	**-**		**-**	
All of the above	**50**	**50%**	**101**	**43.9%**
Total	**100**	**100%**	**230**	**100%**

Source: Field Survey 2017.

The table above revealed that in Chikaji ward, 35 representing 35% respondents get information on poliovirus disease through radio; 15 representing 15% respondents get information on poliovirus disease from the television while 50 representing 50% respondents agree they get information on poliovirus disease through radio, television and non-governmental organization. Also, the table revealed that in Muchia ward, 66 representing 28.7% respondents receive information on poliovirus disease through radio broadcast; 63 representing 27.4% respondents

get information on poliovirus disease through television broadcast while 101 representing 43.9% respondents get information via radio, television and non-governmental organizations.

This points out that there are different means of disseminating information on poliovirus disease that people are familiar with and give audience. Radio having 66 representing 28.7 respondents and television with 63 representing 27.4%, both have a slight difference which implies that they are viable means and widely used. From the table above, 50 representing 50% respondents in Chikaji and 101 representing 43.9% have greater percentage representing radio, television and non-governmental organization as media through which they receive information on poliovirus disease depending on the medium they are exposed to in the communities.

FGD (B) is in agreement with 35 representing 35% respondents in Chikaji and 66 representing 28.7% respondents that chose radio as the medium they get information on poliovirus disease, as thus:

> It is easy to walk around with a radio set because it is not heavy; we can buy it and there is affordable battery that keeps it working. We listen to issues on poliovirus on radio whether we are busy or not. We are told how bad the disease is as well as the number of children affected in different places in the country and outside the country. (Translated *FGD Response, Muchia, Sabon Gari LGA, January 2017*)

Also, FGD (A) re-affirmed that information on poliovirus disease usually reaches them through the radio. Information concerning the day immunization will start; they encourage parents to be prepared and welcome the vaccinators as they go from house to house to administer vaccine. It indicates that radio is a reliable source of information for people at rural areas where they cannot afford television and or lack electricity supply.

Data from the questionnaire revealed that 50 representing 50% respondents in Chikaji and 101 representing 43.9% respondents in Muchia get information via radio, television and non-governmental organization. This position is further corroborated by FGD (B):

> Information on poliovirus reaches us through means like radio and television. Apart from radio and television, there are organizations like VCMN that carry out campaigns on poliovirus therefore we get informed when they come to talk with us and give the vaccine. Sometimes, we meet some of the health personnel at hospitals when we go for treatment. (Translated *FGD Response, Muchia, Sabon Gari LGA, January 2017*)

To corroborate the above, FGD (A) responded that:

> Mostly, we are informed about poliovirus listening to the radio and television although some of us spend less time watching television. Aside that, in some hospitals, we see posters that explain how the disease is gotten, symptoms that follow and the need for the vaccine to prevent the disease. The posters have pictures of children that have been affected. (Translated *FGD Response, Chikaji, Sabon Gari LGA, January 2017*)

The above data from the questionnaire and FGD implies that respondents in the study areas are familiar with the media through which information on poliovirus disease are disseminated. Invariably, information on poliovirus disease can be disseminated through the media depending on the medium the community people are comfortable with and or prefer.

Section C: Identifying and analyzing the communication approaches of the Volunteer Community Mobilizer Network for poliovirus intervention.

Table 5 Are you aware of Volunteer Community Mobilizer Network (VCMN)?

Variable	Chikaji	%	Muchia	%
Yes	91	91%	198	86.1%
No	9	9%	32	13.9%
Total	100	100%	230	100%

Source: Field Survey 2017.

From the table above, the data indicates that in Chikaji, 91 representing 91% respondents are familiar with the Volunteer Community Mobilizer Network (VCMN), while 9 representing 9% respondents are not familiar with VCMN in their community. In Muchia, 198 representing 86.1% respondents are familiar with VCMN while 32 representing 13.9% are not familiar with the VCMN in their community. Therefore, it shows that majority of respondents in the study areas are aware of the existence of the VCMN and may have interacted with them in one way or another.

Discussants in FGD (A) stated that:

> We are aware of VCMN in our community. They come to our houses to talk with us concerning poliovirus disease and other practices for healthy living. When they come around but do not meet us at home, there is a write up on the wall of our houses that indicates they came for the immunization. They try to visit every house; they discuss with parents and inform them of the day for immunization and encourage parents to accept the vaccine. (Translated *FGD Response, Muchia, Sabon Gari LGA, January 2017*)

In addition, FGD (B) puts forward that:

> VCMN in our community has been helpful to the community especially the aspect of health. They make sure that vital information reaches us; they follow women to their houses to make sure that they attend meetings, ante-natal and visit the hospital for our children to collect all the doses of vaccine for poliovirus disease. They create a bond or

good relationship with the women in their settlements so that they will respond to the call for vaccine acceptance. (Translated *FGD Response, Chikaji, Sabon Gari LGA, January 2017*)

In contrast with respondents who are aware of the VCMN, in Chikaji; 9 representing 9% respondents and 32 representing 13.9% respondents in Muchia are not aware of the VCMN in their communities. Invariably, this means that there are those who agree with the existence of VCMN while others do not. In agreement with the above, some respondents in FGD (A) stated that 'they have no idea of what VCMN is and have never seen them in their community.' This implies they have never come across anything that concerns VCMN and cannot identify them.

Table 6 What activities do they (VCMN) carry out?

Variable	**Chikaji**	**%**	**Muchia**	**%**
Awareness on poliovirus	**16**	**16%**	**35**	**15.2%**
Administering vaccine	**25**	**25%**	**65**	**28.3%**
Awareness on poliovirus and administering vaccine	**50**	**50%**	**98**	**42.6%**
No response	**9**	**9%**	**32**	**13.9%**
Total	**100**	**100%**	**230**	**100%**

Source: Field Survey 2017.

The table above sought to know whether respondents are aware of the activities of VCMN. The table shows that in Chikaji; 16 representing 16% respondents indicated that VCMN carry out awareness on poliovirus disease; 25 representing 25% respondents pointed out that VCMN carries out vaccination, 50 representing 50% respondents pointed out that they carry out awareness on poliovirus disease and vaccination while 9 representing 9% respondents did not respond. In Muchia; 35 representing 15.2% respondents selected awareness on poliovirus, 65

representing 28.3% respondents indicated that VCMN administer poliovirus vaccine, 98 representing 42.6% respondents indicated VCMN create awareness on poliovirus and administer vaccine while 32 representing 13.9% respondents did not respond.

From table 6 above, majority of respondents in Muchia and Chikaji indicated that VCMN carry out awareness on poliovirus disease and administer vaccine in their communities. In agreement, FGD (B) revealed that VCMN move from house to house to interact with households on poliovirus disease; how it affects the community, how it is contacted and the importance of the vaccine for children within the age range of 0-5 years.

In addition to the above, the KII held with Amina Sani of VCMN revealed that:

> VCMN tries to reinforce and strengthen information that people hear from the media like radio and television for better understanding. To conduct interactive sessions and use other means to talk with people about poliovirus disease; why the vaccine is necessary for the wellbeing of their children. We educate them on the right way to live to achieve good health for their family especially their children. (Translated *Researcher's Interview with Amina Sani of VCMN, Sabon Gari LGA, February 2017*)

This implies that majority of people in the study areas have an understanding of what VCMN is doing depending on their interaction with them. Some have come across them administering vaccine while some have come in contact with them creating awareness on poliovirus disease and informing the people when immunization will commence. Also, some have been engaged with them while they were creating awareness on poliovirus disease and administering vaccine. On the other hand, some respondents did not react to the question. It implies that there are some people who do not know about VCMN or their activities.

Table 7 What communication approaches do they (VCMN) use?

Variable	Chikaji	%	Muchia	%
Discussion during home visit	**47**	**47%**	**129**	**56.1%**
Compound discussion sessions	**22**	**22%**	**34**	**14.8%**
Messages on Phone/ Cassette	**10**	**10%**	**15**	**6.5%**
Leaflet distribution	**12**	**12%**	**20**	**8.7%**
No response	**9**	**9%**	**32**	**13.9%**
Total	**100**	**100%**	**230**	**100%**

Source: Field Survey 2017.

From the table above, in Chikaji, 47 representing 47% respondents revealed that VCMN move from house to house to interact with them on Polio; 22 representing 22% respondents revealed that VCMN conduct compound discussions with them on Polio, 10 representing 10% revealed VCMN makes available messages about Polio via phone and or cassette while 12 representing 12% respondents revealed VCMN distribute leaflets and handbills on Polio and 9 representing 9% respondents did not react to the question. In Muchia, 129 representing 56.1% respondents revealed that VCMN moves from house to house to interact with them on Polio; 34 representing 14.8% respondents revealed that VCMN conducts compound discussions with them on Polio, 15 representing 6.5% revealed VCMN makes available messages about Polio via phone and or cassette while 20 representing 8.7% respondents revealed VCMN distributes leaflets and handbills on Polio and 32 representing 13.9% respondents did not react to the question.

In support of the data from the questionnaire, KII revealed that:

> VCMN engages the people face to face; we go to their houses and talk with them. This process is used to support information that the people may have heard from the radio and television for better understanding. Through exchange of ideas; we tell them practical experiences of people they see around especially children who are rendered helpless by the disease, that way they have better understanding and some of them respond while some do not because they need the consent of their husbands for their children to be given the vaccine. *(*Translated *Researcher's Interview with Amina Shehu of VCMN, Sabon Gari LGA, February 2017)*

It is in agreement with Amina Sani, who said that 'the purpose of going from house to house is to make people in the communities have a sense of belonging and support the fight against poliovirus disease. This process helps us know reasons for refusal; provides avenue for clearing misinformation and doubts about the vaccine in rural communities and bring about change. *(*Translated*Researcher's Interview with Amina Sani of VCMN, Sabon Gari LGA, February 2017)*

Also, the FGDs conducted pointed out that this particular approach has improved their knowledge on poliovirus disease and gave clarity on what they thought it was. The house discussion process gives them the opportunity to air their view and get new information on the right way to live for the good health of their children. Furthermore, it was pointed out that VCMN visits them when they have to do their house work such as keeping the house clean and prepare food for their children who go to school. For that reason, they do not give them the attention they need.

In line with the above, Muchia supervisor Halima Dabo revealed that:

> Volunteers go from house to house in their settlement to interact with the women in their houses on the need for their children to receive the vaccine against polio. Even though some women say they are busy and do not have time to listen, we know that some of them are not willing to listen but some we see they are really busy. Every volunteer is expected to visit those houses again. *(*Translated*Researcher's Interview with Halima Dabo of VCMN, Sabon Gari LGA, February 2017)*

From table 7, 22 representing 22% respondents in Chikaji and 34 representing 14.8% respondents in Muchia revealed that VCMN conducts compound discussions with them on Polio. In the same vein, KII revealed that:

> Aside the home visit approach that require them to go house to house meeting with women one on one, VCMN uses the compound discussion approach to provide the women with more information in order to aid better understanding of the messages passed to them during the home visit rounds. *(*Translated*Researcher's Interview with Hauwawu Usman of VCMN, Sabon Gari LGA, February 2017*)

She further stressed the fact that this approach is one medium in which they interact with women in group through which they get feedback from the women stating the reasons for refusal or non-compliance and that will enable them improve on the style of interaction or communication for effective attitude change and acceptance of vaccine.

Also, Muchia supervisor Maryam Haruna revealed that:

> The compound discussion session is done in a place women can reach in time and free to talk. It could be done in two ways; first, VCMN members conduct the discussion with the women using the flip chart. Secondly, VCMN makes use of speaking book. Issues on refusal or non-compliance, cases of misunderstanding or misinformation and distrust on vaccine are discussed. *(*Translated *Researcher's Interview with Maryam Haruna, VCMN, Sabon Gari LGA, February 2017)*

Furthermore, she explained that the flip chart is a large book that contains series of discussion on poliovirus disease and other health practices for a healthy living. The flip chart has pictures and written messages on it; these pictures describe the activities of a people as is done in reality with properties the people can identify with that could cause different diseases. It is in picture form displaying messages on how to breast feed your child as a nursing mother; it has pictures telling children how to wash their hands and the reason why they need to wash their hands before and after eating, how to keep the surrounding clean in order to keep mosquitoes away, why anti-natal care and vaccines are important to a child. This implies that the instrument is important in

conducting a compound discussion because the women see things they recognize; it display individuals carrying out one activity or the other that they are told to do**.**

On the other hand, Hafsat Muhammed revealed that:

> The Speaking book is a talking book that comes in two ways; it has pictures and messages on it. The messages on the speaking book are said in two ways; the volunteer can speak to the people using the messages written on the book and or play the message for the people to listen while they look at the pictures. It uses a battery; the volunteer presses play and it will speak out the messages on it. The messages are in Hausa and English on every page and the pages have numbers that when the volunteer presses, will automatically play the message on the page. It include messages on importance of receiving poliovirus vaccine; how poliovirus disease has ravaged the society by rendering children cripple, importance of ante-natal visit to the hospital by pregnant women, keeping the environment clean, personal hygiene and so on. *(*Translated *Researcher's Interview with Hafsat Muhammed of VCMN, Sabon Gari LGA, February 2017)*

This instrument like the flip chart is considered important in carrying out a compound discussion or meeting because it gets the attention of the women; it catches the attention of the women when it begins to speak. They get excited hearing a book speak in their local language.

In support, FGD (B) revealed that:

> The compound discussion is one of the ways VCMN interact with us on health issues especially poliovirus disease. They gather us in a house where they come and discuss with all of us. It is usually about improving our health practices in our families most especially our children. The discussion is about general and personal hygiene, regular check up and ante-natal visit to the hospital, issues on poliovirus disease and accepting vaccine. The medium is usually interesting because you get encouraged by other women who are willing to accept the vaccine and you encourage those who are not willing. *(*Translated *FGD Response, Muchia, Sabon Gari LGA, January 2017)*

In the same way, FGD (A) revealed that the meetings bring us closer as women in our communities to learn from each other because some people relate with other wives in the house and close neighbors only. It has helped some of us bond with each other in the community and we share important information with each other. But the time set for us to meet does not favour

some of us because we have things to do at home. This is the reason why some of us do not always attend the meetings. *(*Translated *FGD Response, Chikaji, Sabon Gari LGA, January 2017)*

The researcher observed that the compound discussion approach as one of the approaches deployed by VCMN Sabon Gari Local Government Area has two different instruments that are utilized to reach out to people in communities. The instruments include flip chart and speaking book. The instruments share some characteristics that enable the volunteers to pass across the required messages to the target audience. The designed messages on the flip chart and the speaking book are the same. This insinuates that volunteers can make use of any of the instruments to interact with the people.

Data from table 7 shows 10 representing 10% respondents in Chikaji and 15 representing 6.5% respondents in Muchia revealed VCMN make available messages about Polio via phone and or cassette. To corroborate the above, KII conducted with Habiba Haruna revealed that 'every household has equal opportunity of watching the video content on the cassette but it depends on when house A finishes watching that house B will have access to the cassette and it continues until every house in the community gets access to watch the video content on the cassette. Likewise, VCMN distributes audio and video contents on phone to people in the community to listen to and watch.'

Also, Maryam Haruna pointed out that:

> It has been recognized that in Islam there are different sects and imams as well as in Christianity. Therefore, the message on cassette and phone consist of pastors and imams of different sect talking about poliovirus and the need for the vaccine. It is believed that whoever listens will hear their leader speak and is likely to be influenced by them.

*(*Translated *Researcher's Interview with Maryam Haruna of VCMN, Sabon Gari LGA, February 2017)*

In agreement, the FGD (A) revealed that:

> Some people really believe in what their imams tell them because they are our mediators. We see them as next to God and will always listen to their advice and suggestions in every situation we find ourselves. Even if a husband or wife rejects the vaccine, it is possible that person will accept the vaccine when they hear their imam say it is important for their children through the recorded messages. *(*Translated *FGD Response, Muchia, Sabon Gari LGA, February 2017)*

On the contrary, FGD (B) revealed that:

> The use of cassette and phone to inform people about Polio is good but not everybody in the communities has access to the cassette. Some people do not get the cassette because they do not have television and cassette player to watch with while some who have do not create time to watch it. They give us a day to watch it and collect it the next day. Some of us who are busy do not have the time to watch therefore, we do not collect but those who are less busy collect. *(*Translated *FGD Response, Chikaji, Sabon Gari LGA, January 2017)*

Also, from table 7, 12 representing 12% respondents in Chikaji and 20 representing 8.7% respondents in Muchia revealed VCMN distribute leaflets having information on Polio in their communities. To corroborate the above, Amina Sani revealed that:

> The leaflet contains the same information on cassette and phone; also, it connects with the flip chart and speaking book in different ways. It (leaflet) is mostly given to the husband as the head of the home and written in Hausa language. The nature of the content of the leaflet is drawn from Christianity and Islamic religion; like is said that God knows our existence and every sickness that befalls man on earth therefore, God said we should get drugs when we are sick because he has given man the knowledge on how to cure some sickness and live with others. *(*Translated*Researcher's Interview with Amina Sani of VCMN, Sabon Gari LGA, February 2017)*

In agreement, Habiba Haruna revealed that:

> We distribute leaflet containing information on poliovirus disease and the need for the vaccine even if a child has not fallen sick. It touches other aspects of their lives aside

polio issues such as aspects of healthy living, their personal hygiene and how they can take care of their homes. It highlights the need to always keep their children, themselves and environment clean. *(*Translated*Researcher's Interview with* Habiba Haruna *of VCMN, Sabon Gari LGA, February 2017)*

The above implies that the message on cassette, phone and leaflet comprises information on poliovirus disease by pastors and imams; quotes from the Bible and Quran. It was designed that way to draw the attention and interest of people hearing their mediator agree that the vaccine is not a means to reduce population and cause infertility.

Table 8 The communication approaches have reduced refusal of poliovirus vaccine?

Variable	**Chikaji**	**%**	**Muchia**	**%**
Yes	**68**	**68%**	**143**	**62.2%**
No	**32**	**32%**	**87**	**37.8%**
Total	**100**	**100%**	**230**	**100%**

Source: Field Survey 2017.

From the table above, in Chikaji; 68 representing 68% respondents agree the communication approaches deployed by VCMN in disseminating information on poliovirus disease have reduced refusal or non-compliance in their community and 32 representing 32% respondents disagree. In Muchia; 143 representing 62.2% respondents agree the approaches utilized by VCMN in disseminating information on poliovirus disease have reduced refusal and 87 representing 37.8% respondents disagree that is to say the approaches utilized by VCMN in disseminating information have not reduced non-compliance in their community. Majority of respondents in both communities are of the opinion that the communication approaches deployed by VCMN in disseminating information on poliovirus disease have influenced parents to accept the vaccine thereby reducing non-compliance in their communities while 32 representing 32% respondents

in Chikaji and 87 representing 37.8% respondents in Muchia are of the opinion that the approaches have not reduced non-compliance or refusal as expected in their communities.

In support, Hafsat Muhammed stated that:

> Some women, who have gone through a lot of discussions with us (VCMN) and understand the danger of poliovirus disease, sometimes follow us and tell us to give their children the vaccine whether their husbands are at home or not. Meanwhile, a lot of women do not want to receive the vaccine after the discussions. *(*Translated*Researcher's Interview with Hafsat Muhammed of VCMN, Sabon Gari LGA, February 2017)*

Also, Talatu Maikudi affirmed that:

> Women, who have been listening to us over time, get convinced to accept the vaccine after knowing its importance but cannot because of their husband's non-compliance attitude. Most of these women beg us to return when their husbands come back home in order to talk with them concerning the vaccine. We have dialogue sessions with them (husbands) to clear misunderstanding. Sometimes, they accept but some do not agree. *(*Translated*Researcher's Interview with Talatu Maikudi of VCMN, Sabon Gari LGA, February 2017)*

The above was supported by FGDs conducted; the respondents stated that VCMN approaches have not succeeded in changing the attitude of some people on refusal of poliovirus disease. VCMN should have discussions with husbands in different communities because without the consent of husbands in some families, vaccine may not be administered to some children. *(*Translated*FGD Response, Chikaji and Muchia, Sabon Gari LGA, February 2017)*

The above data reveals that the communication approaches deployed by VCMN in communicating issues around poliovirus include interaction during home visit, compound discussion, distribution of leaflets and messages via cassette and phone. Despite the use of multiple approaches, VCMN has not succeeded in curbing non-compliance as expected in the communities.

Section D: Exploring the factors militating against acceptance of poliovirus vaccine in the study locations.

Table 9 Are you aware of the refusal of poliovirus vaccine in your community?

Variable	Chikaji	%	Muchia	%
Yes	90	90%	220	95.7%
No	10	10%	10	4.3%
Total	100	100%	230	100%

Source: Field Survey 2017.

From the table above, the data shows that 90 representing 90% respondents in Chikaji are aware of non-compliance or refusal of poliovirus vaccine in their community while 10 representing 10% respondents are not aware of refusal in their community. In Muchia, 220 representing 95.7% respondents are aware of non-compliance or refusal of poliovirus vaccine in their community while 10 representing 4.3% respondents are not aware of refusal in their community. Therefore, the result shows that refusal or non-compliance of poliovirus vaccine is a familiar issue to majority of the people in the study areas.

To stress the above data, some respondents in FGD (A) posited that a child with problem on his/her legs or arms is not a result of any disease rather attacked by evil spirits; therefore the child needs prayers from imam, family and friends not to receive any medicine. In support, FGD (B) puts forward that:

> We are aware of refusal in our community; this is because there are people in our community who do not accept the vaccine because they do not trust drugs from outside the country due to the rumours that it was brought to reduce our population that is why they prefer herbal medicine in place of the drugs. *(*Translated *FGD Response, Muchia, Sabon Gari LGA, January 2017)*

Discussants in the KII established that there was a time when misinformation on poliovirus disease went round the communities concerning infertility caused by the vaccine so as to reduce their population hence, some people in the communities are unbending about the information and keep refusing to accept the vaccine.

Data from the FGD, questionnaire and KII conducted imply that in the study areas, the people are well informed about refusal in their communities, hence there is a high risk of contacting poliovirus disease in the communities if misinformation and distrust are not addressed so that children 0-5 years old receive the vaccine in the communities.

Table 10 What are the reasons for refusal of poliovirus vaccine?

Variable	Chikaji	%	Muchia	%
Religion	**32**	**32%**	**34**	**14.8%**
Tradition	**17**	**17%**	**64**	**27.8%**
Belief system	**21**	**21%**	**59**	**25.7%**
Misinformation	**30**	**30%**	**73**	**31.7%**
Total	**100**	**100%**	**230**	**100%**

Source: Field Survey 2017.

It is paramount to know the reasons why non-compliance manifests from the respondents in the study areas. From table 10, in Chikaji ward, 32 representing 32% respondents identified religion as the reason for refusal of poliovirus vaccine in the community; 17 representing 17% respondents identified tradition as the reason for refusal of poliovirus vaccine in the community; 21 representing 21% respondents chose belief system while 30 representing 30% respondents chose misinformation.

In Muchia, 34 representing 14.8% respondents identified religion as the reason for refusal of poliovirus vaccine in the community; 64 representing 27.8% respondents identified tradition as the reason for refusal of poliovirus vaccine in the community, 59 representing 25.7% respondents chose belief system while 73 representing 31.7% respondents chose misinformation. This imply that majority of respondents in Chikaji ward identified religion as a reason for non-compliance in their community but slightly different from misinformation, belief and tradition as seen on the table above. In the same vein, majority of respondents in Muchia ward identified misinformation as a reason for refusal to accept poliovirus vaccine in their community with a slight difference from tradition, belief system and religion as seen on the table above.

Furthermore, it means that there are different reasons that are responsible for refusal of poliovirus vaccine depending on individual differences and ideology.

In support of the data from table 10, in an interview with Habiba Haruna of VCMN, the discussion revealed that 'some people in the society do not comply because of their religious inclination as a result of what their imams tell them. They listen to preaching that the vaccine is not good therefore they do not need it because their God will always come to their aid when they fall ill and whatever happens, is their fate.' *(Paraphrased Researcher's Interview with Habiba Haruna of VCMN, Sabon Gari LGA, February 2017).*This means some people who believe their God is in control of situations that affect their well-being and they get their healing from that Supreme-Being, refuse to accept the vaccine. Beyond their religion, they believe the teachings they get from their Imams and willing to do anything they are told to do.

In the same vein, discussants in FGD (B) pointed out that:

> Overtime, some religious leaders preached that it is against our religion to accept the vaccine because our God is the healer we have, more so the vaccine is a threat; it is a means of reducing our population by injecting our children with substance that will cause

> infertility. These teachings by religious leaders have made some people in the society hold the opinion that it is against our religion to accept the vaccine. (Translated *FGD Response, Muchia, Sabon Gari LGA, January 2017*)

While some people say religion is a factor, a different set of people say it is tradition. From table 10, in Chikaji, 17 representing 17% respondents and in Muchia 64 representing 27.8% respondents identified tradition as the reason for refusal of poliovirus vaccine in the community.

Supporting the above, FGD (A) revealed the following:

> We have seen where herbal doctors prescribe herbs to cure illness and we have patronized them and enjoyed their services. God has blessed us with natural ingredients for curing any kind of sickness. Some of us prefer herbs to cure diseases and pray to God for protection of our children from demonic attacks. *(*Translated *FGD Response, Chikaji, Sabon Gari LGA, January 2017)*

In addition, Hafsat Muhammed of VCMN reiterated the above statement by saying:

> There is a man I know who is used to sitting on the ground with his legs folded to read his Quran. I offered to buy him a reading chair and table because at his age, bending down could cause him more harm than good. This man said he is used to the ground and therefore, refused to accept the reading chair and table. That is how some people behave in our generation when you talk to them about poliovirus disease. They enjoy using herbs to cure every illness forgetting that time changes and they have to change and accept newly made drugs and process of treatment because God has opened some people's eyes on how to treat illnesses. *(*Translated *Researcher's Interview with Hafsat Muhammed of VCMN, Sabon Gari LGA, February 2017)*

Furthermore, in Chikaji, 21 representing 21% respondents and 59 representing 25.7% respondents in Muchia agreed that belief system is the reason why some people do not accept poliovirus vaccine. In support, FGD (A) revealed that:

> Some people in the community lack trust in the government. They do not have confidence in the free drugs the government brings to them for fighting poliovirus disease. They do not trust that the drug is free and without any side effect or implications on their children in the future. Their belief is that something bad has been planned that is why poliovirus vaccine is free while when they go to the hospital for treatment of other

> illnesses they do not get free drugs and free treatment. *(*Translated *FGD Response, Chikaji, Sabon Gari LGA, January 2017)*

Also, in an interview with Hauwawu Usman of VCMN, the following was revealed:

> Communities especially at a time like this that things are difficult, people really need support from the government to help take care of their families more than any other thing. The vaccine is good and for the health of children but some parents especially in rural areas believe the government should provide other free drugs too alongside poliovirus vaccine. People complain of paying money in the hospital to buy card, register and buy drugs, pay for bed space and other things when they cannot afford to eat at home. They do not trust the government enough to accept the vaccine; their belief is poliovirus vaccine is not their need at the moment therefore; the government should provide poliovirus vaccine, drugs for other diseases alongside other basic needs. *(*Translated *Researcher's Interview with Hauwawu Usman of VCMN, Sabon Gari LGA, February 2017)*

Additionally, it was revealed by 30 representing 30% respondents in Chikaji and 73 representing 31.7% respondents in Muchia that misinformation is one of the reasons for refusal or non-compliance. In agreement FGD (A) puts forward that:

> At the time, a drug was introduced but we were told that the western world has planned to reduce our population by injecting our children with something that will make them infertile. We believe some people in some communities hold onto that information about poliovirus vaccine and have refused to change and accept it. *(*Translated *FGD Response, Chikaji, Sabon Gari LGA, January 2017)*

To support the above, responses from FGD (B) explained that 'when the drug was brought, we were told that some children who received it got sick and died. People said it made some children crippled therefore some parents are afraid to accept and their children will end up unable to walk.' In the same vein, the researcher's interview with VCMN revealed that 'misinformation on poliovirus vaccine has been a serious hindrance and permeated communities. Although, the government alongside organizations tried to see that such misinformation is addressed but some people in the society are adamant.'

It was observed by the researcher that respondents from the two (2) FGDs and discussants in the interview with the VCMN all pointed out that religion; tradition, belief and misinformation are reasons for refusal or non-compliance in their communities. Some people in the community have false information on poliovirus disease and disseminate to others as a result, it creates problem that results in refusal or non-compliance.

Section E: How can poliovirus be more effectively communicated to communities for a sustainable change?

For the purpose of clarity, this research question was analyzed using the qualitative method. Amidst issues surrounding non-compliance or refusal of poliovirus vaccine and its health implications, there have been constant calls for more effective communication approaches to increase awareness, create trust and acceptance of vaccine in communities. In a bid to improve on the acceptance level of poliovirus vaccine, the following are the suggestions made by the discussants:

i. Based on the opinion gathered, it was suggested that empowerment and capacity building programmes should be introduced. It should be done from the period of ante-natal care until the child receives all the doses of Polio vaccine. In support of this position, FGD (B) revealed that:

> The government should create interesting skill acquisition programmes for women as they go for the ante-natal visit to the hospital when they are pregnant and it should continue for the period of time a child needs to collect the complete dose of the poliovirus vaccine. It should be done in our community hospitals. (Translated *FGD Response, Muchia, Sabon Gari LGA, January 2017*).

In support, FGD (A) also affirmed the above position:

> Some women have the time and permission of their husbands to go for ante-natal care but do not really understand the need for it. They believe their mothers at home can take them through delivery and give them the required herbs which serve as drugs they need for the period of their pregnancy and after birth. If attending ante-natal care is not

> important to them then, visiting the hospital for vaccine will not be important as well. The government should find a way to make ante-natal care interesting even after birth until the child receives all the vaccine needed. (Translated *FGD Response, Chikaji, Sabon Gari LGA, January 2017*).

In agreement, Chikaji supervisor Maryam Haruna stated that:

> If women will take ante-natal care as an important part of their health care during pregnancy then they will be told the importance of Polio vaccine in the hospital. Something should be done for women when they go for ante-natal care and to receive Polio vaccine that will encourage them continue coming and receive all the doses of vaccine. *(*Translated *Researcher's Interview with Maryam Haruna of VCMN, Sabon Gari LGA, February 2017)*

From the above, the suggestion makes it clear that women should attend ante-natal care in their community hospitals where they should be engaged in activities that will keep them busy all through the weeks required to receive Polio vaccine. The empowerment process should equip them with different skill of their choice and last till every child born receive all the vaccine.

ii. In addition, it was suggested that there should be provision of free drugs in the hospital apart from giving only free vaccine for children. FGD (B) stated this:

> It is not a new thing that when someone is sick, the person goes to the hospital and will be treated. But they charge us for everything; collect money for card, drugs, bed without reducing the money or give anything free. Then, some people follow us to our houses to give our children drug for free when they are not sick and to some of us it does not make any sense at all. If they want us to believe and receive then when we go to the hospital let us have less money to spend and drugs for other sickness or disease free. That is one of the ways some people will believe and accept. (Translated *FGD Response, Muchia, Sabon Gari LGA, February 2017*).

In the same vein, FGD (A) posited that:

> When women go to the hospital to deliver their babies, the health personnel demand for razor, spirit, detergent and other little things that the money is not much which the government can provide in order to attract people who reject Polio vaccine. It could be a means of making people in rural communities understand that the government is

> interested in their health and will provide some things like drugs they need for free or reduce the money. (Translated *FGD Response, Chikaji, Sabon Gari LGA, January 2017*).

In support, Hafsat Muhammed suggested that:

> With the help of the government, hospitals should provide free drugs for other diseases along with Polio vaccine for people to accept. There are other diseases affecting communities; both young and old. Diseases like malaria, cholera and tuberculoses among others, should have free drugs as well. When communities begin to get free drugs for some of those diseases, they will accept the vaccine. *(*Translated *Researcher's interview with Hafsat Muhammed of VCMN, Sabon Gari LGA, February 2017)*

In essence, government should make available free drugs for other diseases that affect everybody in the community. Hence, it will make people in the communities accept Polio vaccine for their children. Also, they suggest drugs and other expenses should be made free or given on discount which will attract people to accept Polio vaccine.

iii. Furthermore, it was suggested that VCMN should utilize the educational institutions especially the secondary schools as a place for awareness creation. VCMN should liaise and encourage schools to establish health club where students will be well informed and educated on poliovirus disease. Discussants in FGD (A) suggested that:

> Some parents do not consider vaccine for poliovirus disease and other diseases important that is why the message should be passed to our children. There should be a way that issues concerning poliovirus disease and other diseases will be discussed with students in their schools so that they will grow with the right knowledge in order not to have problems with them like it is with some parents. (Translated *FGD Response, Chikaji, Sabon Gari LGA, January 2017*)

To support the above, discussants in the KIIs conducted stated that in schools especially secondary schools, there are clubs such as literary and debating club, sports and so on. There should be a club for awareness on poliovirus disease and other diseases in secondary schools. Biology teachers should be in charge of the club and make sure health issues are discussed

especially polio and the importance of the vaccine. This could be a viable means to inform and enlighten students for them to grow with the understanding of the need for polio vaccine.

From the above, VCMN should utilize educational institution by partnering with secondary schools in order to reach the youths in the communities by creating health clubs.

iv. VCMN should increase the number of volunteers working in different communities. FGD (B) puts forward that:

> The work that the VCMN people are doing is good, it is important and we are happy. But we observed that the people that come to our community are not much that is why they hardly attend to the whole community. They are always two or three people moving around the community. They should increase the number of people working for them so that they can reach more people and the whole community. (Translated *FGD Response, Muchia, Sabon Gari LGA, January 2017*)

In support, FGD (A) stated that VCMN needs more volunteers to do the work right because there are settlements that are far from each other in the communities and the volunteers cannot reach all the houses in a day or two. They should get volunteers from households that refuse to accept the vaccine. They should encourage the women from the houses to join VCMN in their immediate settlement and train them. It will make their families to accept the vaccine because they will feel bad if their children working with VCMN come with the vaccine and they refuse.

From the above, the respondents stated that the volunteers find it difficult to reach out to every house in the communities. Therefore, they suggest the increase in number of volunteers in order to reach and cover the communities especially during vaccination rounds. Increase in the number of volunteers should come from households that reject the vaccine so as to encourage them accept the vaccine and bring about little or no refusal of polio vaccine in the communities.

v. An important avenue for awareness creation on the acceptance of Polio vaccine that VCMN can utilize is the Parent Teacher's Association (PTA). This is a platform that educational institution especially secondary schools utilize to discuss with parents about issues that affect the learning process of their children. The education of a child is as important as the health of the child. Therefore, the researcher suggest that VCMN should liaise with secondary schools to use the association as a platform to talk with parents about the importance of Polio vaccine for their children's health.

vi. It was established that without the consent of parents especially the fathers, mothers may not allow their children to be vaccinated. Also, husbands usually leave their houses for their place of business usually market places before the arrival of VCMN for vaccination. A market is any place where sellers of particular goods or services can meet with buyers of those goods and services. It creates the potential for a transaction to take place. Hence, the researcher suggests that VCMN should incorporate market places as part of their area of assignment. VCMN in agreement with the market union leaders can move round the market creating awareness and emphasizing the importance of the vaccine. In order to reach husbands, clear misinformation and doubt, this approach should be utilized.

vii. Another way through which VCMN can improve its communication approaches for sustainable Polio vaccine acceptance in the communities is the effective use of Information, Education and Communication (IEC) materials. IEC materials are the tools used to transfer knowledge and information to target audience to assist promoting positive behaviors. Effective Information, Education and Communication (IEC) materials are an important component of the campaign against Polio and should not be taken lightly. Hence, IEC materials when intensively implemented will help the process of changing refusal of parents and wards for the good health

of children in the communities. For this reason, the researcher suggests that VCMN should intensify the use of IEC materials in the communities.

4.2 Discussion of Findings

The findings from the first research question derived from the Focus Group Discussion, Key Informant Interview and Questionnaire are discussed below.

Based on table 2, KII and responses from the FGD, it is apparent that majority of the respondents in the study areas hold the view that poliovirus disease is a known disease affecting children

under five of age. The above is supported by Rabiu Durari cited in Onuekwe (2015:4) that ‘for years, what I believed was that if a child is crippled in hand or leg or both, it is the work of Inna (mother spirit). But from my observation, I can say with authority that it is polio germs that cripple our children and it can be prevented’.

Yet, there are people who disagree based on previous knowledge and understanding of the disease in Sabon-Gari LGA. Such primitive or ancient knowledge on poliovirus disease in the society brings about non-compliance and refusal of poliovirus vaccine in some communities. It reveals that there are people in the society who do not believe the disease is poliovirus disease. These people hold onto ancient interpretation of the disease and needs thorough and in-depth intervention for such information they have been clinging to, to disappear. This supports the study by Jegede (2010:274) that ‘some people did not consider polio eradication intervention a health issue and a section of the educated elite opposed the programme in Nigeria.’ This people could be lacking information on poliovirus disease, are ignorant and do not want to accept its existence as poliovirus disease. They still believe it is an attack from an evil spirit that affects the legs and arms called “shan inna”.

It implies that majority of the population in the study location are well informed that polio exist but a few of the population seem not to agree and accept its existence. Therefore, there is need for more awareness in the communities in order to make it known to those who do not agree. For the awareness to be effective in changing the community people’s attitude there is need to know the people’s understanding of the seriousness of the disease and their perceived barriers that seem to outweigh the benefits of adopting the new health practice.

From table 3 with support from FGD and KII, it shows that majority of the respondents in Chikaji and Muchia agree that children under five of age should receive polio vaccine. They are of the opinion that the vaccine is very important because it helps to keep their children strong and prevent the disease from affecting them. There is no doubt of their awareness of the grave consequences of polio as a result there has been few cases of polio outbreak in the communities because of some people who accept the vaccine.

Meanwhile, some people disagree with the acceptance of the vaccine against polio. Ogden (2011) posited that in India, some Hindus and Muslim mothers in Western Uttah Pradesh strongly objected to the polio vaccine. He further stated that quite a few Islamic preachers in northern Nigeria believed strongly that the polio immunization would lead to impotency and infertility and propagated such to their followers. The implication is that there is a possibility of polio outbreak in the communities because as stated by U.S. Council for Foreign Relations Report (2015); it (the virus) has the tendency to survive for two months outside the body and is transmitted in an area with open sewers and drains in filthy areas with poor sanitation. It can be spread undetected and reach the brain and spinal cord resulting in paralysis or death.

Based on the above findings, it can be stated that though, majority of the respondents agree and accept the vaccine, the inability of others to accept the vaccine could be a reason for new outbreaks of polio in the communities because children are given birth to almost every day. That is why the framework proposes to expose the benefits of accepting the vaccine to the communities and motivate them through what is called ‘cue to action’ that will trigger or stimulate acceptance.

From table 4, FGD and KII conducted, it was revealed that there are different means of disseminating information on poliovirus disease that people are familiar with and give attention to. Even though majority of the respondents in the study areas get information on polio through various means such as radio, television and non-governmental organizations, some get information via radio broadcast only and others via television broadcast only as well. It is clear that television has its limitations due to lack of constant electricity supply and it is expensive for some people to afford. They agree radio is affordable and does not need electricity to make use of it compared to television because there is availability of battery that is within their reach and inexpensive.

This is in agreement with a study by Mary Myers (2009) which discovered that radio is still the prevailing mass-medium in Africa with the widest geographical reach and the highest audiences compared with television, newspapers and other new communication technologies. Radio remains the top medium in terms of the number of people that it reaches. It is explicit that some respondents acknowledge the presence of non-governmental organization in their communities carrying out awareness and provision of vaccine for communities that are rural and hard to reach. These organizations rely on different media most especially community or local media of their target audience to disseminate information on polio.

This study revealed that the respondents acknowledge the use of different media to disseminate information on polio in their communities. This is in consonance with Wilson and Shoemaker (2007) in Jegede(2010:206) that ‘communication initiatives for change should make use of media channels available both conventional and traditional and there is great merit in combining modern media with other media that people already like, use, believe and know how to control.’

Also, Abah (2005) posited that 'the most reliable media available to the rural communities remain their own forms of communication through traditions, theatre and festivals.'

This implies that utilization of different communication media available to the people of Chikaji and Muchia in Sabon Gari Local Government Area to communicate issues around polio could spur the acceptance of polio vaccine.

The findings from the second research question derived from the Focus Group Discussion, Key-Informant Interview and Questionnaire are discussed below.

Deduction from table 5 with support of the responses drawn from FGD and KII revealed that 9% and 13.9% respondents in Chikaji and Muchia respectively do not know of VCMN. This implies they do not know anything about VCMN and their activities in their communities and therefore, have no idea of what VCMN means and how to identify them. On the other hand, majority of respondents representing 91% and 86.1% respondents in Chikaji and Muchia respectively are aware of the existence of VCMN in Sabon Gari LGA and have interacted with them in one way or the other. This means that majority of respondents in the two communities have met with the volunteers in the community doing their work; awareness and or immunization. It was revealed that VCMN move from house to house to talk with them concerning poliovirus disease, immunization and other practices for healthy living. The implication is that continuous visit of VCMN in the communities should result in complete acceptance of the vaccine by every household. Also, there is need for VCMN to known in every household in settlement within Sabon Gari Local Government Area in terms of awareness and immunization.

From table 6 and with support from KII and FGD, it was revealed that 16% and 15.2% respondents in Chikaji and Muchia respectively, stated that VCMN engage in awareness on

poliovirus disease only; 25% and 28.3% respondents in Chikaji and Muchia respectively, stated that VCMN engage in administering vaccine to children only while 50% and 42.6% in Chikaji and Muchia respectively, indicated that VCMN carry out awareness on poliovirus and administering vaccine to children in their communities. This implies that the respondents in the communities have a knowledge of what VCMN do depending on their interaction with them (VCMN) on different level; during awareness creation for immunization days and or during immunization rounds in the communities. Meanwhile 9% and 13.9% respondents in Chikaji and Muchia respectively did not respond to the question. This implies that they have not come across VCMN in any way in their communities therefore they do not know the activities of VCMN as revealed in table 5 above.

Data from the questionnaire with support of responses from FGD and KII revealed that VCMN interact with them on polio through home visit, compound discussion, distribution of leaflet and messages via cassette and phone. In table 7, 47% and 56.1% respondents in Chikaji and Muchia respectively revealed that VCMN move from house to house to interact with them on Polio while 22% and 14.8% respondents in Chikaji and Muchia respectively revealed that VCMN carried out compound discussions with them on Polio. The interaction is face to face in their houses and group in the communities between the volunteers and community people.

The interaction during home visit happens face to face between two or more persons and gives opportunity to both parties to interact which could be referred to as interpersonal communication. This confirms the statement by Wentworth and Amedo (1995:206-210) that interpersonal communication is humans' ability to turn meaningless grunts into spoken and written words through which they are able to make known their needs, wants, ideas and feelings. In agreement, the Health Initiatives for the Private Sector (2014) noted that interpersonal

communication is face to face verbal or non-verbal exchange of information and feelings between two or more people.

This implies that it is an avenue to hear the community's view on polio and the use of vaccine as well as clear misinformation and non-compliance. Furthermore, the feeling expected to be generated in this communication is to produce positive health outcome rather than worsening the situation. This is why the HBM emphasized that an individual should be able to see the benefits of the new health practice to be adopted, that will determine its adoption. Therefore, the health communicator should make clear the benefits of adopting the health practice, in this case, accepting the Polio vaccine.

As observed by the researcher, the interaction during home visit and compound discussion approaches stand out as the strong tools for VCMN for polio intervention; the female volunteers are usually residents of the communities and they carry out polio intervention activities, as such they are able to interact with most of the women, disseminate information and practicalize it, that way, they serve as models.

Also, time gets in the way of most women attending the compound meetings and interacting with VCMN during home visit. The timing mostly does not favour them because of their household tasks which allow them little or no opportunity to attend the meeting and create time for discussion. On the other hand, some women decide to use that particular time as an opportunity to visit loved once. Nevertheless, home visit require VCMN to move from house to house for awareness and vaccination but they visit the communities when husbands have gone to their place of work or business and some women may not have the right to allow their children receive the vaccine without the consent of their husbands.

Though as stated earlier, the home visit and compound discussion approaches are best used by VCMN, however it was observed that the approaches positions VCMN (as the teacher) and the women (as the students) rather than interactive session. The women are gathered and taught various method of personal and general hygiene, why and how long to breast feed, when to begin ante-natal, why children from age 0-5 years old should be vaccinated and ensure they get all doses required for immunity against poliovirus disease. Deployment of this approach is more or less a teaching method rather than interaction that gives room for the people to say what they know concerning the issue at hand and get more information through the discussion. The above is as Paulo Freire (1997:244) pointed out that banking concept of education says knowledge is a gift bestowed by those who consider themselves knowledgeable upon those whom they consider to know nothing.

On the contrary, it should be what he considers the 'raison d'etre of liberation education that lies in its drive towards reconciliation. It should begin with the solution of the teacher-student contradiction by reconciling the poles of the contradiction so that both are simultaneously teachers and students. Likewise VCMN should consider the target audience knowledgeable and deposited in them, are indigenous knowledge and information worth sharing.

In the same vein, 10% and 6.5% respondents in Chikaji and Muchia respectively revealed VCMN make available messages about Polio via phone and or cassette while 12% and 8.7% respondents in Chikaji and Muchia respectively revealed VCMN distribute leaflets on Polio. This implies that the distribution of leaflet and messages using cassette and phone are the other approaches deployed by VCMN in Sabon Gari LGA (Chikaji and Muchia inclusive) to disseminate information on polio and importance of vaccine. These approaches are used because some people do not have time to listen to VCMN during home visit and the compound

discussion like husbands as such they are given leaflet and messages via cassette and phone to get information at the tips of their hand. This implies that VCMN makes available information for the communities in cassette, leaflet and phone by so doing, the people can read, watch and listen at their leisure time.

Contrary to that, Holland (1998:34) is of the opinion that 'it is not enough to provide the communication technologies such as phones, radios and satellites. Technology makes no difference until it is used. So development support should also include making sure the technologies are really accessible (in terms of location, cost and social customs), building skills to use them, creating content, and developing system and cultures of using them.' This means that, it is not using technology to inform a person that is important rather how effective it is.

The important thing is to make sure the technology is accessible to the target audience; the people should be able to operate and use. It was revealed that some households do not have the electronic appliances needed to watch the cassette therefore they do not have the information. Furthermore, messages via phone distributed to phone owners and users indicate that households without access to phones will be left out in receiving the information via this approach. It is imperative to know that there are phone users who will receive the messages and decide not to listen or watch.

To buttress the above, Holland (1998:34) stated that experience showed that there are many barriers to using a technology: cost reliability, skills and management, lack of useful content or a lack of fit between the new technologies and the existing communication needs and flows of the target community. The starting point for any initiative to strengthen communication flows must be the existing communication capacities and habits of the intended beneficiaries.

Table 8 with support of finding from KII and FGD, it was revealed that the communication approaches deployed by VCMN has done well in changing the refusal attitude of the community people as stated by 68% and 62.2% respondents in Chikaji and Muchia respectively. Contrary to the view above, data from KII, FGD as well as32% and 37.8% respondents in Chikaji and Muchia respectively disagree with the view that the communication approaches have reduced refusal of polio vaccine in their communities.

This implies that despite the use of the communication approaches by VCMN in the communities, there are people who refuse to accept the vaccine. Though there are places the vaccine is acceptable and appreciated, others do not comply which has become a hindrance to eradication of Polio in the communities. Also, VCMN must devise other means to change the attitude of non-compliance with polio vaccine in the communities.

The findings from the third research question derived from the Focus Group Discussion, Key Informant Interview and Questionnaire are discussed below:

From table 9 with support from KII and FGD conducted shows that refusal or non-compliance of Polio vaccine is a familiar issue to majority of the respondents in the study areas. As revealed in the table, in Chikaji10 representing 10% respondents and 10 representing 4.3% respondents in Muchia are not aware of refusal in their community. Meanwhile, 90 representing 90% respondents in Chikaji and 220 representing 95.7% respondents in Muchia are aware of non-compliance or refusal of poliovirus vaccine in their community.

Findings from this research revealed that, majority of the respondents are aware that some people in their communities do not comply to accept the vaccine when brought to them. In the same vein, others believe it is a plot to reduce their population by giving their children drugs prepared to cause infertility. This is drawn from the statement of Ogden (2011) that quite a few Islamic

preachers in northern Nigeria believed strongly that the polio immunization would lead to impotency and infertility and propagated such to their followers. It implies that refusal is evident in the communities and needs polio intervention to immediately influence non-compliant parents and families for acceptance.

Deduction from table 10 in consonance with KII and FGD discovered that there are different reasons that are responsible for refusal of poliovirus vaccine depending on individual differences and ideology in their communities. The findings reveal that respondents in Chikaji representing 32%, 17%, 21% and 30% respectively agree that religion; tradition, belief system and misinformation are reasons for refusal of vaccine in their community.

Also, respondents in Muchia representing 14.8%, 27.8%, 25.7% and 31.7% respectively agreed that religion; tradition, belief system and misinformation are reasons for refusal of vaccine in their community. It was supported by the KII and FGDs conducted. Some people in the communities are adamant about the teachings they got and are still getting from some religious leaders.

Despite numerous channels deployed by health practitioners, non-governmental organizations, the government and media to inform the society about poliovirus disease, there are some religious leaders who have refused to accept therefore, some followers refuse to accept. It is paramount that religious leaders have right information on poliovirus disease, change the perception they have on the vaccine in order for their followers to change and begin to accept poliovirus vaccine for the good health of their children.

Some people in the communities do not believe in the government and are not willing to accept anything from them. They do not trust the government will give them anything free of charge unless there is a conspiracy that will be detrimental to them. They complain that when they go to

the hospital, they are made to pay for almost everything at the hospital like syringe, drugs for headache, card, bed-space and more. When they are seriously sick, they do not get anything free at the hospital; health personnel and the government do not have pity on them at the point of their need but follow them home with free drugs (vaccine) for their little children who are not sick. Because they lack confidence in the government, it becomes difficult to accept the vaccine. This connotes that there is need for more awareness in these communities to accept the vaccine. Osofisan cited in Obasi, (1997) assert that awareness is critical to change and once people are aware of things, they will change their situation. This implies that knowledge acquired through awareness on the need for vaccine should be spurred to actively curb the unhealthy religious notion; traditional practices, belief system and misinformation for eradication of polio in Sabon Gari LGA.

The findings from the fourth research question are discussed below:

Firstly, it was suggested that there should be an empowerment programme through skills acquisition for every pregnant woman who attends ante-natal care all through her time of pregnancy until she gives birth and her child receives all the doses of Polio vaccine required. They should be taught different skills that will empower them when they are through with the programme. It cannot be achieved without communicating with the target people based on the ideas in the 1970's of Paulo Freire, stated in Nancy (2003:124) that focuses on community involvement and dialogue as a catalyst for individual and community empowerment. This implies that, the skill acquisition programme should be done in hospitals in their communities to engage them in different skills of their choice which will serve as an empowerment. When other women see their neighbours empowered in one skill or the other which relieves them from depending on their husbands, they will be influenced to join.

The above is in line with Okwori (1994) that empowerment as an action refers both to the process of self-empowerment and to professional support of people, which enables them to overcome their sense of powerlessness and lack of influence, to recognize and eventually use their resources and chances.

Nevertheless, it has been that some rural communities lack health facilities and personnel which is a basic amenity for every society and every citizen to have a good health. Some communities with health facilities are not well managed and functional. Whereas, some communities do not have health facilities hence they have to travel to neighbouring communities far from them to be treated and buy drugs. It has become reasons why some people in such communities do not accept vaccines and have no interest covering long distance to accept the vaccine when their children are not seen sick. In the same vein, some people may find no interest in covering long distance to acquire a skill while some may be interested. Therefore, whether in a hospital or not, VCMN should find means to meet the people in their communities and engage them in one skill or the other to sustain their interest until their children receive the complete vaccine.

Secondly, it was suggested that the government should make provision of free drugs for other diseases affecting both children and adults in the communities instead of providing only free vaccine for their children. This seems capable of curbing non-compliance because the study revealed that the people spend a lot at the hospitals when they are sick but a drug is brought to them free of charge therefore they question the reason behind it. It builds distrust which results in refusal. On the other hand, if drugs cannot be given free, the money for buying the drugs and other expenses at the hospital should not be expensive. This implies that, despite the need to vaccinate every child, it is important to consider the needs of the community people. There should be a balance in meeting the health needs of a set of people and the general health needs of

a society. More so, making provision of free drugs and treatment for other diseases seems not to be achievable for VCMN considering it's a Non-Governmental Organization having the sole purpose of creating awareness on Polio and vaccinating children. Hence, it could partner with the government to achieve its goal of vaccinating every child for a Polio free world.

Thirdly, it was suggested that VCMN should make use of the educational institutions especially the secondary schools to reach the youths in the community. The youths are the future of tomorrow therefore they should be well informed instead of holding the impression of their parents concerning Polio and the reason behind the vaccine. It seems promising to have health clubs where the students will have information on Polio; through lectures, seminars and debates with other schools. Generally, students see their teachers as either role models or mentors therefore they are likely to accept the information as true. As theory of reasoned action pointed out that there are significant people that influence the activity of other and acceptance of health practice. Also, Warnock (2007:67) posits that new ideas are more likely to be adopted if they are introduced to the community by trusted 'change agents' or 'communication intermediaries. Therefore, with the support of VCMN, the teachers will serve as change agents informing the students the need for the vaccine. In turn, the students will relate to their parents the information they get in school.

It was suggested that VCMN should increase the number of volunteers from household who refuse to accept the vaccine. This should be done for two reasons; one, to add more volunteers in the communities in order to reach every house during vaccination rounds. Two, taking volunteers from the houses that reject the vaccine will influence them to accept. Warnock (2007:67) posits that change is a social process. There is increasing interest by development communication experts in analyzing how ideas are spread within societies and communities, which sources of

information are most trusted and what are the paths along which new ideas and behaviours spread through communities. The part through which information on new ideas on health issues especially Polio reach communities is very important. Such paths should be able to change refusal of vaccine. Increasing the number of volunteers by recruiting from houses that refuse the vaccine could influence family members to accept as stated by Warnock (2007:67) that new ideas are more likely to be adopted if they are introduced to the community by trusted 'change agents' or 'communication intermediaries. In the same way, increasing the number of volunteers in order to attend to the communities is important because the communities are large in size.

Furthermore, it was suggested that VCMN should make use of the Parent Teacher's Association (PTA) to interact with parents on the need to accept polio vaccine for children from zero to five years. The association brings together parents from different tribes, culture, religion and status in the society. They assemble to deliberate on issues that will make the learning process of their children comfortable, interesting, friendly and safe. It is paramount to know that the health of a child comes before any other thing. VCMN should partner with secondary schools to include issues around diseases that threaten the health of children especially poliovirus disease during their meetings as it is important.

Additionally, it was suggested that VCMN should incorporate other places like the market place where people can be reached with information on polio without being restricted to residential areas only. The research found out that men usually leave for their place of work, mostly market places, before the arrival of VCMN for either vaccination or awareness. For that reason, some women find it difficult to accept the vaccine without their husband's approval. The need to reach men arises. Hence, with the collaboration of market unions, VCMN can move round the market informing people about the dangers of refusing to accept polio vaccine on their children.

Lastly, it was suggested that VCMN should improve the use of Information, Education and Communication (IEC) materials in the communities. With IEC materials, people can have access to information wherever they go and read at their leisure time. They should place posters with pictures of Polio surviving victims in the communities explaining how it has affected them and its effect in the society. Posters should be made available in schools, religious places, religious leader's houses, hospitals, community leader's houses and strategic places in the communities. This will constantly remind and reflect in the minds of the community people as they go about their activities and come across messages on the importance of Polio vaccine everywhere in their communities.

CHAPTER FIVE

SUMMARY AND CONCLUSION

5.0 Introduction

This study looked at the communication approaches deployed by Volunteer Community Mobilizer Network in Sabon Gari LGA of Kaduna State as it addresses refusal or non-compliance of Polio vaccine. In this chapter, presented are summary of the study, conclusion and recommendations.

5.1 Summary

The purpose of the study is to establish the connection between effective communication approaches and Polio intervention as it addresses non-compliance with reference to inhabitants of Muchia and Chikaji wards in Sabon Gari Local Government Area of Kaduna State. Specifically the study seeks to investigate the knowledge and perception of Poliovirus disease in the study area; explore factors militating against the acceptance of Polio vaccine in the study locations, identify and analyse the communication approach of Volunteer Community Mobilizer Network for Polio intervention and devise ways Polio can be effectively communicated to strengthen Polio vaccine acceptance. Three hundred and sixty four copies of questionnaire were distributed to generate data for the study however only three hundred and thirty copies of questionnaire were filled and returned.

Based on the data gathered for this research, some inhabitants of Chikaji and Muchia wards are aware of the existence of Poliovirus disease while others are not. It was gathered that some people have the understanding that Poliovirus disease is contagious and a health problem while others still believe it is an evil attack. For that reason, some individuals and families accept the vaccine and others do not accept. Among those who do not accept the vaccine, some complain they have to spend hug money at the hospitals when they go for treatment meanwhile free drugs are brought to their houses for their children who do not show any symptoms of illness. The study also established some factors that enhance refusal of Polio vaccine such as religion, tradition, belief system and misinformation. Therefore there is need to provide measures to tackle non-compliance as it affects the health of children zero to five years old.

Furthermore, this research discovered that Volunteer Community Mobilizer Network utilize multiple communication approaches in creating awareness on Poliovirus disease and acceptance of Polio vaccine in the study locations. The communication approaches include interaction

during home visit, compound discussion, distribution of leaflet and messages via cassette and phone. These communication approaches have not stopped refusal of Polio vaccine completely in the study locations hence there is need to devise other means to complement the laid down approaches. For that reason, there is need to address misinformation at secondary schools by setting up health clubs for that purpose. Empowerment through skill acquisition at hospitals for women who come for ante-natal care through child birth until the child receives the dose of vaccine required to encourage acceptance of the vaccine.

5.2 Key Findings

Thus far, this research looked at the Study of Communication Approach of Volunteer Community Mobilizer Network on Polio Intervention in Sabon Gari Local Government Area of Kaduna State. Based on the data collected the following key findings emerged:

i. It was revealed that VCMN uses multiple communication approaches to disseminate information on poliovirus disease and importance of accepting the vaccine in Muchia

and Chikaji communities. These communication approaches are viable but have not been able to address non-compliance completely in the communities.

ii. The study found out that there are a lot of factors preventing the acceptance of Polio vaccine most especially in the study locations such as religion; tradition, belief system and misinformation.

iii. The study found out that some people recognized that Polio is an evil attack and do not believe it is a health problem that causes paralysis hence the vaccine is not important.

iv. It was revealed that some people in the communities do not accept the vaccine because it is free while they pay huge sum of money for drugs and treatment in hospitals. They desire to have free and or subsidize drugs and treatment for other diseases affecting both children and adults in the communities.

v. The study found out that there is distrust of government by some people in the communities which results in non-compliance with polio vaccine.

vi. The study revealed that the people are not in agreement with VCMN on the time they visit the communities for awareness and immunization rounds. Reason that, most of the time their husbands would have gone out to work before VCMN arrives.

5.3 Recommendations

In view of the findings, the study recommends the following:

i. There is the need for VCMN in Sabon Gari LGA to re-tool the communication strategy for polio intervention in the communities in order to increase acceptance of the vaccine.

ii. VCMN in Sabon Gari LGA should carry out baseline study and interactive sessions with the community people, both men and women, in order to come up with the appropriate time for Polio intervention in terms of awareness and vaccination rounds.

iii. VCMN in Sabon Gari LGA should make use of educational institutions especially the secondary schools to create Health clubs for awareness on health issues such as Polio among the youth in order to do away with misinformation and wrong teachings they get from their parents and avoid negative attitudes in the nearest future.

iv. VCMN in Sabon Gari LGA should empower women with different skills during ante-natal care to encourage them to continuously attend the skill acquisition programme until their children receive the complete vaccine.

v. VCMN in Sabon Gari LGA should improve the use of Information, Education and Communication materials in the communities. It should be made available at strategic places for emphasis and translated in the indigenous language of the people.

5.3 Conclusion

Poliovirus disease overtime has been considered a dangerous disease especially to children under five years old. This propelled the need for the society to be free from poliovirus disease by re-addressing issues around polio communication intervention in rural communities. Hence, there is a need to create rapid demand for vaccine delivery, acceptance and consistency in immunization coverage, especially in rural communities across the nation. It is important that people be properly informed and misinformation cleared to further improve on the understanding of people and acceptance of vaccine in communities. In a bid to look at communication approaches of VCMN on polio intervention and factors responsible for non-compliance of polio vaccine, the study has revealed that the success of Polio intervention is

determined by the effectiveness and wholeness of communication approaches utilized; its acceptability, recognition by target audience and indigenous inclusion. Importantly, creating the understanding of the seriousness of the disease and the need for the vaccine continuously, will lead to the acceptance and increase demand for the vaccine.

5.4 Contribution to Knowledge

This study established the relevance of other channels that will encourage polio vaccine acceptance in communities. Also, it has proven that availability of information on polio, exposing its dangers and implications on children and the society is not completely enough. Therefore, communicating through channels that are people driven and must succeed in prompting people to adopt behaviours that are geared towards eradicating polio.

The study has also proven that the continuous hindrance in the fight against polio are negative health behaviours, practices and belief among others. In addition, findings from the study show that people demand drugs for other diseases affecting both young and old in the society to motivate them to accept polio vaccine. This shows that dialogue with community people in any health intervention project should not be undermined as they can also suggest how to address challenges of attaining healthy life in their communities.

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APPENDIX I

DEPARTMENT OF THEATRE AND PERFORMING ARTS

FACULTY OF ARTS

AHMADU BELLO UNIVERSITY, ZARIA

Dear respondent,

I am a postgraduate student of Development Communication, Department of Theatre and Performing Arts, Faculty of Arts, Ahmadu Bello University Zaria. I am conducting a research study on the topic ***A Study of Communication Approaches of Volunteer Community Mobilizer Network on Polio Intervention in Sabon Gari LGA, Kaduna State.*** Kindly respond to the set of

questions below as it applies to you. All information shall be treated confidentially and strictly for academic purpose.

Thank you.

DANIEL kuyet Janet.

QUESTIONNAIRE

Section A: Demographic Data

1. Age: (a) 15-20 ( ) (b) 21-25 ( ) (c) 26-30 ( ) (d) 31 and above ( )

2. Sex: (a) Male ( ) (b) Female ( )
3. Marital status: (a) Married ( ) (b) Single ( ) (c) Divorced ( )
4. Level of Education:
   (a) Primary ( )
   (b) Secondary ( )
   (c) Tertiary ( )
   (d) Others ( )

Section B

5. Are you aware of poliovirus disease?
   (a) Yes ( ) (b) No ( )
6. Children from 0-5 years old should receive poliovirus vaccine?
   (a) Yes ( ) (b) No ( )
7. Through which communication medium do you get information on poliovirus disease?
   (a) Radio ( )

   (b) Television ( )

   (c) Non-governmental organization ( )

   (d) All of the above ( )

Section C

8. Are you aware of the refusal of polio vaccine in your community?
   (a) Yes ( ) (b) No ( )
9. What are the reasons for refusal of Poliovirus vaccine?
   (a) Religion ( )
   (b) Tradition ( )
   (c) Belief ( )
   (d) Misinformation ( )

Section D

10. Are you aware of Volunteer Community Mobilizer Network (VCMN)?

(a) Yes ( ) (b) No ( )

11. What activities do they (VCMN) carry out?

(a) Awareness on poliovirus Disease ( )

(b) Vaccination ( )

(c) Awareness on poliovirus disease and vaccination ( )

12. What communication approaches do they use?

(a) Interaction during home visit ( )

(b) Compound discussion sessions ( )

(c) Messages on cassette/ phone ( )

(d) Leaflet distribution ( )

13. The communication approaches have reduced refusal poliovirus vaccine?

(a) Yes ( ) (b) No ( )

Section E

14. What do you think can be done to strengthen the acceptance of Poliovirus vaccine in your ward or community?

……

……

……

APPENDIX II

Focus Group Discussion Guide

What is your view on poliovirus disease?

What is your view on polio vaccination and do you agree that children from zero to five years old should receive the vaccine?

What are your sources of information on poliovirus disease and vaccination?

Are you aware that there are people who refuse to accept polio vaccine?

What could be the reasons for refusal or non-compliance?

Do you know of the existence of Volunteer Community Mobilizer Network (VCMN)?

Do you have any idea on what they do?

How do they communicate with you on polio issues?

In your view, have the communication approaches been able to reduce refusal?

What other communication approaches can VCMN use for polio intervention that will improve the acceptance of the vaccine?

APPENDIX III

RESPONSES OF DISCUSSANTS BASED ON RESEARCH OBJECTIVES

FOCUS GROUP DISCUSSION

Research Objective one:

Investigate the knowledge and perception of the study area on poliovirus disease.

Researcher: *What is your view on poliovirus disease?*

Discussants:*The surrounding is filled with different diseases that affect our body and cause people to fall sick and poliovirus disease is one of such diseases. There are children and adults*

who have been affected by the disease in our communities that is how we got to know that the disease exist therefore, we have to do our best to fight it.

Discussants: *We are aware of poliovirus disease in the community because a child was affected and that opened our eyes to its existence. At first, it was not known until she fell sick and started having problem with her legs then she was taken to the hospital. The doctor said she has poliovirus disease and it has affected her legs. The doctor explained better and since then, we always go to the hospital for our children to be checked because we do not want our children and grandchildren to be affected again.*

Discussants:*Story told by our fore fathers is that when a child begins to have problem with his/her legs and arms, it is called "shan inna". It is an attack from an evil spirit that affects the legs and arms. It is not a sickness rather evil spirits have taken control of the child's body and makes the child useless to the family and in life.*

Researcher: *What is your view on polio vaccination and do you agree that children from zero to five years old should receive the vaccine?*

Discussants:*The vaccine is very important because it helps to keep our children strong and prevent the disease from affecting our children. It is vital to ensure that children from zero to five years get polio vaccine along-side other vaccine preventable diseases because there are other diseases apart from poliovirus disease.*

Discussants:*Over time, few children are seen having such problem as it were. It is because of the vaccine given to them therefore, we appeal to those who do not comply in our community to change for the society to get rid of poliovirus disease completely. Vaccine is important for the complete survival of children at their tender age.*

Discussants:*Children who are crippled are affected by demonic spirit; therefore, they need help from imams.*

Researcher: *What are your sources of information on poliovirus disease and vaccination?*

Discussants:*It is easy to walk around with a radio set because it is not heavy; we can buy it and there is affordable battery that keeps it working. We listen to issues on poliovirus on radio whether we are busy or not. We are told how bad the disease is as well as the number of children affected in different places in the country and outside the country.*

Discussants:*Information on poliovirus disease usually reaches them through the radio. Information concerning the day immunization will start; they encourage parents to be prepared and welcome the vaccinators as they go from house to house to administer vaccine.*

Discussants:*Information on poliovirus reaches us through means like radio and television. Apart from radio and television, there are organizations like VCMN that carry out campaigns on*

poliovirus therefore we get informed when they come to talk with us and give the vaccine. Sometimes, we meet some of the health personnel at hospitals when we go for treatment.

Discussants:*Mostly, we are informed about poliovirus listening to the radio and television although some of us spend less time watching television. Aside that, in some hospitals, we see posters that explain how the disease is gotten, symptoms that follow and the need for the vaccine to prevent the disease. The posters have pictures of children that have been affected.*

Research Objective two:

Identify and analyze the communication approaches of the Volunteer Community Mobilizer Network (VCMN) on polio intervention.

Researcher: *Do you know of the existence of Volunteer Community Mobilizer Network (VCMN)?*

Discussants:*We are aware of VCMN in our community. They come to our houses to talk with us concerning poliovirus disease and other practices for healthy living. When they come around but do not meet us at home, there is a write up on the wall of our houses that indicates they came for the immunization. They try to visit every house; they discuss with parents and inform them of the day for immunization and encourage parents to accept the vaccine.*

Discussants:*VCMN in our community has been helpful to the community especially the aspect of health. They make sure that vital information reaches us; they follow women to their houses to make sure that they attend meetings, ante-natal and visit the hospital for our children to collect all the doses of vaccine for poliovirus disease. They create a bond or good relationship with the women in their settlements so that they will respond to the call for vaccine acceptance.*

Researcher: *Do you have any idea on what they do?*

Discussants:*VCMN moves from house to house to interact with households on poliovirus disease; how it affects the community, how it is contacted and the importance of the vaccine for children within the age range of 0-5 years.*

Researcher: *How do they communicate with you on polio issues?*

Discussants: *The house discussion process gives them the opportunity to air their view and get new information on the right way to live for the good health of their children. Furthermore, it was pointed out that VCMN visit them when they have to do their house work such as keeping the house clean and prepare food for their children who went to school. For that reason, they do not give them the attention they need.*

Discussants:*The compound discussion is one of the ways VCMN interact with us on health issues especially poliovirus disease. They gather us in a house where they come and discuss with all of us. It is usually about improving our health practices in our families most especially our*

children. The discussion is about general and personal hygiene, regular check up and ante-natal visit to the hospital, issues on poliovirus disease and accepting vaccine. The medium is usually interesting because you get encouraged by other women who are willing to accept the vaccine and you encourage those who are not willing.

Discussants:*The meetings bring us closer as women in our communities to learn from each other because some people relate with other wives in the house and close neighbors only. It has helped some of us bond with each other in the community and we share important information with each other. But the time set for us to meet does not favour some of us because we have things to do at home. This is the reason why some of us do not always attend the meetings.*

Discussants:*Some people really believe in what their imams tell them because they are our mediators. We see them as next to God and will always listen to their advice and suggestions in every situation we find ourselves. Even if a husband or wife rejects the vaccine, it is possible that person will accept the vaccine when they hear their imam say it is important for their children through the recorded messages.*

Discussants:*The use of cassette and phone to inform people about Polio is good but not everybody in the communities has access to the cassette. Some people do not get the cassette because they do not have television and cassette player to watch with while some who have do not create time to watch it. They give us a day to watch it and collect it the next day. Some of us who are busy do not have the time to watch therefore, we do not collect but those who are less busy collect.*

Researcher: *In your view, have the communication approaches been able to reduce refusal?*

Discussants:*VCMN approaches have not succeeded in changing the attitude of some people on refusal of poliovirus disease. VCMN should have discussions with husbands in different communities because without the consent of husbands in some families, vaccine may not be administered to some children.*

Research Objective three:

Explore the factors militating against the acceptance of poliovirus vaccine in the study locations.

Researcher: *Are you aware that there are people who refuse to accept polio vaccine?*

Discussants:*A child with problem on his/her legs or arms is not a result of any disease rather attacked by evil spirits; therefore the child needs prayers from imam, family and friends not to receive any medicine.*

Discussants:*We are aware of refusal in our community; this is because there are people in our community who do not accept the vaccine because they do not trust drugs from outside the*

country due to the rumour that it was brought to reduce our population that is why they prefer herbal medicine in place of the drugs.

Researcher: *What could be the reasons for refusal or non-compliance?*

Discussants:*Overtime, some religious leaders preached that it is against our religion to accept the vaccine because our God is the healer we have, more so the vaccine is a threat; it is a means of reducing our population by injecting our children with substance that will cause infertility. These teachings by religious leaders have made some people in the society hold the opinion that it is against our religion to accept the vaccine.*

Discussants:*We have seen where herbal doctors prescribe herbs to cure illness and we have patronized them and enjoyed their services. God has blessed us with natural ingredients for curing any kind of sickness. Some of us prefer herbs to cure diseases and pray to God for protection of our children from demonic attacks.*

Discussants: *Some people in the community lack trust in the government. They do not have confidence in the free drugs the government brings to them for fighting poliovirus disease. They do not trust that the drug is free and without any side effect or implications on their children in the future. Their belief is that something bad has been planned that is why poliovirus vaccine is free while when they go to the hospital for treatment of other illnesses they do not get free drugs and free treatment.*

Discussants: *At the time, a drug was introduced but we were told that the western world has planned to reduce our population by injecting our children with something that will make them infertile. We believe some people in some communities hold onto that information about poliovirus vaccine and have refused to change and accept it.*

Discussants:*When the drug was brought, we were told that some children who received it got sick and died. People said it made some children crippled therefore some parents are afraid to accept and their children will end up unable to walk.*

Research Objective four:

Suggest ways that polio eradication can be more effectively communicated for a lasting and sustainable result.

Researcher: *What other communication approaches can VCMN use for polio intervention that will improve the acceptance of the vaccine?*

Discussants:*The government should create interesting skill acquisition programmes for women as they go for the ante-natal visit to the hospital when they are pregnant and it should continue for the period of time a child needs to collect the complete dose of the poliovirus vaccine. It should be done in our community hospitals.*

Discussants:*Some women have the time and permission of their husbands to go for ante-natal care but do not really understand the need for it. They believe their mothers at home can take them through delivery and give them the required herbs which serve as drugs they need for the period of their pregnancy and after birth. If attending ante-natal care is not important to them then, visiting the hospital for vaccine will not be important as well. The government should find a way to make ante-natal care interesting even after birth until the child receives all the vaccine needed.*

Discussants:*It is not a new thing that when someone is sick, the person goes to the hospital and will be treated. But they charge us for everything; collect money for card, drugs, bed without reducing the money or give anything free. Then, some people follow us to our houses to give our children drug for free when they are not sick and to some of us it does not make any sense at all. If they want us to believe and receive then when we go to the hospital let us have less money to spend and drugs for other sickness or disease free. That is one of the ways some people will believe and accept.*

Discussants:*When women go to the hospital to deliver their babies, the health personnel demand for razor, spirit, detergent and other little things that the money is not much which the government can provide in order to attract people who reject Polio vaccine. It could be a means of making people in rural communities understand that the government is interested in their health and will provide some things like drugs they need for free or reduce the money.*

Discussant:*Some parents do not consider vaccine for poliovirus disease and other diseases important that is why the message should be passed to our children. There should be a way that issues concerning poliovirus disease and other diseases will be discussed with students in their schools so that they will grow with the right knowledge in order not to have problems with them like it is with some parents.*

Discussants:*The work that the VCMN people are doing is good, it is important and we are happy. But we observed that the people that come to our community are not much that is why they hardly attend to the whole community. They are always two or three people moving around the community. They should increase the number of people working for them so that they can reach more people and the whole community.*

Discussants: *VCMN needs more volunteers to do the work right because there are settlements that are far from each other in the communities and the volunteers cannot reach all the houses in a day or two. They should get volunteers from households that refuse to accept the vaccine. They should encourage the women from the houses to join VCMN in their immediate settlement and train them. It will make their families to accept the vaccine because they will feel bad if their children working with VCMN come with the vaccine and they refuse.*

APPENDIX IV

Interview Guide

In your view, are people aware of poliovirus disease?

In your opinion, how important is polio vaccine?

What could be the reasons for refusal or non-compliance?

What is the concern of VCMN?

What are the communication approaches deployed by VCMN on polio intervention?

In your opinion, would you say the approaches have been successful?

What other communication approaches can VCMN use for polio intervention that will improve the acceptance of the vaccine?

APPENDIX V

RESPONSES OF DISCUSSANTS BASED ON RESEARCH OBJECTIVES

INTERVIEW (KII)

Research Objective one:

Investigate the knowledge and perception of the study area on poliovirus disease.

Researcher: *In your view, are people aware of poliovirus disease?*

Discussant:*There is evidence of poliovirus disease in the community but some inhabitants do not agree. Mostly, people in the community who do not believe its existence say it is an evil attack. They believe the victims of poliovirus disease are being possessed by evil spirit therefore; the victim has to be taken to the imam for prayers.*

Researcher: *In your opinion, how important is polio vaccine?*

Discussant:*Poliovirus vaccine is important for preventing the disease. Without the vaccine children are at risk of the virus because an infected child could infect other children who did not receive the vaccine in the same community.*

Research Objective two:

Identify and analyze the communication approaches of the Volunteer Community Mobilizer Network (VCMN) on polio intervention.

Researcher: *What are the communication approaches deployed by VCMN on polio intervention?*

Discussant:*VCMN engages the people face to face; we go to their houses and talk with them. This process is used to support information that the people may have heard from the radio and television for better understanding. Through exchange of ideas; we tell them practical experiences of people they see around especially children who are rendered helpless by the disease that way they have better understanding and some of them respond while some do not because they need the consent of their husbands for their children be given the vaccine.*

Discussant:*The purpose of going from house to house is to make people in the communities have a sense of belonging and support the fight against poliovirus disease. This process helps us know reasons for refusal; provides avenue for clearing misinformation and doubt about the vaccine in rural communities and bring about change.*

Discussant: *Volunteers go from house to house in their settlement to interact with the women in their houses on the need for their children to receive the vaccine against polio. Even though some women say they are busy and do not have time to listen, we know that some of them are not willing to listen but some we see are really busy. Every volunteer is expected to visit those houses again.*

Discussant:*Aside the home visit approach that require them to go house to house meeting with women one on one, VCMN uses the compound discussion approach to provide the women with more information in order to aid better understanding of the messages passed to them during the home visit rounds.*

Discussant:*The compound discussion session is done in a place women can reach in time and free to talk. It could be done in two ways; first, VCMN members conduct the discussion with the women using the flip chart. Secondly, VCMN make use of speaking book. Issues on refusal or non-compliance, cases of misunderstanding or misinformation and distrust on vaccine are discussed.*

Discussant:*The flip chart is a large book that contains series of discussion on poliovirus disease and other health practices for a healthy living. The flip chart has pictures and written messages on it; these pictures describe the activities of a people as is done in reality with properties the*

people can identify with that could cause different diseases. It is in picture form displaying messages on how to breast feed your child as a nursing mother; it has pictures telling children how to wash their hands and the reason why they need to wash their hands before and after eating, how to keep the surrounding clean in order to keep mosquitoes away, why anti-natal care and vaccines are important to a child.

Discussant:*The Speaking book is a talking book that comes in two ways; it has pictures and messages on it. The messages on the speaking book are said in two ways; the volunteer can speak to the people using the messages written on the book and or play the message for the people to listen while they look at the pictures. It uses a battery; the volunteer presses play and it will speak out the messages on it. The messages are in Hausa and English on every page and the pages have numbers that when the volunteer presses, will automatically play the message on the page. It include messages on importance of receiving poliovirus vaccine; how poliovirus disease has ravaged the society by rendering children cripple, importance of ante-natal visit to the hospital by pregnant women, keeping the environment clean, personal hygiene and so on.*

Discussant:*Every household has equal opportunity of watching the video content on the cassette but it depends on when house A finishes watching that house B will have access to the cassette and it continues until every house in the community gets access to watch the video content on the cassette. Likewise, VCMN distributes audio and video contents on phone to people in the community to listen to and watch.*

Discussant:*It has been recognized that in Islam there are different sects and imams as well as in Christianity. Therefore, the message on cassette and phone consist of pastors and imams of different sect talking about poliovirus and the need for the vaccine. It is believed that whoever listens will hear their leader speak and is likely to be influenced by them.*

Discussant:*The leaflet contains the same information on cassette and phone; also, it connects with the flip chart and speaking book in different ways. It (leaflet) is mostly given to the husband as the head of the home and written in Hausa language. The nature of the content of the leaflet is drawn from Christianity and Islamic religion; like it is said that God knows our existence and every sickness that befalls man on earth therefore, God said we should get drugs when we are sick because he has given man the knowledge on how to cure some sickness and live with others.*

Discussant:*We distribute leaflet containing information on poliovirus disease and the need for the vaccine even if a child has not fallen sick. It touches other aspects of their lives aside polio issues such as aspects of healthy living, their personal hygiene and how they can take care of their homes. It highlights the need to always keep their children, themselves and environment clean.*

Researcher: *In your opinion, would you say the approaches have been successful?*

Discussant:*Some women, who have gone through a lot of discussions with us (VCMN) and understand the danger of poliovirus disease, sometimes follow us and tell us to give their children the vaccine whether their husbands are at home or not. Meanwhile, a lot of women do not want to receive the vaccine after the discussions.*

Discussant:*Women, who have been listening to us over time, get convinced to accept the vaccine after knowing its importance but cannot because of their husband's non-compliance attitude. Most of these women beg us to return when their husbands come back home in order to talk with them concerning the vaccine. We have dialogue sessions with them (husbands) to clear misunderstanding. Sometimes, they accept but some do not agree.*

Research Objective three:

Explore the factors militating against the acceptance of poliovirus vaccine in the study locations.

Researcher: *What could be the reasons for refusal or non-compliance?*

Discussant:*There was a time when misinformation on poliovirus disease went round the communities concerning infertility caused by the vaccine so as to reduce their population hence, some people in the communities are unbending about the information and keep refusing to accept the vaccine.*

Discussant:*Some people in the society do not comply because of their religious inclination as a result of what their imams tell them. They listen to preaching that the vaccine is not good therefore they do not need it because their God will always come to their aid when they fall ill and whatever happens, is their fate.*

Discussant:*There is a man I know who is used to sitting on the ground with his legs folded to read his Quran. I offered to buy him a reading chair and table because at his age, bending down could cause him more harm than good. This man said he is used to the ground and therefore, refused to accept the reading chair and table. That is how some people behave in our generation when you talk to them about poliovirus disease. They enjoy using herbs to cure every illness forgetting that time changes and they have to change and accept newly made drugs and process of treatment because God has opened some people's eyes on how to treat illnesses.*

Discussant:*Communities especially at a time like this that things are difficult, people really need support from the government to help take care of their families more than any other thing. The vaccine is good and for the health of children but some parents especially in rural areas believe the government should provide other free drugs too alongside poliovirus vaccine. People complain of paying money in the hospital to buy card, register and buy drugs, pay for bed space and other things when they cannot afford to eat at home. They do not trust the government enough to accept the vaccine; their belief is poliovirus vaccine is not their need at the moment*

therefore; the government should provide poliovirus vaccine, drugs for other diseases alongside other basic needs.

Discussant:*Misinformation on poliovirus vaccine has been a serious hindrance and permeated communities. Although, the government alongside organizations tried to see that such misinformation is addressed but some people in the society are adamant.*

Researcher: *What is the concern of VCMN?*

Discussant:*VCMN tries to reinforce and strengthen information that people hear from the media like radio and television for better understanding. To conduct interactive sessions and use other means to talk with people about poliovirus disease; why the vaccine is necessary for the wellbeing of their children. We educate them on the right way to live to achieve good health for their family especially their children.*

Research Objective four:

Suggest ways that polio eradication can be more effectively communicated for a lasting and sustainable result.

Researcher: *What other communication approaches can VCMN use for polio intervention that will improve the acceptance of the vaccine?*

Discussant:*If women will take ante-natal care as an important part of their health care during pregnancy then they will be told the importance of Polio vaccine in the hospital. Something should be done for women when they go for ante-natal care and to receive Polio vaccine that will encourage them continue coming and receive all the doses of vaccine.*

Discussant:*With the help of the government, hospitals should provide free drugs for other diseases along with Polio vaccine for people to accept. There are other diseases affecting communities; both young and old. Diseases like malaria, cholera and tuberculoses among others, should have free drugs as well. When communities begin to get free drugs for some of those diseases, they will accept the vaccine.*

Discussant:*In schools especially secondary schools, there are clubs such as literary and debating club, sports and so on. There should be a club for awareness on poliovirus disease and other diseases in secondary schools. Biology teachers should be in charge of the club and make sure health issues are discussed especially polio and the importance of the vaccine. This could be a viable means to inform and enlighten students for them to grow with the understanding of the need for polio vaccine.*

APPENDIX VI

Researcher in a Focus Group Discussion with discussants in Chikaji Community

Researcher in a Focus Group Discussion with discussants in Muchia Community

Members of the Volunteer Community Mobilizer Network (VCMN) in Chikaji and Muchia, Sabon Gari LGA, Kaduna State

Researcher with members of Volunteer Community Mobilizer Network (VCMN) in Chikaji and Muchia, Sabon Gari LGA, Kaduna State.