AN ASSESSMENT OF GUNDUMA HEALTH SYSTEM'S COMMUNICATION STRATEGY ON MATERNAL HEALTH IN JIGAWA STATE

BY

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

DEPARTMENT OF THEATRE AND PERFORMING ARTS ,

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AHMADU BELLO UNIVERSITY,

ZARIA, NIGERIA

JANUARY, 2020

DECLARATION

I HussainiSaniWurno hereby declare that this Dissertation entitled *"An Assessment of GundumaHealth System's Communication Strategy on Maternal Health in Jigawa State"* is written by me and is a product of my own research. It has not been submitted in any previous application for a higher degree. All quotations are indicated and all sources of information are duly acknowledged by means of reference.

…… ……..

HUSSAINI SaniWurno Date

CERTIFICATION

This Dissertation entitled *"An Assessment of Gunduma Health System's Communication Strategy on Maternal Health in Jigawa State".*Written by HussainiSaniWurno**(P17ARTP8232)** meets the regulations governing the award of a Master of Arts Degree in Development Communication, Ahmadu Bello University, Zaria and it is approved for its contribution to knowledge and literary presentation.

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DEDICATION

This dissertation is dedicated to Allah (SWT), whose infinite mercies, favour and guidance saw me through this programme.

ACKNOWLEDGEMENTS

I wish to tender my utmost and sincere gratitude to almighty Allah (SWT); for bringing me to where I am today, also my profound appreciation goes to my supervisor, Professor M I Umar-Buratai, who took pain and time to nurture, mentor and encourage me during the course of this work, particularly for the feedback I received, from time to time, thank you Sir. I wish to also appreciate my co-supervisor, Professor DanjumaGambo whose wealth of knowledge added glamour to this dissertation. It is the combined efforts of these great scholars that helped me to reach this desired point.

Immeasurable appreciation goes to the Head of Department, Theatre and Performing Arts, Dr. Mrs. RasheedahLiman, for her continuous mentorship, concern, valued advice and encouragement. I am also indebted to the Postgraduate Coordinator Dr. Emmanuel T Gana for his open door philosophy and welcoming attitude. Special appreciation also goes to MallamSalihuBappa, He is truly such a motivational figure.

The entire staff in the Department of Theatre and Performing Arts are highly appreciated, in persons of Prof. Steve Abah, Dr Mrs. V Lagwampa, MallamRabi'uIsah, Dr Emmanuel Jegede Mr. Steve Daniel, MallamSadiqBalewa, Mr. Bankole Bello, Mallam LK Dodo, Mr. Silvanus Dangoji, Dr. Jamila Muhammad, Mallam Ali Baba Kankara, Mr. Mohammed Ibrahim, MallamHussaini Umar, MallamDanladi, MallamAbdulhameed, MallamYunusaSabitu, Mrs. Martina Kambai and a host of others. I really appreciate your relentless support and encouragement.

Additional thanks goes these great friends who relentlessly kept on encouraging me, and offered multiple advice and editorial support, in persons of, SalaudeenHabeeb Adebayo, Hills Blessing,

Christiana Bako Mr. AdebisiOlugbenga, RukayyahYariLabo, Kauthar A Khaleel, MallamAbdulhamid, MallamAliyuHaruna (VC's office), Mallam Ibrahim Jimoh, Professor SulaimanSalau, May God reward each and every one of you abundantly.

I also recognize the mentoring contributions of my superior officers, in the name of Lieutenant Commanders H O. Nnaji, Sulaiman Ahmed (NN) whose relentless efforts, support and contribution to the success of this dissertation is priceless. Special appreciation also goes to my entire class mates; you were truly part of my learning stepping stones. I am truly indebted to Myfield assistants, and the entire staff of Jigawa State Ministry of Health, Federal Medical Centre Birnin Kudu, General Hospital Birnin Kudu, Primary Health Care Centre in Babaldu, Wurno, And General Hospital Buji.

Special appreciation also to my wife, MallamaKareemaDalhatuShehu, for the multiple support and understanding I received from you, during the struggle.

Unreserved recognition to my parents, MallamHussainiModibboWurno, and Malama Fatima (Binta) ModibboWurno.Additional recognition to my younger brothers and sisters.

Lastly, I acknowledge all the authors whose scholarly and valuable write-ups give a clear prism of multiple arguments and counter arguments in relation to the research in question.

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December , 2019.

ABSTRACT

Maternal health is one of the major concerns of the global health community. Pregnancy-related mortality is avoidable if preventive measures are taken and adequate care is available. Yet women especially in northern Nigeria continue to die due to pregnancy-related complications. In this regard, this study set out to examine the Communication Strategy of Gunduma Health Systems on maternal health, and how it affects the beneficiaries. The study was prompted by the high rate of maternal death especially in the northern part of Nigeria, despite all efforts by various stakeholders; there has been concentrated effort on the proximate determinants of maternal mortality, with less emphasis on communication and other social determinants. Three objectives were pursued which included, to identify the communication strategies deployed by Gunduma health system in promoting awareness on maternal Health, to also evaluate the effectiveness of the communication strategies used in the promotion of maternal health, and to identify challenges the people face in the process of accessing maternal health information and services. Systematic review of literature was carried out, which revealed that communication is always a vital factor, in the fight against maternal mortality. Additionally, literatures revealed that there is a strong correlation between socioeconomic indicators and maternal health. There is also a point of agreement among scholars that maternal health has a variety of factors, and the implication is, in tackling the menace, approach should be multidimensional. More importantly, the study utilized Health Belief Model for its theoretical framework. The study was conducted in Nahuce, Babaldu, Buji, Wurno, Bamaina all in Birninkudu Local Government Area (LGA) of JigawaState from September, 2015 to May 2019 using 384 respondents to whom a structured questionnaire was administered. Some key informants were also interviewed. Concurrently, Focus Group Discussions were conducted. It was observed that, communication has a strong impact on maternal health awareness, various communication tools were used by the government, however, with Radio being a major source of information. It was discovered that there is a significant increase in level of programe acceptance among the people. Also it was discovered that role conflict is still a factor against maternal death reduction. . Additionally it was discovered that there is high level economic dependency among rural women. The findings presented in this study show that maternal health challenges will continue to shape national indicators, because there are certain areas that need to be incorporated in order to have a comprehensive approach, in tackling the problem. The study recommends that to reduce maternal morbidity and mortality, intervention programmes by both Jigawa state and Federal government of Nigeria must be introduced to deal with maternal health in a broad and multidimensional way.

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CHAPTER ONE

INTRODUCTION

1.1 Background to the study

Gunduma Health System is a program designed and developed by JigawaState Ministry of Health, in order to fast track the reduction of maternal mortality in both urban and rural settings within its jurisdiction. The state has unacceptably high mortality rates and burden of diseases profile. For every thousand children born 98 will die by age 5 years. Leading causes of ill health and death in children are communicable diseases and malnutrition. Malaria, diarrhea diseases, respiratory tract infections, malnutrition and vaccine preventable diseases top the list. Malaria incidence stands at 11,317/100,000. Maternal mortality ratio (MMR) is estimated at 2,000 deaths per 100,000 live births.

According to Gunduma policy paper of (2009) mothers die frequently from complications of pregnancy and childbirth: anaemia, obstetric haemorrhage, shock, sepsis and anemia. Other reasons for the high maternal mortality in the State include low antenatal care coverage which stands at 20.1%; delivery by health professional and facility based delivery rates are 5.1% and 4.5% respectively, while modern contraceptive prevalence rate is abysmally low at 0.2%. Malaria is associated with 70%of illnesses in pregnancy and though the use of insecticide treated net (ITN) is known to be an effective preventive measure, its distribution in the state is erratic with only about 5% of the population owning ITN while other malaria preventive measures are not getting to the people.

As at the time Gunduma Health System was launched in 2010 the state was still behind in the attainment of two of the most critical health related MDGs these are reducing under-five

mortality rate by two-thirds and maternal mortality ratio by three-quarters between 1990 and 2015, Hence, the introduction of Gunduma Health System to reverse this trend.

The indices galvanized state action and attracted the support of the development partners for the State Reform Agenda in the health sector. The reform process culminated in the introduction of several interventions that are gradually improving the quality of health services delivery and structural change which integrated both primary and secondary health care services under a single line of authority and accountability. Secondly, the powers and authority of the Ministry of health were decentralized into nine (9) Gunduma Governing councils with a Governing Board to oversee their activities.

Among other policy objectives, the state established the Gunduma Health System with the aim of:

a. Reducing the level of maternal mortality from 2000/100,000 live births to 600/100,000 live births in six years.

b. Reducing infant mortality from 101/1000 to 35/1000 ;

c. Reducing less than 5 mortality from 166/1000 to 55/1000;

d**.** Reducing the incidence of malaria from 11,317/100,000 to 6000/100,000.

Among many policy frameworks and strategies the state employs a variety of communication strategies which includes: posters, handbills, billboards, health talk, radio jingles, documentaries and other communication tools in order to reduce maternal mortality in the state.

The growing concern on improving reproductive health in the global south has created a demand for research especially in the area of maternal health. Maternal health, which is the physical wellbeing of a woman during pregnancy, childbirth, and postpartum period (WHO, 2011; Fadeyi, 2007), has been a major concern of several international summits and conferences

since the late 1980s, which culminated to the Millennium Summit in 2000 (WHO, 2007). At that summit, it was generally agreed that maternal health care has a crucial role to play in the improvement of reproductive health and that women deserve to be well informed and empowered to have unhindered access to safe, effective, affordable, acceptable and appropriate health care service. These will enable them to go safely through pregnancy and child birth and provide couples with the best chance of having healthy infants (United Nations, 1996).

More pathetic is the fact that, pregnancy-related complications are avoidable if appropriate measures are taken and adequate care is available (WHO, 2011; Idris, 2010). Yet more than half a million women die annually due to pregnancy related complications with 95% of these coming from the developing world (UNICEF, 2008). For this reason among others, maternal health deserves attention because pregnancy involves normal, life-enhancing process of procreation which carries a high risk of death. This process of women's reproduction has been socially constructed by medical sciences as "pathological" "abnormal" and "unnatural" or at least in need of continual monitoring (Fausto and Sterling, 1992; Riessman, 1983; Zita, 1997; in Dillaway, 2005), The mother's body goes through a lot of physiological, anatomical and psychological metamorphosis that need to be handled properly in order to reduce morbidity, and mortality rates (Hunter, 1994).

In the literature, there is the indication that women encounter challenges in their attempts to ensure good health but sadly they still die due to pregnancy-related causes. Many strategies by Non-Governmental Organizations (NGOs), government health ministries and international organizations such as WHO, have been adopted in an attempt to improve maternal health outcomes around the world through the provision of maternal and child health (MCH) programmes, aimed at improving primary prevention through education and services, early

detection and treatment. Specific programme interventions include emphasizing prenatal attention, clean and safe deliveries, postnatal care, family planning, and essential obstetric care Fadeyi, 2007; Lubbock and Stephen, (2008). While these programmes encourage women's access to maternal health services, women continue to be susceptible to health complications due to some extraneous social or cultural factors. Furthermore, an MCH approach has often focused on medical and facility-based interventions, whereas the issues involved in maternal health also include social, cultural, economic, legal and even religious factors, which equally need to be addressed for any meaningful improvement in maternal health (HERFON, 2006).

On the other hand, according to N o v a (2007), Communication has an essential role in any action that aims to improve health. It is difficult to imagine how a message could be delivered to promote healthy choices if we could not communicate. The communication process is a multi-dimensional transaction influenced by a variety of factors. In health promotion work the successful exchange of information between the practitioner and target audience is an area that has received multiple attentions. In essence, in order to have a meaningful output in reducing maternal death, communication has a strong stake, of which if fully utilized it will go a long way in minimally reducing maternal mortality.

According to index mundi.com 2019, over the years there has been unstable increase and reduction on maternal related deaths in Nigeria for example, as at 2008 there was a record of 840 deaths per 100,000 live birth, in 2010 it was reduced to 630, however surprisingly the number increased to 814 in 2015, more disturbing is the fact that as at December 2017 the number of deaths has risen to 917.

In Nigeria stakeholders use different mechanisms, approaches and interventions which also includes peer-to-peer communication to change norms and beliefs around

pregnancy-related complications. Programs that improve interpersonal communication, use of Information Education and Communication, the Mass media, to mention just a few, have the potential to increase information and foster empowerment needed for women to access the reproductive health services thereby lowering maternal mortality rates. It is therefore important to note that communication is a vital component in the fight against maternal deaths.

1.2 Statement of the research Problem

Maternal mortality have been described as one of the foremost and most neglected health problem and human right abused in the world. Maternal mortality is the probability or percentage of mothers dying as a result of pregnancy related complications or post-delivery complications every year. Even though maternal mortality is a worldwide phenomenon, the critical issues associated with it are most profound in developing countries.

According to WHO (2015), Nigeria's estimated maternal mortality ratio was over 800 maternal deaths per 100 000 live births, with approximately 58 000 maternal deaths during that year. By comparison, the total number of maternal deaths in 2015 in the 46 most developed countries was 1700, resulting in a maternal mortality ratio of 12 maternal deaths per 100 000 live births. In fact, a Nigerian woman has a 1 in 22 lifetime risk of dying during pregnancy, childbirth or postpartum/post-abortion; whereas in the most developed countries, the lifetime risk is 1 in 4900.

According to the same organization Close to 200 million people inhabit Nigeria, considered Africa's most populous country. Nigeria is also the country where nearly 20% of all global maternal deaths happen. Between 2005 and 2015, it is estimated that over 600 000 maternal deaths and no less than 900 000 maternal near-miss cases occurred in the country.

From the foregoing, it is obvious that maternal morbidity and mortality are key constituents of maternal health. In an attempt to address maternal mortality and morbidity most scholars have emphasized on the medical causes, this is in addition to governments spending millions on communication campaigns without much achievement,Despite the relatively massive programmes and additional resources pumped into the health sector specifically for the reduction of maternal health, the problem still prevail.

Deriving from the above, the critical questions that were answered include: why have the efforts to reduce maternal mortality and morbidity not yielded the desired results in Nigeria, even with the massive communication campaign? What communication factors underlie maternal Health in Nigeria? And how does these factors impact on the overall wellbeing of women? These questions form the basis on which this study was initiated. With mostly medical practitioners at the forefront in identifying key factors related to maternal health and a significant effort put in place and still the problems persist hence there could be a communication gap. What this study seeks to address, therefore, arethose communication gaps that conditions the proximate medical determinants that improve maternal health.

1.3 Aim and Objectives of Study

The overall aim of this study is to examine the communication strategy deployed by Gunduma Health System in the reduction of maternal mortality and promotion of maternal health in Jigawa State, with a view to determining its effectiveness or otherwise. In order to achieve this aim, the following objectives were set:

1. To identify the communication strategies deployed by Gunduma health system in promoting awareness on maternal Health.

2. To evaluate the effectiveness of the communication strategies used in the promotion of maternal health.
3. To identify challenges the people face in the process of accessing maternal health information.

1.4 Research Questions

Based on the statement of research problem, the following research questions would be addressed:

1. What communications strategies' and campaign components are used by GHS to reduce maternal mortality?
2. How impactful are such communication strategies?
3. What are the challenges both GHS and the people encounter in disseminating or accessing the services available?

1.5 Justification for the Study

One of the anticipated outcomes of the Sustainable Development Goals (SDGs) is the improvement of maternal health and the reduction in maternal mortality by 75% by the year 2020. With Nigeria's poor record of maternal mortality, it is clear that the global SDG's may not be achieved without a significant outcome from Nigeria in terms of reductions in rates of maternal mortality. Although analyses of recent trends show that the country is making progress in reducing maternal mortality rates, the rate of reduction in northern part of the country still remains too slow to achieve the SDGs. Although there are other several factors affecting Maternal Health especially in the northern part of Nigeria where insecurity is very high, Thus, a communication study of maternal health is still expedient to gain more insight into these salient communication and socio-cultural barriers to the wellbeing of women and what can be done to

improve the situation. The study of maternal health in Nigeria's urbanand ruralcommunities is important and necessary for several reasons: first, the maternal health status in Nigeria is poor, based on the high rate of maternal mortality. Among the health and mortality indicators, levels of maternal mortality showed striking disparities between the north and south, according to level of development.Maternal mortality is a sensitive indicator of the status of women in society, as well as access to necessary information, health care and adequacy of the health care system in responding to their needs.

The maternal mortality rate (MMR) in northern Nigeria without doubt calls for urgent action. Though whose figures place Nigeria second to India on the MMR table (Ogbonnaya and Olawale 2008), research into this sensitive aspect of life will therefore, shed more light on certain communication and other socio-cultural factors that precipitate maternal health challenges, and help to initiate more sensitive intervention strategies.

Therefore, addressing the required maternal health's communication line of attack in the Northern Nigeria and the country at large is not only relevant for women empowerment, but also for women in development.

1.6Scope of the Study

The scope of the study is limited toGunduma Health System's communication strategy in Babaldu, Nahuce, Buji, Bamaina, Wurno all inBirninkudu local government ofJigawa state. With a study time frame that coversyear 2015 to 2018. Using Raosoft sample size calculator, a sample size of 384 was utilized out of the total study populationof 970,000.Birninkudu was chosen for this study because it was among the four local governments picked for the pilot program by the state government due to its high maternal mortality in 2010.

1.7 Operational Definition of Terms

Forthe purpose of clarity, the key words of this study have been given operational definitions as follows:

GHS: Stands for **"**Gunduma Health System" is a program designed and developed by Jigawa state ministry of health, with international support of donor agencies and Federal Ministry of Health in order to fast track the reduction of maternal mortality in both urban and rural settings within its jurisdiction. Within its policy framework, includes health and communication strategies aimed at eliminating barriers against promoting maternal health.

Role conflict: Is the contradictions between different roles that a person takes on or plays in their everyday life. In some cases, the conflict is a result of opposing obligations which results in a conflict of interest, in others, when a person has roles that have different statuses, and it also occurs when people disagree about what the responsibilities for a particular role should be, whether in the personal or professional realms.

Strategy: A method or plan chosen to bring about desired future, such as achievement of goal or solution to a problem.

Communication: is **the** imparting or exchanging of information by speaking, writing, or using some other medium with the intention to influence personal health choices by improving health literacy.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

This section of the research work presents a detailed review of the literature as it relates to communication and maternal health. The presentation of the review follows a logical sequence by first reviewing how scholars in this field have interrogated the relevance of communication in health promotion, followed by a review of maternal health related literature.Finally, literature on the correlation between poverty and poor health.

2.2 The Centrality of Communication in Health

United state Department of Health, (2004), explained that, Information is fundamental to choice and making informed decisions. Without information, there is no choice. Information helps knowledge and understanding. It gives patients the power and confidence to engage as partners with their health service.

WHO (2019) explain that, communication serves an instrumental role that helps one acquire knowledge as well as also fulfilling ritualistic function, one that reflects humans as members of a social community Health communication attempts to persuade the affected group to engage in certain behavior through accessing information. Intervention measures to change behaviors in the affected group are an area of concern and must be fully supported by both the government and nongovernmental organizations. Behavior Change Communication (BCC) is an essential component of development. However, society-wide change is slow. Majority of researchers of health communication insist on behavior change programs that aims at increasing knowledge, stimulating dialogue, promoting attitude change, reducing stigma, improve skills etc.

Scutchfield and Keck (2003) insist that the success of communication is determined by a variety of factors that may include: how much access the target audience has to information, whether the target audience has acquired sufficient knowledge and skills to perform the behavior among others. Behavior change communication (BCC) on the other hand is an interactive process of any intervention with individuals, communities and/or societies (as integrated with an overall program) to develop communication strategies to promote positive behaviors which are appropriate to their settings. Strategic use of communication to promote positive health outcomes is based on proven theories and models of behavior change.

Milgrom (2015) insist that any successful communications program aimed at changing behavior must be grounded in theory. She further states health programs and companion communications campaigns should find components of at least one behavior-change theory. Most of the studies revealed that change of behavior differ across range of factors. Individual perceptions, beliefs or emotions affect decision-making towards behavior change.

Interpersonal factors such as family influences like social support and relationship also affects individual decision-making.

According to Milgrom (2015), community norms influence how people make decision regarding health issues. Structural factors such as the economic status of the country, political climate laws enforcement and policies also affects behavior change of an individual. Some behaviors are so tightly woven into social norms (e.g. smoking) that an ecological approach targeting the individual, as well as their community and broader environment, is critical.

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 protection, disease prevention and treatment and is

recognised as a core competency in public health and health promotion practice, playing a pivotal role in achieving public health objectives.

Additionally, health communication initiatives must use the most effective and efficient strategies for the promotion, 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 impacts can be enhanced and opportunities maximised for strengthening evidence-informed action.

According to WHO (2014), Communication is a cornerstone function of Public Health. The essential components of the communication process are: channel, source, receiver and message. Three considerations emerge:

1. Information is received and processed through individual and social prisms that not only determine what people encounter, but also the meaning derived from the communication.

2. It is reasonable to expect discrepancies between messages disseminated and received.

3. Communication is
4. a dynamic process in which sources and receivers of information continuously interchange their roles.

To promote and sustain healthy behaviour, communication is very important. Health communication serves as the medium that is used to create awareness to the individual group and communities on health related issues. Health promotion provides knowledge, skills and capacity to assist individuals, groups and communities in identifying health needs, obtaining information and resources and mobilizing them to achieve change.

According to Achalu (2010), communication creates meaning to any information or message given. Health communication is transferring or giving information, persuading, influencing or warning clients/ patients about risky behaviour. Health communication is an art and technique of informing influencing and motivating individual or groups about important health issues. Furthermore, in Rartzan (2016), Health communication encompasses the study and use of communication strategies to inform and influence Individual and community decisions that enhance health.

Barriers of Effective Health

Communication

Health communications also face some challenges like:

Low health literacy

There may be difficulty in understanding the message hence; literature should be used for impaction of knowledge.

Poor communication link

Hospitals are made up of different ethnic groups with socio cultural differences, languages, religion and economic differences, thus affect communication link between the health workers and the communities.

Poor research

The developing countries find it difficult to carry out research. Therefore, to design, develop and implement health programmes becomes difficult.

Some barriers of health communications as identified by Achalu,are listed as follows: Wrong person sending messages.

Lack of receivers.

Unclear messages.

Inappropriate channel.

Inadequate feedback and noise distorting the message.

Rice and Atkins (2001), Salmon and Murry-Johnson (2001), Snyder (2001) supported the point that, Health communication contributes to all aspects of disease prevention and promotion of health. It is relevant in number of contexts including the well-being of individuals and the communities. Health communication galvanizes people into action, promotes healthy lifestyle, prevents diseases and improves the health through eschewing destructive behavior. The driving force behind health campaigns and health promotions tend to be problem solving; addressing a particular health issue in order to prevent its further occurrence

Renata (2016) also opined, results are starting to emerge too, Community based health communication interventions have been instrumental in the control of the recent Ebola crisisand past outbreaks; helped improve self-care and treatment satisfaction among low-income diabetes patients in Tennessee, United State; have been associated with improved use of family planning methods among women in rural communities in Ethiopia; contributed to strengthening health systems in Zambia and Japan; and helped reduce daytime asthma symptoms and urgent care visits among children in disparities settings in the United States,just to make a few examples.

According to WHO (2009) Health communication is seen to have relevance for virtually every aspect of health and well-being, including disease prevention, health promotion and quality of life. This increase in the prominence of the field, externally, is happening contemporaneously with important developments taking place, internally, one of which is the focus on the study of environmental, social and psychological influences on behaviour and health. Given the global challenges posed by major threats, health communication scholars and practitioners recognize

the importance of prevention and, with it, the need to understand human behaviour through the prism of theory. This has given rise to theorizing about the role of risk perceptions,social norms,emotionsand uncertaintyin health behaviours.

Additionally WHO (2009) explained that Communication is at the heart of who we are as human beings. It is our way of exchanging information; it also signifies our symbolic capability. These two functions reflect what James Carey characterized as the *transmission* and *ritual* views of communication, respectively.Carey recognized that communication serves an instrumental role (e.g. it helps one acquire knowledge) but it also fulfils a ritualistic function, one that reflects humans as members of a social community.

Korn, Morreale, &Boileau, (2000) added that, understanding how people use messages to generate meaning within and across various contexts, cultures, channels, and media) is an issue of vital importance in contemporary society. Scholars outside of the communication discipline bear witness to the centrality of communication.

McCloskey (1994) argues that speech or ‘‘talk’’ has become central in society, and hence, communication is one of the most pragmatic fields of study in academia.

One of the major developments of recent years has been the discovery of the role that health communication can play (for good and bad) in determining individual and community health status. Effective communication can (a) improve the health outcomes of acute and chronic conditions, (b) reduce the impact of racial, ethnic, disease-specific and socioeconomic factors in care, and (c) improve the effectiveness of prevention and health promotion. The large gap between expected and achieved quality in health care can be attributed to ineffective communication between providers and patients and their families, providers and providers, health care organizations and providers (Institute of Medicine, 2001). Similarly, the large gaps in

quality between whitesandminorities that are not explainable by differences in insurance or socioeconomic status reflect the crucial role that inadequate communication and lack of cultural competence play.

Health communication has become an accepted tool for promoting public health. Health communication principles are often used today for various disease prevention and control strategies including advocacy for health issues, marketing health plans and products, educating patients about medical care or treatment choices, and educating consumers about healthcare quality issues. At the same time, the availability of new technologies and computer-based media is expanding access to health information and raising questions about equality of access, accuracy of information, and effective use of these new tools.

University of Rochester Medical Center, (2004) contributed to the argument that improvements in communication in healthcare settings, invariably lead to better health outcomes. Furthermore, these changes may contribute to greater equity in health and healthcare for racial, ethnic, socioeconomic, educational and minority populations. Better communication can lead to improvements in prevention, motivation for behavior change, and adherence
to treatment.

According to Wright, et al, (1990), Health communication can contribute to all aspects of disease prevention and health promotion and is relevant in a number of contexts, including, health professional-patient relations, and individuals' exposure to, search for, and use of health information. Individuals' adherence to clinical recommendations and regimen.

Patrick et al. (1998) explained that, for individuals, effective health communication can help raise awareness of health risks and solutions provide the motivation and skills needed to reduce these risks, help them find support from other people in similar situations, and affect or

reinforce attitudes. Health communication also can increase demand for appropriate health services and decrease demand for inappropriate health services. It can make available information to assist in making complex choices, such as Selecting health plans, care providers, and treatments. For the community, health communication can be used to influence the public agenda, advocate for policies and programs, promote positive changes in the socioeconomic and physical environments, improve the delivery of public health and health care services, and encourage social norms that benefit health and quality of life.

Meldrum et al. (1996), they argue that, the practice of health communication has contributed to health promotion and disease prevention in several areas. One is the improvement of interpersonal and group interactions in clinical situations (for example, provider-patient, provider, and among members of a health care team) through the training of health professionals and patients in effective communication skills. Collaborative relationships are enhanced when all parties are capable of good communication.

Freimuth, (1990) says, Health literacy is increasingly vital to help people navigate a complex health system and better manage their own health. Differences in the ability to read and understand materials related to personal health as well as navigate the health system appear to contribute to health disparities. People with low health literacy are more likely to report poor health, have an incomplete understanding of their health problems and treatment, and be at greater risk of hospitalization.

However according to united state healthy people report (2010), Health communication alone cannot change systemic problems related to health. Such as poverty, environmental degradation, or lack of access to health care, but comprehensive health communication programs should include a systematic exploration of all the factors that contribute to health and the

strategies that could be used to influence these factors. Hargie and Dickson, (2004), also add, Communication is central to our everyday functioning and can be the very essence of the human condition.

As argued byHybels and Weaver (1998), 'To live be to communicate. To communicate is to enjoy life more fully'. Without the capacity for sophisticated channels for sharing our knowledge, both within and between generations, our advanced civilization would not exist. Additionally, Sheila and Sandra (2007), added**,** effective communication is central tour ability to function as a member of society. It is a key aspect of all relationships, whether these occur in family, educational, work, or social settings. Indeed, when such relationships break down or become stressful, the central complaint frequently relates to poor communication.

As Kreps et al. (1998) noted, effective communication is now generally acknowledged central to effective healthcare. It is no longer seen as an add-on extra; rather it is recognized by many as being at the heart of patient care – as playing a pivotal role. Kreps, (2003), adds that, communication is a central human process that enables individual and collective adaptation to health risks at many different levels.

MacDonald (2004) noted good communication between patients and medical staff is important from the very first encounter, because it forms the basis of all future transactions. Concisely, as noted by Pettigrew and Logan (1987), communication promotes both health and illness in society, and makes the system run at optimal or marginal effectiveness. Schofield (2004) noted, 'effective communication is a drug that could be prescribed!' Whereas effective communication has been shown to have the above beneficial effects, ineffective communication can lead to a whole range of negative outcomes. In extreme cases, poor communication can lead to psychological damage, physical harm, litigation or, at worst, death. MacDonald, (2004).

According to Di Blasi et al. (2001), the importance of health professionals having good communication skills is being increasingly recognized. Day and Monroe, (2000), also explains that, a health communication campaigns should seek to: identify the channels used; establish the extent of audience exposures to the message formats; determine the impacts the campaigns; rank the effectiveness of the channels used in the campaigns; establish community participation in the process; relevance of the channels, and the message reach among the audiences.

Wilmer and Dominick, (2005) opined that, Communicators, who wish to inform, persuade or simply hold the attention of their auditors must adapt more closely than in the past to what ordinary people find interesting, relevant and accessible. Relevant communication theories and models should drive health communications campaigns. It is also important to develop a gendered understanding of the audience, and at each stage in the health communications campaign check that the message design, delivery, monitoring, and evaluation process are purposely defined to understand gender.

Hubley, (1993), supported that; a successful communication must reach the audience, attract the audiences' attention, present an understandable message, promote change, and produce a change in behaviour for better health. Research indicates that effective health promotion and communication initiatives adopt an audience-centered perspective, which means that promotion and communication activities reflect audiences' preferred formats, channels, and contexts. These considerations are particularly relevant for racial and ethnic populations, who may have different languages and sources of information. In these cases, public education campaigns must be conceptualized and developed by individuals with specific knowledge of the cultural characteristics, media habits, and language Preferences of intended audiences.

According to, clement et-al, (2009), Health literacy builds on the idea that both health and literacy are critical resources for everyday living. Our level of literacy directly affects our ability to not only act on health information but also to take more control of our health as individuals, families, and communities. The health of the mother has a profound effect on the health of her children. This effect is most noticeable during pregnancy but persists throughout the child's life.

Mefalopulos (2005) argued that, the scope of health literacy has three distinct 'levels':

• **Functional literacy:** Skills that allow an individual to read consent forms, medicine labels, and health care information and to understand written and oral information given by physicians, nurses, pharmacists, or other health care professionals and to act on directions by taking medication correctly, adhering to self-care at home, and keeping appointment schedules.

• **Conceptual literacy:** The wide range of skills, and competencies that people develop over their lifetimes to seek out, comprehend, evaluate, and use health information and concepts to make informed choices, reduce health risks, and increase quality of life.

• **Health literacy as empowerment:** Strengthening active citizenship for health by bringing together a commitment to citizenship with health promotion and prevention efforts and involving individuals in: understanding their rights as patients and their ability to navigate through the health care system; acting as an informed consumers about the health risks of products and services and about options in health care providers, and acting individually or collectively to improve health through the political system through voting, advocacy or membership of social movements.

Why is health literacy an important area to consider when planning health promotion initiatives? The published literature identifies six general themes that help determine why health literacy is important for population health:

1. The large numbers of people affected: somecountries have high adult literacy rates, however, approximately half have rates below the global developing country average of 79 percent. In mostcountries, literacy rates are lower among women than men are.
2. Poor health outcomes: there is a clear correlation between inadequate health literacy—as measured by reading fluency—and increased mortality rates.
3. Increasing rates of chronic disease: in the EMR, chronic diseases are estimated to account for almost half (47%) of the total burden of disease. Health literacy plays crucial role in chronic disease self-management.
4. Health care costs**:** the additional costs of limited health literacy range from three to 5% of the total health care cost per year
5. Health information demands: a mismatch exists between the reading levels of health-related materials and the reading skills of the intended audience. Often, the use of jargon and technical language made many health-related resources unnecessarily difficult to use.
6. Equity:low levels of health literacy often mean that a person is unable to manage their own health effectively, access health services effectively, and understand the information available to them and thus make informed healthy decisions. Improving the health literacy of those with the worst health outcomes is an important tool in reducing health inequalities.
    a. Health is an area where effective communication is particularly important, as good communication contributes to virtually all aspects of healthcare. There is

> now a substantial body of evidence to show that patients who are dealt with by healthcare providers with good communication skills have better health outcomes. The converse, ineffective communication, whether at the individual health professional or wider public health level, can lead to patients not even engaging with the healthcare system, refusing to follow recommended advice or to adhere to treatment regimens and failing to cope with the psychological consequences of their illness.

WHO (2019) explain that, communication serves an instrumental role that helps one acquire knowledge as well as also fulfilling ritualistic function, one that reflects humans as members of a social community Health communication attempts to persuade the affected group to engage in certain behavior through accessing information. Intervention measures to change behaviors in the affected group are an area of concern and must be fully supported by both the government and nongovernmental organizations. Behavior Change Communication (BCC) is an essential component of development. However, society-wide change is slow. Majority of researchers of health communication insist on behavior change programs that aims at increasing knowledge, stimulating dialogue, promoting attitude change, reducing stigma, improve skills etc.

Scutchfield and Keck (2003) argues that the success of communication is determined by a variety of factors that may include: how much access the target audience has to information, whether the target audience has acquired sufficient knowledge and skills to perform the behavior among others. Behavior change communication (BCC) on the other hand is an interactive process of any intervention with individuals, communities and/or societies (as integrated with an overall program) to develop communication strategies to promote positive behaviors which are

appropriate to their settings. Strategic use of communication to promote positive health outcomes is based on proven theories and models of behavior change.

Furthermore Milgrom (2015) says any successful communications program aimed at changing behavior must be grounded in theory. She further states health programs and companion communications campaigns should find components of at least one behavior-change theory. Most of the studies revealed that change of behavior differ across range of factors. Individual perceptions, beliefs or emotions affect decision-making towards behavior change. Interpersonal factors such as family influences like social support and relationship also affects individual decision-making.

According to Milgrom (2015), community norms influence how people make decision regarding health issues. Structural factors such as the economic status of the country, political climate laws enforcement and policies also affects behavior change of an individual. Some behaviors are so tightly woven into social norms (e.g. smoking) that an ecological approach targeting the individual, as well as their community and broader environment, is critical.
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 protection, disease prevention and treatment and is recognised as a core competency in public health and health promotion practice, playing a pivotal role in achieving public health objectives.

Additionally, health communication initiatives must use the most effective and efficient strategies for the promotion, 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 impacts can be enhanced and opportunities maximised for strengthening evidence-informed action.

According to WHO (2014), Communication is a cornerstone function of Public Health. The essential components of the communication process are: channel, source, receiver and message. Three considerations emerge:

1. Information is received and processed through individual and social prisms that not only determine what people encounter, but also the meaning derived from the communication.

2. It is reasonable to expect discrepancies between messages disseminated and received.

3. Communication is a dynamic process in which sources and receivers of information continuously interchange their roles.

To promote and sustain healthy behaviour, communication is very important. Health communication serves as the medium that is used to create awareness to the individual group and communities on health related issues. Health promotion provides knowledge, skills and capacity to assist individuals, groups and communities in identifying health needs, obtaining information and resources and mobilizing them to achieve change.

According to Achalu (2010), communication creates meaning to any information or message given. Health communication is transferring or giving information, persuading, influencing or warning clients/ patients about risky behaviour. Health communication is an art and technique of informing influencing and motivating individual or groups about important health issues. Furthermore, in Rartzan (2016), Health communication encompasses the study

and use of communication strategies to inform and influence Individual and community decisions that enhance health.

Barriers of Effective Health

Communication

Health communications also face some challenges like:

Low health literacy

There may be difficulty in understanding the message hence; literature should be used for impaction of knowledge.

Poor communication link

Hospitals are made up of different ethnic groups with socio cultural differences, languages, religion and economic differences, thus affect communication link between the health workers and the communities.

Poor research

The developing countries find it difficult to carry out research. Therefore, to design, develop and implement health programmes becomes difficult.

Some barriers of health communications as identified by Achalu,are listed as follows: Wrong person sending messages.

- Lack of receivers.
- Unclear messages.
- Inappropriate channel.
- Inadequate feedback and noise distorting the message.

Rice and Atkins (2001), Salmon and Murry-Johnson (2001), Snyder (2001) supported the point that, Health communication contributes to all aspects of disease prevention and promotion

of health. It is relevant in number of contexts including the well-being of individuals and the communities. Health communication galvanizes people into action, promotes healthy lifestyle, prevents diseases and improves the health through eschewing destructive behavior. The driving force behind health campaigns and health promotions tend to be problem solving; addressing a particular health issue in order to prevent its further occurrence

Renata (2016) also opined, results are starting to emerge too, Community based health communication interventions have been instrumental in the control of the recent Ebola crisis and past outbreaks; helped improve self-care and treatment satisfaction among low-income diabetes patients in Tennessee, United State; have been associated with improved use of family planning methods among women in rural communities in Ethiopia; contributed to strengthening health systems in Zambia and Japan; and helped reduce daytime asthma symptoms and urgent care visits among children in disparities settings in the United States, just to make a few examples.

According to WHO (2009) Health communication is seen to have relevance for virtually every aspect of health and well-being, including disease prevention, health promotion and quality of life. This increase in the prominence of the field, externally, is happening contemporaneously with important developments taking place, internally, one of which is the focus on the study of environmental, social and psychological influences on behaviour and health. Given the global challenges posed by major threats, health communication scholars and practitioners recognize the importance of prevention and, with it, the need to understand human behaviour through the prism of theory. This has given rise to theorizing about the role of risk perceptions,social norms,emotionsand uncertaintyin health behaviours.

Additionally WHO (2009) explained that Communication is at the heart of who we are as human beings. It is our way of exchanging information; it also signifies our symbolic

capability. These two functions reflect what James Carey characterized as the *transmission* and *ritual* views of communication, respectively.Carey recognized that communication serves an instrumental role (e.g. it helps one acquire knowledge) but it also fulfills a ritualistic function, one that reflects humans as members of a social community.

Korn, Morreale, &Boileau, (2000) added that, understanding how people use messages to generate meaning within and across various contexts, cultures, channels, and media) is an issue of vital importance in contemporary society. Scholars outside of the communication discipline bear witness to the centrality of communication.

McCloskey (1994) argues that speech or ‘‘talk’’ has become central in society, and hence, communication is one of the most pragmatic fields of study in academia.

One of the major developments of recent years has been the discovery of the role that health communication can play (for good and bad) in determining individual and community health status. Effective communication can (a) improve the health outcomes of acute and chronicconditions, (b) reduce the impact of racial, ethnic, disease-specific and socioeconomic factors in care, and (c) improve the effectiveness of prevention and health promotion. The large gap between expected and achieved quality in health care can be attributed to ineffective communication between providers and patients and their families, providers and providers, health care organizations and providers (Institute of Medicine, 2001). Similarly, the large gaps in quality between whites and minorities that are not explainable by differences in insurance or socioeconomic status reflect the crucial role that inadequate communication and lack of cultural competence play.

Health communication has become an accepted tool for promoting public health. Health communication principles are often used today for various disease prevention and control

strategies including advocacy for health issues, marketing health plans and products, educating patients about medical care or treatment choices, and educating consumers about healthcare quality issues. At the same time, the availability of new technologies and computer-based media is expanding access to health information and raising questions about equality of access, accuracy of information, and effective use of these new tools.

University of Rochester Medical Center, (2004) contributed to the argument that improvements in communication in healthcare settings, invariably lead to better health outcomes. Furthermore, these changes may contribute to greater equity in health and healthcare for racial, ethnic, socioeconomic, educational and minority populations. Better communication can lead to improvements in prevention, motivation for behavior change, and adherenceto treatment.

Communication in a healthcare setting is one of the most important tools we have for providing great patient care and improving patient satisfaction. However, lines of communication can frequently be crossed and lead to lower patient satisfaction scores, illnesses or worse. According to information shared in a **recent article from Becker's Hospital Review**: "...more than a quarter of hospital readmissions could be avoided with better communication among healthcare teams and between providers and patients."

2.3.1 Maternal Health

Graczyk, (2007) and Adenike (2013), opined that Maternal health is defined by WHO as the “physical wellbeing of a mother during pregnancy, childbirth and postpartum” WHO, (2010). Maternal health includes prenatal care and postnatal care of the mother and of the child up to the age of five years. However according to Fadeyi, (2007), Many biological, economic, social, and cultural factors such as poverty, malnutrition, working condition, child marriage, and gender inequities may compromise the health of pregnant women.

2.3.2 Maternal Mortality

According toBankole, Akinrinola, Gilda Sedgh, Friday Okonofua, Collins Imarhiagbe, RubinaHussain and Deirdre Wulf. (2009), the concept of maternal mortality has become an everyday phenomenon of the contemporary world. Women of childbearing age all over the world irrespective of race, education, occupation, or marital status are faced with the agony of pregnancy's possibility of leading to the death of the mother. However, maternal mortality is a key indicator of a society's level of development and the performance of the health care delivery system. The majority of the causes of maternal deaths are preventable.

As cited by Archibong and Agan (2000), the World Bank Statistics indicated that at least 144 women die each day from pregnancy-related complications in Nigeria, placing the country among one of the worst in the world for women to deliver babies. National primary healthcare development agency, (2009) says there exists marked urban-rural variation in maternal mortality rates: 135/100,000 in the urban as compared to 828/100,000 in the rural parts of the country. This supports the argument as Jigawa is one of the poorest States in Nigeria with 85% of the population being rural with low literacy level and more than 70% classified as very poor.

Olalekan (2014) define maternal mortality as the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes. As explained in Shah and Say, (2007), Joseph and Uche, (2012).A maternal death is defined as the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes.

The World Health Statistics (2014) state that, out of every 10 deaths worldwide, six are due to non-communicable conditions; three to communicable, reproductive, or nutritional conditions; and one to injuries. Many developing countries have mortality patterns that reflect high levels of infectious diseases and the risk of death during pregnancy and childbirth, in addition to the cancers, cardiovascular diseases and chronic respiratory diseases that account for most deaths in the developed World.

National Primary Health Care Development Agency reports (2014), observed that Maternal death is caused by either complication that develop directly as a result of pregnancy, Delivery or in the postpartum period (a "direct obstetric death"), or due to an existing medical Condition (an "indirect obstetric cause"). Several avoidable factors contribute to these deaths, which can be grouped into:

1. Socio-economic and cultural factors (especially related to the household/ family level).
2. Factors relating to accessibility of health facilities by pregnant women with pregnancy/labour complications.
3. Factors around Quality of care, which includes timeliness in receiving care at the health facilities.

According to Centre for Reproductive Rights (2014), The use of malfunctioning or outdated hospital equipment and problems with power supply are also commonplace in Nigeria. A national study on the availability and quality of the nation's emergency obstetric care (EOC) facilities found that only 4.2% of public facilities and 32.8% of private facilities (and only 18.5% of both public and private facilities) met the internationally agreed-upon standards for emergency obstetric care.

Omo-Aghoja L O,Aisien A.O., Akuse, J.T., Bergstrom, S., Okonofua, F.E., (2008), note that the problem of poor organization and access to maternal health services has always been a major challenge in Nigeria. According to Harrison, (2009), The Nigerian health system as a whole has been plagued by problems of service quality, including unfriendly staff attitudes to patients, inadequate skills, decaying infrastructures, and chronic shortages of essential drugs. Electricity and water supply are irregular and the health sector as a whole is in a dismal state.

According to Fogel (1994), empirical evidence supports the idea that improvements in economic conditions in the 18^{th} century were fundamental in the decline in death rates in developed countries and an important factor in the subsequent reduction of death rates in less developed countries

Strong (1998), gives a vivid explanation that, there is no doubt that poverty in some region contributes to the significant disparities that exist in maternal morbidity and mortality (MMM) between Sub-Saharan Africa and the developed countries, in addition to explaining a large share of the within country inequality of health in Africa. For example, there is a strong association between the shares of women of reproductive health who are severely underweight and the quintile of the wealth distribution in which they fall.

More so, Marmot (2004), Fritzell et al. (2013), added that, evidence from health inequality research tends to support the relative poverty perspective. It has been shown that a clear association between economic resources and health exists in both low and high-income countries. This association not only distinguishes the poor from the non-poor but also spans the entire social hierarchy and produces what is nowadays labelled “the social gradient in health.”

However, Diana et al, (2006), noted that, much empirical and theoretical information exists on the various causes of maternal death. However, despite the amount of published work on this problem, maternal mortality remains high in many parts of the world and the solutions remain elusive. Although almost all cases of maternal death are avoidable, standard programmes to prevent deaths have not been effective in controlling the causes of maternal mortality.

Diana et al, (2006) also opined, Strategies to reduce maternal mortality have over the years been criticized because the component programmes are based mostly on low-grade evidence derived from retrospective and observational studies, as well as on empirical knowledge or conclusions reached via deductive reasoning.

Herfon,(2006) and Adenike,(2014), added that a maternal and child health approach has often focused on medical and facility-based interventions, whereas the issues involved in maternal health also include social, cultural, economic, legal and even religious factors, which equally need to be addressed for any meaningful improvement in maternal health.

According to Global One (2015), in terms of the actual number of maternal deaths, Nigeria is ranked second in the world behind India and Nigeria is part of a group of six countries in 2008 that collectively accounted for over 50% of all maternal deaths globally. In terms of the maternal mortality ratio, Nigeria is ranked eighth in Sub-Saharan Africa behind, Angola, Chad, Liberia, Niger, Rwanda, Sierra Leone and Somalia.

Yusuf, (2006), asserts, despite having only 2% of the world's population, Nigeria contributes 10% of the world's maternal deaths. Each year, as many as 60 000 Nigerian women die due to pregnancy-related complications. Globally, only India has a larger number of maternal

deaths from pregnancy-related complications, and that is only because it has a population eight times the size.

Shiffman and Okonofua (2006), explain that, the number of reported infant and maternal deaths in Nigeria is one of the highest in the world. Moreover, is second only to India. Within Nigeria the under-five mortality rates range from as low as 103 and 176 reported deaths per 1000 live births in the south east and south west zones, respectively to 260 and 276 reported deaths per 1000 births in the north west and north east zones, respectively. Even in those states where they have been pushed by social advocates to prioritise safe motherhood, they prefer to devote public budgets to causes that are politically more visible, such as building roads.

According to UNICEF report (2014), Nigeria MDGs report (2010), more disturbing is that, every 10 minutes, one-woman dies because of pregnancy or childbirth in Nigeria, and giving53, 000 per year this means about 800 women die in every 100,000 live births. The highest death rate of infants within the first 28 days (neonatal mortality) of life is in the North East and North West regions of the country The highest death rate of under five children (Under 5 Mortality Rate) is in the North East and North West regions of the country.

The Nigeria Revised National Health Policy (2004), Centre for reproductive rights (2014),Noted that the maternal mortality rate in Nigeria is among the highest in the world and further notes that the government spends only USD 8 per capita on health, despite the international community's recommendationfoods 34 per capita.

Hanson (2010) added that, due to the crucial role a mother plays in the life of a child, Nigeria's current MMR of 630 per 100,000 live births is indicative that critical aspects of the healthcare delivery system like financial and geographic access to care and good quality healthcare delivery services in Nigeria; continue to fail women and children. According to a

United Nations Children's Fund (UNICEF) report, some of the major causes of high MMR in Nigeria include hemorrhage, obstructed labour, puerperal infection, malaria, and complicated abortions WHO (2012). Some researchers argue that hemorrhage has historically been over reported while puerperal sepsis is always under reported,.

According Nigeria MDGs report, (2013), In general, there are striking disparities or inequalities in the maternal mortality situation across the states in Nigeria and geopolitical zones and between rural and urban areas of the country. Latest statistics show that high rates of maternal mortality in the North West and North East geopolitical zones remain a big challenge to the national target. The high maternal mortality rates in the North West and North East zones correspond with the low rates of antenatal care coverage, indicating that antenatal coverage will need to be improved considerably in order to reduce maternal mortality. While some states have achieved antenatal coverage of more than 90.0%, others are trailing at less than 20.0%.

Antor, (2014), argued that,the current implementation of free health care to pregnant women and under-five children seem to be yielding some positive results but Nigeria's MMR however is yet to reach the reduction rates as recommended by the MDGs. Although Nigeria saw a 27% decline in MMR between 2005 (820 per 100,000 live births) and 2010 (630 per 100,000 live births), the country is still among the top 13 highest MMR in the world. The WHO estimates that over a million children worldwide lose their mothers annually and the children who lose their mothers are 10 times more likely to die prematurely. This shows that countries with high maternal mortality ratios also record high infant and child mortality rates as well. Due to the crucial role a mother plays in the life of a child, Nigeria's current MMR of 630 per 100,000 live births is indicative that critical aspects of the healthcare delivery system like financial and

geographic access to care and good healthcare delivery services, in Nigeria continue to fail women and children.

UNICEF (2013), National demographic health survey (NDHS) (2008), Posit that, the maternal and newborn mortality and morbidity in Nigeria is one of the highest in the world with an estimated 545 maternal deaths for every 100,000 live births Nigeria contributes about 10% of global burden of maternal deaths. The main causes of high maternal morbidity and mortality among women include anaemia in pregnancy due to malaria, intra-partum and post-partum haemorrhage, sepsis, obstructed labour, and hypertensive conditions in pregnancy.

Gilles et al (2013), supported the above assertion that, despite considerable efforts to reduce the maternal mortality ratio (MMR) by three quarters from 1990 to 2015 in order to meet the fifth Millennium Development Goal, an unacceptable number of pregnant women continue to die in many developing countries, including Nigeria.

It is suggested that pregnancy-related mortality is due to delays in seeking required medical help, seeking a medical facility in time, and receiving adequate care. However, Specific reasons may explain this alarming situation in Nigeria, including low socioeconomic status, absence of emergency obstetric care, deterioration of hospital staffing in rural areas partly due to overseas emigration of Nigerian doctors, lack of access linked to transport and communication problems, and traditional beliefs delaying referral of complicated cases and utilization of available obstetric facilities.

Joseph and. Uche, (2012), are of the view that Nigeria has been mentioned by the United Nations, as having one of the highest rates of maternal mortality in the world, Reducing high maternal mortality ratio is not just a technical and medical challenge but largely a political one which requires the attention and commitment of political leaders.

Ogbonaya and Aminu, (2009), explained that, the child and maternal mortality rate of this country is very significant and has implications for the attainment of the MDGs. It has been noted that Nigeria is lagging behind in achieving universal coverage of key maternal and child health intervention and will unlikely meet the target of the MDGs. According to UNICEF Executive Director, Ann Veneman, "midway to 2015 deadline for MDGs, Nigeria continues to record unacceptably high maternal, newborn and child mortality."

Also Ogunjimi et al. (2012), added that, Nigeria ranks as one of the 13 countries in the world with the highest maternal mortality rate and is still not listed among the 10 countries seen to have made rapid progress to meet the goals.

According to Centrefor reproductive rights, (2014), While Nigerian government has repeatedly identified maternal mortality and morbidity as a pressing problem and developed laws and policies in response, these actions have not translated into a significant improvement in maternal health throughout the country. A number of factors inhibit the provision and availability of maternal health care in the country, including: the inadequacy or lack of implementation of laws and policies, the prevalence of systemic corruption, weak infrastructure, ineffective health services, and the lack of access to skilled health-care providers.

Additionally, according to Nigeria's MDGs report, (2015), the proportion of births attended by skilled health personnel in Nigeria was 45 per cent in 1990. So far, the country has not achieved a better level than that. Projections based on both the three-year and eight-year averages show almost flat trajectories with no improvement. Over the last two years, however, government has introduced measures to address this. Of particular relevance is the Midwives Service Scheme, though its effectiveness is not fully captured by the available data. Under the

scheme, the federal government has, as a stopgap measure, embarked on the massive engagement of midwives on a cost-sharing basis among the three tiers of government.

Furthermore, according to the World Health Statistic of the WHO (2014), an average of 900 maternal deaths (MD) per 100,000 live births occurs in Africa. Nigeria´s maternal mortality ratio is higher than the mean MMR in Africa: 1100 MD/100,000 live births. The under-five mortality, the probability of dying by age of five, averages 142/1,000 live births in Africa, in Nigeria 186 children per 1,000 live births die by the age of five. Nigeria still has high records of maternal and child deaths in the world. Maternal Mortality Ratio (MMR) per 100,000

- North East 1549 women
- North West 1026 women
- South East 286 women
- South West 165 women

Shah and Say, (2007) Joseph and Uche (2012), Noted that the trend in developing countries is much worse, as studies from various countries of sub-Saharan Africa indicate that maternal mortality has not only continued to be high, but is indeed increasing after the launch of the Safe Motherhood Initiative (SMI) in Kenya in 1987. Bankole, (2009) said, it is disturbing to also note that, Nigeria is ranked 187 out of 191 nations on per capita expenditure on health, which was $10.00 in 2006. If Nigeria is to reach its Millennium health targets, this amount has to be tripled.

Antor(2014) explained that, apart from Togo, which spent the least in both 2005 and 2010 on healthcare per capita, Botswana, Ghana and Namibia spent more than Nigeria. While there are observed differences in MMR among under-developed nations, the emphasis for MMR

reduction is still on improved quality of care and access to good quality healthcare for the majority poor and rural-dwelling population.

The Millennium Development Goals Report (2015) posits that, maternal survival has significantly improved since the adoption of the MDGs. The maternal mortality ratio dropped by 45 per cent worldwide between 1990 and 2013, from 380 maternal deaths per 100,000 live births to 210. Many developing regions have made steady progress in improving maternal health, including the regions with the highest maternal mortality ratios. For example, in Southern Asia the maternal mortality ratio declined by 64 per cent between 1990 and 2013, and in sub-Saharan Africa it fell by 49 per cent. Despite this progress, every day hundreds of women die during pregnancy or from childbirth-related complications. In 2013, most of these deaths were in the developing regions, where the maternal mortality ratio is about 14 times higher than in the developed regions.

Adindu, Ndep, & Peter, (2012), Antor (2014), explain that real meaningful health-related change at the grassroots level however has eluded many African countries and Nigeria is no exception. Using a top-down approach to policy formulation and implementation has failed to bring about the much-needed change.

Estimates by WHICH, UNICEF, UNFPA, the World Bank, and the United Nations Population Division, (2014), the MMR in developing regions (230) was 14 times higher than in developed regions (16). MMR is considered to be high if it is ≥300–4994 maternal deaths per 100 000 live births and extremely high if it is ≥1000 maternal deaths per 100 000 live births. While none of the MDG Regions had extremely high MMR, sub-Saharan Africa was the only MDG developing region with very high MMR (510). Of the remaining MDG developing regions, five had low MMR Eastern Asia (33), Caucasus and Central Asia (39), Northern Africa

(69), Western Asia (74), and Latin America and the Caribbean (85).The remaining MDG developing regions, which had moderate MMR, are Southeastern Asia (140), Southern Asia (190), and Oceania (190). The adult lifetime risk of maternal mortality in women from sub-Saharan Africa was the highest at 1 in 38. In sharp contrast to one in 3700 among women in developed countries.

The World Bank and the United Nations Population Division (2014), Country-level estimates shows shown that two countries accounted for one third of all global maternal deaths: India at 17% (50 000) and Nigeria at 14% (40 000). The ten countries that comprised 58% of the global maternal deaths reported in 2013 are: India (50 000, 17%); Nigeria (40 000, 14%); Democratic Republic of the Congo (21 000, 7%); Ethiopia (13 000, 4%); Indonesia (8800, 3%); Pakistan (7900, 3%); United Republic of Tanzania (7900, 3%); Kenya (6300, 2%); China (5900, 2%); Uganda (5900, 2%).

Kunst and Houweling(2001).Argue that, the effects of poverty are passed across generations through pregnancy. Women from poor families are more likely to be short, be in poorer health and have significant psychological problems when they come to pregnancy – all of which are important determinants of pregnancy outcome. During pregnancy, poorer women are more likely to gain less weight, to have genital infections and other primary health intruders.

The very real constraints of poverty and lack of resources seemed to make maternal mortality into one of those wicked and intractable problems that are essentially non-vulnerable. The temptation to sit back and wait with tackling maternal mortality until poverty 'disappears' is real. It is not justified. Most maternal deaths do occur in poor countries, and it is well known that poor countries are also the ones with highest maternal mortality rates.

In analogy to the link between poverty and infant mortality, the relation poverty-maternal mortality has become part of common wisdom. This being said, there are considerable differences, even among countries that carry similar burdens of poverty, and much of this seems related to poverty-constrained access to care.

It is obvious to many practitioners that professionalization of delivery care is a key to reducing maternal mortality (Graham et al. 2001, Kowaleswski&John 2001).

What are the implications? It would seem that at a given income level – which is correlated with the availability of services - how well ANCG responds to the expectations and needs of their clients does make a difference.

The good news is that even in poor countries health services can make a difference to reduce maternal mortality (McDonough &Goodburn2001). The bad news is that resource mobilisation alone, however necessary, not enough is. If one wants to tackle maternal mortality, investments in health care will only be worthwhile if they go along with an investment in the civil society's capacity to build up pressure for accountability.

The effects of poverty are passed across generations through pregnancy.

- Women from poor families are more likely to be short, be in poorer health

In addition, have significant psychological problems when they come to pregnancy – all of which are important determinants of pregnancy outcome.

- During pregnancy poorer women are more likely to gain less weight, to have genital infections and other diseases.

2.4 Nigeria's Regional Outlook

The Nigeria MDGs report (2014) explain that, the number of visits for antenatal was encouraging in the urban where 75.9% of pregnant women had at least four visits. The rural

arrears were no exception as 51.6% of the pregnant women visited over four times. With regard to the zones, South East. (88.3%) had the highest number of visits. South West (78%), South South (64.1) and North Central (65.8) had encouraging number of antenatal visits. Nevertheless, very few pregnant women in North West (38.1%) and North East (32.9%) attended antenatal up to four times.

2.5 The State in View

Jigawa State is one of the States with poor health indices in Nigeria as indicated by the benchmarking exercise carried out in 2000 the State was reported to have one of the lowest health indicators, especially diseases/conditions targeted for reduction by 2015 by the Millennium Development Goals (MDGs). The indices galvanized state action and attracted the support of the development partners for the State Reform Agenda in the health sector. The reform process culminated in the introduction of several interventions that are gradually improving the quality of health services delivery and structural change, which integrated both primary and secondary health care services under a single line of authority and accountability. Secondly, the powers and authority of the Ministry of Health was decentralized into nine Gunduma Governing councils with a Governing Board to oversee their activities.

According to Jigawa state health strategic plan (2013), Jigawa is one of the poorest States in Nigeria with 85% of the population being rural with low literacy level and more than 70% classified as very poor. With a Population: 4,598,265 (2009 projection) Jigawa state has unacceptably high mortality rates and burden of diseases profile. The 2008 Multiple Indicators Cluster Survey (MICS), National Demographic, and Health Survey (NDHS) show the following rates:

a. Infant Mortality Rate: 101/1000 live births

b. B. Under five Mortality Rate: 166/1000 live births

c. C. Maternal Mortality Ratio: 2000/100,000 live births

d. Immunization coverage: BCG- 8.4%; Measles-8.6percentage; DPT 3- 0%

e. Incidence of Malaria: 11,317/100,000

Nigeria's MDG report (2013), puts it, Major challenges to MDG 5 in Nigeria include: Socio-cultural and religious barriers to the use of maternal health services, inadequately trained health personnel (especially birth attendants) and their uneven distribution across the country, inadequate facilities and equipment and poor referral system.

2.6 Culture and Health

Culture influences health behaviour in so many dimensions. For instance, culture influences the way in which illness is acted upon in Nigeria (Dawitt, 1994 as cited by Kitts, and Roberts, 1996; Erinosho, 2005). Cultural factors include gender norms, child marriage and early pregnancy, nutritional taboos, particularly during pregnancy, certain birthing practices, female genital mutilation, and widow inheritance. The result for individual women and girls is mitigation of their health or their quality of life. What all these practices have in common is that they evolve from, or are in reaction to, the preference for male children (Dawitt, 1994 as cited by Kitts and Roberts, 1996). These factors condition women's reproductive intentions; that is, the number of children they want and how they want their births spaced. Women do not always get the support they need to fulfill their reproductive intentions. In some settings fearing reprisal from disapproving husbands or others, many resort to clandestine treatment, especially in the use of family planning (UNFPA, 2000).

Therefore, cultural restrictions limit choice. Belief about appropriate behaviour can reduce access to health information and care and impair its quality. Direct taboos and indirect restrictions deter women from discussing their health needs and risks, while women who cannot read or readily associate with others have difficulty finding health information and taking healthy steps toward safety in pregnancy. "Women are controlled with those local customs, whereby a woman can make no decision by herself, until the husband has decided" (Kowalewskiet.al, 2000). These restrictions mean that women are dependent on the decisions of others about medical attention; whether to delay or prevent pregnancy; have antenatal examinations during pregnancy or arrange for skill delivery attendant. It can be difficult for women to raise reproductive health concerns; topics such as menstrual bleeding irregularities are especially hard to discuss. Women may be unable to get their problems addressed until their conditions are serious and treatment options are more restricted and costly (UNFPA, 2000).

2.7 Belief System

It has been argued that perception of illness is affected or influenced by different belief systems in societies (Jegede, 1998; Kitts and Roberts, 1996). As Nwabuaze (2003) has explained, the social perspective on health has it that though the presence of disease may be a biological phenomenon, the culture of the people may sometimes contain anti-health social habits. For instance, most of the time they rely on home remedies to solve minor problems.

Jegede (1998: 41) has observed that "it is not all the time you go to the hospital. In those days our grandparents used to single-handedly handle their wards" medical problems without much recourse to any external help." The common problems that can greatly increase women's risk in child birth are: delays in recognizing a developing problem; delay in deciding to act; and delay in reaching services because of erroneous belief about pregnancy. In a study by

Idowu(2011), majority of women believed that maternal health challenges are normal during pregnancy and as such are not so disposed to proper and adequate antenatal care.

Conclusively, the literatures present multiple views and arguments as to the variety of factors responsible for human problems, specifically women and children. And in order to have a broad knowledge on the subject matter it is justifiable to have a review of these materials from multiple angles so as to give the reader a sense of direction, and to also identify areas with either a point of agreement or a point of division. As such it is important not to isolate the issue in question to communication and maternal health only.As there are a lot of multiplicity of factors that has directs impact on omen health.

After critical review of the data obtained, it was discovered that there is a clear line of difference among the scholarly views on communication and maternal health, it was discovered that a significant number of western scholars do have a universalist view on communication and maternal health, believing that what works in other parts of their countries may also work in another.

However, based on the feedbacks from the data available it shows that the issue of communication strategy in reducing maternal health must take into consideration certain peculiar factors that affects the effectiveness of any health related campaign. As indicated in this research work, economic dependency is very common among rural women; there is also the problem of low literacy. Additionally it shows a contrary result, as assumed by some of the scholars that communication can have the key to unraveling the mysteries behind the fight against maternal mortality. Agreeably, communication is a vital tool in promoting health, however, it clearly shows that its effectiveness is dependent upon the absence or presence of certain

peculiarvariables which are found in different communities, due to certain immediate factors which may be only common in that given society.

2.8 Theoretical Framework

According to Severin and Tankard (Jnr) (1982), theory is a conceptual representation or explanation of phenomenon. They are stories about how and why events occur. Kurt Lewis defines theory as a way of explaining the ordering and occurrence of various events. It can also be defined as a set of systematic generalizations based on scientific observation and leading to further empirical observation.

To interpret the research data and integrate them within a cohesive body of knowledge, this study has adopted a theoretical framework that synthesizes interrelated theoretical perspectives: Health Belief Model. The logic of these frameworks is anchored on the strength of each perspective and how they all fuse into one complete whole to explain maternal health. Health Belief Model provides explanations that people's beliefs about whether or not they are at risk for a disease or health problem, and their perceptions of the benefits of taking action to avoid it, influence their readiness to take action, as it is natural that only women can suffer from maternal mortality.

2.8.1 Health Belief Model

The Health Belief Model (HBM) was developed to help understand why people did or did not use preventive services offered by public health departments in the 1950's, and has evolved to address newer concerns in prevention and detection (e.g., mammography screening, influenza vaccines) as well as lifestyle behaviors such as sexual risk behaviors and injury prevention. The HBM theorizes that people's beliefs about whether or not they are at risk for a

disease or health problem, and their perceptions of the benefits of taking action to avoid it, influence their readiness to take action. Core constructs of the HBM: • Perceived susceptibility and perceived severity • Perceived benefits and perceived barriers • Cues to action • Self-efficacy (added more recently) The HBM has been most-often applied for health concerns that are prevention-related and asymptomatic, such as early cancer detection and hypertension screening where beliefs are as important or more important than overt symptoms. The HBM is also clearly relevant to interventions to reduce risk factors for cardiovascular disease.

The said theory was developed in the 1950s by social psychologists Irwin M. Rosenstock, Godfrey M. Hochbaum, S. Stephen Kegeles, and Howard Leventhal at the U.S Public Health Service. Looking at the Value of this theory it is therefore very relevant to this research work.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter presents the methods used in the study and the structural framework of the research. It deals with the generation of data, sampling procedure and techniques, data collection and the statistical techniques that were used to analyze the data collected.

3.1 Research Design

Research design is a plan, structure and strategy of investigation conceived to obtain answers to research questions. The survey method was employed as the research design for this study, because it allows the collection of information from a representative sample of a target population. Both primary and secondary data were collected. The study utilized structured questionnaire, key informant interview and Focus group Discussion for primary data collection. The secondary source of data includes the review of books, journals, magazines, newspapers, reports from relevant articles on-line libraries etc. Both quantitative and qualitative research approaches were employed independently and complimentarily in this study to harness the strength of both approaches in order to generate robust data for a holistic presentation of the subject matter of the study.

3.2 The Study Area

The study was carried out inBirninkudu Local Government of JigawaState, Birninkudu is a town and a Local Government Area in the south of Jigawa State, Nigeria some 120 kilometres south-east of Kano. As of 2007, the town of Birninkuduhad an estimated population of 970,000. Birninkudu is an old historic town renowned for its rocks and drawings found in some of them dating to centuries before the colonisation of Northern Nigeria and establishment of Native

Authority (NA). The town was an NA headquarters during the British rule and has been the capital of Birninkudu Local Government Area. It is home to one of the oldest schools in northern Nigeria, Government College Birninkudu. However, Birninkudu andBuji local government still share most of health care units mostly located in Birninkudu.

3.3 The Study Population

The study population comprises women and men aged 18 and above years in Birninkudu local government because this age bracket represents reproductive years of women as defined by WHOM (2006). Eligible participants include all women that have given birth in the last one year and/or were pregnant and also men that are resident in the local government in question. Because men are primary stakeholders in this regard. Every eligible woman in the local government had equal chance of being selected for the study. When the study was conducted, it was estimated that women constituted about half of the Jigawa State population while those who were within the research age category constituted about 29.6% (National Population Commission, 20011). Both male and female respondents were married, single, divorced or widowed. The general denominator of the population is that they were of reproductive age and may have a child below one year and/or pregnant. And the men are of puberty.

3.4 Sample Size

The data for this study came from a sample size of three hundred and eighty four (384) men and women of reproductive age range of 18- and above. The total number as distributed within some of the communities, including the local government headquarter,the Raosoft Sample size calculator was used in the process of determining the required minimum sample size. www.raosoft.com/samplesize/2018.

3.5 Sampling Technique

The study adopted a purposive sampling technique, to select a representative sample from the study population. The sampled population was drawn from communities, households and the maternity section of existing healthcare centers in the LGA.

Instruments of data collection

Structured questionnaire

Survey formed an important aspect of collecting quantitative data with the use of questionnaire. The questionnaire served as the primary instrument adopted for this study. The questions were partly adapted and structured to reflect the maternal health issues relevant to the objectives of the study. The broad research objectives were reflected in the specific questions asked in the questionnaire. This helped to elicit information from the entire respondents selected on specific topics. The answers so derived from the questionnaire therefore formed the basis on which analyses were made. The questionnaire was designed in a way that it focused on a number of factors such as, the communication strategy of GHS, socio- cultural, economic and their relations to maternal health, this is in relation to the study population's responses towards their knowledge on maternal health.

The instrument was divided into four sections, A-D, which helped to measure the variables of study. Section A covered the socio-demographic characteristics of the respondents. Section B Communication Approaches Deployed by GHS, while section C Captured the Effectiveness or otherwise of GHS Communication Approaches, The information helped to capture the respondents‟ behaviours, acceptability or otherwise of GHS Maternal health information and services. Section D contained information on Challenges faced by women in accessing GHS services and information on the working relations relationship between ANCG

and their clients. The responses generated from these sections helped to establish the foundation upon which the study could be situated in its intended context.

The respondents comprised both literate and non-literate women, who were married or unmarried but had given birth in the last one year and/or were pregnant, also married men were part of the research population. Due to low literacy among majority of the respondents the questionnaire questions were read out and interpreted to them with the help of trained research assistants. Same was applicable during focus group discussion with the male counterparts.

Validity:

The questionnaire was pilot tested by administering it to 30 respondents in November 2017, in Birninkudu, Babaldu, Wurno and Nahuce communities. This helped to determine the necessary changes in terms of re-phrasing and the logical sequence of the questions in the questionnaire. The essence was to ensure that the items were not ambiguous and adequate for the study. Also it was discovered that some of respondents were not up to the required 18 years of age. It was also discovered that low literacy is very common among the rural population; hence interpreters were utilized during the final distribution of the questionnaire. And those women lower than 18 years were accommodated during the interview sessions. Also service of an interpreter was utilized to cater for the loopholes identified during the pilot study.

Reliability:

The reliability of the questionnaire was ascertained by employing the test-retest reliability method. The test-retest reliability was carried out by administering the questionnaire to a group of 30 women in the affected communities. After an interval of 2 weeks, it was re-administered to the same set of people (only 17 were available). There was a similar feedback interms of

answers provided by the respondents, both in their previous and the second questionnaires administered. Therefore the instrument was considered adequate for the study.

II. Key Informant Interview

The interview guide was used for medical personnel(eight Key Informant representing one medical personnel from each of the selected communities); it was structured to elicit information on their experiences of Gunduma Health System communication strategy and services. Questions were asked on maternal health related issues and commonly reported problems at the clinic/or hospital, the causes of those problems, why women patronize such centers. This is in addition to challenges encountered by the Antenatal Care Givers. It proved on why maternal health related problems might continue to be at unwanted rate in the state, this also could be duetocertain intervening social factors in maternal health. The process involved in conducting the key informant interview can best be described as the process of inquiry involving a gradual clarification of the research problems. Rather than being too committed to the interview guide, the issues that were raised brought about sprout matters, which were followed up in consecutive questions. During this process, the researcher as able to gain a deeper understanding of various processes and challenges faced by different stakeholders.

Focus Group Discussion (FGD)

FGD was also used; accommodating only fourteen (14) and was conducted with seven different groups discussant per session, which amounts to a total number of 98 participants, this is with the aim of gaining a rich narrative account, which is contrary to interview where the process is more singular and a bit personal. This approach has more emphasis on an in-depth view of the issue in question, which is contrary to relying on excessive data. Data gathered from this process are qualitative in nature because “it de-emphasizes quantification.”

According to Eric (2009:112), FGDs are particularly important in answering questions of "how," "what" and "why." Furthermore, a focus group is a group of people who are asked about their attitudes and opinions about a service, issue, concept, idea, or product. Members in the group are free to talk with other members in the group, which invariably provides an ample and concise data to be collected. The role of the researcher is that of a moderator who listens, observes, asks questions, and keeps the group on track.

Documents and Reports/Documentary Observation

Existing documents and reports from Primary Healthcare Centres and state ministry of health were also utilized to serve as additional sources of data for this study. It was discovered that there was a fluctuating results in terms of reduction of maternal deaths in some health centres and hospitals. It was also discovered that government own hospitals records high number of attendance during antenatal, this is due to the free services they rendered.

However, standards record keeping that would be used I the near future by those in need was found to be poor among state owned institution, where Pen and paper are still the most common tools used for that purpose. Contrary to what is obtainable in the federal medical center where all records were up to date and computerized. Documents are valuable source of data for analyzing organizations and the policy process, because they constitute a record of 'the development and implementation of decisions and activities that are central to organizational functions' (Hakim, 2000:46). Documents and reports were accessed to obtain data and determine the communication strategies being used by the implementing organization. Through analysis that refers to conceptually informed procedure and techniques for locating, identifying and retrieving data against their significance (David, 1996).

3.6 Procedure for Data Collection

To ensure speedy collection of accurate and reliable data, some steps were taken. These include the selection and training of field assistants, administration of questionnaire, conducting of the key informant interview. Two research assistants were recruited for administering the research questionnaire as well as to assist with the conduct of FGDs. Although, the assistants were graduates, there was still the need to give them instructions regarding interview techniques, field procedures, and a detailed review of the items on the questionnaire for clarity.

They were very conversant with the communities and could speak English, and Hausa. This enabled them to communicate effectively. The first step in the administration of the questionnaire was the introduction and informing the potential respondents of the research objectives, and soliciting for their cooperation. This procedure took a lot of persuasion for most of the respondents to agree to either filling the questionnaire or answer the questions when asked. This could be due to variety of reason of which may include cultural factors especially due the nature of the environment were the research was conducted as a conservative society, or it could be due to the fact that previous similar work was conduct with the aid of financial remunerations' as a motivating factor.

Administration of questionnaires took place over a three months period from (April to June 2018). The researcher and the research assistants administered questionnaire in a community per time to avoid boredom. Two groups of fifteen male participants wereengagedin the field on a daily basis. Where questions related to Gunduma Health Systems programmes and communication strategies were presented to them for an open discussion. And key points were grouped according to their relevance to the research work.

Where appropriate, women respondents were given a questionnaire to fill. Otherwise, the researcher asked questions and filled on behalf of the female respondent. The questions took an average of 10 to 15 minutes to answer. In some areas, visits to Homes were made on weekends in order to compliment the data obtained from clinics and other centers. The first level of qualitative data collection was to secure the permission of Jigawa State ministry of health to interview medical personnel in each of the various maternity centres/General Hospital within the locations. This is in addition to obtaining permission from all the healthcare centers. These authorizations helped to facilitate easy movement and contacts. Several visits were made to the maternity centres to interview the ANCG as they were always busy attending to patients. It was during the period of waiting to catch the attention of the medical personnel that some of the Questionnaires were issued for the pregnant women or the new mothers Also, appropriate permission was sought before they fill the questionnaire.

The medical personnel helped in persuading the women to cooperate with the researcher.

3.7 Problems Encountered during Fieldwork

The major constraint to this study was the issue of low literacy in some rural areas, and the sensitive nature of questions, which made it very complicated for people who could not read or write to appreciate the need to supply relevant information. Even for those with some level of education, their attitude showed that some of them have little interest on the subject matter. Again, it was sometimes difficult to obtain sufficient responses from the respondents. Some information was considered so secret and personal, even those that were supposed to be for public consumption. This was an impediment to the speed required for the completion of the fieldwork and made effective communication a bit more difficult. Compounding the challenge was the fact that the researcher had to make several visits to the hospitals before interview was

granted. There were also enormous financial commitments involved. Despite all, the fieldwork was worthwhile and gave the researcher more experience and exposure.

3.8 Data Handling and Analysis

The quantitative and qualitative data gathered from the field were analyzed using different methods. Descriptivestatistical methods were used to analyze the quantitative data. Copies of the questionnaire returned were edited, coded and data entry was done. The data were analyzed using the Statistical Package for Social Sciences (SPSS 16) software. First, characteristics of the study sample were described using (frequency distribution and simple percentages). Although, there are several indices that can be used to capture maternal health related issues, However, in this study maternal health is considered from the role communication has played in improving maternal health, as captured in section B, C and D of the questionnaire. This is measured against some selected independent variables such as; age, education, income, marital status, medium of communication and preferences, in addition to other factors.

This entailed an examination of the patterns of association between the dependent and some selected independent variables.

The tapes and notes from the FGDs and key informant interviews were analyzed with the use of content analysis after discussions conducted in Hausa language had been translated and transcribed. Common responses were identified for each topic included in the FGD guide. In addition, divergent responses were identified to determine the range of beliefs, opinions, knowledge, attitude and behaviour among participants. Responses to each topic were summarized and important quotations were reported verbatim to highlight common individual views. All were subjected to in-depth content analysis. Common themes were identified

whileabout peoples experiences and how those experiences influence acceptance or otherwise of GHS communication strategy and services on maternal health.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.0 Introduction

The primary purpose of this study is to examine the Gunduma HealthSystem communicationstrategy against maternal mortality.Additionally, to identify other intervening factors that are associated with the subject matter. The data collected from questionnaire Focus Group Discussions and interview methods were organized, classified and analyzed. The trends, and patterns and relationship among data were identified and interpreted.

A summary of the main findings follows logical sequence. The analysis was divided into three-demographic data presentation, answers to research questions and results on conceptual framework.

4.1 Demographic data

Demographic data are essential to this study. In the tables below, the demographic data are presented. These data are divided into two parts. This part shows characteristic data of the respondents. The second part shows the cross tabulation of the independent/predictor variables used in this study.

4.1.1 Demographic Characteristics of the Respondents

The 384 participants took part in this study.

Table4.1: Age distribution of respondents

Age	**Frequency**	**Percentage%**
18-23	87	34.66
24-29	81	32.27
29-34	48	19.12
35-40	24	9.57
41 and above	11	4.38
Total	**251**	**100%**

Source: Field survey, 2017-2018

The age distribution of Table 1.0 shows that 87 participants representing 34.66% were within 18-23years, 81 participants representing 32.27% were within 24-29 years, 48 participants representing 19.12% were within 29-34 years, 24 participants representing 9.57% were within 35-40 years, 11 participants representing 4.38% were within 41 and above years.

This age range falls within the nationally accepted consent range of 18 and above, as such made it suitable for this research. The age distribution clearly revealed that from age 18 or less, women continue childbearing until their early 40s. Also, the age at marriage is an important factor in determining the readiness of the body to accommodate a new life.

Table 4.2.: Marital Status

Marital Status	**Frequency**	**Percentage%**
Married	192	76.49
Single	20	7.97
Divorced	39	15.54
Total	**251**	**100%**

Source: Field survey, 2017-2018

The distribution of the respondents by marital status Table 4.2 shows that 192 respondents representing 76.49% were married mothers, 20 respondents representing 7.97% were single, and 39respondents representing 15.54% were divorced. The implication of the marital status distribution is that even where there is an effective communication mechanism, women still found themselves either taking care of their pregnancy or children alone as single mothers, widows or divorcees. These situations increased the possibility of not having good health care because most women may not have the economic power to survive alone.

Table 4.3.: Educational Qualification of Respondents

Variables	**Frequency**	**Percentage%**
Primary School	16	6.37
Secondary School	64	25.50
Ordinary National Diploma	37	14.74
Higher National Diploma	17	6.77
Bachelor Degree	10	3.98
Post Graduate Degree	2	0.81
No Formal Education	**87**	**34.66**
N.C.E	18	7.17
Total	**251**	**100**

Source: Field survey, 2017-2018

The distribution by level of education Table 4.3 shows that 16 respondents representing 6.37% had primary school certificate, 64 respondents representing 25.50% had secondary school certificate, while 37 respondents representing 14.74% had OND, and the rest had education equivalent or above that of OND, except 87 respondents, which accounts for 34.66% had no any forms of formaleducation. Interestingly most of the respondents without formal education are from the rural areas, the implication is, there is the general belief that the more educated a person is the more conscious such person becomes, in terms of his health. Demand for information related to maternal health is expected to be much higher among those women that have formal education, than those women with no formal education at all. Though, in this case even as the rural women do lack formal education they still actively engage in going for antenatal care.

Table 4.4: Occupation

Occupation	**Frequency**	**Percentage%**
Civil Servant	76	30.28
Farmer	19	7.57
Trader	79	31.47
Other (specify)	77	30.68
Total	**251**	**100%**

Source: Field survey, 2017-2018

The distribution by occupation Table 4.4 revealed that 30.%28 of the total population were civil servants, while 7.57% were farmers, also 31.47% were Traders, more so, 30.68% were either full time housewives, unemployed or engaged in other occupations. By implication, the huge numbers of the respondents are dependent upon their husbands in terms of financial support during pregnancy. There is the likelihood that, women who are empowered may have a better

access to maternal health related services; this is in addition to even having multiple accesses to communication medium through which they source for vital information on maternal health. This is contrary to those women that are not empowered at all, as they are fully dependent upon their husbands, and the economic status of their husbands may be a deciding factor on either such women will have the same opportunity with those that are working.

Table 4.5: Awareness level ofGunduma Health System

Variable	**Frequency**	**Percentage%**
Yes	251	100
No	0	0
Total	**251**	**100**

Source: Field survey, 2017-2018

Table 4.5clearly shows that in terms of making peopleaware of GHS services there is a near perfect outcome, as indicated in the table above where 251 respondents, which accounts for 100% agreed to the fact that they are fully aware of the programme in question. Inessence, the primary responsibility saddled upon communication is to bring to the fore the much needed and appropriate information, to the intended audience. In this regard, GHS has succeeded in doing so; however, this could be viewed form a critical perspective as a short-term impact, which may not be sustained for a long time, because the project itself has a target period.

Table 4.6: Respondents knowledge aboutGunduma Health System?

Variable	Frequency	Percentage%
Through a radio programme	157	62.55
Through a friend	68	27.10
Community Dialogue	18	7.17
Through poster	8	3.17
Through Handbill	0	0
Through flier	0	0
Total	**251**	**100**

Source: Field survey, 2017-2018

Table 4.6 shows that 157 respondents, which accounts for 62.55% come to know about GHS through one of the commonly used medium, which is Radio. Probably those responsible for the design of the communication messages are aware of the fact that Radio is the most commonly used medium among the generality of the population. More so, there is a significant number of respondents that got their information through friends, and the implication of this is that, such people may not have had access to radio or they do value information they get from friends, as such friends may influence their decision to either accept or reject a given idea or development.

Table 4.7: Which GHS services are you aware of?

Variable	Frequency	Percentage%
Antenatal Services	140	55.78
General Healthcare Services	74	29.48
Basic Primary Healthcare Service	36	14.34
Others (specify)	1	0.40
Total	**251**	**100**

Source: Field survey, 2017-2018

Table 4.7 above shows that 140 respondents, which accounts for 55.78 of the total population do attend antenatal services of which the major influence comes from the communication campaign deployed by GHS. The table above also shows that apart from antenatal services GHS also provides other supplementary healthcare services, which includes general healthcare services. However, it clearly shows that, there is a significant concentration on the antenatal service than any other service provided. This could be because GHS has more interest in maternal related issues as being part of its conceived aim.

Table 4.8: Which of the following GHS service do you patronize?

Variable	Frequency	Percentage%
Antenatal services	153	60.96
Basic Primary Healthcare	68	27.09
Routine medical checkups	25	9.96
Others	5	1.99
Total	**251**	**100**

Source: Field survey, 2017-2018

Table 4.8 shows that 153 respondents which accounts for 60.96% implies that there is a strong relationship between people's awareness of GHS services and concentration of women towards that particular area, it also indicate a significant level of agreement between GHS intended targets and perceived outcome. In essence, the major target area was maternal health services, and table above supports the fact that a significant number of the respondents are keying into the intended goal of the communication campaign.

Table 4.9: How regular do you attend any of this services indicated

Variable	**Frequency**	**Percentage%**
Very often	108	43.03
Often	93	37.05
Rarely often	50	19.92
Total	**251**	**100**

Source: Field survey, 2017-2018

Table 4.9 indicates an appreciative outcome in terms of respondents actions towards the value they attribute to the services, this is indicated as the frequency of the respondents regular visits to antenatal clinics, as 108 respondents which represents 43.03% of the total population do have a regular visit to such clinics, though not necessarily for antenatal but for other GHS related services, more importantly, 93 respondents that represents 37.05% go for such services so often. It is an indication of acceptance by the people; this could have been achieved through various persuasive communication approaches employed by the GHS.

Table 4.10: Do you patronize any antenatal clinic before the introduction of GHS?

Variable	Frequency	Percentage%
Yes	138	54.98
No	113	45.02
Total	**251**	**100**

Source: Field survey, 2017-2018

Table 4.10 presents quite an interesting outcome as there is an increase of about 45.02% of new clients, these clients indicate that they do not go for antenatal before the introduction of GHS, and if out of 100% such a huge number of about 45.02% is successfully pulled out of the risk based areas of Maternal related complication. GHS has truly done incredibly well in helping to reduce the problem of death or complication during pregnancy. All these outcomes may be attributed to the awareness campaign deployed by the system.

Table 4.12: Which medium do you prefer for disseminating GHS program?

Variable	Frequency	Percentage%
Radio	217	86.45
Flier	8	3.19
Billboard	7	2.79
Town Hall Meeting	16	6.37
Posters	0	0.00
Handbill	1	0.40
Others	2	0.80
Total	**251**	**100**

Source: Field survey, 2017-2011

Table 4.12shows that 217of the respondents representing 86.45% still reaffirmed the previous outcomes, in terms of preference as to the medium that is more preferable among the respondents. Itreinforced the researcher's previous assertions that say, GHS realised that Radio has a significant role to play in mobilising and reigniting the consciousness of the respondents view on the need to go for antenatal, as such radio is primarily a key factor to the success of GHS campaign. As there is extreme preference of Radio as the most preferred medium by the respondents.

Table 4.13: Which of the following language communication does GHS use for communication?

Variable	**Frequency**	**Percentage%**
Hausa	251	100
English	0	0
Fulfulde	0	0
Total	**251**	**100**

Source: Field survey, 2017-2018

Table 4.13 shows that GHS realised that employing the use of English language may not yield the much-needed results, as 100% of the respondents attest that GHS use Hausa as the language of communication. Thereare a significant number of its clients that are unlettered, therefore it is appropriate to use a local language as a medium of communication, and however, this decision may have a little negative outcome, because there are minority tribes, with distinct language and culture.

Table 4.14: If the language of communication during antenatal is English, is there any room for interpretation?

Variable	Frequency	Percentage%
Yes	250	99.60
No	1	0.40
Total	**251**	**100**

Source: Field survey, 2017-2018

The table above is self-explanatory; the common language of communication is Hausa.

Table 4.15: How easy do you comprehend the information passed during antenatal session?

Variable	Frequency	Percentage%
Easy	97	38.65
Very easy	123	49.00
Not easy	19	7.57
Undecided	12	4.78
Total	**251**	**100**

Source: Field survey, 2017-2018

Table 4.15 is an important denominator of a successful campaign embarked upon by GHS interestingly 123 respondents, which represents 49.00% of the total population, claimed to have understood the required information passed during antenatal.

They chose Option 2 of the various options, it is quite encouraging to also note that, 97 respondent representing 38.65% attest to the fact that the information passed during antenatal

session is easily comprehensible. This is a valuable stage of the preventive medicine or communication stage, where clients understanding or comprehension of the communication process by the ANCG will be a determining factor of either a positive or a negative outcome of the whole process. However, the above outcome signifies an average positive outcome achieved by GHS.

Table 4.16: How often do you receive maternal health informational from GHS?

Variable	**Frequency**	**Percentage%**
Very often	94	37.45
Often	129	51.39
Rarely	25	9.96
Very Rarely	3	1.20
None of the above	0	0.00
Total	**251**	**100**

Source: Field survey, 2017-2018

Table 4.16 indicates that there is an uninterrupted flow of information on maternal health as 129, which amounts to 51.39% respondent, agreed that they receive information so often on maternal health from both clinic and other sources, as 37.45% attest to have received the needed information very often. In terms of access to information related to GHS services, it implies that a significant gap has been closed, as quite a number of the respondents attest to the fact that there is always information available at their disposal, however whether that information is of great value to them or not is determined by other external factors.

Table 4.17: Do you think the communication approaches by GHS are open to your contributions?

Variable	Frequency	Percentage%
Fairly inclusive	167	66.53
Highly inclusive	54	21.51
Not inclusive	20	7.97
Undecided	10	3.98
Total	**251**	**100**

Source: Field survey, 2017-2018

Table4.17 above has presents peoples response to the nature and content of the communication strategy, the outcome above reinforced the response obtained from some respondents during interview, as 66.53% of the respondents agreed that the communication approaches by GHS accepts some inputs from the people. To support above assertions also 21.51% believed that the communication content of GHS embraces people's ideas, in its contents.These feedbacks signifies a high level of inclusion during the process of programme development, as more than half of the studied population shows a high level of acceptance of GHS communication approaches.

Table 4.18: How sensitive is GHS to your belief system and culture?

Variable	Frequency	Percentage%
Very sensitive	137	54.58
Sensitive	62	24.70
Partially sensitive	49	19.52
Not sensitive	0	0.00
Undecided	3	1.20
Total	**251**	**100**

Source: Field survey, 2017-2018

Table 4.18 shows that, 54.58% of the respondents agreed that GHS programs are very sensitive to their culture, while 24.70% and 19.52% tilted their reaction towards attesting to the fact that the programme is quite sensitive. Sensitivity to people's feelings culture and tradition is an important aspect that needs to be looked into when designing a communication strategy; this could be because GHS must have conducted a serious advocacy and community dialogue before the start-up and design of the programme.

Table 4.19: How interactive is the antenatal clinic session?

Variable	Frequency	Percentage%
Very interactive	41	16.33
Interactive	137	54.58
Not interactive	47	18.73
Undecided	26	10.36
Total	**251**	**100**

Source: Field survey, 2017-2018

Table 4.19shows 41 and 137 respondents which accounts for 16.33% and 54.58% attesting that the process is interactive, it implies that in a general term the communication approach is averagely positive, as quite a significant number of the respondents are satisfied ith the process.

Table 4.20: Respondents Views on GHS health communication impacts

Variable	**Frequency**	**Percentage%**
I was able to Comprehend concepts related to maternal health promotion and diseases prevention	6	2.39
I have access to maternal health information and services	89	35.46
It improved my ability to realize the influence of culture, and other factors on maternal health	53	21.12
It helps me to adopt positive health behaviours and reduce health risk during pregnancy	103	41.04
Total	**251**	**100**

Source: Field survey, 2017-2018

Table 4.20 shows 41.04%, which accounts for 103 of the total respondents attest to the fact that GHS communication strategy has addressed areas related to the aforementioned issues, thereby empowering the people with the much-needed knowledge; as such, it helped them to adopt positive health behaviors in order to reduce health risk during pregnancy.

This presents quite an important aspect of this research work, because there are major aspects of the communication that needs to be achieved as captured in the Gunduma policy

framework, the key factor here is, the communication strategy has played an important preventive role, as such the strategy has played a significant role in promoting maternal health.

.Table 4.21: GHS services have increased the community's demand for and use of maternal health services

Variable	Frequency	Percentage%
Agreed	117	46.61
Fairly	33	13.15
Strongly	86	34.26
Undecided	3	1.20
Not agreed	12	4.78
Total	**251**	**100**

Source: Field survey, 2017-2018

Table 4.21 shows that 117 of the respondents, which account for 46.61% of the sampled population, agreed with the said assertion, also, 86 respondents that is equal to 34.26% of the total sampled population do have even stronger feelings as to the role GHS has played in achieving such improvement. The above signifies an immense acceptance of the belief that GHS communication strategy has over time increased the communities demand for and use of maternal health services, impliedly the communication strategy is a motivating factor to the peoples change of attitude towards living healthy not only during pregnancy.

Table 4.22: Respondents Views on benefits derived from GHS services.

Variable	Frequency	Percentage%
Personal hygiene among pregnant women	26	1036
Nutrition and dietary behavior needs during pregnancy	148	58.96
Choosing sources of maternal health related information, and services	44	17.53
Physical activity and exercises during pregnancy	33	13.15
Total	**251**	**100**

Source: Field survey, 2017-2018

Table 4.22 indicate that 148 =58.96% respondents agreeing that GHS do provide information on nutrition and dietary behaviour during pregnancy, in a supportive manner 44 respondents = 17.53% and 33 respondents =13.15% responds to the option that GHs services talked on issues related to sources of maternal health information and physical activity during pregnancy. The figures above signifies a multiple responsibility by GHS in various areas of primary healthcare, this is quite a significant impact achieved by GHS.

Table 4.23: Rate the impact of GHS on your knowledge and awareness of maternal health

Variable	Frequency	Percentage%
High	114	45.42
Average	101	40.24
Low	35	13.94
Very low	1	0.40
Total	**251**	**100**

Source: Field survey, 2017-2018

Table 4.23says that, 114 respondents, which account for 45.42% rates the level of their knowledge and awareness of maternal health as High, additionally, 101=40.24% respondents scored the impact of such programme as Average.The said grading implies that significant improvement has been achieved. The above outcome cap it all, the primary responsibility of the communication strategy was making people aware of the programs and its importance, as impressively shown in the table above to a certain degree that has being achieved.

Table 4.24: On the ratio of hundred please rate the degree to which you understand basic maternal health information and services

Variable	**Frequency**	**Percentage%**
25%	7	2.79
50%	176	70.12
75%	50	19.92
100%	18	7.17
Total	**251**	**100**

Source: Field survey, 2017-2018

Table 4.24shows that 70.12% and 19.92% do presents a positive outcome, the respondents gives an average scoring of their understanding fogs communicationstrategies. The above outcome signifies that, GHS may have impacted positively in terms of people's ability to comprehend basic messages or information made available to respondents during antenatal sessions, this could be due to the fact that since the basic language of communication is Hausa, it made it quite easy and simple understanding of GHS communication messages.

Table 4.25: On the scale of hundred how would you rate your level of satisfaction of Gunduma health system services.

Variable	Frequency	Percentage%
25%	8	3.19
50%	77	30.68
75%	133	52.99
100%	33	13.15
Total	**251**	**100**

Source: Field survey, 2017-2018

Table 4.25 presents respondents level of satisfaction in terms of the services rendered by GHS, 30.19%, 52.99% presents an average level of satisfaction among the respondents. It shows that to a certain degree the programme have achieved a lot.

Above signifies a clear success in terms of people's level of satisfaction, although the programme may have its own weakness it still has succeeded in creating a level of satisfaction among more than half of the respondents. However, it shows that there is still a wide gap that needs to be filled, in terms improvement of its services.

SECTION D:

Table 4.26: Factors responsible for poorMaternal Health.

Variable	**Frequency**	**Percentage%**
Lack of money	89	35.46
Lack of awareness	57	22.71
Cultural belief	59	23.51
Absence of healthcare centre	26	10.36
Poor access to information	19	7.57
Total	**251**	**100**

Source: Field survey, 2017-2018

Table 4.26 35.46% which accounts for 89 respondents, which is also the highest among the rest of the responses believed that lack of money as a primary factor that affects their health status. As 59 respondents=23.51% opted for cultural belief as an intervening factor to the success or failure of the programme, the implication of the above feedback is that, there are a number of factors that may hinder the success of health related programmes, GHS inclusive. Impliedly, unless such factors are critically looked in to, there may not be a sustained positive outcome. In terms of reduction of maternal related death. This is quite an important aspect that needs not to be overlooked. In essence, among various intervening variables, poverty is a primary factor which if not checked, it would continue to have a serious devastating effect on the success of any health programme.

Table 4.27: What are the challenges you face in the process of accessing maternal health information?

Variable	Frequency	Percentage %
The primary healthcare providers are not friendly	45	17.93
The timing of some GHS radio programmes is not convenient	75	29.88
The delivery environment is not conducive for me	99	39.44
Others (Specify)	32	12.75
Total	**251**	**100**

Source: Field survey, 2017-2018

Table 4.27 above signifies that, even though there are successes on the side of GHS as opined by the respondents, there is still a lot of areas that needs to be checked, as 39.44% of the respondent complaint that the delivery environment as not conducive for them. Conduciveness in this regard may not be unconnected with the level of secrecy observed during delivery.

The points raised above, call for a critical assessment of the issues highlighted, because any element that would hinder the success of the programme should not be over looked. By implication, inter relationship between ANCG and clients, Radio programme timing and delivery environment all are areas that should be remodelled in order to reduce lack of trust or satisfaction among clients.

4.2 Focus Group Discussion

Among various issues Idiscussed with different male respondents was aimed at trying to identify either a meeting point or dividing line in terms of the understanding of GHS communication messages towards both the women and their husbands.

Significantly, the majority of the participants acknowledged that, there was a community dialogue before the takeoff of the program; However, GHS services and programmes are a subject of discussion among all respondent, because they explained that there has been a constant media campaign over the years on Gunduma'sprogrammes.

Some of the important points extracted from the discussion are as follows:

> Allowing my wife to go for antenatal is not in any way a problem; however my only problem is that those antenatal care givers (ANCG) do come up with a lot of lists of what the women should be taking, like fruits, egg, liver and vegetables, where do they want us to get the money to be buying these things? Have we not been bearing children before they even established hospital in our community? Were they eating those fruits and vegetables before giving birth? So my only problem is, I do not appreciate any demand from my wife whenever she goes to hospital, if they want them to eat those things they should make them available for us.**(Respondent: Abdurrahman Umar).**

Another observation raised by one of the participants was on the issue of some the GHS radio programmes,

> As he said: the programme helped us a lot to know the importance of going for antenatal, there is also time for people to call in and make contribution during their radio programme, however not all of us have the financial ability to buy a handset, so at the end of the day it is only those who are well to do that end up contributing to the programme even though we too have something to say.**(Respondent: SanusiAbubakar).**

Another participant also made another key observation as noted below:

> One problem with the GHS programmes is the issue of dauwamanmenizini (unrestricted permission) I really see that as a means of trying to give women excessive power, to do things their way, the essence of this concept has to do with granting an open permission to go to hospital whenever the need arises, because at times pregnant women do face sudden health challenges and their husband may not be at home at that given moment, as such the ANCG suggest to the women to seek for unrestricted permission from us, though such unconditional permission is contrary to our culture and religion, it is uncommon to see women going out of the house at their own leisure time**. (Respondent: Kabiru Ahmad).**

However, the researcher in the quest to finding more answers to the issue in question crossed over to the neighboring Buji local government, where another maternal health intervention programme is going on, by Society against Hunger, surprisingly the intervention has more patronage than that of GHS, as explained by one of the women beneficiaries bellow:

> I am from Nahuce but i prefer coming to Buji, because here in their hospital and clinics they will give you the sum of three thousand (3000) Naira, during antenatal visit. In addition to that, they will also give you a handset, you can call them at any given time, if you notice or experience any problem when you are at home, if it is not yet time for antenatal visit. Therefore, it is better if i can spend just four hundred (400) Naira as transportation to come here**. (Respondent: SalamatuAdamu).**

Another important observation is the fact that, the Federal Medical Centre in Birninkudu has the best facilities, and quite a number of the women are aware of that, but surprisingly they do have a low antenatal patronage. The researcher was able to have a discussion with some of the ANCG they informed me that because there is a 3000 Naira fees payable to the hospital authority, most of the women cannot afford that. It was observed that almost 90% of the women attending antenatal clinic at FMC are civil servants and wives of civil servants. Moreover, wives of people who are well to do. As such, there is a strong and clear implication, in terms of the fight against maternal mortality. The implication of such action it may be correlated with some of the respondent's answers in the questionnaire, as large number of them proposed that lack of money is a major factor in antenatal services.

1. Behaviour Change Communication/Information Education and Communication (BCC/IEC: Expressively, averagely the process has been effective, however, there is a need for a better flow of information between GHS and beneficiaries of various communities in Birninkudu local government. For the community members to take control of their lives, information should flow both ways between sender and receiver.Some complained of not having the chance to call and contribute during radio programmes. While some of the women do find it difficult to ask questions during antenatal session.

BCC as used by GHS entails using information and knowledge to improve the health status of the women living in Birninkudu local government. Its objective is to harness a change in behaviours in relation to tackle misconceptions, lack of information, risk perceptions, lack of trust in health services and products. Especially as it relates to maternal health,as an interactive approach, GHS applied it in promoting the intervention and in creating a demand for a change in behavior that is based on the programmes primary aim.



One of the materials at the primary healthcare centres

Source: fieldwork 2018.

Interpersonal communication was one of the approach observed to be utilized by GHS, even though it has its shortcomings, based on the needs assessment. The BCC approach that was used by GHS was identified to be limited especially in the context of audience segmentation and pretesting of IEC and media planning. The organization also used a micro-strategy, which is similar to social marketing where influential stakeholders and participants are engaged in a peer-to-peer information or communication exchange.

However, one important aspect of the programme is that, there are a largenumber of community volunteers in all the communities in Birninkudu local government. They interact

with the people at any given available opportunity, for example, the women volunteers always go to any female based occasion to have an open discussion with their female colleagues, and they have successfully encouraged quite a number of women to accept the idea of going for antenatal.

As explained by one of the female volunteers:

> The women in the rural communities are unlike those ones at the semi urban areas. They are not vocal enough to air their views concerning maternal health. However, as volunteers from our own different rural communities we are a familiar face, so it is quite easy for us to always have an open discussion with them, a lot is achieved using female based occasions, because it is a moody atmosphere women chat and interact a lot with their counter parts, without restrictions. Because what we discuss with them, forms part of what we take and report to our quarterly health briefings with the people from Jigawa state ministry of health. **(Respondent: Malama Khadija Sulaiman, community volunteer)**

More so, the men volunteers do the same thing, they seize every little opportunity that come their way, during different occasions where they chat with one another and there is a high level of acceptance of the programme's primary objectives. These community volunteers are on a salary scale of one thousand five hundred naira (1,500).Apart from the radio programme of GHS, the community volunteers have the largest contact; impliedly they are major contributors to the success of the programme.

In the delivery of IEC materials, there is a need for flexibility in message effectiveness that is, the men and women in Birninkudu and other communities should be on the spotlight of the communication material development and be involved in designing the message and share in

the responsibility of being the sender. It is observed that networking and linkages between different stakeholders a bit above average. Although, the system was a process that drew upon an already predetermined persuasive remedy that did not originate or encourage participation of other primary beneficiaries. Of which, it is very common in many health related programs.

As it was also discovered that, a combination of Behavioural Change Communication (BCC) and Information Education and Communication (IEC) materials were conceptualized in the GHS initiative. The BCC approach emphasize on how to make the women and men aware and making them realize new attitudes and practices that include the understanding of the value of antenatal care, and the development of messages to influence positive change.

This basically comprises using communication processes and, media to persuade the target population, to continue a good behaviour (e.g. regularly attending antenatal care, eating balanced diet and exclusive breast feeding) or change a risky behaviour (e g giving birth at home, not adhering to child spacing and consumption of traditional medicine).In practical terms, GHS also had relegated to the backdoor, certain important social factors, like poverty and role conflicts, of which communication may not have any significant impact upon the target audience. This is in addition to other cultural and religious factors. More so, non-behavioural challenges, (e.g. complication in delivery, lack of available trained health staff, and facilities, poor referral system).



One of the posters placed at Antenatal clinics

Source: fieldwork 2018.

In the area of IEC materials, GHS used posters, pamphlets, antenatal care cards, and other related materials. From the initiation of these materials the researchers objective is to investigate the level of impact each of these materials has on the audience.

The posters used for disseminating information were placed on walls of the health vicinity and other related venues, where references are made by the ANCG and occasionally to explain further what information the poster is passing. The posters were placed at strategic places where the entire respondents can see them. The posters where able to convey good information whereby the respondent could understand the overall messages correctly and were able to conceived that it was telling them to do something regarding a change in behaviour. However,

these posters at times failed to give real meaning to the respondents until further explanations is given by some health officials, or ANCG, especially where English language is used as the medium of communication.

The use of antenatal cards by GHS also improved dissemination of information to the women in various communities, because, the information these cards contain are on routine health promotion that relates to women reproductive health. These cards provides respondents with information notifying them about the times, number and types of services obtainable. All the women who go for ANC have good knowledge and understanding of the importance of the ANC and other GHS programmes. Therefore, these materials were effective in delivering the needed massages to the women and their partners.

In general, to assure action towards effectiveness of all these material, it can be viewed from the responses in mobilization and development of a sense of ownership that is partially achieved during the process of the programme implementation. The concept of this process should allow women partners to increase control over choices and action related to their reproductive health putting into cognizance some socio-cultural factors.

It was also observed that at point of need, GHS employed more of IEC materials, even though, IEC materials are associated with hierarchical, top-down approaches to educate and sensitize its target audience in the local government area, persuading them to change their behaviours or practices. Even though it has managed such process quite appreciably, this approach does not encourage a two-way communication or feedback channel. Conversely, in the design of the IEC materials used for the promotion of the maternal health inBirninkudu local government, however, hence making the intervention programme a little bit biased.

However,most of the IEC materials were culturally sensitive in terms of languages and settings so it really has that general acceptance among the respondents. Also observed, the degree of how much understanding the women had from reading such printed materials was not taken cognizance of, even though this was the basic women's communication channel that was used in all the primary healthcare centres. Essentially, because these printed materials like posters require a certain level of literacy before it could be understood effectively, by the target audience, this might have an unnoticeable effect on the fight against maternal mortality.



One of the communication materials at the antenatal clinics

Source: fieldwork 20118.

Also from the researcher's observation, some written messages in the posters were written in English even though the pictures depict the traditional northern setting. Moreover,

such content may to some extent be less effective, because some of the women especially from rural settings are not literate.



One of the posters with a message written in English at the PHC

Source: fieldwork 2018.

Posters that illustrate different types of foodstuff and nutrients that can make pregnant women, breast feeding mother and child development, were used to educate the women more on how to prepare healthy diet. This is in addition to presenting some of picture things like, egg, Beans, Milk, fruits and vegetables. GHS used these posters to educate the women more on the different reproductive health challenges that can emanate when an expectant women does not take good care of her health, and remedies on how best they can handle a bad situation or get help.

1.6 . Media Tools

a. Posters:Posters are often used more and more for health promotion activities, to raise awareness in local communities and is a vital communication strategy when used correctly in anyintervention programme. However, it was observed that even though there were quite a number of these materials available in use, some of them did not make much meaning to the women.

b. Likewise, it is important to note that the development of such materials ought to bemaximally established along specific principles that should fully include the contributions of the people in the community However; it seems as if the development of such materials were developed with fewer contributions of the beneficiaries. Rather, it was designed superficially and decided upon based on some theoretical assumptions of what assumed to be best for the community. Although there is that general acceptability among the people, probably the impact of the programme would have been higher if the inclusiveness is higher.

c. Images: This consists of photographs, drawings, which were used by GHS in promoting women reproductive health issue in Birninkudu. It involves the use of images with limited text to illustrate the health issues faced by women in the community. Placed at strategic areas especially at antenatal clinics. During each session, the ANCG used these concepts to tell a story consisting of some pictures, these images depict problem situations, solutions that address issues related to women health challenges, and how they can be resolved to a certain degree such pictorial presentation are self-explanatory, though for those without basic education, there is need for further explanation. That may be a weak point for the programme developers.However, on an average note, those images are self-explanatory.



One of the materials signifying preparatory process before birth, pasted at antenatal clinic

Source: fieldwork 2018.

d. Finally, like every programme intervention, GHS made available all the assumed vital communication components that have been applicable over time within Nigeria's national primary healthcare development plan. In essence, there is nothing new in terms of employing all necessary tools expected to bring about the much needed change, perception or acceptance of the programme in question.

e. Based on the above observations, it gives the researcher a clear vision that the same global and national oriented ideological construction of how a health communication and programme should be carried is still applicable. As such, unless a different approach is taken, we may continue to arrive at the same p3.oint, with a short-term positive outcome, and a long-term failure.

4.3 Discussion of Findings

1. There is a growing recognition of the importance of maternal health, diagnostic and intervention strategies as predominantly related to medical condition of women, as regard such growing recognition, communication has played a vital role in promoting maternal health. This is the major target of GHS.Whereas; there are other socio-economicconditions that become intervening factors in promoting maternal health. This study examined some communication strategies deployed by GHS, and its relations with other socio-economicfactors, as it relates to maternal health. This section highlights findings from this study.
2. The data obtained show variation in the association of communication, socioeconomic status and antenatal attendance. But, more importantly Radio appears to be the most utilized and effective means of reaching majority of the target population. On a contrary note, the study shows that poverty has a direct impact on women, in relation to their health status, as most of them are economically dependent upon their husbands. Though, those at the urban areas are more economically independent. Therebymaking them less dependent.
3. Education appears as an important factor that precipitates medical proximate and maternal health. More importantly women without formal education appear to have a direct grasp of concepts related to antenatal and maternal health, as made available by GHS communication strategies, and it has been opined by various scholars that, as level of education increases, the probability of attending antenatal equally increases. Although in this case general acceptability of GHS communication campaign proved that in terms

of acceptability both the literate and the unlettered have a direct grasp of the communication messages.

4. Although, attendance of antenatal is high generally among women, low income was found to be one of the factors associated with delayed antenatal visit. The findings of the present study are in agreement with earlier studies. Oxaal and Baden, (1996) reported that educated women have more understanding of information regarding the physiology of reproduction and are less disposed to accept the complications and risks of pregnancy as inevitable, than illiterate or uneducated women. Graczyk (2007) opined that lack of education affects health because it limits young women's knowledge about nutrition, birth spacing, and contraception. These results highlight variation in the association of socioeconomic status with attendance of antenatal.
5. However contrary to the above scholarly assertion, it was discovered that most of the respondents with low level of education seem to have positive disposition to maternal health care utilization in terms of attending antenatal care. Although one would not deny the fact that, education is a key determinant of maternal health. Not only does education lead to higher income and greater awareness of important maternal health indicators (Fadeyi, 2007), it also enhances the value for a healthy life style. Studies have shown that educated women are more likely to take measures to protect themselves, accept change and be more receptive to prevention messages. Another benefit of education according to UNFPA (2005) is the increased ability to think critically.
6. In terms of means of communicating with the target audience, it was discovered that Radio has played a major role in promoting the Gunduma main objectives, which is easy access to information, Radio in this regard played a dual role, in that, both

respondents from opposite sex do have access to it, especially those in rural areas. This may not be un-connected with Radio's cheapness and accessibility. It is still the major means of communication in that part of the country.

7. On the other hand, the few respondent from semi urban areas had more open access to variety of information sources, like television, compared to their rural counter parts where Radio is majorly the source they depend on. However, it was also discovered that, women in general have more access to other maternal health related materials than their male counterparts. This is because they come across different communication materials mostly at antenatal clinics.
8. It was discovered that, financial dependence among women is still very common, as significant number of the women are dependent upon their husbands in terms of any financial demand, however on the other hand, the researcher realized that women at the semi urban areas are more financially independent, as a significant number of them are civil servants, and they are the ones that attend the health facilities with best facilities, because they have the money to pay.

As narrated by one of the FGD participants that:

> Nobody would want to sit down and see his wife dying and not take any action, however in a situation where you do not have the financial ability, you can only do the little you can and leave the rest to God. **(Respondent: Auwal Ibrahim)**

From medical report sheets available in the appendix it shows that the issue of anemia is one of the major risk factors in pregnancy that was re-emphasized, a pregnant woman needs to eat the right kind of food regularly as anemia in pregnancy remains a major threat to maternal health. One of the medical practitioners in one of the Primary Healthcare Centres said,

> "Most women do not eat right nutrition that can sustain them and the fetus during pregnancy largely due to lack of money". In pregnancy, women require an extra 300 calories above their normal daily intake to meet the needs of their growing baby; so also, the mother's. **(Respondent: AliyuBaffa).**

The main implication of the above explanation is that, these problems become a stumbling block to achieving maximum result in the fight against maternal mortality. In essence, communication alone when faced with these multiplicities of challenges would not be as effective as assumed to be by many theoretical assumptions. In essence, the above point has a strong correlation with one of the research objectives, since issues related to poverty are beyond the control of any health center, even though it has a direct effect on the campaign against maternal mortality, and maternal health.

Additionally, some women were interviewed and below are some of their responses.

> I personally appreciate being healthy, and since the introduction of Gunduma Program we have been encouraged to go to hospital, even though at times when you go there the people can only advice you on what you should do, or you should be taking, however, the most unfortunate situation is that, I am the carrier of the pregnancy but my fate lies with my husband, as the final decision maker. Because i do not have money to take care of myself.**(Respondent:HadizaUsman)**

Another respondent also gives her own side of the feelings of Gunduma Program:

> They always make announcement on radio, encouraging us to come for antenatal, but at times those of us from villages we find it difficult, because our husbands may not have money to give us, and because of the distance we cannot trek, so

most at times we ended up not meeting up with our scheduled time of visit. And when you come they will shout on you, and tell you that it's not your day, without considering our condition.

(Respondent: SalamatuAbdullahi)

Another respondent says that:

The problem is not just about telling us to come, when you come after consulting a doctor and he will recommend some drugs and at the end of the day, they will tell you that they don't have some of the routine drugs that we should go and buy outside.

(Respondent:RamatuDahiru)

Ironically,2019 World Health Organization fact sheet, gives a clear reason, as to why maternal death is high in certain areas, coincidentally, their observation tally with what was observed during the cause of the research. It states that: "the high number of maternal deaths in some areas of the world reflects inequalities in access to health services. And highlights the gap between rich and poor. Almost all maternal deaths (99%) occur in developing countries, of which more than half of these deaths occur in sub-Saharan Africa.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This study set out to examine the communication strategy context of maternalhealth deployed by GHS and how it affects issues of mortality and maternal health. This chapter focuses on the summary of the work, conclusion, and recommendations. The study was designed to generate knowledge on the influence of Communication strategies on maternal health. Both quantitative and qualitative research approaches were employed independently and complimentarily. These involved the use of structured questionnaire, key informant interviews, and FGD.

The study population comprises men and women ages 18 and above, although those married women below the age of 18 were also catered for during the research work. Descriptive statistical methods were used to analyze the quantitative data. The copies of the questionnaires retrieved were processed, and the data were analyzed for theme and relationship using the Statistical Package for Social Sciences (SPSS 16) software. First, the characteristics of the study sample were described using simple percentages, and the patterns of relationships were determined using cross tabulation. In addition, the above statistical approachwas utilised in order to estimate the relative influence of the independent variables (Communication strategy) on maternal health. The tapes and notes from the key informant interviews were analyzed and common responses were identified for each topic included in the interview guide. Responses to each topic were summarized and important quotations were reported verbatim to highlight common individual views. Common themes were identified while an overarching storyline was

developed for telling a "common story" about respondent's experiences and how those experiences influence maternal health.

5.1 Summary of Findings

This research work entitled "An assessment of Gunduma Health System's Communication Strategy on Maternal Mortality in Jigawa Sate" was carried out in Birninkudu Local Government Area of Jigawa State. By HussainiSaniWurno, and other field assistants, the finding shows that the various communities were randomly selected and proportionately covered in selection of sample. The youngest among the samples was 18 years while the oldest was 44 years old, although pregnant women below the age of 18 were also looked after during the research process. Age distribution revealed that women continue childbearing until their late 40s. The implication of the marital status distribution is that women still found themselves either taking care of their pregnancy or children alone as widows or divorcees. The most important aspect of the research is, it indicates that communication has played a significant role in bringing to the fore the need for women to attend antenatal care, more so, Radio has proved to be the most significant medium through which GHS employed to raise awareness on maternal health.

1. Based on the intended research objectives, it was discovered that Jigawa state Ministry of Health in its Gunduma Health Systems programme made use of several communication tools and approaches, these strategies includes but not limited to, Health Talks, use of fliers posters, a limited number of Billboards and more significantly Radio jingles and other Maternal Health related Radio packages. Advocacy was utilized community leaders both religious and traditional were key players. More so, the government made significant use of community volunteers in

promoting its maternal health services, through inter personal communication among both male and female populations.

2. Secondly, it was discovered that, majority of the respondents attests that there is an increases in awareness among the general population, on the importance of maternal health services. It was also discovered that due to the constant awareness campaign by Gunduma health system, the program has succeeded in awakening their consciousness in demanding for the necessary services as at when due. There is also an increased trust among the general population on the program, this could be due to the fact that right from the onset the people were carried along in the development process of the program.

3. Additionally, language was put into consideration in the process of designing of program contents and radio programs, that has helped in eliminating suspicion and promotes more acceptability among the people. More importantly, it was discovered that a significant number of the communication tools were deployed at the point of need, by implications, they are found at most health centres, except for radio. Men seem to mostly relay on radio as a primary source of information, unlike women that have contact with most of the various communication tools available at healthcare centres.

4. Finally, certain hidden but important issues were identified in regard to some challenges faced by the general population in the process of having maximum benefit of the Gunduma programs. Such issues includes, information as regard maternal health is a little gender biased, as significant and relevant number of information are at health centers, as such only women have access to such materials, even though their husbands needs to know more about certain health benefits. More so, it was discovered that significant number of women especially in rural areas are economically dependent, as such they find it a bit difficult to provide for themselves

when the need arises, which in turn affects their health condition. This is an issue that is beyond what hospital authorities can handle. Issue of underage marriage is still common in rural areas, it was also noticed that role conflict is still a key factor among couples. In essence culture still affects certain assumed privileges of women, where they are denied movement at the point of their needs.

5.2 Conclusion

In conclusion, this study has shown that maternal health challenges will continue to shape national indicators on health, if adequate attention is not provided. The study has highlighted the needs and uncertainties in some critical aspects of maternal health and suggested the paths to follow. The potentials of the maternal health approach to achieving a better understanding and, above all, for policy purposes, in order to respond to maternal health needs of individuals and the nation as a whole is still an urgent task that must be undertaken. This study has also revealed that multiple health, socio economic and cultural variables cluster together and are mutually reinforcing. Hence, it has become problematic to attempt to develop a single strategy or description of the situation of women. It is imperative to also consider the two-way nature of many of the possible relations observed.

The complexity of the nature of maternal health means that solutions need to be equally complex. Maternal health complication does not just have onecause, so Gunduma Health System's effort to reduce maternal mortality must focus on the various dimensions of socio economic, cultural and biological causes of maternal health complications. Understanding the influences is crucial to improving maternal health.

Nova N (2007), explained, as practitioners it would be difficult to advocate change without considering the wider determinants of health, for example, location of facilities, political contexts or environmental influences.

It is also fair to note that, every human society has its own uniqueness, as such, tackling cultural and social realities should not have a monolithic universally accepted view, and rather, we should allow the situation to determine its problems and solutions, based on its peculiarities.

5.3 Recommendations

For Gunduma Health Systems and by extension JigawaState Government to realize the goal of reducing maternal mortality to a manageable ratio, the following measures are suggested.

1. A more aggressively encouraged societal commitment to ensuring safe pregnancy and birth must be in place. Involving communities and stakeholders through advocacy, sensitization and town hall meetings in the regular analysis of maternal deaths and promotion mechanisms for local accountability help to ensure that commitment is maintained over the long term and that resources allocated for such purposes are fully utilized.
2. Gunduma Health System should havea comprehensive health communication programs that would include a systematic exploration of all the factors that contribute to poor maternal health and provides an inclusive strategy that could be used to influence these intervening factors.
3. Federal and state ministries of health should recognise the need for increased specialisation and segmentation of roles in the field of communication when assigning tasks to people in the process of tackling various maternal health challenges. As such,

Stakeholders should consider that, Communication strategies may work better when integrated with various strategies for behaviour change or behaviour development.

4. Entrenchment of social security programmes for pregnant women by states and federal government is quite essential for the improvement in maternal health. Gunduma Health System should include communication approaches that will include demands of women during pregnancy.
5. If the aforementioned recommendations are implemented by Gunduma Health System and the federal government of Nigeria it will maximally improve access to maternal health information and services.

5.4 Contribution to knowledge

This research work expands our knowledge and understanding of communication strategy as a major determining factor in promoting maternal health. It will also help to chart a new understanding of maternal health within a communication framework.

1. The study adds to the body of existing knowledge on the value of communication in the fight against maternal mortality. As stated below:
    a. The study revealed that there is increased awareness on the importance of maternal health.
    b. The study also revealed that, Radio among other communication tools has remained a vital tool in communicating important health messages, especially in rural northern Nigeria. It serves as the first line of contact, between Gunduma Health System and the people, in creating awareness on maternal health. As such, it plays a preventive role rather than curative.

c. The study revealed that women empowerment is a vital component in reducing maternal health related complications. This is necessary in order to reduce role conflict which is a key intervening factors in the fight against maternal mortality, especially in northern Nigeria where poverty rate and insecurity is very high.

5.5 Suggestion for further reading

Research on communication strategy and maternal health cannot be exhausted. That means further studies may be conducted in the following areas:

a. An assessment of the correlation, between poor economic status and access to maternal health information and services.
b. A comparative analysis of socio economic factors and their relationship with maternal health differential index, between Northern and Southern Nigeria.

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APPENDIX I

QUESTIONNAIRE SCHEDULE

DEPARTMENT OF THEATRE AND PERFORMING ARTS

FACULTY OF ARTS

AHMADU BELLO UNIVERSITY, ZARIA

Dear respondent

I am a postgraduate student of Development Communication in the Department of Theatre and Performing Arts, Faculty of Arts, Ahmadu Bello University Zaria. I am conducting a research study on the topic: "**An Assessment of Gunduma Health System Communication Strategyon maternal mortality in Jigawa State."** I hereby seek your contribution to the work. Kindly tick (√) as it applies to you. All information given shall be treated with utmost confidentiality and strictly for academic purpose.

Thank you.

HussainiSaniWurno

QUESTIONNAIRE

Section A: Demographic Data of respondents

Instruction: please tick (√) in the appropriate cell in the table below.

(1) Age: a. 18-23 ( ) b. 24-29 ( ) c. 29-34 ( ) d. 35 -40 ( ) e. 45 ( )

(2) Gender : a. Male ( ) b. Female ( )

(3) Marital status: a. Married ( ) b. Single ( ) c. Divorce ( )

(4) Occupation: a. Civil Servant ( ) b. Farmer ( ) c. Trader ( )

d. Others specify …….

5. Educational qualification

a. Primary school ( ) b. Secondary school ( ) c. Ordinary National Diploma ( )

d. Higher National diploma e. Bachelors Degree ( ) f.Post Graduate Degree ( )

g. No Formal Education ( ) h. NCE

SECTION B:

6. Are you aware of a programme named Gunduma Health System?

a. Yes ( ) b. No ( )

7. How did you know about it?

a. Through a radio program ( ) b. Through a friend ( ) c. Community dialogue ( )

d. Through poster ( ) e. Through Handbill ( ) f. Through Flier

8. Which GHS services are you aware of?

a. Antenatal services ( ) b. General healthcare services ( )

c. Basic Primary healthcare services ( ) d. others specify……..

9. Which of the following GHS services do you patronize?

a. Antenatal service ( ) b. Basic primary healthcare ( ) c. Routine medical checkups ( )

d. Others specify…….

10. How regular do you attend any of the services indicated?

a. Very often ( ) b. Often ( ) c. rarely often ( ) d. Other specify ( )

11. Do you patronize any antenatal clinic before the introduction of GHS?

a. Yes ( ) b. No ( )

12. Through which of the under listed communication media do you receive information from GHS?

A. Story Telling ( ) c. Town crier ( ) d. Posters ( ) e. Radio ( ) f. Film ( )

g. Television ( ) h. others specify ……

13. Which medium do you prefer for disseminating GHS program?

a. Radio ( ) b Flier ( ) c. Billboard ( ) d. Town hall meeting ( )

e. Posters ( ) f. Handbills ( ) g. Others specify……

14. Which of the following languages of communication does GHS use for communication?

(a) Hausa ( ) (b) English ( ) (C) Fulfulde ( ) (d) others specify……

15. If the language of communication during antenatal is English, is there any room for interpretation?

a. Yes ( ) b. No ( )

16. How easy do you comprehend the information passed during antenatal session?

a. Easy ( ) b. Very easy ( ) C. Not easy ( ) Undecided ( )

17. How often do you receive maternal health information from GHS?

a. Very often ( ) b. Often ( ) c. rarely ( ) d. Very rarely ( ) e. None of the above ( )

18. How inclusive are the communication approaches adopted by GHS?

a. Inclusive ( ) b. highly inclusive ( ) c. Not inclusive ( ) d. Undecided ( )

19. How sensitive is GHS to your belief system and Culture?

a. Very Sensitive ( ) b. Sensitive ( ) c. Partially Sensitive ( )

d. Not Sensitive ( ) e. Undecided ( )

20. .How interactive is the antenatal clinic session.

a.Very interactive ( ) b. interactive ( ) c. Not interactive ( ) Undecided ( )

SECTION C:

21. GHS health communication strategy addresses each of the following please (√) as it applies to you.

a. Comprehension of concepts related to maternal health promotion and disease prevention ( )

b. Ability to access maternal health information and services. ( )

c. Ability to analyze the influence of culture, and other factors on maternal health ( )

d. Ability to adopt positive health behaviors and reduce health risk during pregnancy ( )

22. GHS services have increased the community's demand for and use of maternal health services.

a. Agreed ( ) b. fairly agreed ( ) c. strongly agreed ( ) d. Undecided ( )

e. Not agreed ( )

23. Which of the following issues does GHS service cater for?

a. Personal hygiene among pregnant women ( )

b. Nutrition and dietary behavior needs during Pregnancy ( )

c. Choosing sources of maternal health-related information, and services ( )

d. Physical activity and exercises during pregnancy ( )

24. Rate the impact of GHS on your knowledge and awareness of maternal health.

a. High ( ) b. Low ( ) c. Average ( ) d. very low ( )

25. On the Ratio of hundred please rate the degree to which you understand basic maternal health information and services.

a. 25% ( ) b. 50% ( ) c. 75% ( ) d. 100% ( )

26. On the scale of hundred how would you rate your level of satisfaction of the Gunduma health System services?

a. 25 % ( ) b. 50 % ( ) c. 75% ( ) d. 100% ( )

SECTION D:

27. Please which of the factors below you think may be responsible for you not attending antenatal?

a. Lack of money ( ) b. Lack of awareness ( ) c. Cultural belief ( )

d. Absence of healthcare centres ( ) e. Poor access to information ( )

28. What are the challenges you face in the process of accessing maternal health information?

a. The primary health care providers are not friendly ( )

b. The medium of communication is not accessible ( )

c. The time of communicating GHS massages is not convenient for me ( )

d. Others specify ……

29. Is distance a barrier to you in accessing antenatal services?

a. Yes ( ) b. Yes ( )

APPENDIX II

CHECKLIST FOR KEY INFORMANT INTERVIEW (KII) (FOR ANCG)

I am **HussainiSaniWurno** a Postgraduate Student of Development Communication in the Department of Theatre and Performing Arts, Faculty of Arts, Ahmadu Bello University, and Zaria. I am researching on the topic***: An Assessment of GundumaHealth System Communication Strategy on maternal mortality in Jigawa State)".***

This verbal question session will be recorded and pictures will be taken as part of the research data gathering process. Thank you.

---

1. Based on your records from the introduction of GHS is there improvement in terms of patronage by pregnant women?
2. Five years before the introduction of the programe and five years after its introduction how significant is the difference in relation to effective maternal services and women's willingness to attend antenatal.
3. Apart from the states communication strategy do you have any means through which you inform the rural populace about your services?
4. What are the major challenges you face?
5. With the nature of the program in terms of content, do you think it is all-inclusive, or do you think the programme was designed using the top bottom approach?
6. Suggest ways through which you think the GHS can improve their services.

Interview Record

Key Informant: Mr. /Mrs. ----------

Sex: ----------

Status: ----------

Date of Interview: ----------

Duration: ----------

Venue: ----------

Interviewer: ----------

APPENDIX III

CHECK LIST FOR KEY INFORMANT INTERVIEW (KII) (BENEFICIARIES)

I am **HussainiSaniWurno** a Postgraduate Student of Development Communication in the Department of Theatre and Performing Arts, Faculty of Arts, Ahmadu Bello University, and Zaria. I am researching on the topic***: An Assessment of GundumaHealth System Communication Strategy on maternal mortality in Jigawa State)".***

This verbal question session will be recorded and pictures will be taken as part of the research data gathering process. Thank you.

Questions for selected Key Stakeholders in Birninkudu and other communities.

Please Sir/Ma, can you kindly introduce yourself?

1. What do you know about Gunduma Health System?
2. What is your view about their programme?
3. Do you think GHS communication messages are encouraging in promoting maternal health?
4. What do you think should be done to achieve effective communication on maternal health?
5. What factors do you think limit access to Gunduma Services?
6. How do you think these limitations /hindrances can be eliminated?

Interview Record

Key Informant: Mr. /Mrs. ----------

Sex: ----------

Status: ----------

Date of Interview: ----------

Duration: ----------

Venue: ----------

Interviewer: ----------

APPENDIX IV

FOCUS GROUP DISCUSSION

1. Are you aware of a programme called Gunduma Health System?
2. How did you come to know about GHS?
3. Would you explain its importance to maternal health?
4. Has GHS helped in looking after your family's primary health care needs?
5. Before the introduction of GHS, do you allow your wife to attend antenatal?
6. If yes what motivates you to do so?
7. What are the challenges that you faced as a husband in relation to the services they rendered?
8. Do you think the medium they use to communicate with their audience is very effective?
9. What are those areas that you think should be improved upon?

APPENDIX V

INFORMED CONSENT FORM



Ahmadu Bello University

Informed Consent Form

(Qualitative Studies)

Informed Consent Form for Community Members and Primary Healthcare Service Providers

Name of Principle Investigator: HussainiSaniWurno

Name of Organization: Ahmadu Bello University, Zaria

Name of Sponsor: Self

Name of Project: M.A Research Thesis.

This Informed Consent Form has two parts:

- **Information Sheet (to share information about the study with you)**
- **Certificate of Consent (for signatures if you choose to participate)**

You will be given a copy of the full Informed Consent Form

Part I: Information Sheet

Introduction

I am **HussainiSaniWurno**, a Post Graduate Student, from Ahmadu Bello University Zaria. I am doing research on Communication campaign against maternal mortality, in

BirninkuduLocal Government Area of Jigawa State. I am going to give you information and invite you to be part of this research. You do not have to decide today whether you will participate in the research. Before you decide, you can talk to anyone you feel comfortable with about the research.

This consent form may contain words that you do not understand. Please ask me to stop as we go through the information and I will take time to explain. If you have questions later, you can ask them of me or of another researcher.

Purpose of the Research

Maternal mortality is an unwanted phenomenon in our society. We want to find ways to eliminate its occurrence. We believe that you can help us by telling us what you know about both antenatal / maternal mortality and local health practices in general. We want to learn what people who live or work here know about maternal Health and causes of maternal mortality. We also want to know more about local health practices because this knowledge might help us to learn how to better eliminate maternal related problems.

Type of Research Intervention

This research will involve your participation in a group discussion that will take about half an hour, and or a 5 minutes interview). Alternatively, or to fill a questionnaire.

Participant Selection

You are being selected to take part in this research because we feel that you are a stakeholder or a direct beneficiary of the subject matter. As a mother or as a father) you can contribute much to our understanding of issues related to maternal health.

Questions

- Do you know why we are asking you to take part in this study?
- Do you know what the study is about?

Your participation in this research is voluntary. You may change your mind later and stop participating even if you agreed earlier.)

- If you decide not to take part in this research study, do you know what your options are?
- Do you know that you do not have to take part in this research study, if you do not wish to? Do you have any questions?

Procedures

We are asking you to help us learn more about Maternal Health, Antenatal and maternal mortality in BirninkuduLocal Government. We are inviting you to take part in this research project. If you accept, you will be asked to answer some questions on maternal health, and maternal Health services.

Focus Group Discussion

Mal. MagajiSaleh or I will guide this discussion. The group discussion will start with me, or the focus group guide. Making sure that you are comfortable.We can also answer questions about the research that you might have. Then we will ask you questions about maternal Health and give you time to share your knowledge. The questions will be about maternal Health in your community, how you come about its values, what people do to promote maternal health among their families. We will also talk about community practices more generally because this will give us a chance to understand more about maternal Health, but in a different way. These are the

types of questions we will ask. We will not ask you to share personal beliefs, practices or stories and you do not have to share any knowledge that you are not comfortable sharing.

The discussion will take place in SPS Wurno, Babaldu and Antenatal Clinic. No one else but the people who take part in the discussion and guide or myself will be present during this discussion. The entire discussion will be tape-recorded, but no one will be identified by name on the tape. The tape will be kept... The information recorded is confidential, and no one else except my supervisors will have access to the tapes. The tapes will be destroyed after the final data analysis within three weeks.

Interview

Mal. MagajiSaleh or I will sit down with you in a comfortable place. If it is better for you, the interview can take place in your home or Antenatal Clinic, If you do not wish to answer any of the questions during the interview, you may say so and the interviewer will move on to the next question. No one else but the interviewer will be present unless you would like someone else to be there. The information recorded is confidential, and no one else except my supervisors will access to the information documented during your interview. The entire interview will be tape-recorded, but no one will be identified by name on the tape. The tape will be kept during the research process. In addition, will be destroyed thereafter. The information recorded is confidential, and no one else except my research assistants and supervisors, will have access to the tapes. The tapes will be destroyed, after final data analysis.

Questionnaire Survey:

Fill out a survey, which will be provided by MagajiSaleh and NasiruDahiru and collected by MagajiSaleh and NasiruDahiru .OR you may answer the questionnaire yourself, or it can be

read to you and you can say aloud the answer you want us to write down. If you do not wish to answer any of the questions included in the survey, you may skip them and move on to the next question. The information recorded is confidential, your name is not being included on the forms, only a number will identify you, and no one else except (HussainiSaniWurno) with access to the information will have access to your survey.

Duration

The research takes place over a period of one day, or more. During that time, we may visit you to ask more questions, if need be .The group discussion will be held once and will take about one and a half hour.

If you decide to take part in the study

- Do you know how much time will the interview take?
- Where will it take place?
- Do you know how much time will take filling the questionnaire or conducting the interview?
- If you agree to take part, do you know if you can stop participating?
- Do you know that you may not respond to the questions that you do not wish to respond to?
- Do you have any more questions?

Risks

We are asking you to share with us some very personal and confidential information, and you may feel uncomfortable talking about some of the topics. You do not have to answer any question or take part in the discussion/interview/survey if you do not wish to do so, and that is

fine. You do not have to give us any reason for not responding to any question or for refusing to take part in the interview.

Benefits:

There may be no direct benefit to you, but your participation is likely to help us find out more about how to promote maternal Health in your community.

Reimbursements:

You will not be provided any incentive to take part in the research. However, we will provide for your travel expense (if applicable).

Questions:

- Can you tell me if you have understood correctly the benefits that you will have if you take part in the study?
- Do you have any other questions?

Confidentiality:

The research being done in the community may draw attention and if you participate, other people in the community may ask you questions. We will not be sharing information about you to anyone outside of the research team. The information that we collect from this research project will be kept private. Any information about you will have a number on it instead of your name. Only the researchers will know what your number is and we will lock that information up with a lock and key. It will not be shared with or given to anyone except my supervisors, namely: **Professor M I Umar-Buratai** and **Professor DanjumaGambo**.

Focus groups Discussion:

We will ask you and others in the group not to talk to people outside the group about what was said in the group. We will, in other words, ask each of you to keep what was said in the group confidential. You should know, however, that we could not stop or prevent participants who were in the group from sharing things that should be confidential.

- Did you understand the procedures that we will be using to make sure that any information that we as researchers collect about you will remain confidential?
- Do you understand that we cannot guarantee complete confidentiality of information that you share with us in a group discussion Do you have any more questions?

Sharing the Results:

Nothing that you tell us today will be shared with anybody outside the research team, and nothing will be attributed to you by name. The knowledge that we get from this research will be shared with you and your community before it is made widely available to the public. Each participant will receive a summary of the results. There will also be small meetings in the community and these will be announced. Following the meetings, we will publish the results so that other interested people may learn from the research.

Right to Refuse or Withdraw:

You do not have to take part in this research if you do not wish to do so, and choosing to participate will not affect your job or job-related evaluations in any way. You may stop participating in the discussion/interview or survey, at any time that you wish without your job being affected. I will give you an opportunity at the end of the interview/discussion or survey to

review your remarks, and you can ask to modify or remove portions of those, if you do not agree with my notes or if I did not understand you correctly.

Whom to Contact:

If you have any questions, you can ask them now or later. If you wish to ask questions later, you may contact any of the following: HussainiSaniWurno, Department of Theatre and Performing Arts, Ahmadu Bello University, Zaria. (08074222272) or Email: sahihulkhalam@gmail.com

This proposal has been reviewed and approved by supervisory board of Department of Theatre and Performing Arts, Ahmadu Bello University, Zaria. Which is sponsoring the study?

Questions

- Do you know that you do not have to take part in this study if you do not wish to?
- You can say No if you wish to, Do you know that you can ask me questions later, if you wish to?
- Do you know that I have given the contact details of the person who can give you more information about the study?
- You can ask me any more questions about any part of the research study, if you wish to.
- Do you have any questions?

Part II: Certificate of Consent

I have been invited to participate in research about Communication Campaign in promoting Maternal Health in Birnin Kudu Local Government.

(This section is mandatory)

I have read the foregoing information, or it has been read to me. I have had the opportunity to ask questions about it and any questions I have been asked have been answered to my satisfaction. I consent voluntarily to be a participant in this study.

Print Name of Participant_____

Signature of Participant _____

Date _____

Day/month/year

If illiterate

I have witnessed the accurate reading of the consent form to the potential participant, and the individual has had the opportunity to ask questions. I confirm that the individual has given consent freely.

Print name of witness_____ **Thumbprint of participant**

Signature of witness _____

Date _____

Day/month/year

Statement by the researcher/person taking consent

I have accurately read out the information sheet to the potential participant, and to the best of my ability made sure that the participant understands that the following will be done:

1. Questions will be asked about Maternal Health in his community

2. Answers provided will be used solely for research purposes

3. All the data provided will be immediately destroyed after analysis

I confirm that the participant was given an opportunity to ask questions about the study, and all the questions asked by the participant have been answered correctly and to the best of my ability. I confirm that the individual has not been coerced into giving consent, and the consent has been given freely and voluntarily.

A copy of this **ICF** has been provided to the participant.

Name of Researcher/person taking the consent: **HussainiSaniWurno**

Signature of Researcher /person taking the consent_____

Date _____

Day/month/year

APPENDIX VI



Pregnant women undergoing screening at one of the PHC.

Source: field survey, 2018

APPENDIX VII



Pregnant women, during antenatal session at Wurno PHC.

Source: field survey, 2018

APPENDIX VIII



Women at General Hospital Birninkudu during antenatal session

Source: field survey 2018

APPENDIX IX



A picture of some of the respondents after FGD sessions in one of the communities

Source: field survey 2018

APPENDIX X

General Hospital BirninkuduJigawa State

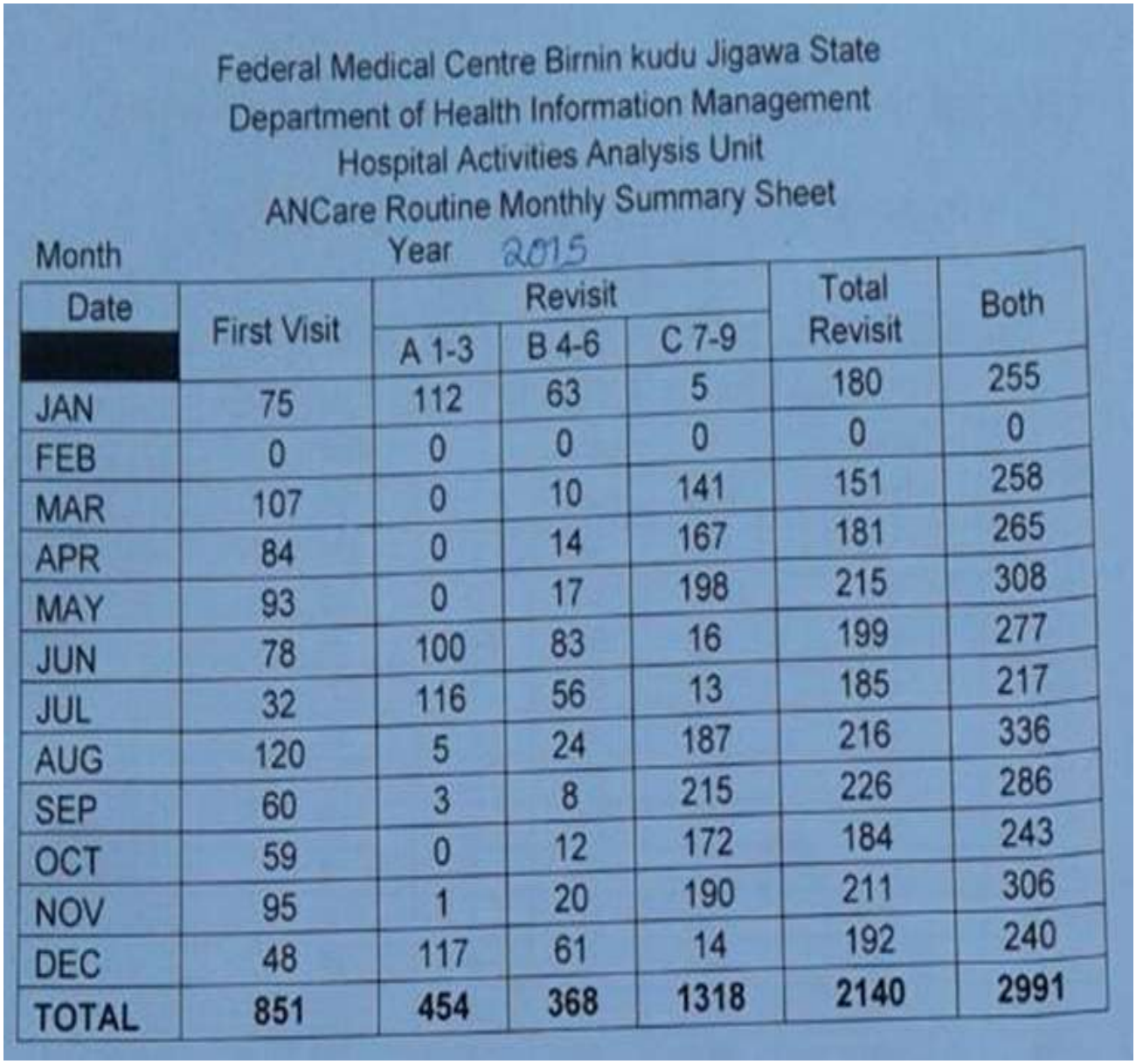
Maternal Deliveries and Maternal Death records 2010-2016

Year	2010	2011	2012	2013	2014	2015	2016
Normal delivery live birth	437	547	1063	903	1878	1464	1469
Normal delivery still birth	15	36	148	139	120	377	184
C/S live birth	34	67	52	129	86	84	194
C/S still birth	06	11	16	29	27	25	62
Other deliveries	13	66	130	70	247	115	35
Maternal death	29	48	39	37	34	26	27
Total	534	775	1448	1307	2392	2091	1971

Source: General Hospital Birninikudu, Health information Service Department.

APPENDIX XI

FMC antenatal care monthly routine summary sheets 2011-2015



Federal Medical Centre Birnin kudu Jigawa State
Department of Health Information Management
Hospital Activities Analysis Unit
ANCare Routine Monthly Summary Sheet

Month Year 2015

Date	First Visit	Revisit			Total Revisit	Both
		A 1-3	B 4-6	C 7-9		
JAN	75	112	63	5	180	255
FEB	0	0	0	0	0	0
MAR	107	0	10	141	151	258
APR	84	0	14	167	181	265
MAY	93	0	17	198	215	308
JUN	78	100	83	16	199	277
JUL	32	116	56	13	185	217
AUG	120	5	24	187	216	336
SEP	60	3	8	215	226	286
OCT	59	0	12	172	184	243
NOV	95	1	20	190	211	306
DEC	48	117	61	14	192	240
TOTAL	**851**	**454**	**368**	**1318**	**2140**	**2991**

FEDERAL MEDICAL CENTRE BIRNIN KUDU JIGAWA STATE

DEPARTMENT OF HEALTH INFORMATION MANAGEMENT

HOSPITAL ACTIVITIES ANALYSIS UNIT

AN CARE ATTENDANCE SUMMARY 2011

MONTH	FIRST	REVISIT			TOTAL REVISIT	BOTH
	a	b 1-3	c 4-6	d >6		
Janaury	215	1	65	571	637	852
February	88	0	42	525	567	655
March	80	214	136	22	372	452
April	116	4	42	347	393	509
May	92	0	9	314	323	415
June	126	0	25	300	325	451
July	93	2	25	325	352	445
August	57	0	32	209	241	298
September	181	1	27	320	348	529
October	30	0	27	59	86	116
November	137	2	19	206	227	364
December	110	2	28	128	158	268
TOTAL	**1325**	**226**	**477**	**3326**	**4029**	**5354**

FEDERAL MEDICAL CENTRE BIRNIN KUDU JIGAWA STATE

DEPARTMENT OF HEALTH INFORMATION MANAGEMENT

HOSPITAL ACTIVITIES ANALYSIS UNIT

AN CARE ATTENDANCE SUMMARY 2014

MONTH	FIRST	REVISIT			TOTAL REVISIT	BOTH
	a	b 1-3	c 4-6	d >6		
Janaury	96	1	15	129	145	241
February	137	1	61	283	345	482
March	120	1	72	248	321	441
April	103	2	70	329	401	504
May	124	2	66	232	300	424
June	150	195	101	29	325	475
July	0	0	0	0	0	0
August	89	1	29	191	221	310
September	131	0	6	173	179	310
October	80	0	7	225	232	312
November	0	0	0	0	0	0
December	0	0	0	0	0	0
TOTAL	**1030**	**203**	**427**	**1839**	**2469**	**3499**

MINISTRY OF HEALTH

Block B - Q2/Q3, Ground & 1st Floors, New Secretariat Complex,
P. M. B. 1003 Dutse, Jigawa State, Nigeria.
E-mail:smoh_jigawa@yahoo.co.uk

Our Ref: MOH/SEC/1/S/671/I/17 Your Ref: Date: 22nd January, 2018
5 Jumada-L-Ahir 1439 A.H

Hussaini Sani Wurno
Department of Theatre and Performing Art
Ahmadu Bello University
Zaria

RE: AN ASSESSMENT OF THE EFFECT OF GUNDUMA HEALTH SYSTEM COMMUNICATION CAMPAIGN AGAINST MATERNAL MORTALITY

With reference to a protocol received titled "An Assessment of the Effect of Gunduma Health System Communication Campaign against Maternal Mortality". The content of the protocol has been perused by some members of State Health Research Ethic Committee (HREC) of the Ministry.

In view of the foregoing; I have been directed to convey ministry's provisional approval for the conduct of the survey on the condition that you should be liaising with the HREC of the Ministry in every stage of the study activity and submit findings.

Accept the Honourable commissioner's esteemed regards.

DIR. PLAN RESEARCH & STA.
MINISTRY OF HEALTH
JIGAWA STATE

Bayero S. Magaji
Chairman, Operational Research Advisory Committee
For: Honorable Commissioner

MINISTRY OF HEALTH JIGAWA STATE

BIRNIN KUDU GENERAL HOSPITAL

Telegrams & Telegrams
Jigawa State
Telephone

Please in case of reply
Ref. No BKGH/GEN/110/VOL.1

P.M.B.
Date 4th January, 2018

Department of Theatre and Performing Arts,
Ahmadu Bello University Zaria,
Kaduna-Nigeria

ACCEPTANCE LETTER IN RESPECT OF HUSSAINI SANI WUNRO (P13ARTP8026)

Reference to your letter No.TH&PA/REF dated 7TH September, 2017 on the above named subject matter, I am directed to write and convey approval letter to the above named student to under take the study titled **"An Assessment of Gunduma Health System Communication Compaign Against Maternal Mortality in Birnin Kudu Local Government , Jigawa State".**

While under taking the study, we anticipate the student to maintain professional ethics please

Esteemed Regards

Hassan Maiunguwa
S E O Admin
For: C M D

FEDERAL MEDICAL CENTRE

P. M. B 1022 Birnin Kudu. Tel: 064-261009

BIRNIN KUDU, JIGAWA STATE

Our Ref: FMC/BKD/CLN/HREC/136 *Date:* 19th Feb 2018

Hussaini Sani Wurno
Dept of Theatre and Performing Arts
Ahmadu Bello University
Zaria, Nigeria.

HREC/009/18

Sir,

ETHICAL APPROVAL

I am directed to inform you that after review of a correction you done on your proposal submitted to the committee, you are given approval to conduct a study on (**An Assessment of Gunduma Health System Communication Against Maternal Mortality in Birnin kudu local Government, Jigawa State**).

The National code for Health Research Ethics require you to comply with all institutional guidelines, rules and regulations and with tenets of Code including ensuring that all adverse events are reported promptly to the HREC. No change is permitted in the research without prior approval by HREC except in circumstances outlined in the code. The HREC reserves the right to conduct compliance visit to your research site without previous notification.

However, you should be reporting the progress of your study to the committee.

Accept the kind regard of the committee chairman.

Umar Aliyu Yandu
Secretary
For: Chairman

Dr. Dauda M. Maigatari Ph.d, FWACS
(Medical Director)