

Assessment of the impact of using call center technology to improve access and utilization of maternal and neonatal health services in Gombe State, Northeast, Nigeria

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Abstract

The innovative strategy of call center technology and provision of mobile phone to frontline workers were part of strategies introduced by Society for Family Health to provide health information, educate and referrals, to improve uptake of maternal health services in Gombe state, Nigeria. According to Nigeria Demographic and Health Survey 2013 put the proportion of women with antenatal care from a skilled provider at 58.2 percent and health facility delivery at 27.6 percent. This paper presents assessment of the impact of using call center technology to increase uptake of maternal health services. Focus group discussions and in-depth interviews were explored to elicit information from 270 recipients of call center, stakeholders and call center agents in six local government areas in the state. Moderators and note-takers were trained on the art of moderating focus group discussion to elicit information from the participants and the discussions were tape-recorded. Manual content analysis was conducted using tape-recorded transcripts, moderators' keynotes and notes taken during the FGDs and in-depth interviews. Majority of the participants reported of having heard about the call center and knowledge levels were similar in both urban and rural areas. A slightly below average of the participants claimed to have had contacts with call center to obtain health information on management of pregnancy related complications. And virtually all mothers that had

used call center reported of having had antenatal care visits; facility delivery and postnatal check-up and this has led to reduction in morbidity and maternal mortality. Notwithstanding, the study revealed some challenges that negatively impacted the low utilization of call center services. One major challenge noted was the concept of "stranger" tagged on call center agents, and women refused to talk to the agents. Lack of ownership of phone, poor connectivity, delayed in picking calls, attitude, and confidentiality issues were other challenges mentioned. Awareness creation, face-to-face interaction, radio jingles and advocacy to community traditional/religious leaders can address issue of "stranger"; re-training and motivation of call center agents will address attitudes, client-agents relations and delay in picking calls; thereby increase center utilization.

Keywords: Antenatal care, Barriers, Call Center, Health Facility Delivery, Newborn

Introduction

Maternal health indicators for over a decade in Nigeria have not demonstrated any meaningful improvement. Maternal mortality recorded in NDHS 2008 and 2013 show no significant difference instead the maternal mortality slightly moved up from 548 per 100,000 to 556 per



100,000 and neonatal mortality reduced from 40 per 1000 to 38 per 1000 live births. Maternal death is 727 per 100,000 live births in Gombe State higher than the national figures of 576 per 100,000 and newborn mortality is 43 per 1,000 live births (NDHS 2013). The facility delivery as at 2008 was 17.2%, and appreciated to 27.6% in 2013 (NDHS 2008; 2013) within the maternal and neonatal health care intervention learning-grant period. To build on the improvement in utilization of health facility services Society for Family Health with funding from Bill and Melinda Gates Foundation upgraded all the facility in the call center to address early access to health information, link community members with emergency transport scheme volunteer drivers in case of emergency and make referrals to health facility. The key functions of call center innovative strategy introduced by SFH is to improve maternal and newborn health outcomes through provision of adequate maternal and child health information to FLWs during the conduct of home visits at the community; advice the trained TBAs on what to do when they have emergency obstetric cases, counsel and referral of women to health facility for higher services. For effective use of call center services during home visits by frontline workers, the project provided frontline workers with mobile phones as part of the project mobile health (mhealth) component. It is believed that the call center technology has wide reach and can easily help during emergency cases in the most remote rural communities with health information and referrals to health facility.

The maternal and neonatal health care (MNH) call centre known, as Cibiyar Inganta Rayuwar Iyali in Hausa is a call centre located inside Gombe State Specialist Hospital in the capital city of the State. The call center is designed to receive calls on health related issues and provides information to the caller based on the callers' need. It provides information to pregnant women, new mothers, families, and frontline workers in Gombe State and referred to the nearest health facility is made. However, other information's outside MNH can be attended to. The call center operates a 24 hours a day, 7 days a week and is toll-free. The

call center sometimes received calls from other regions outside Gombe State. Key functions of call centre include: receiving calls from pregnant women and their relatives, mothers/relatives of neonates, FLWs, general public, provide maternal health related information, counsel, offer temporary help during obstetric emergency cases using the standard response from the maternal and neonatal health care database and referral to health facility for higher services.

The Call Center Technology

The Call Centre Association (1999) defines a call center as "a physical or virtual operation within an organization in which a managed group of people spend most of their time doing business by telephone, usually working in a computer-automated environment".

Taylor and Bain (1999) defined the concept of call center with three essential elements. First, the call center is a dedicated operation with employees focused entirely on the customer service function. Second, those employees are using telephones and computers simultaneously and, third; the calls are processed and controlled by an automatic distribution system. This definition can be applied to a call center where relatively low skilled and low paid service workers are responding to customer requests within a tightly controlled, heavily monitored and time-restricted system. In contrast, the definition can also apply to a call center where highly skilled, highly paid knowledge workers respond to calls from business customers about online service arrangements.

Call centers, or contact centers, are the preferred and prevalent way for many organizations to communicate with their customers or their potential clients both to promote products or services and generate revenue in return. On this premise, Society for Family Health have established call center to assist in maternal and newborn emergency cases, through provision of adequate health information, link women with emergency with emergency transport volunteer drivers and make referrals. The call center technology has

been on for five years but no adequate data to ascertain the effectiveness of call center to increasing uptake of maternal health services in the state. Hence, the study is of necessity to assess achievements, challenges, and suggested solutions that will further enhance the call center performance.

Research Objectives

The main objective is to assess the achievement, challenges and suggest solutions that will further enhance effective performance of call center in achieving its mandates of providing adequate health information and referrals.

Specific objectives were:

- To assess the effectiveness of the call center to providing health information that will increase uptake of maternal and newborn health facility services
- To identify challenges to the effectiveness of call centre from achieving its mandates
- To proffer solutions to the challenges to enhance the impact of call centre on community members

Literatures Review

In Nigeria, there has been a growing interest to ensure that every citizenry especially mothers have access to health services. Various strategies were developed by government to increase uptake of health services, which included call center where first hand information, counseling and referrals can be provided. This innovation has reduced the barriers such as healthcare provider shortage, reliance on untrained or informal providers, cost of services and lack of sources of reliable information.

Maternal and neonatal health call center is one of client's interaction channels created by Society for Family Health in Gombe State funded by Bills and Melinda Gates Foundation to improve health seeking behavior and increase uptake of health

facility services by the community members especially the rural communities in Gombe in particular and northeast in general.

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According to Waite (2002), the call center is the point of entry for most customer or client communication. It is a place where a customer or client can make an inquiry or contact and expect a meaningful response. The call center is well equipped with processes, technology and people with the skills, training and motivation to enhance performance of the center. Through the telephone it can be either by a response via a toll-free number (a call not charged to the callers) or an outbound telephone solicitation (where the call center agent calls a client as feedback to ascertain the uptake of services as referred).

Waite (2002) also explains that the world has entered a sea change in connection technology that is bringing a shift from separate telephone, data networks and address identification for physical delivery, to telephony and data

converging into a single Internet protocol-based voice and data network, broadly described as the Internet.

According to Judith B. Strother(2006) the success of a call center depend on effective two-way communication. She reiterated that communication is used for everything from instilling the corporate vision in all employees to discussing specific tactics of service delivery by the organization. She posited, “Managerial communication must be open, supportive, motivating, and empowering. Every employee-customer encounter must be considered to be an invaluable opportunity to improve customer service and engender customer loyalty”. Another research findings revealed that application of call center operations can play a key role in accessing more customers, and in providing better quality services especially where additional or extended services become available (Walker and Craig-Lees, 1998).

Another study finding on perceived service quality of call center contact (Driver and Johnston, 1998), said that quality services could be achieved with training, motivation and prompt response to calls. According to another study on customer satisfaction levels with face-to-face services, it was found that customer satisfaction was significantly higher in face-to-face than with call center services in the human services arena (Bennington and Cummane, 1998a).

In terms of call center challenges, it was noted in another study that access of service quality would be greatly affected when delays occur (Green et al., 1996). Walker and Craig-Lees (1998) in their submission characterised the services in which technologically assisted transactions may be open to negativity. They came up with some lists which include, where there is high importance placed on personal contact, where a high degree of personal attention is required, where risk is perceived to be reduced by direct personal contact, where customers feel unable to use the technology, and where the technology is not seen to add value.

According to Bennington, Cummane and Conn (2000), the usage of new technologies facilitates greater effectiveness and efficiency, where more customers can be serviced at any one point in time. In their submission, customer can dial a call center and ask about a product’s features and price. If it is an existing customer one might want to check the account status or if the product does not work one can demand it to be fixed or replaced. The call center agent who takes the call may be hundreds of miles away, perhaps even in another country or continent. Call centers can connect to wherever there are high-capacity phone lines. The call center run support or help desks, which regularly answers technical questions from clients and assists them using their equipment or software.

Call centers are important for developing and maintaining healthy relationships with customers or clients. In maternal healthcare call center, the impact of proper operations is reflected not only in long-term relationships with customers, but directly on uptake of maternal and newborn health services at the facility. It has been observed that adequate staffing; right attitude, proper scheduling and motivation are key factors for providing an acceptable service level to customers. Call centers can have great effect on the firm with one phone call or email and also make commitments to customers on behalf of the company that can make or break customer relations. They hear important details about customers’ buying preferences and they protect the privacy of customers’ information. Call centers, are one of the best channels for acquiring customers information, which also help organizations to improve all aspects of customers relationship management (marketing, sales and services). It’s been proved that if an organization can convert customers’ information to the meaningful knowledge, then it’ll certainly see how call centers can act as a bridge between customer relationship management (CRM) and knowledge management (KM).

According to Ovum (2001), the rate of call center growth in Central and Eastern Europe, along with



South and Central America (including the Caribbean), will accelerate so rapidly that each of these regions' share of global call center capacity will increase from 2% of worldwide call center seats in 2001 to 7% in 2006 (a combined increase to 14% from 4%). Much of the increased capacity will come from new call centers that will be designed as multi channel contact centers. Call centers allow a company to build, maintain, and manage customer relationships by solving problems and resolving complaints quickly, having information, answering questions, and being available usually 24 hours a day, seven days a week, 365 days of the year, but to keep a long-term relationship with customers having a call center is just the beginning. Companies that have call centers as a focus of their customer relationship strategy; have to know how they can satisfy customers with right information at a right time. Prerequisite of providing customers with fast and accurate answers is to have access to sources of information and knowledge.

According to Oliver Heaton, he suggested five ways in which call center services could be improved and achieve optimal results. These are: employ extroverts, that is, people that are sociable, enthusiastic, and ambitious; use good cold call openers; call tracking staff competition; make sure employees can be heard and lastly, call center agents need to be confident in talking to whoever is on the other end of the phone and be able to quickly build a rapport with them.

According to health care professionals, maternal mortality is a key indicator for maternal health and it reveals inequalities being experienced between and within local government and states with reference to the cultural and socio-economic status of the states or regions. Skilled attendance at birth and emergency referrals are required to reduce both maternal complications and resulting deaths among women of reproductive ages 15-49 years. Some critical underlying factors that influences women behavior have been identified as: family and peers, place of residence, traditional beliefs and cultural norms, the legal and policy environment and overarching governance

structures.

Addressing these social determinants, community-driven implementers introduced different innovations. One of these innovations is maternal health call center (Telephone system). Telephone client service centers (also known as call centers or customer contact centers) play an important role in many organizations. Some of the many functions they perform include: dissemination of health information to the general public; counseling; and referral; the bottom-line among other things is trying to solving customer or client problems, resolving customer/client complaints and answering a wide range of inquiries; handling requests for repairs and maintenance; handling billing questions and taking payments and opening and closing accounts.

Methods

Participatory Learning and Action (PLA) method was adopted in the study. Focus group discussions (FGDs) were conducted among participants. The participants identified perceived achievements, challenges and proffer solution that can increase effectiveness of the call center services in future.

Study Population

Thirty-six (36) focus groups discussions were held with community members - men and women of reproductive age (15-49) years, Traditional Borth Attendants (TBAs), Federation of Muslim Women Association of Nigeria (FOMWAN) volunteers and ETS drivers as well as in-depth interviews with call center agents (6) and health care providers (12). Six Local Government Areas (LGAs) out of 11 LGAs were randomly selected for the study. The selected LGAs are: Akko, Balanga, Dukku, Kwami, Shongom and Yamaltu Deba respectively. The LGAs were selected based on certain criteria, which included representation of each of the 3 senatorial districts, availability of participants who live in the intervention communities and have heard about the MNH call center or have basic idea of the call center in general. The table below outlines the locations and groups that participated in the focused group discussion.

S/N	LGA	Focus Groups Discussions
1	Akko	2 ETS, 1 FOMWAN, 1 Community Women, 1 Community Men, 1 TBA
2	Balanga	1 ETS, 1 FOMWAN, 1 Community Men, 2 Community Women, 1 TBA
3	Dukku	2 ETS, 1 FOMWAN, 1 Community Men, 1 Community Women, 1 TBA
4	Kwami	1 ETS, 1 FOMWAN, 1 Community Men, 2 Community Women, 1 TBA
5	Shongom	1 ETS, 1 FOMWAN, 1 Community Women, 2 Community Men, 1 TBA
6	Yamaltu Deba	2 ETS, 1 FOMWAN, 1 Community Men, 1 Community Women, 1 TBA

Participants were recruited from among the general population in the intervention communities. Discussions lasted approximately one and half hour each using Participatory Learning Approach (PLA). At the end of each discussion, pair wise ranking was done to determine most perceived challenges of the Call Center by each group and a flow diagram was done to proffer solution to the most challenge identified as well as other challenges by each group. The moderator's guide for the discussions was developed by the researcher.

The research recruited participants who had a live birth in the last 12 months prior the survey, FLWs, and men within the communities as stated in field workplan. Familiarity with the participants was of limited concern. The research FGDs consist of 8 to 10 participants per group. It enabled the researcher to gain a deeper understanding of participants experience and to develop a thick, rich description of that experience. The FGDs were conducted and recorded in a quite, neutral location where the participants were free to express their views without any coercion or intimidation.

Analysis

The content analysis of the participatory learning and action, FGDs and in-depth interviews were done manually. Upon completion of the focus group discussions, all the tape-recorded discussions were transcribed from Hausa language back to English Language to combine participants' response in the note-taken during the discussions. After the transcription a manual content analysis was used to conduct a first level cycle to analyze each FGD notes and decode the

data by determining keywords and phrases that were common among the participants. Keywords

and phrases were identified by place of residence, commonalities developed and differences were highlighted. Another step taken during the analysis was to further synthesize the findings from the first level and discover how the new categories and sub-categories interrelated with one another. The study findings and literature reviews information that portray understanding were again review and then triangulated. Finally, new emergencies, findings and other references were narrated as they relate to the implication of the study. The FGDs findings revealed that community members were not comfortable in discussing their health related problems with "stranger" and health call center innovation is alien to them that could take time before totally accepting the technology.

Findings

Of the 270 study participants most of the respondents were women of reproductive aged 15 - 49. About 53 percent werehouse wives and peasant farmers while 47 percent were males. , All the men studied were employed; 13 percent were in paid employment and 34 percent were self-employed. Ninety-five frontline workers (FLWs) participated in the focus group discussion (FGDs), emergency transport scheme volunteer drivers (71), community women (48), and community men (56). In all one hundred and forty-four (144) participants were from urban- and one hundred and twenty-six (126) were from rural communities respectively. To avoid religious sentiment participants were not asked about their religion.

General Knowledge of a Call Center

Over half of the participants said the call centre is a place where someone can obtain information, counsel and get referrals. Few of the participants perceived the call center to be a place where someone can get referral to higher or better medical care. Some participants said, it is a place companies use to market their products such as goods and services.

Participants in rural communities have fair knowledge about the call centre services. According to them call center is a place where you can call when you have problem with you SIM card or when you have an issue with you recharge card. They gave example of MTN, GLO and Airtel network providers. The perception of participants from the urban communities was not different from their rural counterparts. They said call centre is a place where network providers market their services to potential customers, resolves challenges with SIM lines, carry out welcome back, block line when there is case of theft or visit to purchase phone or activate your mobile internet.

Awareness of Maternal and Neonatal Call Center in Gombe State

When the participants were asked whether they have heard about maternal and neonatal healthcare call center; majority of the participants in the focus group discussions (FGDs) reported having heard about the maternal healthcare call center in Gombe State. The knowledge level of MNH call center cut across the participants in rural and urban areas. However, knowledge level tends to be more pronounced in urban communities FGDs than rural participants in whom half of the rural community members claimed not to have heard about the center.

In all the focus groups discussions (FGDs), majority of the participants (673) were able to relate activities of the call center to improving maternal and newborn healthcare (MNHC). Although, there were little variation in the participants perceptions based on place of residence and contact with the center. Participants of the FGDs said call centre is a place where health professionals are based to provide maternal and neonatal health services through mobile phones to

callers who are in need of knowledge about health related issues, emergency obstetric cases, first aid services and quick access to health facilities through the call center's referral and linkage systems with emergency transport scheme volunteer drivers.

According to the participants over half of them said the call center provides health information, give advice on personal/environmental hygiene, encourages antenatal care, facility delivery, postnatal care and care of newborns. Few participants mentioned referrals as one key activity of the call center that has improved health seeking behaviour and increased uptake of facility health services.

To some of the participants, MNH call centre provides enlightenment, advice and linkages among the frontline workers in maternal and newborns health care project. However, emphasis was placed on inadequate community awareness about the work of the center and lack of phone ownership.

“I think a call center is a place where if women have problems with their pregnancies, they can call to get advice or solution to the problem. I was called by a family that the pregnant wife was bleeding; I then called the call center and informed them of the complication, the call agent advised me to take the woman to a nearby health facility without delay. I told the husband the advice given by the agent, he agreed because there was no other solution at hand and the woman was seriously bleeding, hence, we rushed the woman to the clinic and she was attended to and the bleeding stopped. The woman has delivered a bouncing baby girl; both the mother and the child are alive. For me, the call center is a place where one can get knowledge and assistance in terms of health need. They have educated me so I know what to do next time I face such challenges.” – TBA in Kembu community, Akko LGA.

Most participants referred to a call center as a place one calls and get health information. All participants across the LGAs were familiar with the call center as a place that provides factual information on maternal and neonatal health issues.

“In the past, lots of women die due to ignorance, lack of knowledge, myths and misconceptions and ill-health socio-cultural beliefs but now, thank God for the call center where clarifications are made free of charge. Women and men can just make a call to get the right information, education and advice on any maternal health issues,” said by ETS driver, Balanga LGA.

One distinct and similar perception about the call center that cuts across both urban and rural participants was the knowledge on maternal and neonatal health issues that has led to synergy among the frontline workers (TBAs, FOMWAN volunteers and the ETS) which initially was not in existence before the MNHC intervention. The users of call center claimed that information provided by the call center averted problem, hence, women and neonates lives have been saved.

Key activities of call center services enumerated by the FGDs participants during the study in both rural and urban communities include: information, education and counselling, importance of antenatal care visits, facility delivery, postnatal care, essential newborn care and prompt response during emergency obstetric complications and prompt referrals as well as follow-up of the call center agents.

Ever use of the Call Centre

The coverage of ever use of the call center was generally low among the participants in both urban and rural settings; however, more rural participants claimed to have ever used the call center services as results of home visits conducted by the trained traditional birth attendants. Among the participants in rural areas who reported of having used the call center during the FGDs did so to ask about pregnancy care or complications through the assistance of traditional birth attendants.

When asked about the utilization of the center, about one third of the participants claimed to have had interaction with the call center agents at least once in the past one year. According to the participants some of them called the center to obtain information on pregnant

health related issues, some called when their children were sick during the night while some wanted to get phone number of emergency volunteer drivers to take them to hospital in the night. Some of the participants received information about call center at antenatal clinic; some through FLWs and while werethrough radio jingles. Some of the participants said, they heard about it but they felt it was not normal to talk to a complete stranger about their health problem. Hear what one of them said,

“The first time the call center was introduced it was not popular particularly in Akko because it was strange to ask someone to call someone you don’t know and start speaking to the person, just like that”, FGD women beneficiaries YamaltuDeba.

Over half of the participants said they only had access to telephone when either traditional birth attendant or Federation of Muslim Women Association of Nigeria (FOMWAN) paid them home visits and after discussing with them, sometimes, made calls to call center and convinced them to talk to the agents for further counseling on their health issues. Although, it was strange to discuss with a stranger, however, because of the trust and respect the participants claimed to have for the FLWs especially the traditional birth attendants, they reluctantly agreed to speak with the call center agents and they were happy they did.

It was observed that during the FGDs that more participants in rural communities who were visited by trained TBAs had more contacts with the call center than those who were not visited.

Many of the participants of the FGDs said they refused to use the center because they have never met the agents in their lives, hence, they cannot disclose their private health issues to strangers. Some of the participants that claimed to have heard about the call center said they were unable to contact the center because they do not have access to phone nor own a mobile phone to use for calling the center.

“I think a call center is a place where if women have problems with their pregnancies, they can call to get advice or solution to the problem. I was called by a family that the pregnant wife was bleeding; I then called the call center and

informed them of the complication, the call agent advised me to take the woman to a nearby health facility without delay. I told the husband and we rushed the woman to facility and after treatment, the bleeding stopped. Now the woman has delivered a bouncing baby girl both the mother and the child are alive. For me, the call center is a place where one can get knowledge and assistance in terms of need. They have educated me so I know what to do next time I face such challenges.” – TBA in Kembu community, Akko LGA.

One participant noted that to her the call center is working and helping them in their community. Hear what she said, “honestly there are so much changes that have taken place in the community. Imagine, it only takes a phone call and an ETS driver comes to transport our women to the health facility. We don’t have the trouble of running helter skelter looking for drivers from one community to the other, its just a phone call and we were linked up with drivers who will transport us to the health facility for services;” said by community woman in Zange, Dukku LGA.

Another woman in rural community participants, indicated that her experience as regard the use of call center was positive one; she said,“.... call center agent saved my live during labour in the night. I was in labour and there was abnormal presentation, TBA was sent for and when she arrived and saw my condition, she contacted call center and she was advised on what to do; after sometime, I safely delivered my baby and she took me to hospital in the morning for further check-up”, said by community woman in Shongom.

“TBA and FOMWAN gave us their phone numbers so that we can call when we need them. We were also given the phone numbers of the call center” - Interview, husbands YamaltuDeba.

Analysis of call center usage, revealed that face-to-face interaction with frontline workers especially trained TBAs during home visits gave many women courage to call and talk to the center agent; and majority of the users were from rural

communities. For other participants, it was due to access and ownership of mobile phone that influenced the usage of the call center. One of the participant said, the positive outcome of interaction with the call center agents that motivated her to continue to use the services whenever need arises. Another participant said, the rude attitude of the call center agent deterred her from calling the center again after one unfriendly interaction encountered.

Impact of Call Center Services among the community members

Research findings revealed that those women that had interaction with the call center were able to access and utilize the health facility services. Some of the women said with the counseling from the call center agents, they were convinced that antenatal care services is very good for them and their unborn baby, hence, they started attending antenatal care till they delivered at the health facility. When asked about the stage of pregnancy before they started antenatal care visits, some mentioned 5 months, 6 or 7 months. Another participant reiterated that she was able to deliver at health facility due to advice given by the call center agent and that herself and the baby are alive. The same story was heard from those that said they had contact with call center.

“When I was having discomfort with my pregnancy, a friend advised me to make call to one MNH call center and we use her phone to called. After greetings, they asked about the problem and I explained everything to the agent. She further asked whether I have been to hospital? I said no to the question; at that moment, the agent counseled me and referred me to a particular hospital for check-up. I went and the health care provider attended to me and from that period I started going for antenatal check-up until I delivered in at the health facility”, said a mother in Yamaltu Deba.

“In my own case, I was in labour for almost a whole day without success, when my TBA paid me a visit and saw my condition, she called call center and the agent referred us to hospital for



delivery and even linked us with emergency transport scheme volunteer driver that transported us to the hospital. I successfully delivered, and I am glad we did;" said by a mother in Shongom LGA

The findings from in-depth interview with health care providers confirmed the assertion of the women. The health care providers said, they have been experiencing a surge of pregnant women visits at the health facilities since maternal and neonatal health care project started in Gombe state. According to them, this was made possible due to activities of the frontline workers especially the trained traditional birth attendants and the call center services. The health care provider claimed to have distributed the call center numbers to the women during antenatal care visits but the only challenge they observed was inability of most of the community women to read the numbers and be able to save them; while some of them said they do not have telephone but we advised them to go home with the number and look for any of their neighbor who has phone and use the phone to reach call center in case of emergency any time.

Based on the shared views from the FGDs participants, the research identified five factors that influenced the participants' decision to talk or had contact with the call center agents: involvement of FLWs, friendly nature of some of the call center agents, positive outcome of interaction, availability of network, and uninterrupted access to the center.

Perceived Strategies to make a Call Center Effective

In all the focus groups discussions, participants came up with suggestion of things that could make a call center operate successfully in the provision of information and education to community members. According to them, availability of good network 24 hours in day and 7 days in a week without interruption, public enlightenment, adequate staffing, multi-lingual personnel, training and re-training, uninterrupted electricity, modern equipment, funding, enough staff in shifting, good interpersonal communication skills of staff, prompt

response to calls, coordination and supervision will enable the call center to operate optimally.

Few of the participants however think availability of all network service providers in the call center will make a difference in the call center operations. Many participants also suggested availability of multi-lingual (Hausa and Fulfulde) call center staff, enough information that is handy and readily available to the call center staff as things that will make a call center operate successfully in the provision of education, and information to community members as well as referral.

"If there is a good network during calls to the call center and the center agents can hear us and we can hear them very well, there will be patronage of the call center services because it is only when we can call and hear them that they will be able to provide information and education to community members," said by TBA, Kuri, Yamaltu Deba LGA

Participants from the urban communities mentioned things such as adequate, sufficient and functional equipment, adequate manpower that can speak Hausa and Fulfulde languages; good, steady and available network; feedback mechanism from both the callers and call center (the callers giving feedbacks and vice versa after calls) and awareness creation systems through mass and print media and interpersonal communication).

Participants from rural communities said things that will make a call center operate successfully include: sufficient and functional equipments such as phones and lines, ability of the call center staff to respond to calls promptly, adequate number of staff to provide counselling and education, ability of the call center to have adequate and enough information and knowledgeable and well trained staff.

Challenges to a Successful Call Center Operation

About half of the participants talked about lack of community awareness of the call center and call center numbers to call as a challenge. Most of the participants said if the community is not aware of the presence of the call center and how to make calls to it, this will affect the successful operation of the call center. They



said the call center is there to respond to calls and if calls are not made, the reason for the establishment will be defeated. Few participants mentioned poor network connectivity as a challenge that will make a call center not to operate successfully. Some of the participants mentioned inadequate coverage of network services by providers - MTN, Glo, Airtel, and Etisalat at the community level will negate free-toll idea; hence, those that managed to call could be sub-charged and if this continues people will no longer take the risk of calling again.

“... if the Call Center does not have all the network lines, it will limit the operation of the center because not all the networks are in all the communities in Gombe state. Some communities have only one network service provider whereas others have two and when you use a different network to call, you will be subcharged whereas, we were told that call to call center is toll-free;” said by TBA, Zange, Dukku LGA.

“... yes in everything there are good and bad sides. Without proper enlightenment and awareness there will be setbacks in the operation of the call center as community men and women would not know about call center. Secondly, bad network service in which we cannot make calls to the call center or there is constraint in voice clarity this will also affect the call center service;” said by mother in Yamaltu Deba LGA.

Concept of call center staff being tagged as “stranger” dominated the discussion across all the FGDs. Participants felt that talking to a “stranger” about personal health problem will not be a wise decision. Hence, they prefer dealing with the frontline workers especially trained traditional birth attendants face-to-face during home visits than calling someone they do not know. They reiterated that discussing personal health issues with a complete stranger put them at risk of leaking their personal problem to people around and this could lead to ridicule.

Delay in picking of calls by call center agent, attitude and poor connectivity were also mentioned by majority of the participants in the urban locations as part of challenges to a successful call center operation. However, majority of the participants complained more of delayed picking of calls by call center agents.

They were of the opinion that the call center staff should promptly respond to calls since the caller may likely have an emergency issue on hand. Due to delay in picking calls, participants perceived that the center is not adequately staffed, hence, there is always delay in answering calls. Inadequate staffing could negatively impact the call center operations. In rural FGDs, participants ascribed lack of community awareness as the most challenging factor that could inhibit the call center not to operate optimally. Many participants learnt about call center activities through frontline workers. Poor network, language barrier and billing of calls by the network providers were also part of the challenges mentioned that could hindered people from calling the center.

Similarity of challenges that cut across urban and rural participants responses included the concept of a “stranger”, lack of community awareness, language barrier and poor connectivity.

Participants expressed also the frustrations and difficulties experienced in understanding the call center agents when services were offered in Hausa only. The Fulani participants noted that call center agents were not able to communicate with them in Fulfulde language during calls, hence, they felt bad and isolated; they were of the opinion that their health needs were not considered important by the implementer that was the singular reason for having just one staff can speak Fulfulde in the center. “The call center can have setbacks if the language of communication is only in English or Hausa. Language barrier is a great challenge to the call center. I think the call center should have people who can speak fulfulde, tangale, waja, terah, and other dialect in our state,” said by ETS volunteers in Filiya, Shongom LGA. Other challenges mentioned by the participants include erratic power supply, insufficient equipment, manpower problem and lack of motivation. However, none of the participants was able to confirm ever calling the call center and calls could not go through due to power supply.

Impact of the Call Center on Community Members



For those that had utilized call center service claimed to be satisfied with the services and concluded that their interaction experience was cordial and fruitful. According to them; the advice given during the interaction with the center was very useful and has saved lives. Few claimed that the call center agents conducted follow-up to see how they were faring. According to these participants, such interaction with the participants left positive feelings and thereby changed their perception about uptake of health facility services.

One striking impact mentioned by majority of the participants was the increasing number of people who sought after the call center number in times of emergencies. They did this because of the information gotten by word of mouth from other community members who had in the past made use of the call center services and were impressed or satisfied with the interaction outcome. It was noted during the FGDs that over half of the participants shared their experiences with their fellow community women, hence, there is positive attitude toward the use of health facility services in their communities.

“We are very happy with the maternal and neonatal health care (MNHC) project call center because it has helped us in our communities. It has enlightened us greatly for instance, people due to ignorance were not accessing nor utilizing health facility services but now visit the hospital for the same services they were against before. God had brought a time when our women go to see doctors on their own when they have health problems and this is happening due to the advice, enlightenment and encouragement received by those that have made calls to the call center and widely shared their experiences with their female counterparts. The call center has enlightened us about importance of uptake of health facility services.” – Community man in Mallam Sidi, Kwami LGA.

Majority of the participants in the urban communities commented on the call center's ability to help during emergency, counseled women on maternal and neonatal health issues, good personal and environmental hygiene which was lacking before the start of MNHC call center in our communities due to ignorance. They also mentioned improvement in delayed bathing for at least

six hours after delivery as observed among new mothers in the community, initiation of immediate breastfeeding, practice of exclusive breastfeeding and clean cord care as impacts of the call center on community members. Few of the participants mentioned increase in health seeking behavior as impact of the call center on community members. One of the participant noted,

“...with information, education and counsel/advice by the call center staff, community members are knowledgeable about importance of attending ANC in health facilities as well as seeking skilled services,” said by a woman participant in Akko LGA.

“Before this project started, honestly, there were maternal and child deaths experienced in our communities on regular basis but now, if a woman is in labor, we FOMWAN visit them and advised them to go to hospital. During the visit, I asked what has happened, the woman then explain her feelings to me –*na fara jin ciwon ciki, da gadon bayana da kuma ciwon mara, ina kuma amai*- I will then make call to the call center and explained to them what is going on and the agent will advised me to take the woman to hospital. We have seen a great improvement in the community and the way women now go to the health facilities at the slight feelings of complications. We are given special consideration when we accompany a woman to the health facility.” FOMWAN volunteer, Talasse, Balanga LGA.

Very few of the participants in the urban communities mentioned increase in the use of mobile phones to seek information as one of the impact of the call centre on community people.

Majority of the rural participants said one major impact of the call center is reduction in the practice and use of traditional herbal remedies for pregnancy complications in the communities as stated by a community man in Burak, Shongom LGA.

“One important impact of the call center for me is the fact that both men and women have stopped herbal medication or travelling through the hills to find herbs, we can make calls to the call center and our needs are



attended to by the agents.” – Community man in Burak, Shongom LGA.

Collaborative efforts among the FLWs, call center, ETS and health care providers has led to priority being given to women with obstetric complications and who were accompanied by trained TBAs to utilize health facility services. Some participants also mentioned that priority is given to women transported to health facilities by TBAs and ETS. Other impact of the call center on the community mentioned by the rural participants include:

- Increase in the level of communication among community people most especially with regards to maternal and child health issues
- Call center link clients with emergency transport scheme volunteer drivers in our place of residence
- It has increased access and use of health facility services with the aid of the call center services
- It has increased knowledge of other components of FLWs and increased synergy among them
- It has improved linkages among the frontline workers.
- Through the assistance of call center many people tend to seek health facility services which invariably led to reduction in search of traditional or herbs to treat complications

“We have experienced a lot of changes in our way of life, that is, the call center agents have educated and brought us out of our ignorant ways of doing things; and now we adhere to advice given to us in term of keep our environment clean, go to hospital when we are sick, women should go for antenatal and deliver at the hospital and not home delivery in our villages. For instance, we do conduct deliveries at home without using clean delivery kits (CDKs) materials, however, this practice had stopped when the MNH project restricted us to referrals of pregnant women to health facilities except if it is imminent deliveries which must be conducted with clean delivery kits materials and after the delivery refer and accompany such woman to hospital for check up” – TBA, Dukku LGA.

All the frontline workers (TBAs, ETS and FOMWAN volunteers) feel respected and honoured in their

communities because of the fact that the call center is able to make the communities see them as important persons when the call center tell them of “our” presence and readiness to help in times of emergencies. FLWs serve as link between the community members without access to phones and the call center for more counseling and additional information which has led to more recognition and dignity of the FLWs.

Access to and utilization of health facilities services with or without their spousal permissions has continue to gain ground in the communities. Husbands do not see lack of permission before their wives access hospital as offence anymore since they know the importance of going to hospital through call center service. According to the participants, more women have started the use of methylated spirit for management of cord care after delivery.

“Before now women clean the cord with hot water and charcoal and is mostly influenced by their mother or mother in-law but with the enlightenment from the call center, the community now knows the importance of using cotton wool and spirit for cord care.” TBA, Kembu community, Akko LGA.

In-depth interviews conducted with the call center agents revealed that several calls made to call center were on issues not directly related to maternal health. The callers demanded for information on other health issues such as malaria and family planning and occasionally, ask information about HIV and AIDS. Men and women want information on family planning, child spacing and other reproductive health (RH) matters. However, callers always solicit for keeping their conversation confidential and not to be disclosed to anybody in the community. According to the center agents, regular callers of the center are traditional birth attendants and Federation of Muslim Women Association of Nigeria during home visits to the pregnant women and newborn mothers and through their phones most call center agents’ interaction took place with the community women either with or without obstetric complications.

The agents also enumerated some challenges



inhibiting the call center services to be inadequate staffing which resulted into one or two agents on shifting basis, lack of caller identification number, poor network service, some caller will call without making any request and incessant electricity supply outage which resulted to constant use of generator. On the part of follow up tracking, the call center agent revealed that they were not doing much about follow up due to lack of caller identification number and inadequate manpower at the center. Logging in information into excel spreadsheet sometimes poses challenge because according to them, after a call and they were logging in information into excel spreadsheet, another call will come in which occasionally cause delay in picking of the calls. The agents suggested that with proper restructuring and awareness creation the call center could extend its services to other health issues apart from maternal and newborn ones. The management of the call center could help state government to address some of the health challenges without leaving the place of residence since call center has a wide coverage.

On how the call center management make use of the information gathered from the callers, the call center agents said the data from the system provides opportunities to share evidence-based best practices, help health program managers identify low-performing areas, allocate resources based on need and be able to conduct advocacy to appropriate stakeholders. However, they claimed that there have been a number of operational bottlenecks within the system at the data collection, and advanced analysis stage due to lack of caller identification number to conduct follow-up and validation of results in the Excel spreadsheet and feedback as regards effectiveness of center referrals.

In-depth interview conducted with the health care providers confirmed that there has been upsurge of client visits at the health facility. For example, matron of comprehensive model health center, Dukku said since advent of Society for Family Health innovation of using trained frontline workers and call center to promote access and utilization of maternal health facility services,

they have witnessed tremendous increase of client volume on regular basis.

“We have no breathing space again as result of many pregnant women accessing health facility for antenatal care services, facility delivery have increased and many new mothers bring their children for regular check up. This is the result of call center referring women to health facility in collaboration with the trained TBAs and FOMWAN volunteers. We need more hands if you do not want us to die of workload;” said by matron, model comprehensive health facility, Dukku.

Many primary health care centers (PHC) in Gombe state claimed the volume of work has increased and soliciting SFH to help them advice government to recruit more health care providers to make the work easier at the facility. The health facilities staff claimed also that they have been helping Society for Family Health to distribute the call center numbers and even give health talk on the importance of making use of call center in case of emergency especially those rural community women living in hard-to-reach areas.

Discussion

In the assessment of the impact of the Call Center, the researcher found that below average of the participants in focus group discussion reported to have utilized call center services. Majority of those that have used the services claimed to be satisfied with the counseling and referrals system. As result of adherence to the call center agents' advice, the community women health challenge issues were resolved at health facility and they were happy they did. It was revealed in the FGDs that there was a relatively increased knowledge in both urban and rural participants of the focus group discussions. However, this increase in knowledge did not translate to utilization of the call center services by the community members. The usage of call center was more pronounced among the rural participants than in urban area. One reason for this was the effectiveness of trained TBAs in mobilization and encouragement

given to the women to speak with the call center agents during home visits.

“TBA and FOMWAN gave us their phone numbers so that we can call when we need them. We were also given the phone numbers of the call center and sometimes, they will make a call to the center and give us the phone to speak with the agent” - Interview, husbands YamaltuDeba.

The idea of using call center to promote health related issues is very good if the awareness creation strategy is put in place and the health promoters are committed to the intervention. The participants embraced the call center services as result of the pressure put up by the frontline workers especially trained TBAs during the conduct of home visits, this reflected in the discussions of the participants throughout in both rural and urban areas. Majority of the rural participants said one major impact of the call center is the reduction in the practice and use of traditional herbal remedies for pregnancy complications in the communities.

The study revealed that the call center has potentials to reach wide audience in disseminating, educating, counseling, offers temporary relief during emergency and make referrals. A well-tailored media messages jingles, 24/7 effective services, and local languages such as Hausa and Fulfulde in usage will have great effect on the community members coming out to access and utilize health facility services.

The call center despite its achievement, experience some challenges, which have negatively impacted on the center. Some of the challenges include: reluctant to call and talk to a stranger, poor connectivity, delay in answering calls by the call agents, concerns about the confidentiality of callers, difficulties to answering multiple calls at the same time and rude attitude of one the center agent.

The women feel reluctant to make calls to the call center because they believe the center agents are “strangers” and they should not talk to them on health issues. They considered the call center

technology of health promotion as alien; hence, such services should not be accessed. The participants prefer to discuss their health challenges with the frontline health workers especially traditional birth attendants who they have over the year recognized, trusted, and respected for their active roles of assistance offered to women during home delivery. The women were of the opinion that TBAs can keep secret and will not share information revealed to them with another person. This agreed with what Walker and Craig-Lees (1998) observed in their study that technologically assisted transactions may be open to negativity if there is high importance placed on personal contact, where a high degree of personal attention is required, where risk is perceived to be reduced by direct personal contact, where customers feel unable to use the technology, and where the technology is not seen to add value. Notwithstanding, whenever if TBAs make calls to the call center as it was noted and encourage the women to speak with call center agents, the women obeyed because they know her and that she will not deceive them; hence, they agreed and those that eventually had interaction with the call center agents reported that they had fruitful interactions and were happy they did. It was observed during the FGDs that more participants in rural communities who were visited by trained TBAs had more contact with the call center than those who were not visited. The study revealed that call center could increase uptake of maternal health services by changing the orientation of the community health seeking behavior thereby improving their health and increase survival of mother and child. According to another study on customer satisfaction levels with face-to-face services, it was found that customer satisfaction was significantly higher in face-to-face than with call center services in the human services arena (Bennington and Cummane, 1998a). Therefore, it was not surprising for the community women to prefer dealing with trained TBAs than put a call to the center and discuss their health problem with a stranger they never met in their lives.



Poor connectivity was another challenge recorded by the callers. The community women that require information or help sometimes experienced poor network connectivity. Many women do not have access to mobile telephones or own mobile phone but whenever they were opportune to have access to phone and made call to the center, poor network connectivity marred their effort. According to Bennington, Cummane and Conn (2000), the usage of new technologies facilitates greater effectiveness and efficiency, where more customers can be serviced at any one point in time. They further reiterated that the call center agent who takes the call might be hundreds of miles away, perhaps even in another country or continent. Call center can connect to wherever there are high-capacity phone lines. Therefore, it will be important for maternal health call center management to work with telecommunication companies to ensure high-capacity phone lines are provided.

Low literacy level is another factor that reduces the frequent use of the call center. Some of community women who own mobile phone could not save call center numbers given to them due to illiteracy. And once the sticker with the call center got lost that will be the end and such person cannot have access to center services except she sees someone who has the number and help her to dial the center before she could contact and enjoy the services. Another challenge mentioned was issue of concerns about the confidentiality of callers. This is misperception on the part of the community women because the call center agents are trained nurses and midwives who have already taken the oath of secrecy during the graduation ceremony. They know the importance of keeping health information of a client secret and confidential; hence, awareness creation could resolve this misconception.

Delay or waiting time for the call agents to pick the calls is another challenges experienced by the community women. Not many people will have the patience of waiting when put on hold, hence, call center agents to improve on the response rate to avoid people switching to another readily

available means of getting information. This issue was noted in another study that access of service quality would be greatly affected when delays occur (Green et al., 1996). The call center management should have great concerns on the delay issue raised in the focus group discussion so that the patronage will not nose dive. There is possibility of shortage in call center manpower, hence, concerted effort should be made to recruit more competent staff and give them sound training on client-agent relationship to promote access to service quality. According to Judith Strober (2006) posited that every employee-customer encounter must be considered to be an invaluable opportunity to improve customer service and engender customer loyalty". Another research findings revealed that application of call center operations can play a key role in accessing more customers, and in providing better quality services especially where additional or extended services become available (Walker and Craig-Lees, 1998).

Summary

The purpose of the study is to assess the achievement, challenges and way forward of call center in improving access and utilization of maternal health facility services in the state. The innovative strategy of call center has potentials to improve health-seeking behavior and increase access and utilization of maternal health services in Gombe state especially among rural community members. Participants noted that women lives were saved because of prompt response of the call center during labour. They further reiterated that call center services enable them to know the importance of antenatal care and skilled assisted delivery. As noted in the focus group discussions, the call center agents have been collaborating successfully with frontline workers especially trained traditional birth attendants during the conduct of home visits activities through further counseling of their clients, referrals and provided assistance during imminent deliveries. According to the participants many of the women and their children have been saved through the help of call



center services, hence, it is a good strategy to promote health facility services and to assist during obstetric emergency cases as observed. Some participants observed that though they did not own mobile phone but they were able to access the call center services through the use of FLWs assigned mobile phone by the health care implementer in the state. It was noted by the participants that center successfully counseled the community pregnant women on the importance of antenatal care (ANC), skilled assisted delivery, postnatal care and essential newborn care as they have been advised by the FLWs respectively.

Due to the good work of frontline workers and the interaction with call center, many cases of maternal and newborn morbidity and mortality were averted. Research findings from in-depth interview conducted with the healthcare providers confirmed increased of client visits at the health facility within the reference period. For example, matron (officer-in-charge) of comprehensive model health center, Dukku said since advent of Society for Family Health innovation of using trained frontline workers and call center technology to promote access and utilization of maternal health facility services, they have witnessed tremendous increase of client volume on regular basis at the facility. The same line of thought was observed in many other primary health care centers in Gombe state that claimed the volume of work has increased as a result of the call center and FLWs activities respectively and that they no longer have breathing or resting moment due to high traffic of clients visits to access health facility services. Therefore, they solicited SFH's assistance in advocating to government to recruit more healthcare providers to reduce workload burden on few of them that are have passion and are committed to saving lives.

Notwithstanding, the positive impact of call center services on the target audience, the center has been experiencing some challenges that serve as inhibiting factors from performing optimally as noted by the participants.

The Concept of "Stranger" Tag

One of the critical challenges being experienced is the attitude of the community members not wanting to discuss or talk about their private health issues with the call center agent because they referred to them as "strangers". Many rural community members are regarding the call center agents as "strangers" and this has negatively influenced the uptake of call center services. Most of them did not know that the call center is staffed with nurses and midwives just like the ones they interact with at the health facilities. Programmatic implication is that if the health promoter failed to come up with strategies to address the misconception of the word "stranger", it will render the innovative strategy of the call center ineffective and it will not achieve the purpose for which the center was set up to increase uptake of health facility services. Issue of inadequate public awareness and education must be properly addressed. The health promoters must make use of the frontline workers, radio jingles, and print media messages in local language especially in Hausa and Fulfulde to tackle the issue head log. The community mobilization should be intensified and motivation of the frontline workers is very crucial since the community members trust and respected them and they also live in the same communities with them.

Preference for Frontline Workers

Focus group discussion findings have revealed that the people prefer to talk to the frontline health workers especially traditional birth attendants who they meet face-to-face, trust, respect and obey. So this crop of FLWs or IPC should be motivated and encouraged to intensify their efforts in the conduct of home visits and use the occasion to be mouthpiece and promoter of uptake of call center services. They should also continue with education, counseling on environmental hygiene, importance of call center services and mobilization of women for the uptake of maternal health services. One of the roles of the FLWs should be mobilization of the women to adhere to any advice given by the center agents for their own good. The women were of the opinion that TBAs can keep secret and will not share information revealed to them with another person. It was noted also that if TBAs made the calls to call center and encourage



the women to speak with the agents, the women obeyed; and those that did noted that they were happy about the outcome of the interaction which provided means to having solution to their problems. This is in agreement with another study on customer satisfaction levels with face-to-face services; it was found that customer satisfaction was significantly higher in face-to-face than with call center services in the human services arena (Bennington and Cummane, 1998a). This suggests that there should synergy between call center and frontline workers in effort to mobilize community members for utilization of call center services. Health promoters should also recruit more of frontline workers especially the trained TBAs that the women trust and respect for the community mobilization in call center and maternal health promotion.

Poor Connectivity

Poor connectivity was another challenge reported by the callers. The community women that are willing to utilize the services of call center occasionally deterred by poor connectivity. Many women do not have access to mobile telephones or own mobile phone, hence, any opportunity that come their way and need call center service should not be jeopardized by poor connectivity. This poor connectivity may not be attributed to call center but to network providers. Telecommunication companies should provide high quality lines for the center. And more dedicated lines of various network providers be subscribed to and should be widely advertised.

Low Literacy Level of Community Members

Low literacy level is another challenge that impinged on the access and utilization of the call center services. Those community members that have mobile phones could not save call center numbers given to them by the FLWs or at health facilities. The implementer of call center can work with the telecommunication companies to come up with one unit or two unit codes lines which can easily be memorized by everybody and be able to recall the number at the time of need. Hence, low literacy will not be a barrier to uptake of call center services.

Confidentiality of Information

Another challenge mentioned during the FGDs was the issue of confidentiality. No one wants his or her secret to be made known or open to another person at the end of interaction, hence, they are very skeptical whether the center agents may know them and leak the health secret discussed with other people at the communities. This is misconception on the part of the community members because the call center agents are healthcare providers who have taken an oath of secrecy during their graduation ceremony. However, the issue of confidentiality can be addressed through well-tailored messages in print and mass media channels. And frontline workers will complement mass media effort in educating the community members on the concept of stranger at the call center. The messages should be in form of serial magazine that will run on regular basis since radio has wide coverage, and during advocacy visits; this will eliminate misconception about the call center agents.

Delay in Picking Calls

The last thing most clients want to do is to call to request client service. Through the discussions, it was noted that clients distaste or hate to be kept on hold on the phone, or to wait for a long time for a response. Clients contact call center because they are having a problem or need information to solve health challenges. They may already be annoyed or worried before they make the call; hence, they need a quick solution to the problem. Keeping the client waiting when the routing is on going because the agent was attending to another client may lead to restive attitude of the waiting caller. Among those participants that have used the call center, majority claimed to have experienced delay in picking their calls by call center agents. Programmatic implication is that if waiting time is not reduced to barest minimum potential callers will be scared away since no one wants to waste his or her precious time. The callers might tell some of her friends and neighbor about her experience during interaction with the center agent and this could lead to abandonment of the call center services. More staff should be recruited, trained and adequate staff to be on shift duty; upgrade equipment or increase the existing



number of equipment at the center to avoid delay of picking calls.

Attitude of the Call Center Agent

According to few participants, they stopped calling the center because they do not have little patience for call center agents that are rude, lack knowledge, have no authority to make decisions for client, or are hard to understand and communicate with. According to Oliver Heaton, he suggested five ways in which call center services could be improved and achieve optimal results. These are: employment of extroverts, that is, people that are sociable, enthusiastic, and ambitious; use good cold call openers; call tracking staff competition; make sure employees can be heard and lastly, call center agents need to be confident in talking to whoever is on the other end of the phone and be able to quickly build a rapport with them. Once, one of the above is lacking, the implication for intervention is that many potential callers may not want to make call again to the center. And there is possibility of using word of mouth to spread information about bad attitude of just one agent. The action of an agent could mar the effective use of the call center; hence, there should be capacity building for the call center agents to address client-agent relationship. During recruitment, the health implementer must look out for the qualities mentioned by Oliver Heaton and develop their capability so that they can be social, and confident in talking and express themselves in polite manner that will not be offensive to the public. Training and re-training at least twice in a year will have positive impact on client-agent relationship. The training should emphasize on clarity, friendliness and regularly demonstrate client-oriented behavior that promotes repeat call by the client. Mystery client study could be another means by which the health implementer can use to track the quality of services and correct any anomalies observed during the study.

Conclusion

The use of call center is one innovative ways to increase uptake of health facility services in Gombe State and any part of the country. The interaction with the call center agents could save

lives during emergency; knowledge can be transferred and acquired. There are many rural remote communities that are hard to reach and most of them are not accessible by road, hence, proper implementation of maternal health call center could be another means of bringing relief to community members who may have obstetric emergency cases. Public enlightenment is very important to sell the innovative ideas of call center to the people. Well enlightened audience will not refer to call center agents as “stranger”, hence, the onus is on the implementers to engage in awareness creation campaign to forestall any negative impression about the call center services. The center should be well staffed and equipped to be able to handle volume of calls that will be coming to the call center. Without adequate staffing delay in response will keep occurring and quality of services will dwindle and people will lose hope and will lack courage to make calls to the center.

One or two digit code(s) of call center number will be helpful since majority of the target audience are low literate and will not be able to memorize ten digits mobile phone numbers. And this two digit codes should be linked to all the network lines at the center without charging or billing the clients when they calls. By this low literacy level issue would have be addressed.

Research findings revealed that face-to-face interaction yields more fruitful results in uptake of any kind of services; hence, there is a need to recruit enough frontline workers especially the trained traditional birth attendants as demand creation for the use of call center services. This will have more impact than sole reliance on print and mass media alone. There should be a mixed or multiple means of communicating the benefits of the uptake of call center services by so doing increase the call volume at the call center.

Poor connectivity of network should be resolved by approaching telecommunication companies by call center implementers with view of finding lasting solution to it. More network service providers with various in-bound and out-bound lines are also required



at the center to prevent billing the callers of the center. Through these proposed actions, waiting time before responding to calls by the agents will be reduced to the barest minimum.

Installation of caller's identification number will give room for monitoring and follow-up of the referred client to ascertain whether she has accessed and utilized the health facility services as recommended and the resultant health outcome.

It will be necessary for the health promoter to reposition the center to incorporate other areas of health and not to only concentrate on maternal and newborn health issue. The center could be structured in a way that it can accommodate other area of health such as HIV/AIDS, STI, malaria, family planning and immunization.

Government and health promoters can use the call center as a medium for diseases surveillance where every noticeable disease or break of any disease can be reported on regular basis. The government can instruct all citizen to call the call center once they observe any outbreak of disease such as cholera, measles, whooping cough, HIV/AIDS and unusual sick or plague at the community level.

For effective use of call center disease surveillance, the center must be adequately staffed and equipped with state-of-the-art equipment with competent professional to man the center. State Ministry of Health on regular basis will visit the call center to see whether any disease has been reported in the state for proper attention of the authority concern. However, implementation of these conclusion have some cost implications, therefore, there is a need for cost sharing model by state government with Society for Family Health the implementer of call center. State government through Ministry of Health and Primary Health Care Development Agency could decide to pick up the staffing component and other areas they have comparative advantage over Society for Family Health in the running of the call center.

For the call center to realize its full potentials, it will require collaborative efforts of health

implementers (SFH), state government, telecommunication companies, frontline workers and communities commitment in taking the call center to high level of performance.

Mystery client study and customer satisfaction survey will help the implementers with evidence-based data for planning, implementing, monitoring and decision making on regular basis for smooth running of the call center.

Author's Biography

Dr. James Allen Otunomeruke graduated in Demography and Social Statistics (Second Class Upper) at Obafemi Awolowo University (1992), M.Sc. in Marketing from University of Lagos, Lagos (1996), M.Sc. in Demography and Social Statistics (2013) as well as PhD in Demography at International University Bamenda, Cameroon (2016). He started his career at Federal office of Statistics, Lagos in 1980 and rose to position of Statistician II and left to join Research International, Nigeria in 1996 as Manager. During the period at the Research International, Allen gradually took on increasing levels of responsibility to become Group Head (Research) in charge of many clients products portfolio. He left Research International January 31, 2001 to become Research and Evaluation Officer at Johns Hopkins University/Center for Communication Programs with responsibility of producing high quality data to monitor, refine strategies and evaluate their communication programs in Nigeria. This role also encompassed regular tracking of programs, provide oversights to project staff, training of monitoring and evaluation staff and provide technical inputs to external evaluators. Apart from JHU/CCP, he has worked also with international NGOs such as CEDPA, Futures Groups, Institute of Human Virology, Nigeria, Catholic Relief Services, and at national, Society for Family Health. He was a Senior Research Manager at Society for Family Health until February 2016. He is a seasoned demographer, statistician and consultant. Allen over the years have directed and guided monitoring and evaluation activities of health

programs/projects and operations in reproductive health, public health, family planning, HIV/AIDS, Orphan and Vulnerable Children (OVC), maternal and child health; child survival, governance and democracy at community-driven intervention and health system strengthen. He builds the capacity of project and research staff both at health facilities and community-driven projects for proper implementation of project goals and strategic objectives of different interventions. Allen directs and provides an oversight for program teams ensuring delivery of quality results in accordance with the donor's plans, standards of performance and accountability framework, ethics and integrity through provision of high quality data derived from monitoring and research findings. Allen knows what results are important, and mobilizes project team, M&E team and research team to achieve them. Accepts responsibility for own actions and decisions and demonstrates commitment to accomplish work in efficient way. He loves a collaborative working atmosphere by encouraging high integrity, trust, commitment, drive for results, growth driven and team spirit.

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