International Journal of Intellectual Discourse (IJID)
ISSN: 2636-4832 Volume 3, Issue 1. June, 2020

Assessment of Maternal and Child care service delivery component of National Strategic Health Development Plan (NSHDP) in Gombe State, Nigeria.

Ezekiel Ali Balami[1], Shehu Mustapha Liberty[2], Aliyu Idris[3]

[1&2] *Department of Public Administration, University of Maiduguri, Borno State, Nigeria.*
[3]*Department of Social Works, Ramat Polytechnic, Maiduguri, Borno State, Nigeria.*

Email: balamieze@unimaid.edu.ng

Abstract
The greatest human capital development challenge in Nigeria is centred on health care disease burden, whereby women and children carry the largest share of this burden. Consequently, this paper examines the availability and accessibility to maternal and childcare services as strategies for health care service delivery of National Strategic Health Development Plan in Gombe State, Nigeria. The paper adopted survey and library documentation analysis methods. The primary data for the research was gathered through survey instruments: hence, questionnaire and key informant interview administered on both health care providers and health care beneficiaries. Data is analysed with the aid of descriptive and inferential statistical tools. The hypothesis is tested via analysis of variance at 0.05 level of significance. The paper reveled that maternal and childcare services are available; also, there are functional maternal care services. It was also revealed that maternal and childcare drugs for immunisation, prenatal, antenatal and post-natal care are available, though the rate of maternal and child mortality is still high due to issues of acceptability. The paper concluded that maternal and childcare services are available and accessible to a reasonable extent, except for the fact that, increase in mortality rate, remain an issue due to resistance. The paper recommends among others, the need for doorstep services to create awareness, and the training of traditional birth attendants to eliminate resistance as such will reduce mortality rate, and enhance effective health care delivery.

Keywords: Heath care, Maternal and Child-Care and Service Delivery

Introduction

Countries around the globe strive to attain development through various means, certainly health care remain the basis to which the productive capacity of a nation is measured. Due to the fact that, health care is identified as a key element by the United Nations (UN, WHO), as a determinant for development which is aimed at promoting the general physical and mental health and well-being of the people all over the world. Regrettably, however, in most third world countries and sub-Saharan countries in particular, serious challenges ware faced due to regular increase in heath diseases burden. For instance, a finding by the Risk Factors Collaborators (RFC) (2013) shows that the global health care burden and diseases have affected the production capacity of many economies in a form of attributable risk, disability, life lost and deaths. The statistics presented that all death risks combined globally account for 57·2% of death, and 41·6% of disability. Whereas, in the African continent alone for instance where life expectancy is low, has been reduced further to an average of 52 years as a result of epidemic and leading disease risk factors

such as HIV/AIDS, tuberculosis, malaria, diarrhea, pneumonia, and measles. However, women and children bear the largest share of these disease burdens.

Faced by the frightening health status indicators globally, the federal government of Nigeria has adopted several indigenous as well as exogenous health programmes, these efforts were made by the various successive governments. Notwithstanding the Nigerian health diseases burden, remained unabated, and alarming. This ware attributed to some factors as presented by Eneji, Juliana, and Onabe, (2013) poor living conditions, poor health behaviors, scarce health resources and infrastructure and low government expenditure on health. This ugly trend leads to high infant mortality rate and maternal mortality ratio of 339 and 1,716 deaths per 100,000 live births, this health status indicator is one of the highest in the world, and is worse than the average for sub-Saharan Africa put together (Federal Ministry of Health, 2010). As a result, Nigeria was ranked 187th among the 191 member states by the World Health Organization, based on overall health system performance (The Patient Factor 2017). Conversely, Nigeria, which is one of the largest African countries, still share from the peculiarities of the disease burden, and more worrisome is the overall low performance of its health care delivery system when compared with other poor African countries.

Gombe State, as one of the federating units of Nigeria is not exempted from the nightmare scenario that characterized the Nigerian health sector. According to Statistics presented by the National Demographic Health Survey (NDHS), majority of the citizens in Gombe State (72.2%) live below $1/day (NDHS 2018). Furthermore, its potentials of development is limited by an infant mortality rate of 20.7/1000 live births, maternal mortality rate of 1002/100,000 live births, an HIV prevalence of 3.9%, an under 5 mortality rate of 800/100000 live births. The principal causes of morbidity and mortality according to the report, are; malaria, pneumonia, vaccine preventable diseases, snakebites, and Acquired Immune Deficiency Syndrome (AIDS). Furthermore, Immunization coverage rate in the under five (5) group is 19.1% and the total fertility rate for the State is 7% which position the State in an uncomfortable situation. It is Against these challenging health background, that the National Strategic Health Development Plan (NSHDP) was formulated with the goal to reduce the morbidity and mortality rates due to communicable diseases to the barest minimum (Osotimehen 2010).

Furthermore, the NSHDP is to develop and implement the policies and programmes through eight priority areas, these include: Leadership and Governance for Health; Health Service Delivery; Human Resources for Health; Financing for Health; National Health Management Information System; Partnerships for Health; Community Participation; Ownership, and Research for Health. Therefore, this study assesses health services delivery component focusing specifically on availability and accessibility to maternal and child-care services in Gombe State, Nigeria.

1.1 Objectives of the Study

The main objective of the study is to examine the availability and accessibility to maternal and child-care services as strategies for health care service delivery in Gombe State.

1.2 Research Question

The following is the research question, formulated based on the objective of the study;

What is the extent of availability and accessibility of maternal and child-care services in improving health services delivery in Gombe State?

1.3 Research Hypotheses

The following is the hypothesis for the research;

H01. There is no significant difference among respondents rating on the availability and accessibility to maternal and child-care services in improving the health care status of beneficiaries in Gombe State.

2.1 Conceptual issues

This section provides clarification on the concept of health and health services delivery.

2.1.1 Concept of health

Health as it is known comes from the old English word hale, meaning "wholeness, meaning, a state of being whole, sound or well". Hale comes from the proto-indo-European root kailo, meaning "whole, uninjured, of good omen". However, this work will revolve around three conceptual definitions of health. Firstly, health being the "state of organism when it functions optimally without evidence of disease or abnormality. Secondly, a state of dynamic balance in which an individual or a group capacity to cope with all the circumstances of living is at an optimal level. Thirdly, a state characterized by anatomic physiological and psychological integrity, ability to perform personally valued family work and community roles; ability to deal with physical, biologic, psychological and social stress; a feeling of wellbeing and freedom from the risk of disease and untimely death (William & Wilkins, 2006; in Balami, 2014). This definition stresses that the overall productivity of human capacity that would bring about developmental circumstances in the society is dependent on the status of health and wellbeing of the entire people.

The concept that is adopted by this work is the one coined by the World Health Organisation (WHO) which view health as a state of physical, mental and social well-being and not merely the absence of disease or infirmity (WHO 1948). This definition positioned health care not to only be disease related, but also other psychological traumas' like poverty, frustration and other social factors (family problems). All these factors influence the overall performance of the people in the society. This is why Mbaya (2009) reiterate on the concept of health by WHO, that the economic prosperity of an individual or nation alike, is a function of public health and other factors.

2.1.2 Health service delivery

The success of every health policy of a country either private or public health could only be determined by the level of delivery of health care services to the citizens. This is because service delivery results is evaluated by the correlation of responsibility between policymakers, health services providers, and health target beneficiaries (Bold, Svensson, Gauthier, Maestad, Wane, 2011). Service provision or delivery is an immediate output of the inputs into the health system, such as health workforce, procurement and supplies and finances. This is however in relation to report by WHO (2008) which emphasized that increased inputs should lead to improved service delivery and enhanced access to services by all targets. Some concepts that have frequently been used to measure health services remain extremely relevant and are part of the key characteristics of health service delivery. For example, terms such as access, availability, utilization and coverage have often been used interchangeably to reveal whether people are receiving the services they need or not. This is supported by Bhattacharyya, Shing, McGahan, Dunne, Daar, and Singer (2010), that the poor experience considerable barriers to health care such as limited purchasing power and health insurance, low health literacy, and residence in slums or remote rural areas, which are frequently underserved. These barriers are considered in the way services are marketed, financed and delivered to this

class of people to ensure that quality care is made available and affordable to the poor and vulnerable.

This shows that, health care services is to be made in such a way as to cover the entirety of the population regardless of class or gender, even though it is emphasized that its provision is biased to the poor and rural dwellers. It is pertinent to note that, many low and middle-income countries have developed ambitious health policies and strategies to improve health service delivery (HSD) and attain the health-related Millennium Development Goals, but have difficulty in matching implementation with their aspirations (El-Saharty,2009). Therefore the WHO (2012) in its report affirms that in order to have a well-functioning health care system, it requires a robust financing mechanism; a well-trained and adequately-paid workforce; reliable information on which to base decisions and policies; and well maintained facilities and logistics to deliver quality medicines and technologies. The case looks complicated in most third world countries in the sense that health system functions are decentralized. That is why Bold, Svensson, Gauthier, Maestad and Wane (2011) insists that up to date, there is no strong, standardized set of indicators to measure the quality of services as received or experienced by the citizen in third world countries. In Nigeria for-instance, health care provision is the responsibility of the three tiers of government. However, Rais (1991), argued, that the key functions of a health system which is ensuring availability of health services that meet a minimum quality standard and securing access to them prove unrealistic. This cannot be unconnected with the fact that Primary care which is the first contact of health of an individual is the function of the local government and it is rightly as pointed out by Mbaya (2009), that local government in Nigeria are weak to carry the burden. It is practical that the process of building evidence for the strengthening of health service delivery must proceed alongside efforts to restructure service delivery in accordance with the values at every level. Moreover, Bold, et al (2011) postulates that when the service delivery failures are systemic in nature, relying exclusively on the public sector to address them may not be realistic in all senses. Thereby in such circumstance, empowering citizens and civil society actors become necessary to put pressure on governments to improve performance in the sector. To achieve this, citizens must have access to information on service delivery performance periodically, this is paramount in the sense that, indicators tend to be fragmented, and focus on outcomes.

2.1.3 Maternal and Child care services

The aim of maternal and child health care provision, which is mostly considered as family health or family reproductive health is to reduce to minimum acceptable standard the maternal and childhood mortality rates. It is unpleasing, to present the findings by the WHO that lack of provision of maternal and child health care, leads to the death of many women and children. It estimated that 1,600 women die every day from complications of pregnancy and childbirth while child mortality (death before the age of 5) accounts for approximately 40% or more of the total motility globally. It is pertinent to note that the developed world contributes less than 1% of the deaths where about 90% of these deaths occur in sub Saharan Africa and Asia (WHO 1996). This scenario had influenced the thought of the people to consider pregnancy, labour and early childhood bearing as being hazardous in most societies (Obionu 2007), whereas pregnancy under normal condition is not a disease but a physiological process, and considered a "blessing". Therefore, women dying to

pregnancy or childbirth should be unacceptable in an ideal situation.

In light of the vulnerability of women, especially those of reproductive age and children, the national strategic health development plan is designed to give special attention to these groups in order that they realize their full potentials because they are considered the most vulnerable members of the society (Olise, 2007). However, despite the consideration, maternal mortality i.e. death during pregnancy/puerperium has continued to be a public health problem in Nigeria. The risk of dying of pregnancy in the third world is about 200 times higher than in the developed world, and the major causes of maternal deaths are; haemorrge, sepses toxanias of pregnancy, raptured uterus, and abortion with its complications. Similarly, childcare is an important component of integrated maternal and child care services which ensures that a child, once born grows satisfactorily through infant pre-school, school and adolescent period but also face challenge of mortality. The major causes of infant mortality in developing countries are; protein calorie malnutrition (PCM), Diarrhoea, pneumonia, malaria, tuberculosis, measles, worm infestations, whopping cough, anaemia, of various causes including SC disease, accidents'(WHO 1996). Since these causes of both maternal and child death had been identified there is every need for preventive measures. These measures as identified by Ebun (1988) are prenatal screening care (ANC), community education, family planning, provision of improved facilities, incorporation and training of traditional birth attendants (TBA's) and postnatal care, immunization, family planning, Brest feeding, oral re-hydration therapy (ORT), rearing, nutritional status (food supply).

Awareness on the need for improved health status of women increased in the late 1970's when the United Nations (UN) proclaimed the period 1976 to 1985 as the international decade of women. The aim was to improve the quality of life of women. Various Women-in-Development Programmes were established. Women-in-Health was initiated by WHO in 1980 to promote the participation of women in primary health care in view of the vital role they play in family life. In 1987, the World Bank, WHO, UNFPA sponsored an international conference on safe mother-hood in Nairobi, Kenya. The conference drew attention to the magnitude of maternal mortality globally and mobilized resources at national and international levels to prevent maternal deaths. Two years later (also in Nairobi) the safe mother-hood met to deliberate on three (3) specific elements; the first is the improvement of standard of living of the people to ensure that every one including women and children are in good health. Secondly, there must be good health care delivery system including antenatal care at various levels. The third element is the functional referral system to ensure that cases, which difficult to handle effectively at lower levels, are transferred to higher levels of health care delivery for appropriate treatment (UN-WHO 1986). As a result, many countries have established their safe motherhood initiatives by setting aside May 8th of every year as international safe motherhood days with the following strategies set for achieving UN objectives; antenatal (prenatal) care, tetanus immunization of women of reproductive age, emergency care for pregnant women, safe blood transfusion services, safe delivery, education of the girl child, family planning, and adequate nutrition.

Subsequently, Children in the third world countries do not fare better than the women, though Children below the ages of five years make up 14% of the population in developing countries, children in this age bracket account

for less than 75-80% of all deaths annually. About half of these deaths occur in the first year and the younger the age, the higher the risk of dying. It is estimated that over 95% of the world infant deaths are in developing countries (UNICEF, 1995). The requirements for the promotion of child health is summarized as follows: peace, female education, birth spacing, tetanus-toxoid for fertile-age groups, trained attendants at delivery, breastfeeding, appropriate wearing, infant immunization, treatment of acute illness and safe water (FMH 1997). Special attention is given to antenatal care which aims to reduce maternal and prenatal mortality and morbidity. Additionally, an effective antenatal service should focus on ensuring and maintaining maternal and fetal health and well-being throughout pregnancy and child birth. To be effective, the antenatal care should be goal directed, client-oriented and evidence-based (focus antenatal), and should be provided by a skilled health provider Obionu, (2007).

Subsequently, Olise, (2007), affirm that antenatal care refers to the professional service given to pregnant women to promote and maintain the good health of the expectant woman and the unborn child till the safe delivery of the mature and healthy baby. Obionu, (2007) identified activities and contents of a focus antenatal care as health education, risk assessment to determine high risk pregnancy, provision of preventive services, monitoring the progress of pregnancy, birth preparedness and complication readiness, screening for early diagnoses. It is expected that qualified persons be present at delivery to assist, recognize and handle or refer complications during labour and postnatal care. Skilled attendants at birth by WHO set standards are midwives, nurses and doctors who have completed prescribed courses of study which traditional birth attendants (TBA's) have not, hence the need to orient them on modern concepts including the recognition of danger signs and prompt referral. After child birth there is need to ensure the safety of both the child and the mother which is considered as post-natal care. Six weeks after delivery, mothers are expected to get back to the clinic with their babies for routing assessment this could even be from the period within the end of the third stage of labour and the six weeks of postpartum, when most changes that occurred in pregnancy are reversed (puerperium). At such postnatal visits, the health workers interview mothers on their health and that of their babies (Olise 2007).

Care at this stage aimed at monitoring to ensure return to normal of some physiological changes that occurred during pregnancy and delivery, and any abnormalities detected should be treated. Some serious conditions e.g. puerperal fever and psychosis may occur around the time of delivery and must be referred for proper management. Thus, post-natal checkup is the routine assessment of mother and baby at six weeks after delivery and must never be compromised. This can only be achieved through mass campaign through media, hand bills and so on to encourage the mothers to consider as priority the need to have a constant review of all medical need as advised.

2.1.4 Empirical Studies

Health Service delivery involve among others, the availability and access to maternal care services, In the light of this, a review of related empirical studies on maternal and child care as tool for health service delivery is undertaken, so as to ascertain the extent of implementation in other areas with a view have a bases for in-depth analysis.

Alake (2014) examined the potential accessibility of women aged 15-49 years to public maternal health care services. however, the findings and results showed that

facilities are randomly distributed across the city not minding the targeted area for beneficiaries, especially the maternal mothers.in the same vain, Ayoade (2014), investigated the "spatial accessibility to public maternal health care facilities in Ibadan, Nigeria using the GIS. Consequently, this study found out that most women aged 15-49 years in Ibadan metropolis are at least within 20km of available facilities hence they have a reasonable amount of physical access to them. However, this does not imply that all of them can afford to travel to these facilities especially on a regular basis or pay for the services offered by these facilities. Similarly, women with physical access to facilities may choose not to use them for psychological, cultural, religious or political reasons.

Subsequently, Balami, Ifatimehin and Elijah (2015) assess maternal and child-care policy implementation in Maiduguri metropolitan council, Borno State Nigeria". The study concluded that maternal and child care policy is not implemented in the study area due to resistance and lack of awareness, also the issue of facilities and equipment contributed played a major role.

2.2 Theoretical frame work

Theoretical framework is a device or a scheme for adopting or applying assumptions, postulations and principles of a theory in the description and analysis of a research problem. As the fulcrum for analysis thereof, the Systems Theory is adopted as the theoretical underpinning to explain the subject matter in this research.

The system theory otherwise known as input-output theory is used by Easton (1957), denote an analytical scheme for unveiling complexity.

According to Dlakwa (2008), David Easton develops the perspective of a system regarded as a black-box, and it has gadgets in the box that can convert inputs from the environment into outputs, which will elicit response from the environment through a feedback loop, and finally come back into the system as a fresh input. Dlakwa asserts that from this vintage point, public policy is perceived as a response of a political, to forces brought to bear on it from the environment. The system theory as presented by Easton (1965) has four main components; presented by Dlakwa (2008)

a. **Input:** the input comprises of the forces generated from the environment, including demands and support. Input can also include resources such as work force, money, materials, information and technological innovations.
b. **Conversion Mechanism (Black Box):** the conversion point includes various institutions in the political system which respond to the demands and support from the environment, with a view to deciding on policies making process or where values is authoritatively allocated in the society. It also includes the institutional framework created for the execution of the public policy.
c. **Output:** the output is the component that represents the final product or tangible results of the conversion mechanism. It combines the decision made and services emanating from such decisions.
d. **Environment:** At this point, this component combines all the conditions or circumstances in which the political system operates. These include the political, economic, social cultural and physical environment. The environment provides the resources needed by the political system. A feedback mechanism within the environment links the systems output to its input. The response from the environment serves as a fresh input and the cycle continues.

However, in connection to the system theory, the Logic Model by Ellen Taylor-Powell, Larry Jones, Ellen Henert (2003), is

considered to be fitted into the systems theory as it describes the sequence of events thought to bring about benefits or change over time. It also portrays the chain of reasoning that links investments to results. A logic model is a variant of systems model that shows the connection of interdependent parts that together make up the whole. As with systems, it is known that a total programme is greater than the sum of the individual parts (Taylor-Powell, Jones and Henert 2003).

Due to its flexibility and complete coverage of activity right from problem identification to impact, the system theory is adopted for this study using logic model variant. Thus, the variant of logic model of evaluation in relation to Health Service Delivery of National Strategic Health Development Plan is adopted.

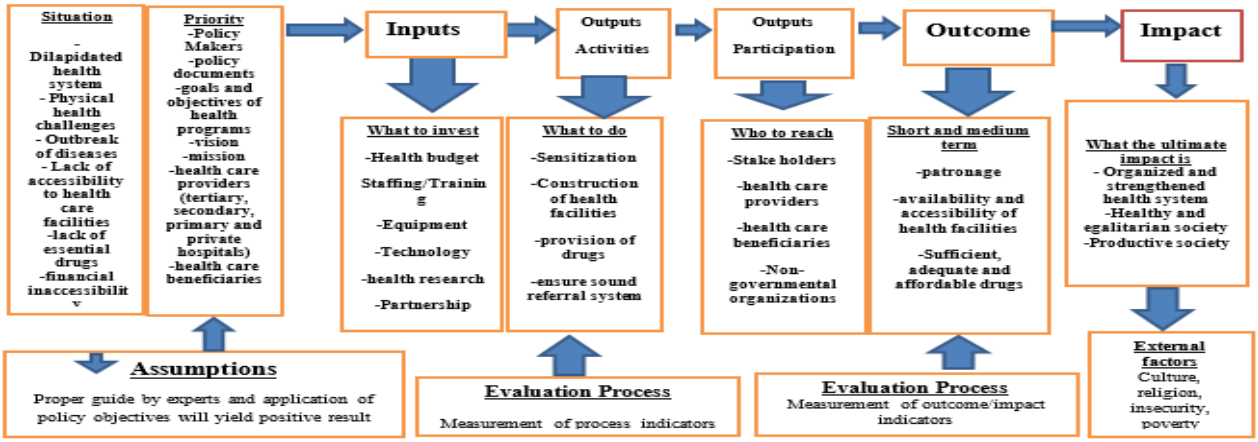

Fig. 1.2: Logic model variant Adopted from Taylor-Powell, E., Jones, L., & Henert, E. (2003).
Source: Field work (2017).

In this regard, Logic Model variant is designed based on the findings in the field to determine the implementation and evaluation of health service delivery of National Strategic Health Development Plan (NSHDP) in Gombe State. However, these steps are interpreted as follows;

i. Situation (Environment):- The situation refers to the health care needs and poor health condition faced by the people in the society. This represents the statement of the problem for the research. It shows the dilapidated state of the health care facilities, incessant outbreaks of curable diseases, physical health challenges, lack of accessibility to health care facilities, lack of essential drugs, financial inaccessibility, poor health care financing, poor policy implementation process. This situation leads to so many questions that lead to setting up a priority (Policy formulation). The priority is the set of goals and objectives to achieve the mission and vision of National Strategic Health Development Plan after careful analyses of the problem.

ii. Input:- The input is the investment of the policy makers on the NSHDP based on the needs of the society. This includes resources utilized on research to come up with adequate program that can cushion the situation based on priority, the improved health care budgeting, equipment/ facilities needed, technology, staffing, remuneration and partnership for health with non-governmental and donor agencies.

iii. Output/Activities:- The resources inputted to the program will be utilized through activities such as the construction/rehabilitation of health facilities, procurement of drugs, ensuring the flow of care across all the three tier of care, embarking on a sensitization campaign to

ensure health patronage especially by maternal mothers and organizing workshops for health partners on the vision and mission of the program.

iv. Output/participation:- At this stage, the activities should target the intended participant in the implementation of the NSHDP program. These are the stakeholders (leaders in the society), health care providers (tertiary, secondary, primary and private hospitals), health care beneficiaries (community participation) as well as non-governmental organizations (WHO, USAID, UNFPA, SDGs, UNICEF).

v. Outcome:- At this point, the policy document of NSHDP points the direction of the program, and it is believed that the program will succeed if followed rigorously. The ideas contained in the policy document are designed by experts based on the past experiences from other health policies and developmental plans. Hence, it will show if the programme will be achieved on either short, medium or long term basis.

vi. Impact:- After all the steps has been harmonized in line with goal statement, the society is expected to experience swift transformation of health conditions that will lead to having an organized and strengthened health system, healthy and egalitarian society and hence a rapid increase in production in the economy.

vii. External factors:- These are natural factors from the environment that influence policy implementation. These variables are; Culture, religion, poverty, natural disasters, illiteracy, politics, change in government, etc. These factors play a vital role in setting a priority

viii. Evaluation process:- the evaluation process is divided into two; The measurement of process indicators; after setting a priority, and the investment activities and outputs that will be reviewed periodically to ensure that the set goals and objectives are going in line with plan. These are in form of a yearly periodic review in case of National Strategic Health Development Plan. Measurement of outcome/impact indicators; this is the review of the entire implementation process and is directed at how the situation identified initially is treated. This will produce the result of the implementation on how it has impacted the target group. These can be either positive or negative; it is positive if the policy is well implemented and has affected the live of the people or vice versa.

ix. Assumption:- assumption stands for the expectation. This is very important to policy makers in that it gives a sense of assurance that if a policy is implemented it should achieve positive result. At this point it will be determined by the situation and priority set at the commencement of the programme.

3.1 Methodology

The data for the study is generated from both primary and secondary sources. The primary data is sourced from health care workers, health care beneficiaries, partners in healthcare provision, and community leaders. While the secondary data, is sourced from medical records, patient's hospital routing charts, health policy documents, documents on joint annual review and terms review of State Strategic Health Development Plan.

The population of the study consists of the total population of health care providers and beneficiaries. The health care providers consist of staff of health care facilities in the six selected local government areas in the state. There are 1,416 health staff of both governmental and non-governmental health agencies, and the total number of health care beneficiaries (those who access medical services in the society) numbering 1,018,872 beneficiaries in the six selected local government areas. Thereby, making the total of the study population 1,020,288 people

drawn out of the total population of 2, 587, 159 million of Gombe State (GSSHDP 2010).

The Sample Size for the study is 711. This is made up of 311 Health care providers, and 400 health care beneficiaries. Multi-stage sampling technique is adopted for the study, and is applied as follows; Gombe State is stratified into three (3) Senatorial districts namely; North, Central and Southern Senatorial districts respectively. Two (2) local government Areas were selected from each senatorial district

The method of data collection for this study is a survey method; therefore, data for the study were collected through the use of various instruments. Questionnaires were distributed to health service officials and health care beneficiaries, where. Key informant interviews were conducted with contribution/influence on implementation of health service delivery, 10 persons each from health care beneficiaries and providers are interviewed.

A total of, 711 structured questionnaires were distributed to the respondents and it is drown out of the population of the study using sample size calculator. Of these questionnaire, 400 were distributed to health care beneficiaries in the study area, while 311 were distributed to health care providers at all the levels of care across the six selected LGAs in the State. Observation method was also used with the help of maps to ascertain the distribution of health facilities in the study area. The secondary method of data collection concentrated on an inventory of health facilities, Hospital records, maps to locate the position of the facilities,

The data collected for the study was measured by both descriptive and inferential statistical tools. The descriptive statistical tools used consisted of frequency distribution tables and simple percentage. The inferential statistical tool used was, the Analysis of Variance (ANOVA) to test the hypothesis, on the relationship between variables at 0.05 level of significance. In this regard Statistical Package of Social Sciences (SPSS) 20.0 was used for analysis.

Table 1. Sample frame depicting the target population and Sample Size

Senatorial districts	**Selected LGA,s**	**Rate (%)**	**Population**		**Sample size**	
			HCP	HCB	HCP	HCB
Southern	Billiri	11	156	112076	34	44
Gombe	Kaltungo	15	212	152831	47	60
Gombe Central	Akko	11	156	112076	34	44
	Yamaltu Deba	12	170	122265	37	48
Northern	Gombe	31	439	315850	96	124
Gombe	Dukku	20	283	203774	62	80
Total	6 LGA's	100	1416	1,018,872	311	400

Source: Field Work, 2017

KEY: LGAs (Local Government Areas), HCP (Health Care Providers), HCB (Health Care Beneficiaries).

4.1RESULTS and DISCUSSIONS

4.1.1 Availability and accessibility to maternal and child care services

This section analyses the availability and access to maternal and child care services in the study area, it seek to know the extent to which health service delivery affects reproductive mothers and children in the study area. The analysis of both health care beneficiaries and health care providers are presented on the table 2 and 3.

Table 2. Availability and access to maternal and child care services

S/N	Statement	Response N = 383 (HCB)				
		SA	A	U	D	SD
1	There is a functional maternal care unit in the hospital in your area.	193 (50.4%)	154 (41.5%)	15 (3.9%)	9 (2.3%)	7 (1.8%)
2	You do go to hospital when pregnant.	156 (40.7%)	192 (50.1%)	17 (4.4%)	13 (3.4%)	5 (1.3%)
3	You have access to prenatal, antenatal and post-natal care services.	92 (24%)	253 (66.1%)	19 (5%)	6 (1.6%)	13 (3.4%)
4	You do know your hospital offer immunization services.	142 (37.1%)	213 (55.6%)	6 (1.6%)	11 (2.9%)	11 (2.9%)
5	Adequate drugs (vaccines) for immunization are given to your children.	135 (35.2%)	212 (55.4%)	10 (2.6%)	23 (6.0%)	3 (0.8%)
6	You do comply with immunizing your children.	118 (30.8%)	228 (59.5%)	23 (6%)	13 (3.4%)	1 (0.3%)

Source: Field Survey, 2017 KEY: (HCB) Health care Beneficiaries

Maternal care units in the hospitals provide for reproductive care and it was enquired from the respondents if the units are operating in the hospitals they visit, 91.9% of the healthcare beneficiaries agreed that there is a functional maternal care unit in the hospital they visit, whereas only 4.1% of the respondents disagreed this response falls on the categories of responses who attend only dispensaries. Therefore, it was further enquired from respondents if they visit such units when pregnant, 90.8% of the respondents agree that they do go to hospital when pregnant, while only 4.7% disagree, this are categories of respondents who patronize traditional birth attendants. Furthermore, 92.7% of the healthcare beneficiaries agreed that they have access to prenatal, antenatal and post-natal care services. With regards to awareness of immunization services which cover the aspect child care, 92.7% of the respondents agreed that they know that their hospital offers immunization services, while only 5.8% are not aware. The child care service require drugs adequacy (vaccines), and the responses shows that 90.6% of healthcare beneficiaries agreed that adequate drugs (vaccines) for immunization are given to them and their children. Interview results shows that there is high level of awareness on compliance to vaccines, and respondents result revealed that 90.3% of healthcare beneficiaries do comply with immunizing their children, which shows that the awareness campaign had made a significant impact to health service delivery.

Table 3: Availability and access to maternal and child care services

S/N	Statement	Response N = 283 (HCP)				
		SA	A	U	D	SD
1	There is a functional maternal care unit in your hospital.	134 (49.1%)	130 (45.9%)	8 (2.8%)	5 (1.8%)	**4 (1.4%)**
2	Your hospital offer prenatal, antenatal and post-natal care services to pregnant women.	130 (45.9%)	127 (44.9%)	16 (5.7%)	6 (2.1%)	**4 (1.4%)**
3	Pregnant women comply and attend prenatal, antenatal and post-natal care clinics in your hospital.	111 (39.2%)	142 (50.2%)	15 (5.3%)	11 (3.9%)	**4 (1.4%)**

4	You offer immunization services to children.	128 (45.2%)	142 (50.2%)	14 (1.4%)	4 (1.4%)	**5 (1.8%)**
5	You have adequate vaccines for immunization.	75 (26.5%)	179 (63.3%)	19 (6.7%)	5 (1.8%)	**5 (1.8%)**
6	Your cold chain system for vaccine storage is well functioning.	90 (31.8%)	129 (45.6%)	35 (12.4%)	21 (7.4%)	**8 (2.8%)**
7	The people in your area comply with immunizing their children.	80 (28.3%)	152 (53.7%)	10 (3.5%)	33 (11.7%)	8 (2.8%)

Source: Field Survey, 2017 **KEY: (HCP) Health care Providers**

Responses from health care providers are sought to find out if maternal and child care services are available and accessible in the health centers of the study area. The result reveals that 95% of the healthcare providers agreed that there is a functional maternal care unit in the hospital, and if the hospitals offer prenatal, antenatal and post-natal care services to pregnant women, 90.8% of the respondents agreed that their hospital offer prenatal, antenatal and post-natal care services to pregnant women. This has confirmed the claims of the health care beneficiaries that they access the services.Also 89.4% of healthcare providers agree that pregnant women comply and attend prenatal, antenatal and post-natal care clinics in their hospitals. Regarding child care, majority of the healthcare providers offer immunization services to children in all the hospitals within the study area with 95.4% in agreement. While on adequacy of vaccine for immunization, 89.8% of the respondents agreed that they have adequate vaccine for immunization, with good vaccine storage facilities.

However, the results on table 2 and 3 implied that, there is high level of compliance by health beneficiaries, this was made possible due to the high level of campaign by both government and civil society organisation on the need for maternal mothers to patronize maternal care for their safety and that of their babies, yet maternal and child mortality rate has not been reduced in the locality and has negative results on the effectiveness of maternal and child care services, this is proved by the midterm review of national strategic health development plan done in the year 2012, that maternal mortality rate was 689/100,000 in 2010 and dropped to 432/100,000 in 2011 even though the percentage rose exorbitantly again in 2012 to 1417/100,000 live births. This has tripled the national figure by national demographic health survey (NHDS) 2008 of 545/100,000. The NDHS 2013 puts the ratio of 800/100,000 live births. This is a significant improvement to the 2012 figure. As observed by the researcher in the field in 2017, there is high level of compliance to maternal care which is expected to project the mortality figure for 2018 very low compared to previous ones. There is also significant increase in the budget allocated to maternal care annually for recurrent expenditure in 2010 - 2013, which means that there in improvement in term of training and recruitment of staff for maternal and child care services. But the figure drops in 2013-2015.

4.2: Hypothesis testing

Ho1: There is no significant difference among respondents ratings on the availability and accessibility of maternal and childcare services.

Table 4: ANOVA Summary on Availability and Accessibility of Maternal and Child care services

Source of variation	Sums of Square	DF	Means of squares	F	P
B/W_{SS}	9.725	2	2.431	3.594	< 0.05
W_{SS}	255.685	12	.676		
T_{SS}	265.410	14			

Source: Field Survey, 2017

Decision: This table shows the output of the ANOVA analysis on whether there is a statistically significant difference between availability and accessibility of maternal and child care services. The result reveals that there is f-value of 3.594, which is less than the table value 3.88 at 0.05; $p<0.05$, so the null hypothesis is rejected, this implies that there is no significant difference in the mean values of the responses of agreed and disagreed.Hence from these results, it can be concluded that null hypothesis is hereby accepted which states that availability and accessibility of maternal and child care services has not significantly impacted on health status of beneficiaries.

4.3 Discussion of results

Maternal and child care is an important tool to family's development, it is often considered as the life-line of family reproductive health due to the fact that women and children are considered to be vulnerable in the family circle, as affirmed by Olise, (2007) that in light of the vulnerability of women, especially those of reproductive age and children, the national strategic health development plan was designed to give special attention to these group in order that they realize their full potentials because they are considered the most vulnerable members of the community. However, the specific objective four of the study examined the availability and accessibility to maternal and child care services. This variable is analysed based on the findings in the study of both HCB and HCP from the three zones of the study area. There is an enquiry to find out from HCB if there is a functional maternal care unit in the health care facilities in their area, majority of the respondents strongly agreed that there are functional maternal and child care unit in the hospitals they usually visit. This claim is confirmed by the HCP also where Majority attested that, there is a functional maternal care unit in their hospitals. This is in line with the report by WHO (1980) that the awareness on the need for improved health status of women increased in the late 1970's. Hence, there is the availability of maternal units in all care centers. This is also affirmed by the interviewees when ask to rate the availability of effective maternal services, majority say it is good and effective, and that a large number of women, due to the constant campaign by stakeholders and village heads now agree to visit hospitals when pregnant, and after child birth.

Subsequently, in confirmation of the above finding it was sought to know if pregnant women do go to hospital when they conceived, however, there is high response by both HCB and HCP in agreement that maternal services are being rendered and that the level of patronage is commendable, this has come to agreement that, Women-in-Health was initiated by WHO in (1980) to promote the participation of women in primary health care in view of the vital role they play in family life. Similarly, it is not only the availability alone but are the maternal mothers aware of the services, the responses of HCB shows that majority of the women of reproductive status know about prenatal, antenatal and post-natal care services in the State. It was also affirmed by the HCP that women do comply with maternal services. The level of compliance

was in agreement with the response of the HCB responses that the services are not only available, but are also accessible when asked if they have access to prenatal, antenatal and post-natal care services. This development showed that the figure given by WHO (1996) that the risk of dying from pregnancy in the third world is about 200 times higher than in the developed world, would have reduced drastically, due to awareness, availability and accessibility of maternal services.

Furthermore, the other aspect of family reproductive health is the child health care. However HCB were ask if the maternal mothers are aware that their hospital offer immunization services. Majority of the respondents strongly agreed that they know about immunization services in their hospitals. In connection to this responses, the HCP said that they offer immunization services in their hospitals. And that the services offered are sufficient enough due to adequate vaccine for immunization of children. This is in line with the views of the interviewees says that essential drugs for both maternal and child health care are available, this is as a result of the attention given to maternal mothers at all level of care in the state, and that society for family health are very effective when it comes to maternal care.

Empirical findings by Ayoade (2014), investigated the spatial accessibility to public maternal health care facilities in Ibadan, Nigeria, revealed that women with physical access to facilities may choose not to use them for psychological, cultural, religious or political reasons, this is in line with the findings in this study that village women sometimes prefer to patronise traditional birth attendants (TBs), than the open conventional hospitals. As a result the society for family health decided to train some TBs in the study area and employ their services with a view to have effective coverage of maternal care services as postulated by the interviewees. Similarly, this is contrary with the empirical study conducted by Balami, Ifatimehin and Elijah (2015) which assessed maternal and child-care policy implementation in Maiduguri metropolitan council, Borno State Nigeria. The findings revealed that 75.2% of the respondents indicated that maternal services are inaccessible, more so, 77.8% of the respondents are of the view that lack of enlightenment on maternal and child-care program is a challenge to its implementation. The findings of the empirical study is in disagreement with the findings of this study, where respondents are of the view that maternal care is accessible in the study area, also that the patronage of the services is related to the enlightenment campaign by stake holders on the need to patronize maternal care in the area as supported by the interviewees in the study area.

Therefore the hypothesis on the availability and accessibility of maternal and child care services reveals that, maternal and child care services are available and accessible in all the zones in the study area, even though previous results by Joint Annual/Midterm review 2012 and the National Demographic Health survey 2013 shows that there is an increase on the rate of maternal mortality. The next survey will be in the year 2018, but due to the improvement on services as showcased in the findings it is expected to show improvements.

4.4 Conclusions

Based on the findings, the study concludes that drugs are available only for maternal care but not affordable in Gombe state, even though maternal and child care services are available and accessible to a reasonable extent, the issue of infant and maternal mortality is still very high, therefore health care services delivery is not well implemented.

4.5 Recommendations

Though the findings of the study shows good response on the effectiveness of maternal care in terms of accessibility and access, timely maternal care services and door step services will help achieve full implementation of maternal care. Also the government should complement the efforts of the society for family health by engaging in the training of the traditional birth attendants (TBs) so as to eliminate any form of cultural resistance by the local maternal mothers from accessing care in modern facilities, also cold chain system should be provide in medical facilities to ensure drugs for immunisation are properly kept in good condition.

References

Ayoade M, A (2014). Spatial accessibility to public maternal health Care facilities in Ibadan,Nigeria. *the international journal of social sciences* www.tijoss.com.

Balami E. A (2014). An assessment of the implementation of primary health care policy; M.Sc Dissertation unpublished. Department of Public Administration, University of Maiduguri. Maiduguri, Borno State.

Bhattacharyya O. Khor S. McGahan A. Dunne D. Daar A. S and Singer P. A. (2010), Innovative health service delivery models in low and middle income countries – what can we learn from the private sector? Health Research Policy and Systems 2010, 8:24 http://www.health-policy-systems.com/content/8/1/24

Bold T. Svensson J. Gauthier B. Mæstad O. Wane W. (2011), "Service Delivery Indicators": Pilot in Education and Health Care in Africa (The World Bank).

Dlakwa, H.D, (2008). *Concept and models in Public Policy formulation and analysis*. Printed in Nigeria by Pyla-mak services Ltd.

Ebun, D (1988)*Guide to family Planning.* Spectrum books limited, Ibadan.

Eneji, M. A Juliana, D. V. Onabe, B. J. (2013) Health care expenditure, health status and national productivity in Nigeria (1999-2012) Journal of Economics and International Finance Vol. 5(7), pp. 258-272, October, 2013 DOI: 10.5897/JEIF2013.0523 ISSN 2006-9812,http://www.academicjournals.org/JEIF

El-Saharty S, Kebede S, Petros Olango Dubusho P, O Siadat B (2009) "*Improving Health Service Delivery"* Health, Nutrition and Population (HNP) Discussion Paper Paper prepared for the Health, Nutrition and Population Unit, Human Development Network, The World Bank, 2009.

Federal Ministry of Health (FMOH) (1997), "National health policy 1988".

Federal Ministry of Health (2010). "National Strategic Health Development Plan": Policy Document on National Health plan 2010-2015.

Mbaya, P.Y. (2009). *National health policy Administration in Nigeria*. Maiduguri Nigeria, Published by mike-B printing and publishing.

National Strategic Health Development Plan (2010) NSHDP Policy Document.

Obionu, C.N. (2007). *Primary Health Care for developing countries*.Published by Evan seenioEnugu, Nigeria. Printing and publishing.

Osotimehin, B. (2010). *National Strategic Health Development Plan.* Preface to Policy document on National Health plan 2010-2015.Minister of Health.

Rais, A. (1991). *Health Care Patterns and Planning in Developing Countries.* Greenwood Press,1991.

Risk Factors Collaborator (2013)Global, regional, and national comparative risk assessment of 79 behavioral, environmental and occupational, and metabolic risks or clusters of risks in 188 countries, 1990–2013: a systematic analysis for the Global Burden of Disease Study 2013.

The Patient Factor (2017) your voice in the health care equation; World health organisation ranking of the health sector; Canadian health care view news and commentary.

Taylor-Powell, E., Jones, L., & Henert, E. (2003) *Enhancing Program Performance with Logic Models*. Retrieved September 2015 from the University of Wisconsin-Extension web site: http://www.uwex.edu/ces/lmcourse/

UNICEF Experience (1995). The Bamako initiative, Rebuilding Health system.

World Health Organization (1948) Preamble to the Constitution of the World Health Organization as adopted by the International Health Conference, New York, 19–22 June 1946;