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Factors Affecting the Implementation of National Health Policy on Immunization Programme in Borno State, Nigeria

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Abstract
The World Health Organization (WHO) introduced Expanded Programme on Immunization (EPI) to ensure universal immunization of children against childhood vaccine-preventable diseases. This is because more than 10 million children in developing countries die every year because they do not have access to effective interventions such as immunization that could fight common and preventable childhood illnesses. In view of the above situation, Nigeria started its Expanded Programme on Immunization (EPI) in 1979 to prevent childhood illnesses through immunization. However, despite the concerted effort of government, routine immunization coverage in Nigeria according to USAID(2009), is one of the lowest national coverage rates in the world with only 38% coverage. Similarly, Borno State has a population of 349,699 children of vaccination age, between 9-23 months and only half of the population were reached and like other states in the northeast region, Borno state has a poor uptake of vaccinations. The implication of this low coverage placed Borno State as one of the states with highest maternal mortality rates in Nigeria. This implies that there are fundamental factors affecting the full implementation of the programme in the state. It is against this background that this paper discussed some of these factors. The paper discovered that religion and cultural practices, corruption and mismanagement of resources and low health education on immunization have impacted negatively on immunization coverage. Similarly, poverty, poor health facilities, and inadequate health personnel have significantly affected the level of immunization in the state. The paper recommended that there should be value reorientation of the religious leaders and their followers through public enlightenment in media houses, conduct of seminars, workshops and conferences in order to enhance health education on child immunization
Keywords: Factors, Implementation, Policy, Immunization, Primary Health Care (PHC)

1.1: Introduction

The World Health Organization (WHO) has recognized that the health status of hundreds of millions of people in the world is unacceptable. This is because more than half of the population of the world do not have the benefit of adequate health care (Mbaya,2009). In this respect the Federal Government of Nigeria formulated a National Health Policy and Strategy to achieve Health for all Nigerians (NHP). The policy was endorsed by the National Council on Health in January 1985 and formally released in October 1988. The policy adopted primary Health Care (PHC) as the key to attaining the goal of the policy. It committed the Federal, State and Local governments of Nigeria and indeed all the people of Nigeria to undertake intensive action and exercise political will to attain the goal of health for all by the year 2000 and beyond. That is, a level of health that will permit them to lead socially and economically productive lives at the highest possible level. The Policy was based on the national philosophy of social justice and equity and recognize health as a fundamental right of the citizens (Mbaya, 2009).

This is in line with various international human rights instruments that recognize health as a right. These instruments include: Universal Declaration of Human Rights (1948), African Charter on Human and People's Rights (1981), the International Covenant on Economic, Social and Cultural Rights (1966), the Convention on the Elimination of All Forms of Discrimination against Women (1979) and the Convention on the Rights of the Child (1989), among others (Mbaya & Liberty, 2014). On 12th September, 1978, the World Health Organisation (WHO) and the United Nations Children Emergency Fund (UNICEF) jointly sponsored a conference on Primary Health care (PHC) in Alma Ata, in the former Union of Soviet Socialist Republics (USSR) now Khazastan. The conference adopted the popular Alma-Ata declaration. The Alma Ata declaration strongly reaffirmed that health which is a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity is a fundamental human right. The declaration clearly stated that Primary Health Care (PHC) is the key to attaining Health for all by the year 2000 and beyond . Immunization programme which is the concern of this paper is one of the components of Primary Health Care.

The World Health Organization (WHO) introduced Expanded Program on Immunization (EPI) to ensure universal immunization of children against childhood vaccine-preventable diseases (EPI, 1998). WHO and United Nations Children Emergency Fund (UNICEF) jointly estimated two to three million deaths from some of these diseases which are prevented annually through immunization (WHO & UNICEF, 2013). It further indicated that the prevention of 17% of deaths among 0-59 months old children is possible if the world vaccination rate had reached the optimal level. Childhood immunization is the initiation of immunity through application of vaccine (WHO, 2008). It is considered important for improving child survival (Lee, 2005). This is

because more than 10 million children in developing countries die every year because they do not have access to effective interventions such as immunization that could fight common and preventable childhood illnesses (Mairiga, 2007).

Although, about three quarters of the world's child population is reached with the required vaccines, only half of the children in Sub-Saharan Africa get access to basic immunization. While, in poorer remote areas of developing countries, only one in twenty children have access to vaccination (UNICEF, 2009). It is one of the most economical public health interventions available that contributes extensively to achieving the Millennium Development Goal to reduce the mortality rate of children under five by two thirds between 1990 and 2015 (UNICEF, 2002). The programme was established in 1974 against six vaccine preventable diseases. These are diphtheria, polio, tuberculosis, measles, pertussis and tetanus. In 2003, the global coverage was 78 percent with about 27 million children not covered. In South Asia and sub-Sahara African countries accounted for 9.9 million and 9.6 million, respectively of the children that were not covered (WHO, 2002).

Nigeria started its Expanded Program on Immunization (EPI) in 1979 (NPI, 2001). Reports have shown that the coverage has been fluctuating especially after the global universal childhood immunization efforts ended in 1990. In view of its importance and to improve the coverage, the EPI programme was re-visited and re-named National Programme on Immunization (NPI) in 1995, which accounted for observed increase in coverage after the period (17% in 1999, 13% in 2003 and 23% in 2008) (NPI, 2005; 2008). However, routine immunization coverage in Nigeria according to (USAID, 2009), is one of the lowest national coverage rates in the world with 38% for January-December 2005 and 50% January- May 2006 . Similarly, less than half of the children have received each of the recommended vaccinations in Nigeria (WHO, 2008).

Borno State has a population of 349,699 children of vaccination age, between 9-23 months and only half of the population were reached (NPC, 2006). Like other states in the northeast region, Borno state has a poor uptake of vaccinations (Mairiga, 2007). Similarly, based on the WHO standard EPI survey questionnaires, the immunization coverage rate against measles for children aged 12-23 months in Borno state was roughly 20 percent (Solomon, 2015). Moreso, the National Immunization Cluster Survey recorded just 37.5 percent measles immunization coverage in Borno State (Gana,2014). The implication of the this low coverage in Borno State is manifested by the following studies. The study conducted by Society of Gynecology and Obstetrics of Nigeria in 2004 revealed that Borno State has a maternal mortality rate of 727/100,000. Similarly, Solomon (2011) findings revealed that Borno State has one of the highest maternal mortality rates in Nigeria of about 72.5% maternal mortality rate. More disturbing also was the study conducted by Society of Gynecology and Obstetrics of Nigeria in 2010 revealed that there is a high maternal mortality rate of 1,549 maternal deaths per 100,000 births in Borno State.

Pertinent questions now arise: why is this alarming rate despite the policy on Immunization programme in Borno State? Can Borno State still have future leaders if this mortality rate continues? Do we have inadequate trained health personnel to cater for the demands of the community?, Are we experiencing poor health infrastructures to cater for the demands of the community or should we conclude that there are several factors affecting the full implementation of the policy in the state? It is against this background that this paper discusses some of these factors affecting the implementation of immunization coverage in Borno State.

Before discussing these factors, it is pertinent to operationalized key terms such as Immunization, Implementation, conceptual framework of the paper, followed by conclusions and recommendations

1.2: Definition of key Terms

(i) Expanded Program on Immunization

Childhood immunization is the initiation of immunity through application of vaccine (WHO, 2008). WHO launched EPI in 1974 to increase the chances of survival for children under the age of five years in the world. The project in Nigeria initially covered childhood immunizations against six childhood vaccine-preventable diseases (diphtheria, measles, pertussis, poliomyelitis, tetanus and tuberculosis), and in 2004, Hepatitis B and yellow fever immunizations were included (Abdulraheem, Odajole, Jimoh, and Oladipo , 2011). EPI objectives are to achieve not less than 90% national immunization coverage and 80% coverage at district levels, global eradication of poliomyelitis, elimination of neonatal tetanus, and drastic reduction of measles incidence (WHO, 1996). To actualize these objectives, the WHO and UNICEF jointly established Global Immunization Strategy (GIVS). They provide encouragement, technical support, and funds to all member nations for the implementation of EPI.

(ii) Immunization Schedule

Immunization schedule is a plan of action indicating the age and the appropriate interval of administration for each dose of the required immunizations for children and women. The schedule ensures that a child or a woman of childbearing age receives all prescribed immunization at the appropriate age. Larson, Cooper, Eskola, Katz , and Ratzan (2011) stated that 29 different immunization schedules exist globally. EPI schedule of any country depends on her unique epidemiologic characteristics (such as the risk of infection, development of specific

defense against the disease by a child, when child's acquired passive antibodies will no longer interfere with seroconversion), the operational, and financial capability of the country (Larson et al., 2011).

(iii) Implementing EPI

Policy implementation is the process of translating policy mandates into action, prescriptions into results and goals into reality. It refers to the processes and activities involved in the application, effectuation and administering of a policy. It is the actions taken to carry out, accomplish and fulfill the intents, objectives and expected outcomes of public policies. It is the act and process of converting a policy into reality and of enforcing a policy (Mbaya, 2009). In this regard, routine immunization are measures of implementing EPI in countries including Nigeria. It is an organized system of immunization at agreed fixed location and period or through mobile facilities and mass immunization campaign made to increase immunization coverage in a given community, which in most of the times is administered through the house to house mechanism (Fitzpatrick and Bauch, 2011). Routine immunization is an indispensable means of achieving universal vaccination, while supplementary immunization activity can be used only to increase coverage among the underserved communities.

The EPI program as a health service is in the concurrent legislative list of the Nigerian constitution; hence it enjoys decentralization among the three tiers of government-federal, state, and local government. The federal government funds the procurement of vaccines, and formulates and circulates immunization guidelines with its international funding partners. Similarly, the 36 states and 774 local government councils fund the program's implementation and logistic requirements in their respective areas (Wonodi et al., 2012).

1.3: Conceptual Framework

There are several theories that attempt to explain the implementation of health policies. However, the paper discusses only three, namely: Health Belief Model, Theory of Planned Behaviour and Social Ecological Theory.

(i) The Health Belief Model (HBM)

The model was developed by Godfrey Hochbaum (1958) and Irwin Rosenstock (1974). It has four key concepts of perception which are: perceived susceptibility, perceived severity, perceived benefits and perceived barriers. Metiboba (2012) posits that the Health Belief Model articulates the role of culture in disease prevention and health promotion. The perception of the people about the disease is also dependent on the knowledge of the etiology and causes of diseases which are a function of their socialization. In another dimension, the overt perception of susceptibility, severity, barriers and benefits of illness and health behavior differs from one individual to another even in the most culturally homogenous society. This implies that since some religious leaders, community leaders and community members in Borno State are associated with high level of illiteracy, ignorance and superstition about the immunization, it will affect their perceived benefits and health seeking behaviour towards immunization.

(ii) Theory of Planned Behaviour

The theory was propounded by Ajzen (1991), which states that an individual's behavioural beliefs, normative beliefs and control beliefs respectively determine his/her attitude towards a given health seeking behavior. The theory provides a framework for understanding public attitude towards immunization. If the public are educated and enlightened through the media, conferences, seminars, workshops etc, it will change their behavioural beliefs and in turn influence their attitude towards immunization by imbibing a positive attitude towards it.

(iii) Social Ecological Theory

The theory was propounded by Golden and Earp (2012), which states that human behaviour is being influenced by several factors before decision is reached. These factors ranges from: intrapersonal, interpersonal, physical environment, socio-cultural environment and social policy. This implies that a particular health behavior relates to many influences. (Collins and Ibrahim, 2012). Social ecological model has witnessed the popularity in the recent times in public health practice and research because it offered an opportunity for holistic consideration of factors at multiple levels in planning, research and evaluation of health promotion intervention (Sallis, Owen and Fisher, 2008). The model could also be used to understand health behavior and define essential factors that should be focused on health behavior intervention and research, thereby allowing investigation of the health services as it relates to immunization status (CDC, 2009). Rannohan, Awofeso, and Fernandez (2012) examined the influence of paternal education on childhood measles immunization rate in the developing countries. Social ecological model formed the basis of the study. The researchers found out that factors that impacted on childhood immunization status were subdivided into five multiple levels of behavior, namely, intrapersonal, interpersonal, Community, institutional and social policy factors. The study showed that paternal education is a predictor of childhood measles immunization status.

The three theories discussed above are relevant to this paper, because it gives us an insight that health seeking behaviour of the people are affected by several factors such as the religious beliefs, level of health education, socio-cultural environment, etc. The question now is: what are these factors affecting the health seeking behaviour towards immunization in Borno State? The next section discusses it.

1.4: Factors Affecting Immunization Coverage in Borno State

There are several factors affecting immunization coverage in Borno State, however this paper discusses only few factors within the context of the conceptual framework discussed above. These factors are as follows:

(i) Corruption and Mismanagement of Resources

Akunyili (2006), struggled to lead Nigeria's battle against counterfeit drugs. For decades, Nigeria was plagued by counterfeit and poor quality medicines. In 2002, the World Health Organisation reported that 70 per cent of drugs in Nigeria were fake or substandard. The National Agency for Food and Drug Administration and Control (NAFDAC) estimated that 41 percent of drugs were counterfeit (Yakus, 2006). Fake and sub-standard drugs levied a heavy cost in both economic terms and in lives lost. In 1990, a total number of 109 children died after being administered fake paracetamol in Nigeria (Reef, 2008). It was stressed that unregulated medicines, which are of sub-therapeutic value can contribute to the development of drug resistant organisms and increase the threat of pandemic disease spread. In addition to fake and sub-therapeutic drugs on the market, corruption can lead to shortages of drugs available in government facilities, due to theft and diversion to private pharmacies. This in turn leads to reduced utilisation of public facilities. Corruption can lead to inferior public infrastructure as well as increased prices paid for inputs, resulting in less money available for service provision.

Corruption in the health sector also has a direct negative effect on access and quality of patient care. As resources are drained from health budgets through embezzlement and procurement fraud, less funding is available to pay salaries and fund operations and maintenance, leading to de-motivated staff, lower quality of care, and reduced service availability and use (Mbaya, 2009). The poor are disproportionately affected by corruption in the health sector, as they are less able to afford small bribes for health services that are supposed to be free, or to pay for private alternatives where corruption has depleted public health services. On the other hand, corruption in the health sector can literally be a matter of life and death, in particular for poor people in developing countries (Nigeria inclusive). The corruption in health sector has a significant effect on infant mortality in the country. The World Health Organisation Report (2008) indicated an infant mortality of 110 per 1000 live births in Nigeria. As a comparison, the infant mortality in Sweden is 2.7 per 1000 live births. Poverty has compounded these problems to give low life expectancy of 52 years for women and 49 years for men.

A study conducted in the Philippines found that corruption delays and reduces the vaccination of newborns, discourages the use of public health clinics, reduces satisfaction of households with public health services and increases waiting times at health clinics. A 10% increase in corruption reduces immunisation rates by 10 to 20 %. It confirms the findings of Kwayabura, Mbaya & Kyari`s (2016) that corruption and mismanagement has affected immunization coverage and implementation of health policies in Borno State.

A review of research in Eastern Europe and Central Asia found evidence that corruption in the form of informal payments for care reduces access to services, especially for the poor, and causes delays in care-seeking behaviour (Lewis, 2000). In Azerbaijan, studies have shown that about 35% of births in rural areas take place at home, in part because of high charges for care in facilities where care was supposed to be free (World Bank, 2005). In 2000, the World Health Organisation ranked the Nigeria health system in 187th place out of 191 countries evaluated. According to United Nations Development Programme, life expectancy in Nigeria has declined to 43years (2006) from 47 in 1990. In contrast, life expectancy in Malaysia, which attained nationhood at the same time as Nigeria, has now reached 70 years. Over 50,000 Nigerian women die from child birth every year (equivalent to a plane carrying 140 people crashing every day). Nigeria accounts for 10% of the world's maternal deaths in child birth whereas the country represents 2% of the world's population. One in five Nigerian children dies before his/her 5th birthday. About a million Nigerian die of preventable causes every year. Only 18% of Nigerian children are fully immunized by their first birthday. Malaria kills more Nigerians than any other disease, and yet less than 5% of its population has access to insecticide treated nets proven to be effective in preventing malaria (Ogundiya, 2012).

(ii) Religion and Socio-Cultural Beliefs

Nigeria is a very religious country with religion and spirituality permeating all aspects of life. However, conspiracy linking vaccination and fertility control or sterilization have been propounded and promoted by religious leaders, particularly in the North including Borno State (Garbu, 2016). It was advocated that for example polio vaccination and other vaccines are part of a western plot to sterilize young girls and eliminate the Muslim population (Jegede, 2007). Given their influence in Islamic communities, it is not difficult to imagine the significant numbers of parents who have refused to have their children vaccinated as a result of these teachings. Even so, many Muslims contend that the Quran is clear that immunization should be undertaken as something beneficial for preserving the life of a child (Babalola and Aina, 2004). Similarly, under the umbrella of the Supreme Council for Sharia in Nigeria (SCSN), strong assertions were made that the Polio Eradication Initiative (PEI) in Nigeria was part of a plot by western governments to reduce Muslim populations worldwide (Garbu, 2016). The 16- months controversy delayed the immunization of children resulting in the spread of new polio infections within Nigeria and allegedly to other parts of western and central Africa, jeopardizing previous accomplishments of the global campaign (Yahaya, 2007).

(iii) Socio-Cultural Factors and Immunization Coverage

Socio cultural factors refers to the norm, values, cultural and belief systems of the people of Borno State which varies among the three senatorial districts of the state (Kwayabura et al, 2016). We have norms about how we speak, what we wear, eat and how we address and how we respond to health issues. Nearly everything in human society is governed by norms of some kind that is why it feels so strange to go to a very different culture where their norms are so different to what we are used to, health seeking inclusive and this is normal to them. Immunization directly affects the issue of childrearing and child care and these are issues that have a cultural foundation. Certain cultural practices though acceptable for many years, have however, been found to be detrimental to immunization uptake, child survival and development (Gana,2014). One such cultural practices is that a woman should remain indoors for 40 days after giving birth. This prevents her from accessing both postnatal-care for herself and immunization services for her newborn (Raufu, 2004). In some communities in Borno, having babies at home is still the norm (Garbu, 2016). In such situations, the opportunities for immunization, especially the early ones such as BCG and OPV1, given right after birth and six weeks after respectively, may be missed (Ubajaka, 2012).

In some communities in Borno, a husband's permission is required in order for a woman to leave the house as well as to give any form of medical treatment or obtain any health services for the child (Monguno,2013). Cultural practices and beliefs may be responsible for some of the disparities in immunization uptake. For instance, males are more likely to receive full immunization compared to girls, emphasizing cultural attitudes to gender, where male children are often more highly regarded and desired than females. The gender disparities also affect education. Males in some areas are more likely to have opportunity of education than females. Studies have shown that the more educated a mother is, the higher the chances that her children would be immunized (Babalola and Adewuyi, 2006). Confusion remains significant in Northern States regarding the need for immunization. There is uncertainty as to the reasons why a perfectly healthy looking infant should receive an injection. This raises suspicion and closes minds to what immunization truly has to offer. The same sensitivity and consistency applied to addressing the effect of religion on vaccine-related matters should be applied to cultural issues (Garbu, 2016).

Mairiga (2007) posits that health seeking behaviour, particularly of women is often determined by norms of behaviour, beliefs and practices. Most women tend to conform to culturally defined norms when it comes to health-seeking during pregnancy and childbirth, despite the presence of formal health services, they are often bypassed for traditional providers. These cannot be separated from the fact that, the community where the mother resides influence her attitude and behaviour. Gana (2014), stated that cultural/traditional practices play a significant role in the causation of maternal death as it is difficult for most people raised in the developing countries to separate their belief system from scientific knowledge or evaluate learning outside cultural bias. He also assumes that cultural practices like early marriages among many communities in developing countries as a major area of concern.

Cooker and Tahir (2013) also mentioned that maternal deaths in western communities are regarded with a varying mixture of equanimity as Gods wish or punishment for past anti— social behaviors, cultural and traditional practices play a significant role in causation of maternal death, as it is difficult for most people raised in developing countries to separate their belief system from scientific knowledge or evaluate learning outside cultural bias. Other problems like early marriages, lack of adequate nutrition, and traditional treatment of drinking of concoction of leaves and cut of the clitoris were done to accelerate dilatation of the cervix and to overcome pelvic obstruction respectively. Home deliveries as part of some of the traditional practices which are common contributions to maternal Morbidity and mortality. The practice of hot water bath and drinking of potash pap after delivery are known to cause cardiac disease that eventually leads to death which is also common in Borno state (Gana,2014).

(iv) Poverty status of families and Immunization Coverage

Mbaya (2009) stated clearly that most communities especially in Borno State is facing with the problem of vicious cycle of poverty which prevents them from accessing quality health care. Poverty can be measured in terms of income and expenditure levels but can also be perceived in terms of individual's social interactions and state of mental well-being. In Nigeria, poverty is widespread and severe when compared to the most poverty indicators, the world population data sheet *(2005)* shows that 91% of Nigeria's population lives below 2 dollars per day, but in a further research USAID (2006) reported that close to 60 percent of Nigerians live in extreme poverty. As such, insufficient money to pay for medical expense as a barrier for treatment. Poverty limits accessibility to basic services like health; it influences negatively the ability to utilize modem health facilities, such limitation tend to prevent access to food and balanced diet, thereby causing hunger and malnutrition which are closely related because hunger is manifested by the prevalence of malnutrition. Malnutrition is an indication of a population's inability to provide the requisite balanced diet for a healthy living. It has been found that malnutrition causes increased vulnerability to serious and chronic illness, mental retardation and early death (USAID, 2002), malnutrition, apart from posing a threat to maternal survival it also put the life of the child at

risk.

(v) Health Education Coverage

Health education is vital resources to quality health care. For instance, if the value of eating good food and seeking medical care is not known, abuse is inevitable (Mbaya and Liberty, 2014). As such there is the need for health education among the people especially women of reproductive age. Knowledge is considered to be a powerful tool for emancipation. Health education refers to deliberate effort put in place to enlighten women and the society on personal hygiene, food to eat, seeking medical attention, the importance of immunization, how to go about the entire process stating from conception to up-bringing of children (Mbaya and Liberty, 2014). According to Mairiga (2006) such a process should not start when the women reach the reproductive age, rather it should be a part of a life-long education. Women should be properly educated on the health factors responsible for maternal mortality. There are multiple potential pathways that could explain why maternal education is consistently and strongly associated with all types of health behaviour.

Maternal education is an important determinant of health status, health facility utilization, and health behavior (Mairiga, 2007). Studies in Nigeria, Ethiopia, Kenya, and India had shown significant positive association between maternal education and full childhood immunization and use of maternal and child health facilities by mothers (Deressa, 2012). Maternal education has been found to be associated with full childhood immunization as mother's education level positively affect immunization status and utilization of public health services. Maternal knowledge of immunization importance, education and occupation are significant predictors of full childhood immunization (Abdulraheem et al., 2011).

Findings indicated that complete immunization is significantly associated with knowledge of immunization objectives, availability of vaccination card, parents' education, place of living, level of communication, place of birth, religion, and socioeconomic condition (Sanou et al., 2009).

(vi) Immunization vaccines and Drugs in PHC Facilities

The availability and accessibility of essential drugs is very vital for the success of maternal health care policy. Women will be discouraged of visiting hospitals for immunization if there are no drugs to access. Many of them will prefer going to pharmacy stores and patent medicine stores for medication (Solomon, 2015). This will expose them to expired drugs, quack health personnel and patronizing quack drug peddlers. This is one of the reasons we have high cases of kidney problem, liver challenges, cancer and other health complications (Mbaya,2009). Essential drugs incorporates the need to regularly update medicines selections to reflect new therapeutic options and changing therapeutic needs; the need to ensure drug quality; and the need for continued development of better medicines, medicines for emerging diseases, and medicines to meet changing resistance patterns.

(vii) Personnel in Hospitals and Clinics

The objectives of maternal health care policy could only be achieved if there are adequate and accessible health personnel in our various health centres in the state. Personnel are vital resource in reducing maternal mortality which without them, even the structure cannot exists. This is why the National Midwives Service Scheme and the Community Midwifery Program has been created to cater for health issue such as maternal health so that personnel will be available in all States and Local governments Areas in the Country. The National Public Health Care Development Agency (NPHCDA) in 2009 launched the Midwives Service Scheme funded through the Debt Relief Fund to ensure high quality care at primary health clinics particularly rural facilities in under-served local government areas. This is an intervention designed to address the shortage of skilled birth attendants at primary health care level. This scheme is intended as a partnership among the three tiers of government. The scheme deploys newly qualified. unemployed and retired midwives to rural communities. The salaries are paid by the federal government, supplemented by the state governments and accommodation provided by the local governments. According to reports, 4000 midwives have been deployed to 1,000 PHC centres; the retention of the midwives however has been problematic as a number of states and local governments have failed to uphold their commitments of complementary support including Borno State. This has affected immunization coverage in the state because no enough staff to follow house to house for any scheduled immunization.

(viii) Infrastructural facilities and Immunization Coverage

Many institutional inadequacies have been blamed by experts for many cases of maternal mortality around the world. For instance, Mairiga (2007) opines that the implementation of effective maternal mortality policy in Bangladesh is affected by institutional factors such as delayed blood transfusion or non-availability of blood, delayed or lack of operative interventions, late or nonattendance by senior doctors, operative interventions done by junior doctors; and non availability of Intensive Care Unit (ICU). He also observes that the decision to have hospital care whenever there is dystocia often comes late and poor transportation systems compounds the problem. Mortality becomes inevitable when we add the fact that services are not completely free even for such patients in public hospitals. These problems are common not only in Bangladesh, but in most underdeveloped countries like Nigeria. The implication of this finding is that there must be strategic points for blood donations and health care centers to handle the cases of delivery in anti natal and post natal care. Thaddeus and Maine

(1994) have argued that not getting adequate care on time is the overwhelming reason why women die in developing countries but delays in receiving adequate and appropriate care once the medical institution has been reached, account for many cases of maternal mortality. This is owing to the fact that most women die due lack of institutional factors that are supposed to be supplied by the government.

(ix) Utilization and Management of fund for Immunization

Nigerian Gender Report (2012), stated that Nigeria has promising policy framework for health, but neither the budget allocation nor health outcomes match these good intentions. Nigeria spends relatively little on health; it currently spends *6.5%* of her budget, well below the *15%* threshold that Nigeria pledged to spend when it signed the African Union Abuja 2001 Declaration. She has also yet to meet her obligation to spend the equivalent of US$31.63 per capita. Also more recently, on the 16th of October 2011 at the Conference of Speakers from the African Parliaments, Nigeria pledged to increase the budget allocation to *15%* by 2015. Funding levels reflect political will; low state of funding means that *75%* of total health care costs are borne by individual households.

1.5: Conclusions

From the above discussion, the paper concludes as follows:

i. That religion and culture has significantly affected the level of immunization coverage in Borno State. This is evident from the findings of Gana (2014); Solomon (2015); Garbu (2016) and Kwayabura, Mbaya & Kyari (2016) discussed above.
ii. That health education has a significant effect on immunization coverage. Health education on the importance of immunization and accessing health care at the right time has been very low in the state.
iii. That corruption and mismanagement of funds accrued for the immunization of children are grossly abused .
iv. That male doctor is a significant factor affecting the implementation of the policy in the state. This implies that most husbands are not allowing their wives to go for antenatal, child delivery and immunization in the hospitals because they will be attended to by a male doctor. This implies that we have few female doctors in our various health centres in the state.
v. Similarly, there is low coverage of immunization being affected by high level of ignorance, husbands not allowing their wives for immunization, misconception, puda and high level of patronizing quack drug peddlers and unregistered health centres.
vi. Moreso, poverty is still a fundamental factor affecting immunization despite the several programmes of women empowerment and poverty alleviation in the state.

1.6: Recommendations

From the conclusions, the following recommendations have been proffered.

i. The level of health education especially maternal education should be intensified through the promotion of formal and informal education among nursing mothers and pregnant women so that immunization coverage will increase. There must be a policy back by a law to allow committees to use different strategies of health education to increase the level of awareness among husbands and wives. Similarly, the media should be rigorous in the dissemination of information among women by providing knowledge on maternal health related problems. Providing advocacy and support to facilitate the placement of maternal health issues on the agenda of government
ii. There should be a proper monitoring and evaluation mechanism to ensure accountability and transparency in the procurement and administration of oral vaccines for children in the state.
iii. Public enlightenment such as newspaper, conduct of seminars, workshops and conferences should be promoted in order to enhance health education and enlightenment on child immunization
iv. That religion and culture should be vital tools for the promotion of immunization of children . This can be achieved through value reorientation of the religious leaders and their followers.
v. Poverty is still a fundamental factor affecting women to have quality health care despite the several programmes of women empowerment and poverty alleviation in the state. This implies that the policy is not effective. As a matter of urgency government should review and redesign the policy to make it effective within the context of the target beneficiaries. For short time solution there should be a policy on Free Treatment, Drugs & Delivery to Pregnant Women in the state
vi. Male doctor is a significant factor affecting the implementation of the policy in the state. This implies that most husbands are not allowing their wives to go for immunization, antenatal and child delivery in the hospitals because they will be attended to by a male doctor. This implies that we have few female doctors in our various health centres in the state. There must be a policy by Borno State Government for training free female doctors to solve the problem of shortage in the long-run.

1.7: References

Abdulraheem, I.S., Odajole, A.T., Jimoh, A.A.G. & Oladipo, A.R. (2011). Reasons for incomplete vaccination and factors for missed opportunities among rural Nigerian children. Journal of Public Health and Epidemiology,3(4), 194-203.Retrieved from http://www.accademicjournals.org/jphe

Akunyili, D. (2006). "The fight against counterfeit drugs in Nigeria. In 2006 Transparency International's Global Corruption Report". Available at http://www.globalcorruptionreport.org/ind ex.htm

Babalola S & O Aina 2004: Community and systemic factors affecting the uptake of immunization in Nigeria: a qualitative study in five states: national report. Abuja: PATHS.

Babalola S, Adewuyi A. (2006) Report on factors influencing immunization uptake in Nigeria: theory based research in six states. Abuja: Partnership for Transforming Health System in Nigeria (PATHS);

Center for Disease Control and Prevention (2006). Vaccine timeline. Retrieved from http://www.cdc.govvaccines/pubs/vacc-timeline.htm

Center for Disease Control and Prevention (2009). The social-ecological model: A framework for prevention. Retrieved from http://www.cdc.gov/violenceprevention/overview/social-ecologicalmodel.html

Centers for Disease Control and Prevention (2012a). Epidemiology and prevention of vaccine-preventable diseases (12th edition). Retrieved from http://www.cdc.gov/vaccines/pubs/pinkbook/hepb.html#vaccine

Centers for Disease Control and Prevention (2012b). Global routine vaccination coverage, 2011. Morbidity and Mortality Weekly Report (MMWR), 61 (43), 883-885. Retrieved from http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6143a5.htm

Cooke, J.G and Tahir, F. (2013) Maternal Health in Nigeria with Leadership, Progress is Possible. A Report of the Centre for Strategic and International Studies (CSIS) Global Health Policy Center. Washington. DC 20006. csis.org

Collins, B.N., & Ibrahim, J. (2012). Pediatric secondhand smoke exposure: moving toward systematic multi-level strategies to improve health. Glob Heart, 7(2): 161–165. doi:10.1016/j.gheart.2012.05.001

Deressa, W., (2012). Factors associated with complete immunization coverage in children aged 12 -23 months in Ambo Woreda, central Ethiopia. BMC Public Health, 12, 566. Retrieved from http://www.biomedcentralcom/1471-2458/12/566

Expanded Programme on Immunization (EPI) (1998). The Social Science and Immunization Research project. Weekly Epidemiological Record , pp. 73:285-288.

Fitzpatrick, T., & Bauch,C., T (2011). The potential impact of immunization campaign budget re-allocation on global eradication of pediatric infectious diseases. BMC Public Health, 11, 739. doi:10.1186/1471-2458-11-739

Gana, B.L (2014). An Assessment of the Socio-Cultural and Institutional Factors Affecting the Implementation of Maternal Health Care Policy in Maiduguri Metropolitan Council, Borno State, being a dissertation submitted to the School of Postgraduate Studies, University of Maiduguri, Borno State, Nigeria

Garbu, M.M (2016) " Assessment of the Factors Affecting Immunization Coverage in Maiduguri Metropolitan Council, Borno State, Nigeria" Master in Health Planning and Management (MHPM), dissertation submitted to the Department of Public Administration, University of Maiduguri, Borno State, Nigeria

Golden, S.D., & Earp, J. L. (2012). Social ecological approaches to individual and their context: twenty years of health education & behavior health promotion interventions. Health Education & Behavior, xx(x), 1-9. doi: 10.1177/1090198111418634

Jegede, A S (2007) "What Led to the Nigerian Boycott of the Polio Vaccination Campaign?" (2007) PLoS Med 4(3): e73.

Kwayabura, S.A, Mbaya, P.Y &Kyari, M (2016) " An Assessment of the Factors Affecting Policy Implementation of Maternal Health Care Services in Borno State, Nigeria" International Journal of Administration and Development Studies, 6 (1) March

Larson, H. J., Cooper, L. Z., Eskola, J., Katz, S. L., & Ratzan, S. (2011). New decade of vaccines 5: Addressing the vaccine confidence gap. The Lancet, 378(9790), 526-35. Retrieved from http://search.proquest.com/docview/882583086?accountid=14872

Lee, S. (2005). Demand for immunization, parental selection and child survival: Evidence from rural India. Review of Economics of the Household , 3:171-197.

Lewis, M. (2000). "Who is paying for health care in Eastern Europe and Central Asia? Human Development Sector Unit, Europe and Central Asia Region". World Bank, Washington, DC.

Mairiga (2006).Maternal mortality at the University of Maiduguri Teaching Hospital A seven 76 year review world journal surgery oncol.

Mairiga A.G (2007) Maternal mortality and utilization of maternal care services in Borno State, lecture presented to medical students University of Maiduguri Teaching Hospital.

Mbaya, PY (2009), National Health Policy Administration in Nigeria, Kaduna: ComputerRay Publications

Mbaya, P.Y & Liberty, S.M (2014) " An Assessment of the Level of Awareness on the adoption of Preventive Methods against HIV/AIDS among the Youth in Maiduguri Metropolis, Borno State, Nigeria" International

Journal of Administration and Development Studies,5(1) March
Metiboba, S. (2012). Primary health care services for effective healthcare development in Nigeria. A critical study of selected Rural communities. Journal of research in national development, 7(2).
Monguno, A S. (2013), "Socio cultural and Geographical Determinants of Routine Immunization in Borno State" 4e: 10 Journal of Public Health in Africa 49.
National Population Commisson (NPC). (2006). Nigeria Demographic and Health Survey. Maryland: National Population Commission and ORC Macro.
National Programme on Immunizaton (NPI). (2001). Plan of Action Year. Abuja.
National Programme on Immunization (NPI). (2008). National Immunization Coverage Survey. Abuja.
National Programme on Immunizaton (NPI). (2005). Plan of Action Year. Abuja.
Nigeria Gender report 2012 - Improving the lives of girls and women in Nigeria
Ogundiya, I. S. (2012). A 'Nation' in the wilderness: Corruption, Elite Conspiracy and the Illusion
Rannohan, A., Awofeso, N., & Fernandez, R.C. (2012). Paternal education status significantly influences infants' measles vaccination uptake, independent of maternal education status. BMC Public Health, 12, 336. Retrieved from http://www.biomedcentral.com/1471-2458/12/336
Raufu, A (2004), "Polio Vaccine Plans May Run Into Problems in Nigeria" 327 British Medical Journal 380.
Reef, M. S. (2008). Nigeria: Why New Malaria Strain resists Drugs?" Daily Trust.
Sallis, J.F., Owen, N., & Fisher, E.B. (2008). Ecological models of health behavior. In Glanz, K., Rimer, B.K.& Viswanath, K. (Editors) Health behavior and health education. Theory, research and practice.(4th Edition). Pp465-485. San Francisco, California: John Willey & Son Inc.
Sanou, A., Simboro, S., Kouyate, B., Dugas, M., Graham, J., & Bibeau, G. (2009). Assessment of factors associated with complete immunization coverage in children aged 12-23 months: a cross-sectional study in Nouna district, Burkina Faso. BMC International Health and Human Rights, 9(suppl 1), 510. doi: 10.1186/1472-698x- 9-S1-S10
Solomon, A. (2015). An Assessment of the Managerial Efficiency in the Implementation of Maternal Health Care Policy in Borno State, being a Seminar Paper presented to the Department of Public Administration, University of Maiduguri, Borno State
Thaddeus S. and Maine D. (1994). "Too Far to Walk: Maternal Mortality in Context. In Social Science Medicine." http://www.ncbi.nlm.nih.gov
Ubajaka, F. C. (2012), "The Prevalence of Missed Opportunities for Immunization among Children Utilizing Immunization Services In Nnamdi Azikiwe University Teaching Hospital" Journal of Biology 2 (6)
UNICEF. 2002. Progress for Children: Achieving the MDGs with Equity. New York: UNICEF.
United Nations Chldren's Fund (UNICEF) (2001). The State of the World's Children. New York:UNICEF.
United Nations International Children Emergency Fund [UNICEF] (2008). Somaliland immunization coverage survey. Retrieved from http://www.unicef.org/somalia/SOM_EPI-REPORT_WEB.pdf
United Nations Chldren's Fund (UNICEF) (2009). The State of the World's Children. New York:UNICEF.
United States Agency International Development/Nigeria USAID/ Nigeria (2002) Maternal Neonatal Health Interventions for Improving New Born Health and Survival, Abuja
United States Agency International Development/Nigeria USAID/ Nigeria (2006) Maternal Neonatal Health Interventions for Improving New Born Health and Survival, Abuja
United States Agency International Development/Nigeria USAID/ Nigeria (2009) Maternal Neonatal Health Interventions for Improving New Born Health and Survival, Abuja
Wonodi, C., Stokes-Prindle, C., Aina, M., Oni, G., Olukowi, T., Pate, M.A., Levine, O. (2012). Landscape analysis of routine immunization in Nigeria. Retrieved from www.jhsph.edu/ivac
World Bank (2005). "Azerbaijan Health Sector Note" Washington DC: World Bank, 2005
World Health Organization (2002). Health and the Millennium Development Goals, Geneva: WHO.
World Health Organization (2008), Factsheet: Millennium Development Goal 5. World Health Organization
World Health Organization & United Nations International Children Emergency Fund (2013). Global immunization data. Retrieved from http://www.who.int/hpvcentre/Global_Immunization_Data.pdf
World Health Organization. (1996). Immunization policy. Retrieved from http://www.helid.digicollection.org/en/d/jh0170e/1.html
Yahaya M (2007) Polio vaccines—Difficult to swallow. The story of a controversy in northern Nigeria. Institute of Development Studies Yellow Fever and Infectious Diseases (Immunization) Law Cap 144 Laws of Katsina State: Katsina State of Nigeria Order 1 of 2005.
Yankus, W. (2006). "Counterfeit Drugs: Coming to a Pharmacy Near You". American Council on Science and Health. Available at www.acsh. org/publications/pubid.1379/pub_det ail.asp
Years of Nigeria's Nationhood: Issues and Challenges For Sustainable Development, Ibadan: Crown F. Publishers