PROVISION OF MATERNAL AND CHILD HEALTH SERVICES TOWARDS MANAGEMENT OF CHILD MORBIDITY BY SUBSIDY REINVESTMENT AND EMPOWERMENT PROGRAMME (SURE-P) IN NIGER STATE, NIGERIA

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DECLARATION

I hereby declare that this work is the product of my own research efforts; undertaken under the supervision of Dr. Abubakar Ibrahim Hassan and that it has not been presented and will not be presented elsewhere for the award of a degree or certificate. All sources have been duly acknowledged.

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CERTIFICATION

This is to certify that the research work for this dissertation and the subsequent preparation of the dissertation by Mohammed Idris (SPS/12/MHE/00026) was carried out under my supervision.

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DEDICATION

To my caring father Alh. Abdulkadir Idris, my loving wife Fatima Idris and my wonderful children Adamu Idris, Fatima Ummi Idris and Abdulkadir Idris .

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ABSTRACT

This study investigated provision of maternal and child health services towards management of child morbidity by subsidy reinvestment and empowerment programme (SURE-P) in Niger State. SURE-P are specially design to invest the saving accrued from the fuel subsidy reduction on vulnerable population in Nigeria by initiating a robust social safety net programme to improve their lives, stimulate the economy and alleviateS poverty through critical infrastructures and human resource empowerment projects. To achieve the purpose of the study, four research questions were raised; one major hypothesis and four sub-hypotheses were formulated. Descriptive design of ex-post factor was used for the study. The population of the study comprised 1508 health workers who were working in hospital/health centers that are receiving SURE-P interventions in Niger State in which (391) respondents were selected as sample of the study using proportionate sampling techniques. A researcher's developed questionnaire named "Provision of Subsidy Re-investment and Empowerment Programmes Towards Management of Child Morbidity" (PSREPTMCM-Q) was used as instrument for data collection. The instrument was standardized with a reliability index of 0.79 using Split-half test method. Frequency count and percentage were used to organize the demographic variables of the respondents, while Chi-square was used to test the hypotheses at 0.05 level of significance. The data from 358 respondents who duly completed and returned the questionnaires were analyzed and reported. The findings of the study revealed that drugs were significantly provided to hospital/health centers ($\chi2 = 209.705$, df=1, P<0.05); Facilities and equipment were significantly provided ($\chi2 = 1.4765$, df=1, p< 0.05), transportation to hospital/health centers by SURE-P for referral cases was significantly provided, ($\chi2 = 12.168$, df=1, (p< 0.05). The finding also revealed that there is significant manpower development for personnel working in hospital/health centers by SURE-P in Niger State. ($\chi2 = 37.587$, df=1, P<0.05). The implication of this findings is that SURE-P intervention program immensely bring down the rate of children morbidity in Niger State. It was recommended that Niger State government should ensure the continuation and improvement of the SURE-P intervention to hospital/health centers to help in bringing down the rate children morbidity in the State.

CHAPTER ONE
INTRODUCTION

1.1   Background of the study

The Government of Nigeria introduced the Subsidy Reinvestment and Empowerment Programme (SURE-P) on Maternal and Child Health Initiative (SURE-P MCH) in 2012 to improve health care for pregnant women and their babies, (Federal Ministry of Health (FMH, 2014). It aspires to contribute to the reduction of newborn baby morbidity and mortality, and to place Nigeria on the track of achieving the fourth and fifth Millennium Development Goals. The project seeks to increase utilization of Child Health Services by Nigeria's rural populations through innovative demand and supply aide interventions along the continuum of Maternal and Child Care such as antenatal care, presence of a skilled birth attendant at delivery, 2 day post-natal care and use of family planning.

The roles of SURE-P/MCH includes; improving the supply of services; this includes training and retraining of health workers, placing midwives and community health extension workers (CHEW) in 1000 previously under-staffed health facilities; training tens of thousands of village health workers to act asliaison between pregnant women and primary health facilities; and upgrading facility infrastructure and providing drugs, hospital facilities/equipment and commodities, provision of vehicles to hospitals and primary health care centers and Improving the use of services; This includes cash transfers for pregnant women who register at a participating primary health care center, and taking their baby for the first series of vaccination (Federal Ministry of Health, 2014).

Under-five morbidity and low life expectancy are serious health problems in Africa, Nigeria and Niger state in particular (Black, 2003). Child birth in Nigeria should have

been a normal process with minimal loss of life as compared to developed countries. However, in parts of African countries, 25% or more of children under-five years of age die before their fifth birthday, which is higher than what exists in developed countries (Nelson, 2003). Most of the deaths which occur among Nigerians are due to conditions which are easily preventable or can be treated with simple remedies. Also the effects of parasitic diseases associated with inadequate environmental sanitation and poor personal hygiene are often compounded by malnutrition. The lack of timely and appropriate health services and care often increase the risk of serious complications in the course of minor ailments (Acker, 2008).

The rate of child morbidity can be substantially reduced by a more national application of available resources, clean environment and intervention (Lankinen, 2004). Research evidence has shown that there are many factors that facilitate an increase in the problem of child morbidity such as lack of good environmental sanitation, poverty, ignorance and cultural belief. Meanwhile, if these problems are solved, there will be a greater reduction of child morbidity and children will also have a better chance for proper growth and development in both body and mind. This will thereby make communities and the nation as whole productive (Lankinen,2004).

Ladipo (2009) established close link between the health of the new born with the health of their mothers. About 30-40% of neonatal and infant deaths result from poor maternal health and inadequate care during pregnancy, delivery and the critical immediate postpartum period. In Nigeria, 340,000 infants die every year during delivery, especially if the mother dies in childbirth. (World Health Organization (WHO), United Nation International Children Education Fund (UNICEF)& United NationFoodprogrammes and agriculture (UNFPA) (UNICEF, 2007). The under-five mortality ratio is 200 per 1000

live births (WHO, 2006). These deaths are connected with the poor maternal health services in the country and could be avoided through provision of quality and effective maternal and child health care services.

Ubeku (2005) commented on the need for training and development effort saying that an employee should be helped to grow into more responsibility by systematic training and development. It is only then that he will feel confident to carry out the responsibilities of the job and because he believes he can do it his enthusiasm on the job increases. It is a person in that position who can think of and originate ideas on the job. People who are trained tend to stickto what they were taught the first time they took over the job.

Accessibility of maternal and child health care services and its distribution has been shown to be an important determinant and success of health care services in developing countries. In most rural area in Africa one in every three women lives more than five kilometers away from the nearest health facility. The scarcity of vehicles, especially in remote areas, and the poor conditions make it extremely difficult for women to reach even a relatively near health facility, walking is the primarily mode of transportation, even for women in labor. However, in most of rural society women who gave birth at home will on availability of transport and decent distance deliver in the health facility (Mekonnen&Mekonnen, 2012).

Transport plays a critical role in the effective and efficient delivery of health care. It enables people to access services and health workers to reach communities, especially in sparsely populated rural areas (Babinard& Roberts, 2006). Minimum standards for response times are normally set as part of delivering a service of acceptable quality. For serious trauma, the 'golden hour', or the first hour after trauma, is accepted as the period of time beyond which further delays result in increased fatalities, delayed

transport can worsen outcomes in maternal health e.g. increased maternal mortality due to delays in transport include eclampsia and hemorrhage. The provision of transport therefore plays an important role in achieving the fifth millennium development goal 5-to reduce maternal and child morbidity andmortality by 75 per cent by 2016. (WHO, 2006)

Manpower training and development are crucial tools for job performance in any organization. According to Okotoni, (2012) there has been a general resistance to investment in training in the public service because of the belief that "employees hire under a merit system must be presumed to be qualified, that they were already trained for the jobs, and that if this was not so it was evidence that initial selection of personnel was at fault.

Acker (2012), stated that health workers encourage the patients to purchase medicine from outside because of unawareness of the medical officer about availability and quantum of medicine stock in the store and some are getting bribe from the private medicine suppliers. Lack of transparency in management creates the scope for the deskemployees of the hospitals to sale drugs of hospital stores to outside pharmacies. Many pharmaceutical/drug shops admit of buying medicine from the hospital staff at cheaper rate. Moreover, many private clinics admit of procuring expensive equipment and supplies from the public sector supply (Sheik & Juanita, 2009).

Niger Stateis one of the nineteen northern states in Nigeria with a rapidly growing population, as a state with a growing economy, one of the major health challenges facing the state today is the capacity to sustain child health. The most common recorded cause of child morbidity are similar to those states in other northern part of the of the country, and the common denominators are early childbearing, poor health and above all the lack of appropriate and quality services (Okereke, Kanu, Nwachukwu, Anyanwu,

Ehiri&Merick, 2005). Although life-saving practices for most children have been known for decades in Nigeria, currently one third of the mothers still have no access to health care services during pregnancy and almost half do not have access to health care service during childbirth (Okereke, et al., 2005). In the slight rapid population growth and increased risk of adverse environmental health exposures, maternal and child health prospects could be a serious national public health problem due to factors such as ignorance, apathy, poverty, lack of commitment, illiteracy and corruption (Opara&Ellah, 2007).

In several key areas of health care, children of several communities in Nigeria, Niger State inclusive are not receiving the health care services they need which many at times result to various illnesses and preventable deaths (Okereke, et al, 2005). It is against this background that this study will be undertaken to investigate provision of subsidy reinvestment and empowerment programmes (SURE-P) toward management of child morbidity in Niger State.

1.2   Statement of the problem

The problem associated with child morbidity is an age-long type which is yet to be solved. Some underlying factors such as disease, malnutrition, lack of portable water supply, inadequate antenatal care, low level of education, lack of proper environmental sanitation and has made it difficult for families to prevent the occurrence of child morbidity in Niger State despite the introduction of primary health care, baby friendly hospital initiative, child survival strategies supported by federal government, and subsidy reinvestment and empowerment programme SURE-P (Health) (FMH, 2014).

Every minute in a day, somewhere in the world, a child dies from diseases and complications of pregnancy and childbirth. In Nigeria, children below the age of five

years are lost yearly to preventable childhood diseases. This makes Nigeria to be ranked top in Africa and second country where most childhood death occur globally (UNICEF, 2013). Despite the effort of Nigeria government through Subsidy Re-investment and Empowerment Programmes (SURE-P) and non-governmental organizations and other programs, it seemshigh morbidity from preventable childhood diseases and infections continue to persist in urban and rural areas of Niger State. The pathetic part of it is that these childhooddiseases and infections can be reduced to the minimum level, if adequate care are provided and preventive measures are taken (Ladipo, 2009). Over the years, several initiatives programme have been introduced to reduce the rate of morbidity among children across all states in Nigeria including Niger State. Despite these efforts, poor health indices have continued to be one of the most serious development challenges facing the country (National Primary Health Care Development Agency (NPHCDA) 2006).

Niger State has had a very poor record regarding child health outcomes. Statistics depicting child health status in the state call for public health action. Every year nearly 11,000 children under five die mostly from preventable and treatable diseases like pneumonia, diarrhea, and complication during child birth. The mortality rate is about 35-60 per 1000 live birth (Niger State Hospital Management Board, 2014). It was observed by the researcher that despite huge resources distributed by the federal government of Nigeria through SURE-P for provision of drugs, transportation for referral services, facilities and equipment, training and retraining of health workers in hospitals and clinic in Niger State, the rate at which children are getting ill and dying before their fifth birthday is disturbing.

Moreover, analysis of trends in Niger State shows that the state government through Ministry of Health and in conjunction with SURE-P in providing adequate medical interventionto the health sector to reduce infants and under-five morbidity rates, the pace still remains too slow in Niger State to achieve the millennium development goals of reducing child morbidity by a third in 2015 (Tanko, 2010). It is based on this background this study investigated the Provision of Subsidy Reinvestment and Empowerment Programmestowards Management of child morbidity in Niger State. Hence, this study will answer the following research questions:

1. Is there adequate provisionof drugs to hospitals/health centers by SURE-Ptowards management of child morbidity in Niger State?

2. Is there adequateprovision of transport to hospitals/health centers by SURE-P for referral services towardsmanagement of child morbidity in Niger State?

3. Is there adequate facilities/equipment to hospitals/health centers by SURE-P towardsmanagement of child morbidity in Niger State?

4. Is there adequate manpower development by SURE-P towards management of child morbidity in Niger state?

1.3 Hypotheses

The following hypotheses were formulated to guide the study.

Major Hypothesis;

Maternal and Child Health Services by Subsidy Reinvestment and EmpowermentProgrammes(SURE-P) arenotsignificantlyprovided towards management of child morbidity in Niger State.

Sub-Hypotheses

Ho$_1$: Drugs are not significantly provided to hospital/health centres by SURE-P towards management of child morbidity in Niger state.

Ho$_2$: Transportation for referral services referral services are not significantly provided by SURE-P toward management of child morbidity in Niger state.

Ho$_3$: Facilities and equipment are not significantly provided by SURE-P toward management of child morbidity in Niger state.

Ho$_4$: There is no significant provision of manpower development by SURE-P toward management of child morbidity in Niger state.

1.4   Purpose of the Study

This study investigated the provision ofmaternal and child health services towards management of child morbidity by subsidy re-investment and empowerment programme (SURE-P) in Niger State with the view to suggest to the Under-five mothers need to fully utilize the services for the betterment of their health and thechildren.

1.5   Significance of the study

It is expected that the findings of this study will be beneficial to member of the community, health workers, government and non-governmental organization in the following ways:

1. It is expected that the findings of this study would enlightenmotherstoutilize SURE-P programme provided to the hospital/health centre in Niger state in order to improve health status of their children.

2. It is also expected that findings of this study wouldhelp policy makers to understand problems militatingcommunityagainst rate of child morbidity in Niger State.

3. The findings of this study will recommend to government to extent SURE-P programme to all hospitals/health centres in Niger state

4. It is the researcher's hope that the findings of this study will help intending researchers wishing to carry out study in this area through adding more literature to existing knowledge on SURE-P.

1.6   Delimitations of the Study

This study investigated provision ofmaternal and child health services towards management of child morbidity by subsidy reinvestment and empowerment programmes in Niger State. The area of study was delimited tomaternal and child health care component of SURE-P. Also delimited to two (2) Local Government Areas (LGAs) selected from each of the three (3) senatorial districts making a total of six (6) LGAs. Furthermore the study was delimited to three (3) health centers one from urban and two from rural settlementsfrom each of the six (6) LGAs making a total of eighteen (18) health centers selected for the study.It is also delimited to; Provision of drugs, facilities/equipment, transport for referral services and manpower development. Also delimited tohealth workers (doctors, nurses, pharmacist, laboratory technologist, medical record officers and community health extension workers) working in hospitals/health centers receiving SURE-P/MCH interventions.

1.7   Operational Definitions of Terms

The following terms were operationally defined asused in this study:

Child morbidity: Refers to any condition (disease) that impairs the normal function ofchildren under the age of five years.

SURE-P; A federal government programmeaimed at the reduction of child morbidity in Niger State which provides support in the area of drugs supply, transportation, facilities/equipment andmanpower development for stemming child morbidity.

Maternal and Child Health Component;AComponent of SURE-P initiated to improve health care for pregnant women and their babies in Nigeria.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.0   Introduction

This study investigated Provision of Maternal and Child Health ServicesTowards Management of Child Morbidity by Subsidy Reinvestment and Empowerment Programme (SURE-P) among children 0-5 years in Niger state. Hence, literaturewerereviewed under the following sub-headings.

- Child morbidity

- Causes of child morbidity

- Strategies for reduction of child morbidity

- National and International Programmes on Child Morbidity

- Subsidy Reinvestment and Empowerment Programmes in Nigeria

- Empirical Studies on National and International Programmes on child morbidity

- Summary

2.1 Child Morbidity

The term morbidity broadly refers to any condition (disease) that impairs the normal function of the body Lucas (2004) opined that disease are associated with dysfunctioning of the body's normal homeostatic process commonly, the term disease is used to refer specifically to infectious disease that result from the presence of pathogenic microbial agents, including viruses, bacteria, fungi, protozoa, multicellular organism and aberrant proteins known as prions. An infection that does not and will not produce clinically evident impairment of normal functioning such as the presence of the normal bacteria and yeasts in the gut, or of a passenger virus, is not considered a disease. By contrast an infection that is asymptomatic during its incubation period, but expected to produce symptoms later, is usually considered a disease (Clerk, 2000).

Childhood morbidity which are most often diseases of the poor and thus are a marker of equity remain highly prevalent, particularly in Sub-Saharan Africa and southern Asia

(Leowski, 2009) pneumonia, diarrhea, malaria, measles and Asphyxia remain leading cause of death among children under age five, killing roughly 2 million in 2013 and accounting for about 1.3 million or about 40 percent of under-five death in sub-Saharan African and roughly a million or about 25 percent in Southern Asia (Lankinen, 2004). There are various diseases that affect children below the age of five as follows.

i. **Malaria**: According to Kumar (2009), malaria currently affects 250 million people and has a mortality rate of 1% endemic and epidemic malaria as found in all countries. Malaria is primarily a disease of hot humid countries at latitudes less than 220m above mean sea level, where conditions are ideal for prolific breading mosquito vector. Malaria kills a child somewhere in the world every minute. It infects approximately 219 million people each year (a range of 134-289 million) with an estimated 660.000 deaths mostly children in Africa Ninety percent of malaria deaths occur in Africa where malaria accounts for about one in six of all childhood death. The disease also contributes greatly to anemia among children major causes of poor growth and development.

Malaria infection during pregnancy is associated with severe anemia and other illness in the mother and contributes to low birth weight among new born infants, one of the leading risk factors for child mortality. In 2013, malaria led to 584,000 deaths of which 78 percents were children under five years of age. This translates into a daily toll of more than 1,200 children under age 5 a total of over 450,000 children a year. Most of these death occurred in sub-Sahara African. (Roll Back Malaria, 2001).

ii. **Diarrhea**: According to Clark (2000), diarrhea is a disease where a person passes three or more watery stool in a day. This is usually accompanied by frequent

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stooling, but in other term diarrhea is equally defined as passing of frequent watery stool more than normal. Danger signs of diarrhea, sudden weight loss, sinker eyes, sinker fontanels in infant, dry mouth and thirst skin pinch goes back slowly, little or no urine, and fast weak pulse; severe cases have a high mortality in the under five children. Diarrhea which brings about dehydration is one of the commonest causes of severe mortality of children in developing countries

According to UNICEF over two million children die of diarrhea related dehydration each year. Eighty percent of these children were two years of age younger in sub-sahara Africa, are estimated 300 people per day (UNICEF, 2009).

iii. **Pneumonia**: Pneumonia may be defined as an inflammation of the substance of the lungs. Lankinen, (2004) states that acute respiratory infection present an immense disease burden to the community and to health services. At least one third of symptomatic illness in children under five are due to such infections. The impact of pneumonia on mortality equals or surpasses that of diarrhea disease in children under five years of age. Both (Pneumonia and Diarrhea) causes approximately one third of all deaths in children less than 5 years old. Leowski (2009) stated that an estimated number of 4 million deaths in children occur annually from Acute Respiratory Infection (ARI). An under five pneumonia causes approximately one quarter of deaths, of which more than 90 percent occur in developing countries. Pneumonia occurred in approximately 156 million children (151 million in developing world and 5 million in developed world). In 2010, it resulted in 1.3 million deaths, or 18% of all deaths in those fewer than five years, of which 95% occurred in the developing world. Countries with the greatest burden of disease include India (43 million), China (21 million) and

Pakistan (10 million) it is the leading causes of death among children in low income countries. Many of these deaths occur in the new born period. The world health organization estimates that one in three new born infants deaths is due to pneumonia. (Leowiski, 2009)

Symptoms of Pneumonia

According to Leowiski (2009) the following are symptoms of pneumonia:

- Cough

- Fever

- Fast breathing and feeling short of breath

- Shaking and 'teeth chattering'' chills

- Chest pain

- Fast heart beat

- Feeling very tired or very weak

- Nausea and vomiting

- Diarrhea.

iv. **Measles:** According to Kumar, (2009) and Lankinen, (2004) measles is defined as highly viral communicable diseases that are characterized by fever, red eyes or conjunctivitis and rashes. Measles is one of the most common childhood infections in the developing countries, where it is associated with high mobility and mortality. It is spread by droplet, infection and period of infectivity is from four days before until two days after the onset of the rashes. It kills more children than any other of the NPI target disease. Measles is one of the leading causes of death among young children even though a safe and cost effective vaccine is

available. In 2013, there were 145, 700 measles deaths global about 400 deaths every day or 16 deaths every hour. Measles vaccination resulted in a 73% drop in measles deaths between 2000 and 2013 world wired. In 2013 about 84% of the world children received one does of measles vaccine by their first birthday through routine health services up from 73% in 2000 and during 2000-2013, measles vaccination prevented an estimated 15.6million deaths making measles vaccine one of the best boys in public health (Lankinen, 2004).

v. **Small Pox**: Is highly contagious viral disease that is often fatal. The disease is chiefly characterized by skin rash that develop on the face, chest, back and limbs. Lucas,(2004) Over the course of weeks the disease develop into pustular (filled with pus) pimples resembling boils. In extreme cases the pustule pimple runs together, usually an indication of fatal infection. Death may result from the secondary bacterial infect on the principles from the cell damage caused by the viral infections or form heart attack or shock. In the later stages of non fatal cases small pox pustule became crushed often leaving the survivor with permanent sear. Small pox is caused by a virus. An infected person spread the virus particles into the air in form of tiny droplets emitted from the month by speaking, coughing or simply breathing. The virus can then infect anyone who inhales the droplets, by this means, small pox can spread extremely from person to person Fitzgerald,(2011).

vi. **Tuberculosis:** Is a contagious bacterial infection that involved the lungs, but may spread to other organs. Tuberculosis (TB) is contagious disease causes by complex of bacterial known as Mycobacterium tuberculosis (Fitzgerald,2011).You can contact (TB) by breathing in air droplets from a cough

or sneeze of an infected person. This is called primary TB. Most people who develop symptoms of TB infection first became infected in the past. However, in some cases, the disease may become active within weeks after the primary infection. People with weakened systems, for example due to AIDS, chemotherapy, diabetes, or certain medications child TB occurs mainly among children with close exposure to adult tuberculosis, children living in families with adult TB cases. Fitzgerald (2011) stated that infected individuals release contagious droplets when they cough, talk or sneeze. The droplets can be inhaled by susceptible children. As long as viable tubercle bacilli are being discharged in the septum the disease is communicable.

vii. **Tetanus:** Is also known as lockjaw, is an infection characterized by musses spasms. In the most common type of the spasms begin in the jaw and then progresses to the rest of the body. These spasms usually last a few minutes each time and occur frequently for three to four weeks. Spasms may be so severe that bone fractures may occur. In many countries, deliveries take place in unhygienic circumstances, putting mothers and their new born babies at risk for a variety of life threatening infections tetanus have been among the most common lethal consequences of unclean deliveries and umbilical cord care practices, when tetanus develops, mortality rates are extremely high, especially when appropriate medical care is not available (Dere, 2008)

Tetanus is easily preventable through:

- Immunization of woman with TT vaccine for protection against tetanus a child born to woman protected against tetanus is also protected from the disease in the first few month of its life.

- Hygienic birth practices to ensure infection is not contracted by mother or new born during the birth process.

- Proper cord care to ensure that contamination of cord does not put the new born at risk.

viii. **Asphyxia**: Is a condition of severely deficiency support of oxygen to the body that arises from abnormal breathing. An example of asphyxia is choking. Asphyxia causes generalized hypoxia, which affects primarily the tissues and organs. There are many circumstances that can induce asphyxia all of which are characterized by an inability of an individual to acquire sufficient oxygen through breathing for an extended period of time. Asphyxia can cause coma or death (Perry, 2009).

Asphyxia a condition resulting from deprivation of oxygen (hypoxia) to a new born infant long enough to cause apparent harm. It results most commonly from drop in maternal blood pressure or interference during delivery with blood flow to the infants brain. This can occur as a result of inadequate circulation or perfusion, impaired respirator effort or inadequate ventilation (Perry, 2009).

ix. **CongenitalDisorder:** is a condition existing at birth and often before birth regardless of causation of these disease those characterized by structural deformities are termed 'congenital anomalies" and involves defects in or damage to developing fetus. A congenital disorder may be the result of genetic abnormalities, the intrauterine (uterus) environment errors of morphogenesis, infection, epigenetic modifications on a parental germ line, or a chromosomal abnormality (Frangipane, 2011).

Congenital heart defects are heart problems that develop before birth. They can occur in the hearts chambers, valves or blood vessels. A baby may be born with only one defect or with several defects. Some congenital heart defects are life threatening, either immediately to the new born or over time (Frangipane, 2011).

2.2   Causes of Child Morbidity

Children health problems are multifarious. The factors which influence health is both within the individual and externally in the environment and society in which he/she lives (Park, 2007). The causes of child mortality include diseases, poor hygiene, poverty, socio-economic status, malnutrition, low education status, cultural belief, occupational status and accident/injury. Many of the causes of child death come from preventable disease or condition including malnutrition, lack of safe drinking water, disease and infection. Many developing countries suffer from lack of health services, supporting adequate living conditions, nutrition and health care that contributes to increase child mortality rate (UNICEF, 2006).

i. Lack of Antenatal Care

Antenatal care refers to the care given to pregnant women with the aim of ensuring materials and fetal well being (Bridget, 2002). The main aim of antenatal care is to prevent complication during pregnancy and to ensure safety of the mother and the unborn child. It is very important that every pregnant woman attends antenatal care. Antenatal care commences as soon as a woman misses her period, she must come to antenatal clinic to confirm the pregnancy. If pregnancy is confirmed at about the third month of pregnancy, she will be asked to come for the first antenatal care from then onwards she will be given regular appointment to attend the clinic until she delivers.

Lack of antenatal care is associated with a significant number of poor pregnancy outcomes such as higher incidence of preterm birth and post-partum haemorrhage, sepsis, hypertensive disorders their babies were more likely to be of low birth weight, had a higher incidence of perinatal death (Bridget, 2002).

ii. Lack of Skilled Medical Personnel

Ujah, (2008) stated that most child deaths are avoidable, as the health care solutions to prevent or manage complications are well known. All women need is access to antenatal care in pregnancy, skilled care during child birth and care and support in the weeks after childbirth. It is important that all births to be attended by skilled health professionals as time management and treatment can make the difference between life and death, unfortunately, poor families are more prone to this armful action due to lack of health care and health issuance, depending on where these women are located, it may be too far for them to actually get to a hospital and seek the proper care that they really need.

iii. Lack of Adequate Breastfeeding

Breastfeedingisthenormal way of providing young infants with the nutrient they need for healthy growth and development. Virtually all mothers can breastfeed provided they have accurate information and the support of their family, the health care system and society at large. Colostrums the yellowish, sticky breast milk produced at the end of pregnancy is recommended by WHO as the perfect food for the new born and feeding should be initiated within the first hour after birth (WHO, 2013).

For infant, not being adequate breastfed is association with an increase incidence of infections morbidity, including Otitis media, gastroenteritis and pneumonia, as well as elevated risks of child hoods obesity, type 1 and type 2 diabetes, Leukemia and sudden infant death syndrome (SIDS) (American college of obstetricians and Gynecology, 2005).

iv. Delays in Treatment of Complication of Disease during Pregnancy

Delay in treating complications in pregnancy may cause both maternal death and fetal deaths. In 2013, delay in treatment of complication of pregnancy resulted in 293, 000 deaths down from 377,000 deaths in 1990. The most common causes include maternal bleeding, complication of abortion, high blood pressure of pregnancy, maternal sepsis obstructed labor. Anaemia, deep vein thrombosis, ectopic pregnancy, placental abruption, multiple pregnancies (Lankinen, 2004)

v. Lack of Good Personal and Environmental Sanitation

Worldwide 2.4 billion people do not have access to basic sanitation; they lack safe means of disposal of excreta and waste water. Despite continued efforts to promote sanitation 40% of the world's population is still without basic sanitation. Sanitation coverage is often much lower in rural areas than in urban areas. Sanitation, facilities interrupt the transmission of faecal oral disease at its most important sources by preventing human faecal contamination of water and soil. Poor waste disposal practices are responsible for a significant proportion of the world's infections disease burden. Disease due to lack of personal and environmental hygiene causes 4.0% of all deaths and 5.7% of all disability or ill health in the world (WHO, 2000).

Most disease that causes diarrheal are from water borne. Eight-eight percent of diarrhea cases worldwide are linked to unsafe water, borne. Eight-eight percent of diarrhea cases worldwide are linked to unsaved water, inadequate sanitation or insufficient hygiene. This cases result in one point five million death each year, most in children the usually cause of death are due to unsaved water, poor sanitation and insufficient hygiene which can lead to malnutrition and organ damage(lankinen,2004).

vi. Poverty

Child mortality is directly related to poverty, infant death from pregnancy or childbirth rarely occurs in the developed world. All the risk factors are related to family economic situation. The more pregnancies a woman has the greater her chances of dying. The poorer and less educated woman is the more likely she is to have high fertility. This is seen most dramatically in sub-Sahara Africa where rates of birth per women and child deaths are the highest in the world (Ujah, 2008). Although many of the women now seek prenatal care during pregnancy but poverty makes it difficult for them to purchase the food they need and live in condition better for their health. Poverty again, prevent most of the women from getting education that will let them understand their medications, nutrition and proper care of themselves during pregnancy.

The risk of dying during or shortly after birth is 20-50 percent higher for the poorest of 20 percent of households, than for the richest quintile. The negative effect of parent's condition increases the child risk of disease and death.

Poverty has been shown to negative influences child health and development along a a number of dimension for example, poverty net of a variety potentially confounding factors, is associated with increased neonatal and post neonatal mortality rate, greater risks of injuries resulting from accidents or physical abuse, neglect, high rate for asthma and lower development scores in a range of test at multiple age (lawrence,2004)

vii. Poor Socio-Economic Status

Socio-economic conditions refer to the income and background of an individual. This is a powerful recognize factors that influences human health. The health status of a person is primarily determined by his/her purchasing power education, nutrition, employment, sanitation, housing and the political system of the country. The economic status also

determines the standard of living, quality of life, family size, pattern of diseases and deviant behaviour in the community.

According to Park (2007) of the most important factors affecting mortality both directly and indirectly the socio-economic status of the individual is the most salient. The availability and quality of health care as well as the nature of the child's environment are closely related to socio-economic status statistics revealed that child mortality are highest in the lowest in the richer residential localities. Major improvements are health status and a decrease in child mortality requires continuing socio-economic development including provision of health services.

viii. Malnutrition

Malnutrition implies a condition resulting from a relative or absolute deficiency or excess of one or more essential nutrients; this consists of four forms such as under nutrition, over nutrition, imbalances and specific deficiency. Under nutrition is a condition in which insufficient food is eaten over an extended period of time, whereas over feeding is a situation whereby an individual takes more than the required quantity of food over a length of time. Imbalance is the disproportion among essential nutrients with or without absolute deficiency of any nutrient and specific deficiency results from relative or absolute lack of an individual nutrient (Sofoluwe, 1996).

Malnutrition has been noted as an underlying cause of 40-50 percent of all under five deaths in West Africa (Serah, 2001). The Integrated Child Health Cluster Survey (ICHCS) (2002) indicates that infants and children feeding in Nigeria largely reflects audit eating patterns, high starchy diet with few fruits, vegetable or protein sources. Mothers need to know that children should be given adequate diet to promote healthy growth (UNICEF, 2000).

ix. Low Level of Education

According to Park (2007) the world map of illiteracy closely coincides with the maps of poverty, malnutrition, ill health, high under-five mortality. However, to some extent, female education compensates the effects of poverty on health irrespective of the availability of health facilities (Ofili, 2005). On the basis of their study of the role of traditional birth attendants in maternal health care in Edo state argue that they status of education of parents is significantly related to the death of the children. They submit that illiteracy is the greatest barrier to any improvement in heath condition.

Adebayo (2005) argue that low literacy is a source of shame and constitute difficulty in attaining the complex task of health care, the parents that have low education found it not easy to understand instructions and administer faster appropriate treatment to their children or compliance to instruction from doctor. One third of the surveyed women were not able to recognize too or more signs of illness which are associated with fever, requiring prompt care or ensuring proper utilization of available health facilities administering simple oral rehydration solution, use of insecticide treated mosquito net and improving child nutrition and care practice can affects the increase infection and death among children.

x. Cultural Belief

The concept of cultural and behavioural characteristic is used here to denote the way people live or lifestyle reflecting a whole range of social values, attitudes and activities. It is composed of cultural heritage, behavioural patterns and lifelong personal habits that affects health and which are developed through the process of socialization. Life styles are learn through social interaction with parents, peer groups, friends, siblings, the mass media and others (Park, 2007).

A number of traditional and cultural practices in Nigeria infringe on the reproductive rights of Nigerian women, the girl child and other children (male). The most common of these include female genital mutilation (FGM) early/forced marriage and denial of eating of some protein foods. Ogunjuyighe (2004) opines that there should be integration of people's belief and attitudes concerning children and behavioural practices into health strategies that is shifting in human values and behaviour.

Harmful cultural practice such as dietary restrictions for female, children, female genital mutilation or cutting, early marriage before a female is fully developed physically and emotionally, can lead to problems during delivery and in child rearing. The immature female insufficiency developed pelvis may result in cephalo-pelvis disproportion result in difficulties during birth leading to severe complications and death of the child or mother (Black, 2003)

2.3   National and International ProgrammesonChild Morbidity

Annually, out of 20 million children born in Africa 4 million die before their fifth birthdays, majority of them as a result of preventable diseases therefore, various health programmes are established in both developed and developing countries through the efforts of various national and international government and non governmental bodies (NGOs) to address this health problem (Adetokunbo, 2003). The health programmes include: child survival strategies, primary health care (PHC) Expanded programme on Immunization (EPI) Control of Acute Respiratory Infection (ARIS's) programme, Baby Friendly Hospital Initiative (BFHI), Operation Feed the National (OFN), Petroleum Trust Fund (PTF), National Health Insurance Scheme (NHIS) Subsidy Reinvestment and Empowerment Programme (SURE-P) among others   (Adetokunbo, 2003).

Primary Health Care (PHC)

The National Primary Health Care was launched by the military administration of president Babangida in 1988, the scheme as emphasized about was to be more adapted to Nigeria's socio-economic and cultural context. It should be people oriented in that it strives to developed local capabilities, initiatives and realization of sustainable improvement in the health of the people (Adeyemo, 2008).

Oyewo, (2001) stated that, the administration of general Babangida and the appointment of Professor OlukoyeRansome-Kuti brought about the encouragement of primary health care directorate in the Federal Ministry of Health. It was charged with the responsibility of formulating, developing and implementing the national primary health care system in line with the recommendation of 1988 international continence of primary health care.

Oyewo (2001) Listed 10 components of primary health care, As:

i. Education concerning prevailing health problems and method of preventing and controlling them

ii. Promotion of food supply and proper nutrition

iii. Adequate supply of safe water and basic sanitation

iv. Maternal and child health including family planning.

v. Immunization against the major infections disease.

vi. Prevention and control of locally endemic disease

vii. Appropriate treatment of common disease and injuries

viii.   Provision of essential drugs

ix. Community mental health care

x. Dental health

PHC is the first level of contact of individuals, family and community with the national system of bringing health care services close to where people live and work. The

provision of PHC centers in many communities in Nigeria has not completely solved the health problems since many of the communities in Nigeria are lacking health facilities and where PHC exists there are no adequate staff, drugs or equipment because of financial constraints (Sofoluwe, 1996).

The causes of child death are related to lack of access to adequate primary health care and infrastructure, essential drugs and services. Limited access to health care impact children ability to reach their full potentials, negatively affecting their quality of life Nigeria loses about 2,300 under-five years a day, making it the second largest contributor to the under-five rate in the world. At least 6.3 million children under age five died across the word in 2013, nearly 17,000 a day. 70% percent of the estimate one million under five deaths is caused by preventable and curable disease (Sofoluwe, 1996).

Operation Feed the Nation and Health Care

General OlusegunObasanjo, despite his numerous international and domestic responsibilities, agriculture activities remained an important part of his life. During his oversight as head of state, he implemented policies including "operation feed the nation" to drive the nation towards self-sufficiency in feeding through agriculture. The 2012 Africa Human Development report produced by the United Nations Development Programme (UNDP) and launched by OlusegunObasanjo in Nigeria revealed that about 218 million Africans are malnourished and over 35 million children are suffering from nutritional deficiency in the continent (Federal Ministry of Agriculture, 2008).

They suffer from low birth weight due to their mother's poor nutrition and then lack access to adequate nutrition themselves. The operation feed the nation program of 1976-80 sought to increase local food production and thereby reduce imports (Federal Ministry of Agriculture, 2008). Infant and children feeding in Nigeria largely reflects adult eating

patterns, high starchy diet with few fruit, vegetables or protein source (Serah, 2001). Children should be given adequate diet to promote healthy growth lack of adequate food supply to the need of under five has been noted as an underlying cause of 20-30 percent of all under-five deaths in West Africa (Serah, 2001).

Petroleum Trust Fund and Child Health Care

PTF innovative approaches place citizens first, people seeking health, services are best able to report on the inefficiency, waste and corruption that they confront, ensuring that these citizens have the opportunity to voice their grievances is the most compelling means of promoting reforms. The lessons that PTF has learned are drawn from citizen monitoring of health services PTF supported projects have monitored the pro vision of overall public health services at the local level, such as the procurement and provision of drugs to clinics. Projects have also empowered citizens to use hard evidence found through strategies monitoring to campaign for reforms and to constructively engage with health care providers. The lessons of experience that PTF has gained from its work into the health care sector help to inform future projects by official donor, agencies Philanthropic foundations. (UNICEF, 2009)

Petroleum Trust Fund (PTF) invests to improve the availability of basic health commodities such as procurement of essential drugs and medical equipment in Nigeria (Federal Ministry of Health, 2010). The intervention as contributed significantly in improving access to health commodities to a large proportion of children and the reduction of 6% percent of child mortality and morbidity (FMH, 2014).

National Health Insurance Scheme (NHIS)

This is a scheme established for the purpose of providing health insurance which shall entitle insured person on the benefit of prescribed good quality and cost effective health services.

Objectives and function of the scheme includes:

- Ensure that every citizen has access to good health care services.

- Protect families from financial hardship of huge medical bills.

- Limit the rise in the cost of health care services.

- Ensure equitable distribution of health care in different income groups.

- Maintain high standards of health care delivery services within the scheme.

- Ensure efficiency in health care services.

- Ensure adequate distribution of health facilities within the federation

- Ensure the availability of funds to the health sector for improved services. (FMH,2014).

Health Insurance facilities access children to health care drugs and services and help protect against the high cost of catastrophic illness. Insured children are more likely to obtain recommended screening and care for chronic conditions and are less likely to suffer undiagnosed) chronic condition or received substandard medical care that can lead to permanent disability and death (United Health Foundation, 2014).

Baby Friendly Hospital Initiative

The Baby Friendly Hospital Initiative (BFHI) also known as baby friendly initiative (BFI), is a worldwide programme of the world health organization and UNICEF launched in 1999 following the adoption of the innocent Declaration on breast feeding promotion in 1990. The initiative is a global effort for improving the role of maternity services to enable mothers to bread feed babies for the best start in life. It aims at improving the care

of pregnant women, mothers and new born at health facilities that provide maternity services for protecting, promoting and supporting breastfeeding in accordance with international code of marketing of breast milk substitutes. (UNICEF, 2014)

UNICEF, the World Health Organization and many national government health agencies recommend that babies are breast fed exclusively for their first six month of life. Studies have shown that breastfeed babies are less likely to suffer from serious illness, including gastro enteritis, asthma, eczema, and respiratory and ear infections (UNICEF, 2005).

Adults who were breastfed as babies may be less likely to develop risk factors for heart disease such as obesity and high blood pressure. There are benefits for mothers too: women who don't breastfeed have increased risk of developing heart disease, hypertension, diabetes, high cholesterol, breasts cancer, ovarian cancer and hip fractures in later life. The BFHI aims to increase numbers of babies who are exclusively breastfed worldwide, a goal which the WHO estimates could contribute to avoiding over million child deaths each year and potentially many premature maternal deaths as well (Olukoya,2011).

Investing in reducing child mortality by national and international programmes: such as International Development Association (IDA), the World Bank's Fund World Health Organization, United Nation children fund for the poorest countries, resulted in nearly 600 million children being immunized from 2003- 2013. (WHO, 2013) With IDA's help between 2003-2013 more than 117 million people gained access to essential health services; nearly 195 million pregnant women received antenatal care; and nearly 1560 million mosquito nets were purchase and distributed in the poorest countries (WHO, 2013).

The World Bank mobilized more than $3billion in health financing, committed $4.1 billion in support of stronger health system, disease prevention, and improving child and maternal health. UNICEF expanded its services to all developing counties where lives of children were at risk in the 1980s UNICEF inspired and led a global child survival revolution focused on child health and well –being. 'GOBIFFF' summarized the programmed strategy, standing for growth monitoring for children; oral dehydration therapy as treatment for diarrhea; breastfeeding and immunization. These were complemented by food security, female education and family spacing (UNICEF, 2006)

2.4 Strategies for Reduction of Child Morbidity

The following are strategies on child morbidity:

National Programme on Immunization

According toBeneth& Brown (2003) stated that immunization is an important part of the preventive measures designed to improve the nation's health and to reduce child morbidity and mortality. They further stated that the immunization programmes are designed to stimulate the baby immune system to produce specific antibodies. The protection inherited by the child from his mother diminished at about the time his own defence mechanism mature.

Lucas, (2004) is of the opinion that the goal of the national programme on immunization is to reduce morbidity and mortality rate by providing immunization against the target diseases ofdiphtheria, pertusis, measles, tetanus, tuberculosis and poliomyelitis for everychild in the world. Vaccine preventable disease accounts for 20% of morbidity and mortality in children under five. Children by the age of 1 should have completed their immunization schedule according to NPI schedule.

The ministry of health adopted the following key strategies (Federal Ministry of Health, 2014)

- Development and dissemination of materials

- Institutional development including the provision of cold chain equipments and procurement of generators for the maintenance o the vaccines at the state cold store and the LGA's.

- Capacity building through refresher training of Local Government Immunization Officers (ILO,s) and other Health Workers (HW) on cold chain vaccine maintenance, micro planning, new policy issues and vaccination procedures.

- Monthly cluster meeting with the (LIO's)

- Compilation of monthly Routine Immunization (RI) data to know the percentage coverage.

- Re-vitalization of the outreaches to strengthen (RI) through the Reach Every Ward (REW) approach.

However, in Nigeria, some of these vaccines such as Oral Polio Vaccine (OPV) Diphtheria Pertussis, Tetanus Vaccine DPT) Hepatitis B. Virus Vaccine (HBV) Bacillus CalmetteGueria Vaccine (BCA) Control of Diarrhea Programme (CDD) through Oral – Rehydration therapy (ORT) have cut across the country with a lot of constraints (FMH, 2014).

Child Survival Strategies

Child survival is a field of public health concerned which aim in reducing child mortality. Child survival strategies are designed to address the most common causes of child deaths that occur, which includes diarrhea, pneumonia, malaria, and neonatal conditions and preterm delivery or lack of oxygen. of the portion of children under the age of 5 alone, an

estimated 9.2 million children die each year mostly from such preventable causes. According to an estimate by UNICEF, one million child deaths could be prevented annual at a cost of $US 1 billion per year (an average of $UAS 1000 for each child) (UNICEF, 2006).

The British Medical Journal (2007), the lancet has published a widely-quoted series of five articles outlining the current child survival situation, include challenges and feasible solutions, commonly referred to as "The Lancet Child survival series". The series outlines a number of child survival interventions which have been scientifically proven to reduce mortality which include oral rehydration therapy, sleeping under insecticide-treated mosquito nets, vitamin A supplementation, and community-based antibiotic treatment for pneumonia (UNICEF, 2006).

Agencies promoting and implementing child survival activities worldwide include UNICEF and other non-governmental organizations which are the major child survival donors such as World Bank, the British Government's Department for International Development, the Canadian International development Agency and the United States Agency for international Development in the United States (UNICEF, 2006).

The child survival strategies and interventions are in line with MDGs No 4 which focused on reducing child mortality by 2/3 of children under five before the year 2015. Many countries are now devoted to the child survival interventions as a way of reducing the child mortality. Some countries reinforce their immunization services through a project called EU-PRIME which was a baby of cotonou agreement. The overall aim of the project is to reduce the impact and incidence of Vaccines Preventable Disease (VPDs) in countries of intervention (Etikene, 2002).

Proven, cost-effective interventions can save the lives of millions of children per year. Immunization interventions still do not reach 30 million children, despite success in immunizations in reducing polio, tetanus, and measles. Measles and tetanus still kill more than 1 million children under 5 each year. Vitamin A supplementation costs only $0.02 cents for each capsule and given 2-3 times a year will prevent blindness and death. Although vitamin A supplementation saved an estimated 2.3 million lives between 1999 and 2004, only half of young children in poor countries received these treatments. Between 250,000 and 5000,000 children become blind every year, with 70 percent of them dying within 12 months. ORT has helped to reduce diarrhea deaths by half, saving an estimated 1 million lives annually, yet more than 2 million children still die from diarrhea-related causes each year (UNICEF, 2006).

Essential newborn care including immunizing mothers against tetanus, ensuring clean delivery practices in a hygienic birth environment, drying and wrapping the baby immediately after birth, providing necessary warmth, and promoting immediate and continued breastfeeding, immunization, and treatment of infections with antibiotics could save the lives of 3 million newborn annually. Improved sanitation and access to clean drinking water can reduce childhood infections and diarrhea. Over 40 percent of the world's population does not have access to basic sanitation, and more than one billion people use unsafe sources of drinking water (UNICEF, 2006).

The Control of Acute Respiratory Infections (ARIs)

Acute Respiratory Infection (ARIs) programme was established by (WHO) as a measure of reducing acute respiratory infection associated with morbidity and mortality in all the countries where infant mortality exceeded 40 in every 1,000 live birth (WHO, 2004). But

the diagnostic facilities are few or nonexistent and diagnosis has to depend on clinical judgment. The control of acute respiratory infections includes:

i.   Elimination of human and animal reservoirs

ii. Disinfection of floor and elimination of dust

iii. Air hygiene and good ventilation

iv. Avoid overcrowding in bedroom and public places

v.   Personal hygiene and avoid coughing, sneezing, spiting or talking directly at the face of other persons.

vi. The victim of acute respiratory infection should be isolated to avoid contamination of the environment,

vii. There should be specific immunization of measles, dry-cough and influenza. (WHO, 2004).

Acute Respiratory Infection (ARI) like measles, whooping cough and diphtheria can be prevented by timely immunization. The other respiratory infection and pneumonia should be treated at the nearby facility. Rapid breathing and difficult breathing can be recognizing by mothers themselves and by health workers. If these get treated at the earliest many children can be served from death. Appropriate case management during ARI with standard antibiotic can reduce child death, continuation of feeding during ARI ensure early recover (WHO, 2004).

Insecticide Treated Mosquito Net

According to Snow (2008) Insecticide Treated Mosquito nets (ITNs) were developed in the 1980s for malaria prevention. Insecticide treated nets are estimated to be twice as effective as untreated nets and offer greater than 70% protection compared with no net. Insecticide – treated bed nets (ITNs) are form of personal protection that has been shown

to reduce malaria illness, severe diseases, and death due to malaria in endemic regions. ITNs have been shown to reduce the death of children under 5 years from all causes by about 20%.

The insecticides that are used for treating bed nets kill mosquitoes, as well as other insects. The insecticides also repel mosquitoes, reducing the number that enter the house and attempt to feed on children inside. Pyrethroid insecticides are approved for use on ITNs. These insecticides have been shown to pose very low health risks to humans and other mammals, but are toxic to insects and kill them, even at very low doses. The intervention involves trying to achieve universal ownership of Long Lasting Insecticide NET (LLINs) to the people who do not already have them. Evidence suggests that when large numbers of people use LLINs to protect themselves while sleeping the burden of malaria can be reduced resulting in a reduction in child mortality among other benefits (Carter, 2005).

Oral Rehydration Therapy (ORT)

Is a fluid replacement strategy used to prevent or treat dehydration most common that caused by diarrhea. It involves drinking water with modest amount of sugar and salt added while continuing to eat (Diarrhea Dialogue Issued, 2003).Hahns, Kims, & Garner (2001) stated that, reduced osmolarity oral rehydration solution for treating dehydration caused by acute diarrhea in children; they attested that low or reduced ORS (oral rehydration solution) i.e. hypotonic ORS is preferred for children with acute diarrhea and dehydration.

In the developing countries million of children die every year from dehydration due to diarrhea and vomiting. About 90% of children who had diarrhea and vomiting were under five years of age then there was a effective drug to stop this illness (Diarrhea Dialogue

Issued, 2003). With the introduction of oral rehydration therapy, there is great reduction of death rate among children, the usefulness of oral rehydration therapy in the treatment of dehydration in children are established facts. Prior to the introduction of ORT, death from diarrhea was the leading causes of child mortality in developing nations (Hahnsetal, 2001).

Between 1980 and 2006, the introduction of ORT is estimated to have decreased the number of child deaths, worldwide, from 5 to 3 million per year. However, in 2008 diarrhea remained the second most common cause of death in children under five years ORT is less massive than the other strategies for fluid replacement, especially intravenous (IV) fluid replacement mild to moderate dehydration in children seen in an emergency department in best treatment with ORT (Hahns et al, 2001).

ORT in combination with anti-nausea drugs is indicated for vomiting children as a strategy to be able to take fluid orally. In an emergency department setting vomiting, dehydrated children take these drugs as soon as possible to enable taking fluid by month sooner. Children taking ORT should eat within 6 hours and return to their full diet within 24-48 hours (Hahns et al, 2001)

2.5 Subsidy Reinvestment and Empowerment Programmes (SURE-P) on Maternal and Child Health Care (MCH) in Nigeria

In January 2012, the government of Nigeria through a prudent strategies economic intervention reduced the amount of subsidy paid on petroleum products. This subsidy reduction places potential burdens on the vulnerable population directly and indirectly. As a control measure, the federal government decided to channel its own share of the subsidy reinvestment funds into a combination of programmes to stimulate the economy

and alleviate poverty through provision of critical infrastructure and safety net projects (Federal Ministry of Finance, 2014).

The subsidy reinvestment and empowerment programme (SURE-P) is thus designed to invest the saving' accrued from the fuel subsidy reduction on vulnerable populations in Nigeria by initiating a robust social safety net programme to improve their lives it also aims to stimulate the economy and alleviate poverty through critical infrastructure and human resource empowerment projects.

Some of the projects are as follows:

- Works

- Power

- Agriculture and rural development

- Transport

- Education

- Health

- Aviation

- Federal capital territory administration.

- Niger Delta

- Water resources

SURE-P funds are split between the federal government and states and local government and are meant to be used in two ways to help fund infrastructural development and to support social security programme related to issues such as women and youth empowerment, unemployment and community services (Federal Ministry of Finance, 2014).

The Government of Nigeria introduced the SURE-P Maternal and Child Health (SURE-P MCH) in 2012 to improve health care for pregnant women and their babies. There are two main components of SURE-P MCH as follows:

1. **Improving the supply of services**: This include training and placing midwives and community health extension workers in 1000 previously under staffed health facilities, training tens of thousands of village health workers to act as a liaison between pregnant women and primary health facilities, and upgrading facilities infrastructure and providing drugs and commodities.

2. **Improving the use of service:** This includes cash transfer for pregnant women who registered at the participating primary health care center, get health check-ups while pregnant, deliver at a health centres and take their baby for the first series of vaccinations. Women received cash each time they meet one of the conditions up to a total of about US $ 30. An international campaign is also being carried out on the availability and benefits of child health care (Federal Ministry of Health, 2014).

    As part of the move to improve services, the program includes components to measure the impact of financial and financial incentives (clocks, uniforms and other items) on midwife retention (FMH, 2014).

The program is currently active in 1,000 public primary healthcare facilities spread across Nigeria's 36 states and the capital region of Abuja. The Maternal and Child Health (MCH) components of the subsidy reinvestment and empowerment program, aspire to contribute to the reduction of the maternal and new born mobility and mortality and place Nigeria on the track, to achieve the 4th and 5th Millennium Development Goals (MDGs) given Nigeria's previous experience with the midwives services scheme. (Abosede, 2009)

The SURE-P MCH project provides a unique opportunity to focus on increasing access to

maternal and child health services through a continuum of care for pregnant women and their new born babies (FMH, 2014)

Mandate/Objectives

To increase and improve both infrastructure and human resources in order to improve health services delivery at the primary health care level specifically it aims to refurbish PHC infrastructure, increase the number of trained health workers (midwives, community health extension workers (CHEWs) and Village Health Workers (VHWs) to guarantee adequate antenatal attendance, skilled deliver at birth routine, immunization and postnatal care for women and their babies (FMH, 2014).

The following are the outlines objectives of the SURE-P Project:

1. Increase the availability of skilled health workers to provide maternal and child health services at the primary health care (PHC) level.

2. Provide visible infrastructural renovations to primary health care centers under the SURE-P Project.

3. Increase supply of essential services commodities at PHC facilities to improve service delivery

4. Increase the demand for MCH services in rural communities through the use of conditional cash transfer (CCT) and community engagement at the grassroots. (Muhammad, 2010).

Roles of SURE-P to PHC

- Provides financial support for states and Local Government Area for PHC implementation.

- Promotes research activities and leases with international health organization e.g. (UNICEF, WHO, NGO's) etc.

- Provisions and distribution of vaccine to sates and Local Government Area.

- Provision of facilities for training of PHC workers at states and Local Government Area Levels.

- Constructionof health facilities e.g health centers, clinics, maternity and hospitals (FMH,2014)

2.6 Empirical Studies on National and International Programmes on Child Morbidity in Nigeria

Empirically, United Nation estimated that one in every six children dies from childhood related illness before age five. Under-five morbidity in Nigeria is estimated at 191 per 1000 live births. Almost one million children dies in Nigeria more than any other country in Africa, largely from preventable and treatable diseases (WHO, 2004). Many studies have shown that child morbidity is influence by a number of National and International programmes to improve child health. Socio-economic and demographic factors such as sex of the child, mother's age at time of birthorder, proceeding birth interval among other are pre-requisites for child health outcome. However, World Bank (2011) in a study conducted in Zambia, record of immunization stands as one of the best in the region with polio completely eliminated, neonatal tetanus eradicated and Measles on course of being eradicated. The report also noted a scaling up of the prevention of Mother to Child Transmission (PMCT). In some countries currently, pneumococcal and rotavirus vaccines are now available and prevent the leading cause of the two main killer, namely; Pneumonia and diarrhea (World Bank, 2011). Adeyemo (2008) gesticulates that the cause of disease and death over which not much controversies and three twenties exist is the total environment of man. Malaria, acute respiratory infections, measles, and diarrhea which are today major causes of morbidity for children under five are consequence of the

built environment of man. In developing countries like Nigeria, one in eight children does not live to see their fifth birthday due to avoidable childhood deaths yearly (World Bank, 2011).

According to World Bank (2011), environmental risk factors were estimated to account for about one–fifth of the total burden of disease in low income countries. The WHO (2008) similarly reported in Mutunga (2007) that among the ten identified leading mortality risks in high mortality developing countries, unsafe water, sanitation and hygiene ranked second while smoke from solid fuels ranked fourth.

Kumar and File (2005) used data from the Ethiopia Demographic and Health Survey (EDHS) conducted in 2005 to investigate the predictors' of child (0-5 years) morbidity in Ethiopia. The cross tabulation technique was used to estimate the predictors of child morbidity. Results revealed that birth interval with previous child and mother's standard of living index were the vital factors associated with child morbidity. Furthermore, mother's education and birth order were found to have substantial impact on child mortality in Ethiopia. The study concluded that an increase in mother's education and improved health care services are significant in reducing child morbidity in Ethiopia. This was also found to be causing infant and child morbidity across African sub-sahara as contained in Bello (2002).

MesikeandMojekwu (2012) in their study examine the environmental determinants of child morbidityand mortality in Nigeria using principal component analysis and simultaneous multiple regression for child morbidity modelling in Nigeria, estimation from the stepwise regression model showed that household environmental characteristics do have significant impact on morbidity as lower morbidity rates were experienced in households that had access to immunization, sanitation facilities, good and proper refuse

and solid waste disposal facilities, and good healthy roofing and flooring materials as well as those using low polluting fuels as their main source of cooking.

Lack of toilets remains one of the leading causes of illness and death among children. According to UNICEF, (2005) 626 million people in India practice open defecation, poor sanitation, lack of access to clean water and inadequate personal hygiene are responsible for an estimated 88% of childhood diarrhea in India. The meta-study by Charmarbagma (2005) suggests that although there can be with doubt that household income is a crucial factor in determining child health, it appears that incomes is not a significant determinant of infant morbidity in the majority of cases. This can partly be explained by the fact that as morbidity falls, the bulk of under-five morbidity is rather those of infants than child death, and these deaths are more sensitive to health provision than socio-economic conditions (White, 2004)

According to Henry andTuku (2010) in a research they conducted on utilization of non-skilled birth attendants in northern Nigeria, maternal and newborn morbidity and mortality in many sub-saharan African countries and northern Nigeria in particular is an impact global concern. Often these high morbidity and mortality rates are associated with inadequate health services and dysfunctional Primary Health Care (PHC) system. Studies have shown that majority of women in lesson develop countries of utilize Antenatal Care (AVC) during their pregnancy, their deliveries often lack skilled supervision.

A study conducted by Simondom (2001) showed that prolonged breastfeeding (24 months) was positively associated with linear growth during the second and third year of life is 443 African toddlers Simondom (2001) several observational studies have also found that breast milk keeps the infant adequately hydrated even in tropical settings, such

that additional thirds, including water, tea and other liquids are not required by the infant when breastfeed (Black, 2003).

A study of the 6.3 million children who died at age 4 and 5 years in 2013, 51.8% (3.3257 million) died of infectious cause and 44% (2.761 million) died in the neonatal period. The three leading causes are preterm birth complications (0.965 million 15.4% uncertainty range (UR) 9.8-24.5); UR 0.615- 1.537 million), pneumonia (0.935 million (14.9% (14.9%, 13.0-16.8); 0.817- 1.057 million), and intrapartum elated complications (0.662, million [10.5%, 6.7-16.8]; 3.6 million fewer deaths recorded in 2013 versus 2000. Cases with the slowest progress were congenital, preterm, neonatal sepsis, injury and other causes. If present trends continue, 4.4 million children younger than 5 years will still die in 2030 (WHO, 2013)

In another study conducted by Bello (2002) in Oyo state using Atiba local government as a case study. A total of 150 respondents were randomly selected from the entire populace of the metropolis. Logistic regression method was used to determined the factors that determined child mortality in the region, findings reveals that out of the major determinant listed, poverty; malaria, postnatal care, Health scheme and breastfeeding are the major determinants of child morality in the state, while HIV through catalyses child mortality was not a major determinant. It was therefore advised that policies should be reveal for proper implementation and health intervention programmers that focus on mother's' and children health should be strengthened to achieved the Millennium Development Goals (MDGS) of infant and child mortality in the remaining years.

 A study carried out by UNICEF (2012) in India found that despite easy access to health facilities, 94% of the utter pradesh birth were delivered at home and attended by untrained personnel (relatives and friends). The preference for home delivery among this

group of women was because of their poor conditions. The actual costs incurred could be prohibitive to the average person let alone the poor village women. The costs include transportation expenses to the hospital, charges for delivery and the drugs used. The additional cost includes the needs for efficient help to run the home and make daily trips to the health facility with food and necessities for the new mother and the baby. The report also found that some communities in Mali considered childbirth as an extremely private affair that should be attended by close female relatives. Expectant mother will prefer to die than to expose themselves to male health workers during labor and childbirth at a health facility. Cultural belief and old fashioned ideas about modern medicine had been also cited in the literature as some of the reasons for the low use of health care facilities in some rural communities (Lawrence, 2004; Chou, 2002).

According to UNICEF (2014) a survey shows infant morbidity is significantly higher in rural area (75 per 1000) than in Urban (43 per 100) mortality rates for the neonatal, postneonatal and child segment of childhood morbidity are all higher in rural than in urban areas. There are substantial differences in morbidity by mother's level of education, estimation of infant morbidity differs by a factors of three between the least educate women (95per 1000) and the most educated women (29 per 100). In survey, shows that the toll of under five deaths over the past two decades is staggering; between 1990 and 2013, 223 million children worldwide died before their fifth birthday.

A study in the rural areas of Nigeria conducted by Abosede (2009) found that hostility between traditional birth attendants and medicines were constraints to the causes of child morbidity (Abosede, 2009). Similarly, a study in Zimbabwe indicates that inadequate facilities and poor or delay in services were major problems identified by women as influencing them not to seek cure from rural health centers. Inadequate facilities for

dealing with pregnancy complications, the inconsiderable attitude of the service providers, the shortages of drugs and personnel have been found as being significant contributing factors of child death in any developing countries (UNICEF, 2012).

In South African according to Dolan (2003) 745 children experiencing 858 Acute Respiratory Infections Syndrome ARIs episodes were studied. 338 (39.4%) 513(59.8%) and 7(0.8%) episodes were managed in short story, paediatric ward and intensive care settings, respectively. Mean lengths of story in short story. Paediatric ward and intensive care (ICU) were 1.4, 8.1 and 14.4 days, respective the societal cost of illness per ARIS episode managed in short story and paediatric ward patients. Under- 5 children experienced an estimated 424,220 episodes annually of ARIS. ARIS treatment cost the public health system an estimated US$28,975,000 while an additional US$539,000 of cost were borne by families.

A study of primiparas in an urban US setting found breastfeeding attitudes to be associated with breastfeeding intent (Persad&Mensinper, 2008). Another study of first time mothers in the US found prenatal breastfeeding knowledge to be significantly associated with breastfeeding duration and achievement of breastfeeding goals set in the prenatal period (Chezem, 2003). The current finding that edge contributes to exclusive breastfeeding behaviour at time mouths adds to existing evidence that can help shape prenatal intervention designed to increase this behavior (WHO, 2006).

The lives of 400,000 children could be saved every year if African children under-five sleep under ITNs (African Health 2000). Mosquito nets if properly used and maintained can provide a physical barrier to hungry mosquitoes and provide 46 percent protection against malaria (Roll Back Malaria, 2001). There are positive effects of insecticide treated nets in reducing the mortality and morbidity of children under-five years of age

and yet coverage remain low. A number of studies have found out that ITNS provide varying degrees of protection against malaria mortality. In a trial of untreated bed nets in the Gambia, nets were found to reduce the number of infective bites but not enough to reduce morbidity from malaria. (Snow, 2008) Malaria decreases with the use of ITNS. The main reason for this is that mosquitoes are not only kept away from the sleeping people, but would die when they come into contact with the insecticide. In subsequent studies, it was demonstrated further the use of ITNs in pregnancy reduced maternal parasitaemia, anaemia, and premature deliveries, increases means birth weight and subsequently reduces neonatal and infant mortality (Dolan, 2003).

Lengeler's (2004) mortality (5 studies) a statistically significant impact on all causes mortality in children under five; summarized as 553 deaths converted per 1000 children protected per year. Two studies attempted to examine malaria specific mortality and found smaller or similar sized effects, which the review author attributes to the difficulty of attributing mortality to malaria.In a similar trial/study from western Kenya by Njagi (2002) is informative in this respect, as it is the only trial that compared the effects of ITNS versus no nets using simple randomization by individual in an area with low ITN coverage (little or no mass effects (24.29).

In a related studies, the allocation of nets to households varied from one for each person (except children sleeping with their mothers) in Sudan (30) to one net per every two persons (35,36) to 1-4 per family in Uganda (31) to an average ort two per house hold in Ethiopia (34). In the integrated immunization/ITN campaign nets were targeted at children under five. In two cases, the target group for the immunization differed from that of the nets, specifically measles catch up vaccination in Ghana (47) and Zambia (28) where children up to 14 years were eligible. Net allocation exception in Niger (25)

Mozambique (29) and Ghana (47) one net was allocated per mother or household with one or more children under 5 (World Bank, 2011).

Recent empirical studies point to structural supply chain constraints in the supply of essential drugs in developing countries. Across sectional survey was conducted on 240 respondents in four malaria prone district in Uganda Findings indicated hospitals were mainly affected by lack of credible and accessible drugs, consumption information, poor planning, forecasting and logistics.

In spite of Uganda's commitments to improve access and availability of the essential drugs, actual realization remain low and structural bottlenecks at each stages of supply chain have not been systematically identified and documented (Okot-chono&Migisha, 2009).

Manny people especially the rural poor for example, still experience shortage of essential drugs in government health centres. According to the latest survey by the Uganda Country Working Group (2009), 32-50% of essential medicines to treat diseases like malaria, pneumonia, HIV/AIDS, Tuberculosis among others, are not readily available (Okot-chono&Migisha, 2009).

A study of leading-edge enterprises in a number of Australian industries by Burke, Costello, Malley and Shah, (2009) Found that training for skills in new technology areas was, in the first instance, usually provided on an in-house basis by established training department. They also found that each enterprise had experienced deficiencies in their capacity to meet emerging skill requirements

A study conducted by UNICEF/WHO, (2014) in Ethiopia on child malnutrition is an enormous challenge. It constitutes a particular daunting challenge as the country had a 10.4% under-five morbidity rate in 2009 of which the majority was limited to severe and

mild to moderate malnutrition (UNICEF, 2014). National data, shows that stunting (chronic malnutrition) and underweight (chronic and acute malnutrition) in children less than five years of age were 47% and 38% respectively. In a similar study by UNICEF, (2009) on demographic and health survey results. Exclusive breastfeeding rate has decline by 3% as compared to 1990-2003 when considerable progress was made from 1% to over 17%. Nigeria hasa poor nutritional indices which indicates 14% stunting and 2% underweight. Nigeria comes third after India and China in the world list of undernourished children and is currently one the two African countries listed among the twenty responsible for the 80% of global malnutrition, particularly in the Northern region of the country (UNICEF, 2009).

2.7   Summary

Child morbidity refers to any condition (diseases) that impairs the normal function of the children under the age of five.   Disease infection such as malaria, diarrhea, pneumonia, measles, tetanus are the most frequent causes of child morbidity, it can be eliminated if antiseptic techniques are respected and if only early signs of infections are recognized and treated in a timely manner. The second cause; lack of antenatal/postnatal care, low proportion of delivers attended by skilled person, inadequate breastfeeding, lack of good personal and environmental sanitation and poverty are among neonatal, infant and child morbidity rate. Programmes to prevent child morbidity are bear implemented by the government: immunization against the six killer disease, distribution of insecticides mosquito nets to households, oral rehydration therapy sensitization programmes and Acute respiratory infection programmes are measures to reduce or prevent child morbidity rate. Other programmes were also proffer by national and international bodies; primary health care system, National health insurance scheme, the baby friendly hospital

initiative are aimed at morbidity among children. Most of the studies reviewed carried out on child morbidity used base line survey, case study, demographic health survey. While previous studies were carried out on neonatal, infant and child mortality: This study investigated the influence of subsidy reinvestment and empowerment programmes (SURE-P) on child morbidity in Niger state.

The aim of SURE-P services to health centers in Niger State is to ensure a healthy mother and baby throughout pregnancy and childbirth. The services provide avenues for the early detection of mothers and infants at high risk of morbidity and mortality.Available literature shows that maternal and child health is important to a community for several reasons: First, MCH statistics are regarded as important indicators of the effectiveness of the disease prevention and health promotion services in a community. It is known that unintended pregnancies, lack of prenatal care, poor maternal and child nutrition, maternal drug use, low immunization rates, poverty, limited education, and insufficient childcare combined with a lack of access to health care services in a community are precursors to high rates of maternal, infant and childhood morbidity and mortality. Second, it is now known that many of the risk factors specified can be reduced or prevented with the early intervention of educational programmes and preventive medical services for women, infants, and children. These early community efforts provide a positive environment that supports the physical and emotional needs of the woman, infant and family and reduce the need for more costly medical or social assistance to these same members of society later in their lives

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This study investigated provisionof maternal and child health services towards management of child morbidity by subsidy re-investment and empowerment programmes (SURE-P) in Niger State. This chapter therefore focused on the following; research design, population of the study, sample and sampling technique, data collection instrument, validity of the instrument, data collection procedure and data analysis.

3.1 Research Design

Descriptive design of Ex-post-factor was used for this research. According to (Taylor, 2010) in ex-post-facto design, it is difficult to manipulate variables because data are already in existence. What a researcher needs to do is to look at existing data for causes of a problem. It seeks to find out the factors that are associated with certain occurrence, outcomes conditions or types of behaviours by analyzing past events and already existing

conditions. This design is appropriate for this study because the events (SURE-P programme) have taken place and the data are already in existence.

3.2   Population of the Study

The population of this study comprised professional health workers (Doctors, Nurses, Pharmacists, Laboratory technologists,Community health workers and Medical record officers) in both rural and urban hospitals/clinics that received SURE-P interventions in 25 LGA of Niger state. The total population of Health Workers in the SURE-P hospital/clinics is estimated to be 1508(Niger State Ministry of Health and Hospital Services Manpower Development, 2015).

3.3   Sample and Sampling Technique

A sample of 358 respondents (health workers) from hospitals/clinics that received SURE-P interventions was used for this study, According to Research Advisor (2006) for a population of 1,508 people,306 respondents are appropriate (see appendix B).However 358 respondents were used for the study to cover as many respondents as possible. Multi-stage sampling procedure was used to select the sample for the study. The stages are as follows;

Stage 1: Niger State is politically stratified into three (3) senatorial zones (A, B, and C) Niger South, Niger East and Niger North. The three zones were used as sample.

Stage 2: Simple random sampling was usedto select two (2) LGAsfrom each senatorial zone making a total of six (6) LGAs.All the LGAs were grouped into three according to senatorial zones. The name of each LGA was written on pieces of paper. All the pieces of paper were wrapped and put into a bag. Tworesearch assistants were assigned to represent each stratum. Each research assistant was asked to pick one paper and those LGAs whose names appeared on the paper picked were used as sampled LGAs.

Stage 3: Purposive sampling was used to select the apex Hospital from urban area, in each of the 6 LGAs. This is due to the fact that these Hospital/Health Centers offered all or most of SURE-P programme and the Child Health Care Services attracted more women.

Stage 4: Simple random sampling was used to select two health centers from the rural areas in each of the LGAs selected. The same procedure for the selection of LGAs in stage two was followed for selecting the health facilities.

Stage 5: Proportionate sampling techniquewas used to select 50% of respondents (health workers) fromtheir population. Hence, a total sample of 391 respondents was used (see table below)

Table3.1: Sample Distribution of Respondents

Senatorial District	LGAs	Name of Hospitals	Location of Health Centre	Number of Staff	Sample 50%
Niger South	Bida	Gen Hospital Bida	Urban	94	47
		Bangaye PHC	Rural	13	7
		Gbaji PHC	Rural	14	7
		Total		121	**61**
	Gbako	Lemu Rural Health Centre	Urban	53	27
		Edozhigi	Rural	13	7
		Gubata	Rural	9	5
		Total		75	**39**
Niger East	Chanchaga	General Hospital Minna	Urban	90	45
		FSP Health Clinic	Rural	24	22
		Kpakungu PHC	Rural	43	22
		Total		157	**89**
	Bosso	MaikunkelePHC	Rural	44	22
		Bosso Health Center	Urban	63	32
		Maitunbi PHC	Rural	40	20
		Total		147	**74**
Niger North	Kontagora	Gen Hospital Kontagora	Urban	83	42
		KampaniWayaHealthClini	Rural	30	15
		Tungan Wawa PHC	Rural	28	14
		Total		141	**71**

	Wushishi	Gen Hospital Wushishi	Urban	62	31
		PHC Lokogoma	Rural	30	15
		Zungeru PHC	Rural	21	11
		Total		113	**57**
TOTAL	6	18	6 Urban/12 Rural	754	391

3.4 Instrument for Data Collection

A researcher's developed questionnaire of 5 points Likert scale named "Questionnaire on Provision of Maternal and Child Health Services Towards Management of Child Morbidity by Subsidy Re-investment and Empowerment Programmes in Niger State (PMCHSTMCMSREP) was used as instrument for data collection. The questionnaire consists of five (5) sections (A, B, C, D and E).Section Adealt with demographic information of respondents, Section B sought information on provision of drugs, Section C sought information on transportation services for referral cases, Section D sought information on facilities and equipment and Section E Sought information on manpower development of health workers on child morbidity in Niger State. The response mode was scored as Strongly Agree (SA)=5 Points, Agree (A) = 4 points, Undecided = 3 points, Disagree (DA)=2 points and Strongly disagree (SD)=1 point.

There were five responses in each of the variables, therefore, the maximum score was 25 and the minimum score was 5, while the mid-point was 15. Any score from 15-25 was regarded as Agree and any score from 5-14 was regarded as Disagree.

3.5 Validity of the Instrument

To determine the content and face validity of the instrument, five (5) copies of the questionnaire was given to five lecturers in the Department of Physical and Health Education, Bayero University, Kano. Their corrections, advice, suggestions, and

criticisms were incorporated into the final draft of the questionnaire to the satisfaction of the researcher's supervisor before administration for pilot study

3.6 Reliability of the Instrument

To ascertain the reliability of the instrument, a pilot study was conducted by the researcher using split-half method.The test instrument was split into two and the score for each half of the test was correlatedwith one another. Data was collected from twenty (20) respondents from Yusuf Dantsoho Hospital Tudun Wada, Kaduna, Kaduna State which is also receiving SURE-P intervention. Data collected was subjected to a statistical test using Spearman Brown Prophecy Formula and a reliability index of 0.79 was obtained indicating that the instrument was about 79% reliable.

3.7 Data Collection Procedure

An introductory letter was collected from the Head of Department, Physical and Health Education, Bayero University, Kano which was presented to the managments of the selected health institutions in order to seek permission to carry out the study, Objectives of the research was clarified and participants were assured that the information they provided would be treated confidentially. The questionnaire was administered by the researcher with the help of six students of Department of Sports Science and Health Education, Ibrahim BadamasiBabangidaUniversity, Lapaiwho served as research assistants.After distributing the questionnaire, the respondents were requested to fill the questionnaire on the same day. This was to ensure maximum return of the questionnaire and avoid external influence while filling the questionnaire. A period of three weeks was used for data collection

3.8 Data Analysis

The researcher used descriptive statistics of frequency count and percentage to organize the demographic data of the respondents while inferential statistics of chi-square was used to test all the null hypotheses at 0.05 level of significance

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

This study investigated provision ofmaternal and child health services towards management of child morbidity by subsidy reinvestment and empowerment programme (SURE-P) in Niger State. The data collected for this study were presented in table 4.2.1

4.2   Results

Out of three hundred and ninety one (391) copies of the questionnaire distributed, three hundred and fifty eight (358) were duly completed, returned and were used for analysis

Table 4.2.1 Demographic Data of the Respondents

Variable	Frequency	Percentage
1. LGA		
Bida	56	15.6
Gboko	42	11.7
Chanchaga	88	24.6
Bosso	45	12.6
Kontagora	66	18.4
Wushishi	61	17.0
Total	**358**	**100.0**
2. Location of Hospital/Clinic		
Urban	204	57.0
Rural	154	43.0
Total	**358**	**100.0**
3. Job Status		
Doctor	32	8.9
Nurse	132	36.9
Laboratory Technologies	23	6.4
Pharmacist	28	7.8
Community Health Workers	107	29.9
Medical Record Officer	36	10.1
Total	**358**	**100.0**

Table 4.2.1 Shows the demographic information of the respondents of the Six (6) LocalGovernment Areas that were randomly selected out of the 25 LGAs in Niger State. Bida 56(15.6%), Gbako 42 (11.7%), Chanchaga 88 (24.6%), Bosso 45 (12.6%), Kontagora 66 (18.4%),Wushishi 61 (17.0%). The majority of the

respondents were from Chanchaga. The sampleof the staff in urban area was 204 (57.0%), while that of rural area is 154(43.0%). The majority of the respondents were from urban area. The status of their work are: doctors 32 (8.9%), nurses 132 (36.9%), laboratorytechnologist 23 (6.4%), pharmacist 28 (7.8%), communityhealth workers 107 (29.9%) and Medical record officers 36 (10.1%)The majority of the respondents were nurses.

Hypotheses Testing: For the purpose of this study four (4) sub hypotheses were formulated and tested using chi-square.

Hypothesis:1. Drugs are not significantly provided to hospital/health centres by SURE-P towards management of child morbidity in Niger state.

Table 4.2.2: χ2 summary on Provision of drugs by SURE-P to hospital/health centers

Response	Observed	Expected	dfχ2	Sig
Agreed .001	316(88.3%)	179.0	1	209.709
disagreed	42(11.7%)	179.0		
Total358				

χ2 = 3.84 df 1, χ2cal = 209.709 P<0.05

Table 4.2.7 indicates that 316(88.3%) agreed that SURE-P provided drugs to hospital/clinic for childrenwhile 42(11.7%) disagree. This shows that majority of the respondents agreed thatSURE-P provided drugs to hospital/health centrestoward management of child morbidity. The Chi-square (χ2) statistical test wasused to compute data collected and the result found was 209.709 The P-value is 0.001,which is less than the **α**-value (P<0.05). The hypothesis tested is therefore rejected. Hence, drugsare significantly provided by SURE-Ptowards management of child morbidity in Niger State.

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Hypothesis 2: Transportation for referral services referral services are not significantly provided by SURE-P toward management of child morbidity in Niger State.

Table 4.2.3: χ2 summary on Transportation of health workers through SURE-P

Response	Observed	Expected	dfχ2		Sig
Agreed .001	212(59.2%)	179.0	1		417.14
disagreed	146(40.8%)	179.0			
Total358					

χ2 = 3.84 df 1, χ2cal =417.14 P<0.01

Table 4.2.7 indicates that 212(59.2%) agreed that SURE-P transportation vehicles to hospital/clinic for children referral while 146(40.8%) disagree. This shows that majority of the respondents agreed that SURE-P provides transportation to hospital/health centres for referral toward management of child morbidity in Niger state.The Chi-square (χ2) statistical test was used to compute data collected and the result found was417.14 TheP-value is 0.001 which is less than theα-value (P=.001<0.05). The hypothesis tested is therefore rejected. Hence, transportation for referral services are significantly provided by SURE-P towards management of child morbidity in Niger State.

Hypothesis 3: Facilities and equipment are not significantly provided by SURE-P toward management of child morbidity in Niger State.

Table 4.2.4 χ2: Summary on Facilities and equipment provided by SURE-P to hospital/health center.

Response	Observed	Expected	df	χ2	Sig
Agreed	294(82.1%)179.0	1	147.765	.001	
Disagreed	64(17.9%) 179.0				
Total	**358**				

χ2 = 3.84 df 1, χ2cal = 147.765 P<0.01

The results on table 4.2.4 shows that 294(82.1%) agreed and 64(17.9%)disagreed and this shows that majority of the respondents agreed that SURE-P provide adequate facilities and equipment towards management of child morbidity in Niger state. The Chi-square (χ2) statistical test was used to compute data collected and the result found was 147.765.The P-value is 0.001 which is less than the **α-**value (P=.001<0.05). The hypothesis tested is therefore rejected. Hence, Facilities/equipmentare significantly provided by SURE-P towards management of child morbidity in Niger State.

Hypothesis 4: There is no significant provision of manpower development by SURE-P towards management of child morbidity in Niger State.

Table 4.2.5: χ2 summary on manpower development of health workers through SURE-P

Response	Observed	Expected	dfχ2 Sig
Agreed	237(66.2%)179.0137.587		.001
Disagreed	121(33.8%)179.0		
Total358			

χ2 = 3.84 df 1, χ2cal =37.587 P<0.01

The results on table 4.2.5 shows that 237(66.2%) agreed and 121(33.8%)disagree and this shows that majority of the respondents agreed that SURE-P organizes regular seminars, conferences for health personnel's to up-date their knowledge towards management of child morbidity in Niger state. The Chi-square (χ2) statistical test was used to compute data collected and the result found was 37.587.The P-value is 0.001 which is less than the **α**-value (P=.001<0.05). The hypothesis tested is therefore rejected.Hence,there is significantsmanpower development by SURE-P towards management of child morbidity in Niger State

4.3   Discussion

The outcome of the study showed significantly provisionof drugs, transportation for referral services, facilities/equipment and manpower development by subsidy reinvestment and empowerment programme(SURE-P) towards management of child morbidity in Niger State. Meanwhile all the null hypotheses tested were rejected.

Thefirsthypothesis revealed that drugs are significantly provided by SURE-P towards management of child morbidity in Niger state positively.In this regard and according to the findings of this study, drugs provision to hospital/health centers has improved and promoted the well-being of children in the state.According to a survey by the Uganda

Country Working Group (2009), 52-70% of essential drugs to treat diseases like malaria, pneumonia, diarrhea, HIV/AIDS, tuberculosis among others, are readily available in health clinics.Kyari, (2002) opined that adequate supply of drugs was listed as one of the factors that determine the improvement of child health care services by government health programmes.In another study, Tetteh and pharm (2009) contrarily contended that drugs supply chain affect availability and acceptability dimension of medicines access. They suggested that failures of in- country supply chain to operate effectively and efficiently can erode all the success achieved in earlier stages of the supply chain and lengthy public distribution system have also been identified by (Tetteh& Pharm, 2009) as one factor affecting availability of medicine in health centers.Romani&Mavealankar (2009), in their research on health system in India, found that poor logistics management of supply of medicines and drugs negatively affected the availability of maternal and child health care drugs in India.In a similar study, literature suggests that some aspect ofsupply performance such as inefficient processes and delay delivery or stock out of medical supplies may affect efficiency (Kumar, DeGroot&choe, 2008) and effectiveness (Mustaffa& Potter, 2009) of health care system. According to Butt & Run (2009) patients are concerned about health care provider ability to make drugs available and for it to cure their diseases, while upholding their best interest at a lowest possible cost.

The second hypothesis was also rejected. Based on the test, that transportation for referral services are significantly provided by SURE-P toward management of child morbidity in Niger State. The result is in line with a study conducted by Kaufman, 2002 who reported an analysis of transport to Benedictine hospital, kwazulu Natal in the Zululand health districtand emphasized its importance for access to health services. He further stated that a child that became sick after he or she had been treated was referredto the hospital. They

had indicated that treatment at the health center might sometimes not be effective due to lack of proper diagnosis. He emphasized that it is not good to keep on treating such a child rather they should be referred for proper diagnosis and treatment in well equippedhospitals.In a study conducted by World Bank, 2011it was stated that vehicles and good roads make the health facilities more accessible to poor families in rural areas, which allows for more frequent and less costly visit for their children –plus better access to antenatal, postnatal care, helping to prevent infant and maternal illness and deaths

Lack of transport to ensure timeouts transfer of patients between levels of health care and for delivery of medicines, vaccines, and other essential equipment is a commonly heard cry from health workers, particularly from those working in rural areas, but is often overlooked and rarely researched. A multi-country study on transport management in the health sector carried out in four sub-Saharan countries demonstrated the importance of a functional transport system for ensuring the effective and efficient delivery of health services (Nancollas, 2011).

Bundred and Levitt (2010) have likened inequalities that exist between and within countries, to those that exist between developed and underdeveloped areas to better understand the reasonfor health professionals' location decisions. The authors came to the inescapable conclusion thatprofessionals migrating from poor to developed areas are often influenced by perceived better opportunities such as income and good working conditions translated into tangibles, 'good' working conditions' would imply, among others, easily accessible and well-equipped medical facilities.

In the same vein, healthcare workers such as home-based care workers often visit patients in their homes. The Institute for Transport and Development Policy (ITDP) (2003) argues that about 70% of adults and over 80% of children living with HIV/AIDS are in Africa–

living in the most underdeveloped areas. Persons living with HIV/AIDS cannot always visit healthcare facilities due to difficulties they face in travelling – they often require the assistance of healthcare workers due to physical weakness in environs characterized by inadequate andunaffordable transportation services (Mashiri, 2012).While the need to mobilize healthcare workers who do outreach work is recognized, the need for improved transport services cannot be over-emphasized.

The third hypothesis was also rejected,facilities and equipment are significantly provided by SURE-P towards management of child morbidity in Niger state. The outcome of the study is in line with Lawrence, (2004)whichstated that understanding the importance of health care services, sustainability will mean incorporating long term equipment and facility management of health services. He also went further to state that Nigeria was littered with laudable but failed health projects due to lack of maintenance of facilities and equipment.Mwaniki, Kabiru&Mbuga (2002) in their study found out that the provision of health facilities significantly influences the quality of services, good environmental cleanliness in the health facilities and adequate quality service provided. Similarly a study in Zimbabwe indicates that inadequate facilities and poor services were the majorproblems identified by women as influencing them not to seek care from ruralhealth centers. Inadequate facilities for dealing with pregnancy complications, the shortage of drugs and personnel have been found as being significant contributing factors of maternal and child morbidity in many developing countries (Lawrence, 2004).Hodges, (2002) stated that in term of health infrastructures, Nigeria is quite well covered. However, the fact that health facilities physically exist, in the sense of bricks and machines, does not necessarily mean that they are functional. Many are poorly equipped and lacked essential supplies and qualified staff.

The findings of the fourth hypothesis was also rejected which revealed thatthere is significantly provision of manpower development by SURE-P toward management of child morbidity in Niger state. The findingis in line with Rajah, Furgan& Muhammad,(2011) who conducted a survey of 100 sample. They observed in their studies that there is a positive relationship between training and design and organizational performance. Similarly Abeeha,&Beriha (2012) in their studies carried out in Pakistan, observed a positive correlation between employees training and organizational competitive advantage.Abang, Mary & Maw (2009) on the other hand, pointed out that Lynch & Black in their studies revealed that only off-the job (General) training improves organizational performance whereas on the job training does not.

This finding is contrary to the finding of (Abeeha&Beriha, 2012) ina study conducted in Ife-East Local Government Area of Osun State it was stated that there is no interconnectivity between staff training or their capacity building and efficient service delivery. It is believed that such idea only exist in theory and on book because in reality, it is not easy or simple to say that training of staff will promote efficient service delivery because of challenges such as poor funding of training programmes, corruption, demand for money or bribe from people by officers in charge of service delivery, bad leadership and governance at the grassroots.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

This study investigated provision ofmaternal and child health services towards management of child morbidity by subsidy reinvestment and empowerment programmes in Niger State. To achieve this purpose, four research questions, one major hypothesis and four sub-hypotheses were formulated to guide the study. Ex-post-factor research design was used for this study. The population for this study comprised health workers working in hospital/health centers receiving SURE-P intervention in Niger State. The samples for the study were selected using multi-stage sampling technique and the sample size was 391 health workers. Data was collected using the researcher developed questionnaire designed on 5 points Likert scale format. The researcher employed the service of sixstudents of Department of Sports Science and Health Education, Ibrahim BadamasiBabangida University, Lapai as research assistantsto administer 391 questionnaires to the respondents and 358 questionnaires were fully completed and returned. The instrument was validated and subjected to a pilot study that yielded reliability index of 0.79. Frequency count and percentage were used to organize and describe the demographic data of the respondents, while chi-square statistics was used to analyze the formulated hypotheses at alpha level of 0.05 significance. The findings of this study revealed that:

1. Drugs are significantly provided by SURE-P towards management of child morbidity in Niger State.

2. Transportation for referral services are significantly provided by SURE-P towards management of child morbidity in Niger State.

3. Facilities/equipment are significantly provided by SURE-P towards management of child morbidity in Niger State.

4. There is significantly provision of manpower development by SURE-P towards management of child morbidity in Niger State

5.2 Conclusion

Based on the findings of thisstudy,the following conclusions were drawn:

1. Drugs provided to hospital/health centers by SURE-P promoted the reduction of child morbidity in Niger State.

2. Provision of transportation/vehicles to hospital/health centers for referral cases whenever children have serious health problems promoted reduction of child morbidity in Niger State.

3. Facilities and equipment provided to hospitals/health centers by SURE-P promoted the reduction of child morbidity in Niger State.

4. Provision of training through seminars, conferences and workshops for manpower development of health workers significantly promotedreductionof child morbidity in Niger State.

5.3 Recommendations

Based on the findings and conclusion of this study, the following recommendations were made:

1. Niger State government should ensure the continuation and improvementof the SURE-P intervention to hospitals/clinics to help in bringing down the rate of children morbidity in the Niger State.

2. Government and Non-Governmental Organizations that are providing support to health should ensure that vehicles are regular 24/7 and maintained to facilitate referral cases. Also, drivers should be encouraged to render services 24/7 on the job.

3. Health facilities and equipment should be upgraded and maintain in the hospital/health centers for effective treatment and management of maternal and child health related problems. Also government should provide more health facilities and equipment,thiswill minimize congestion in clinic and long distances travelling to health centers in some areas of the state.

4. Training opportunities, workshops, conferences and seminars, should be organized regularly among the medical personnel from time to time.

5.3 Recommendation for Further Studies:

It is recommended that further study will be conducted on provision of maternal and child health
services by subsidy reinvestment andempowermentprogrammestowards management of child
mortality in Niger State.

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APPENDIX A

QUESTIONNAIRE

Dear Respondent,

I am a master's student in the Physical and Health Education Department of Bayero University, Kano, carrying out a research on **"Provision of Maternal and Child Health ServicesTowards Management of Child Morbidity by Subsidy Reinvestment and Empowerment Programmes (SURE-P) in Niger State".** Please tick the option that mostly represents your opinion. Information given will be used only for academic purposes and will remain highly confidential.

Section A: Demographic Information about the Respondents

1. LGA: …………………………………………………..
2. Name of Hospital/Health Centre………………………………………………………
3. Job Status:

(a) Doctor ( ) (b) Nurse ( ) (c) Laboratory Technologist ( ) (d) Pharmacist ( )   (e) Community   Health Worker ( ) (f) Medical Record Officer

Instructions: Please tick (✓) the option that best represents your opinion.

SA=Strongly Agree, A=Agree, U=Undecided, D=Disagree, SD=Strongly Disagree

SECTION B: PROVISION OF DRUGS

S/N	STATEMENTS	SA	A	U	D	SD
4	SURE-P provide enough drugs to hospitals/clinics for child's morbidity					
5	SURE-P provide paediatric drugs to hospitals/clinics on regular basis					
6	The drugs provided by SURE-P are affordable to parents/care-givers.					
7	Paediatric drugs provided by SURE-P are of high standard/quality					
8	SURE-P provides cold rooms for storage of children's vaccines to preserve their potency.					

SECTION C: PROVISION OF TRANSPORTATION

S/N	STATEMENTS	SA	A	U	D	SD
9	SURE-P provides vehicles to the Hospitals/clinics for children's referral when they have serious health problems.					
10	SURE-P maintains the available vehicles for the purpose of children with serious health problem.					
11	There is always a driver on ground for the 3 shifts (24 hours) including Saturdays and Sundays who will drive the vehicles in case of a referral.					
12	Medical personnel is always attached to the vehicle during referral					
13	SURE-P supports the employment of qualified/experienced drivers to the hospitals/clinics to avoid preventable accidents during referrals.					

SECTION D: PROVISION OF FACILITIES/EQUIPMENT

S/N	STATEMENTS	SA	A	U	D	SD
14	SURE-P provides standard facilities such as adequate paediatric wards in the hospitals/clinics provided by SURE-P for the admission of children with serious health problems.					
15	SURE-P provides enough equipment such as incubators, stestoscope, surgical blade, thermometer, ambu bag, weighing balance, oxymeter, in the hospitals/Clinics provided by SURE-P for child morbidity.					
16	SURE-P provides standard equipment in the hospitals/clinics for child morbidity.					
17	SURE-P provides support in maintaining the equipment in the hospitals/clinics for child morbidity.					
18	There is adequate manpower to operate the equipment in the health centers for child morbidity.					

SECTION E: MANPOWER DEVELOPMENT

S/N	STATEMENTS	SA	A	U	D	SD
19	SURE-P organizes regular seminars, conferences etc for health personnel to update their knowledge and experience on child morbidity.					
20	SURE-P supports health personnel to go for further studies in paediatric specialties					
21	SURE-P provides internet facilities to update the staff general knowledge including areas of child morbidity.					
22	SURE-P provides funding to the health personnel for research purposes in the areas of paediatric issues.					
23	SURE-P ensures that qualified health personnel (paediatricians) are employed in the Hospitals/Clinics.					

Appendix B

Required Sample Size

Confidence = 95.0%					Confidence =99.0%			

Population Degree of Accuracy Margin of Error Degree of Accuracy/Margin of Error
Size

Population Size		0.05	0.035	0.025	0.01	0.05	0.035	0.025	0.01
10	10	10	10	10	10	10	10	10	
20	19	20	20	20	19	20	20	20	
30	28	29	29	30	29	29	30	30	
50	44	47	48	50	47	48	49	50	
75	63	69	72	74	67	71	73	75	
	100	80	89	94	99	87	93	96	99
	150	108	126	137	148	122	135	142	149
	200	132	160	177	196	154	174	186	198
	250	152	190	25	244	182	211	229	246
	300	169	217	251	291	207	246	270	295
	400	196	265	318	384	250	309	348	391
	500	217	306	377	475	285	365	421	485
	600	234	340	432	565	315	416	490	579
	700	248	370	481	653	341	462	554	622
	800	260	396	526	739	363	503	615	763
	900	269	419	568	823	382	544	672	854
	1,000	278	440	606	906	399	575	727	943
	1,200	291	474	674	1067	427	636	827	1119
	1,500	**306**	515	759	1297	460	712	959	1376
	2,000	322	563	869	1655	498	808	1111	1785
	2,500	333	597	952	1984	524	879	1288	2173
	3,500	346	641	1068	2565	558	977	1510	2890
	5,000	357	678	1176	3288	586	1066	1734	3842
	7,500	365	710	1275	4211	610	1147	1960	5165
	10,000	370	727	1332	4899	622	1193	2098	6239

25,000	378	760	1448	6939	646	1285	2399	9972
50,000	381	772	1491	8056	655	1318	2520	12455
75,000	382	776	1506	8514	658	1330	2563	13583
100,000	383	778	1513	8762	659	1336	2585	14227
250,000	384	782	1527	9248	662	1347	2626	15555
500,000	384	783	1532	9423	663	1350	2640	16055
1,000,000	**384**	783	1534	9512	663	1352	2647	16317