ENSIGN COLLEGE OF PUBLIC HEALTH, KPONG,

EASTERN REGION, GHANA

COMMON CHILD SURVIVAL PRACTICES OF WOMEN AT ASHAIMAN MUNICIPAL

By

KPORTANYE CHARITY DOVLO

A thesis submitted to the Department of Community Health in the Faculty of Public Health in partial fulfilment of the requirements for the degree

MASTER OF PUBLIC HEALTH

JUNE, 2016

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SUPERVISOR: DR. PHYLLIS ANTWI

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DECLARATION

I hereby declare that except for references to other people work, which I have dully cited, this project submitted to the school of Graduate Studies, Kwame Nkrumah University of Science and Technology, Kumasi is the results of my own investigation, and has not been presented for any other degree elsewhere

KPORTANYE CHARITY DOVLO	.....	.....
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(Supervisor)	Signature	Date

Certified By:

Dr. Christopher N. Tetteh	…….....	.....
(Dean)	Signature	Date

DEDICATION

I dedicate this work to God Almighty, in honour of my late parents, my dear husband, my children and my entire family for their support and encouragement during my study.

ACKNOWLEDGEMENT

My profound gratitude goes to the Almighty God for His tender mercies and loving kindness. My sincere thanks go to Dr. Phyllis Antwi my supervisor and Dr Juliana Enos, my co- supervisor and the entire Ensign College lecturers who made it possible for me to come this far. My special thanks to Mr Emmanuel Kwarteng for your prayers and encouragement.

GLOSSARY

BCG – Bacille Calmette Guerin

CHAG – Church hospitals association Ghana

CHPS – Community –based health planning and services

CWC – Child welfare clinic

DDT – Diphtheria Pertussis Tetanus

EBF – Exclusive Breastfeeding

Hep B/Hip – B / Haemophilus influenza type b

ITNs - Insecticide treated mosquito nets

IYCF – Infant and young children feeding

MDAs – Ministries departments agencies

PHC – Population and Housing Census

RBM - Roll back malaria

TBAs - Traditional birth attendants

TZ – Tuo zafi

UNICEF – United Nations Children's Fund

WHO - World Health Organization

ABSTRACT

In most developed countries, the health of the new born and infants are taken very seriously. Even dough there is tremendous effort to reduce infant mortality in Ghana yet, child mortality still remain high. Hence, the need for investigating the common child survival practices which contribute to child deaths. The objective of this study was to investigate common child survival practices including timing of the initiation of breastfeeding, complementary feeding practices, completeness of immunization and knowledge and practices related to childhood illnesses among mothers of children under one year of age in Ashaiman.

The study was conducted using a quantitative research approach and data was analyzed with Stata statistical software and microsoft Excel. A simple random sampling technique was used to select the respondents. In all 400 mothers were sampled and administered with closed and open ended questions.

Result showed that about 53% of mothers breastfed their infants immediately after birth. Only about 30.5% introduce complementary food after the child attains six months; mothers about 88% however did well by sending their infants for immunization; while in assessing knowledge and practices in relation to childhood illnesses, mothers about 43.9% provided self medication to their children. It was also found out that some mothers do not use insecticide treated nets (ITNs) for their children.

In conclusion common child survival practices in relation to initiation of breastfeeding (breast milk) and immunization met World Health Organization (WHO) recommendations whiles introduction of complementary foods and

knowledge and practices related to childhood illnesses do not very much meet the W.H.O standard of recommendations. Findings will inform the municipal directorates to put measures in place to secure the health of infants in the municipality.

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CHAPTER ONE

INTRODUCTION

1.1 Background of the study

Child survival practices are the standard and healthy practices done to keep a child alive (UNICEF, 2012). Although Ghana has made major strides towards reducing child mortality, the number of deaths in children, and especially in infants remains unacceptably high (Ghana Health Service, 2006).

Survival of the newborn, in particular, is an issue of great concern especially in developing countries. Though various efforts have been made by governments to reduce infant mortality, neonatal mortality keeps increasing. Today, one in every 12 newborn dies before reaching his or her fifth month in most developing nations, including Ghana (WHO, 2006).Of the approximately four million global neonatal deaths that occur annually, 98 percent occur in developing countries, where most newborns die at home while they are cared for by mothers, relatives, and traditional birth attendants (WHO, 2013). Almost two-thirds of infant deaths occur in the first month of life, and among those, two-thirds die in their first 24 hours after birth (Lawn et al, 2005). In a middle income country such as Ghana, which is experiencing higher levels of economic development and access to services, such low child survival rates are unacceptable.

This concern towards newborn survival has motivated a search into how parents, especially mothers, adhere to the standards of child survival practices.Child survival practices contribute significantly to the poor infant survival rates in developing countries. These practices have the tendency to propel the infant to healthy living and low death rates as experienced in advanced communities, or high morbidity and mortality rates as exists in poor communities. In Ghana, child survival practices are driven by a host of intersecting socio-economic and cultural

factors; this study focuses on assessing practices in relation to the survival of infants in Ghana. Child survival practices include the timing and initiation of breastfeeding. It also includes the introduction of complementary foods at the appropriate time as well as practices related to the care of the child at home and during illness. Therefore this study aims to investigate child survival practices among women in Ashaiman, A low income community in the greater Accra region of Ghana. Practices investigated include the timing of initiation of breast feeding after birth, introduction of complementary feeding, infant immunization completeness as well as knowledge and practices related to other childhood illnesses of women with children less than one year of age within the Ashaiman district.

1.2 Problem Statement

Literature on infant survival practices of women in the African sub-region, including Ghana, is rather scanty. Yet, knowledge of child survival practices in Ghana is critical to the success of child survival programs. This study sought to investigate child survival practices among women of infants aged 0-12 months at Ashaiman in the Greater Accra Region of Ghana, in order to understand the factors contributing to poor child survival in poor communities. This is because Ashaiman is generally perceived as a less endowed socio-economic environment with increasing child and maternity deaths (Ghana Health Service, 2011). The increasing child mortality within the Ashaiman district, and Ghana as a whole, motivates a search into the child survival practices of mothers. The study will specifically investigate practices such as introduction of complementary feeding, infant immunization completeness as well as knowledge and practices related to other childhood illnesses in the community.

1.3 Objectives

General Objective

To investigate child survival practices among mothers with children less than one year of age in Ashaiman.

Specific Objectives

1. To investigate timing and initiation of breastfeeding.
2. To assess practices related to the introduction of complementary feeding.
3. To ascertain the completeness of infant immunization by twelve months.
4. To assess the knowledge and practices related to other childhood illnesses such as malaria, diarrhoea and acute respiratory diseases among mothers with children less than one year of age.

1.4 Justification

Although the WHO recommended length of exclusive breastfeeding (EBF) is six months; in Ghana, the average length of EBF is four months (Biks, 2015). EBF prevents morbidity and mortality among infants. However, in Ghana, morbidity and mortality is very high especially in the low socio economic areas in of the country. Appropriate introduction of breast milk and other infant feeding and child care practices at the household level should prevent childhood illnesses. Infant are victims of childhood illnesses as a result of inappropriate infant feeding, immunization and child care practices. This study seeks to investigate child survival practices of women with children under one year of age at Ashaiman, a suburb of Accra, Ghana. This

study seeks to provide an empirical basis on which other researches could be conducted to provide an in-depth understanding of child survival practices in Ghana.

1.5 Scope of Study

This study is limited to mothers with children aged 0-12months in Ashaiman district in Greater Accra Region. It basically explores child survival practices of mothers of children under one year of age at Ashaiman community.

1.6 Structure of the Thesis

The thesis consists of six chapters.

Chapter one, comprises of introduction, problem statement, Justification, Research objectives and the scope of study. Chapter two focuses on review of related literature. Chapter three presents the methodology of the study. It comprises the research design, the target population of the study, the sample size, the sampling techniques, the data collection instrument, and the statistical tools which were used in the data analysis. Chapter Four, explains and interpret the results obtained from data collected. Then chapter five presents the discussion of main results/findings. Finally, chapter six present the conclusions and recommendations based on findings from the study.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section reviews evidence on child survival practices and defines theoretical concepts related to the main variables to be studied. The empirical evidence from studies on child survival practices are presented as well as theoretical literature which define and explain the main variables and concepts to be studied (Huberman & Miles, 1994). The review focuses on child survival practices relative to breastfeeding, complementary feeding practices, completeness of infant immunisation as well as knowledge and practises related to other childhood illnesses such as malaria, diarrhoea and acute respiratory diseases,

2.2 Infant Feeding Practices

One of the major determinants of children'snutritional status and high rates of malnutrition in Ghana is infant feeding(Kelly, 2004). Infant feeding includes breast feeding, formula feeding, solid food intake and other complementary foods and fruits and liquids (Kelly, 2004).

2.2.1 Breastfeeding

Breast milk as an infant feeding is world widely accepted and adopted as global health policy for both developed and developing countries. According to the WHO (2006), breast milk provides optimal nutrition and promotes the child's growth and development; it is associated with improved growth during the first months of life. By breast-feeding, a mother begins the immunization process at birth and protects her child against a variety of viral and bacterial pathogens before the acquisition of active immunity through vaccination. Breast milk has unique anti-infective properties. Frequent and exclusive breast-feeding can be an appropriate method of fertility regulation for many women, particularly when other family planning

methods are not readily available or desired. Early contact (immediately after birth) between the mother and the baby, according to the WHO (1999), has a beneficial effect on breast-feeding. Early suckling provides the baby with colostrums that offers protection from infection, gives important nutrients, and has a beneficial effect on maternal uterine contractions.

The baby's skin and gastrointestinal tract are colonized with the mother's microorganisms, against which she has antibodies in her breast milk. Important factors in establishing and maintaining breast-feeding after birth include: giving the first feed within one hour of birth, correct positioning that enables good attachment of the baby, frequent feeds, no prelacteal feeds or other supplements, and psychosocial support for breast-feeding mothers. Babies have a wide range of behaviours following spontaneous delivery and are not all ready to feed at the same time. Breast feeding protects against infectious diseases such as gastro intestinal infections, other nutritional diseases e.g. malnutrition that largely is a contributing factor to child morbidity and mortality in developing counties. Breast feeding can be life-saving in places where sanitation and safe water is often a problem.

Studies have shown that breast feeding infants have different growth patterns as compared to formula fed infants (Bhandari et al, 2003). Breast feeding improves health and survival status of the new born and emotional attachment of the child to the mother. It also has a long term benefit of protecting against child obesity and breast cancer for the mother. Breast feeding helps the mother to prevent excessive blood lost after delivery and delays in return to fertility (Bhandari et al, 2003). It also reduces cost of child feeding because the mother will not be buying expensive formula and other substitutes.

There is evidence that, breast feeding for at least four months prevents allergy wheezing in early childhood compared to formulae feeding. Not all formulas have the same protective benefit (Ahmad et al, 1991).Mothers who are employed or not employed do not feed their

infant well because they are engaged in domestic chores that keep them away from infant feeding routines (Sullivan, leathers and Kelly, 2004; Bick, Macarthur and Lancashire, 1998).People who help in taking care of the infant also influence mother's choice of infant feeding practices.

2.2.2 Breastfeeding Practices in Ghana

Breast feeding is widely practiced in Ghana with about ninety-seven percent of babies breast fed initially over the past five years., In Ghana studies have shown that only eight percent of infants are exclusively breast fed for up to four months and forty-five percent are given complementary feeding by three months of age (Kelly, 2004). According to the Ghana Demographic and Health survey,(2009), only seventeen percent of children are exclusively breastfed, thirty–eight percent fed on breast milk and water, or water based liquid (Ghana Statistical Service & Ghana Demographic Health Survey 2009). Child malnutrition as a result for morbidity and mortality in Northern Ghana is highest because exclusive breastfeeding is low. Health care providers are promoting exclusive breastfeeding but much success was not achieved because of feeding practices that are directly related to varied economic, socio-cultural and religious factors in the community and various dynamics prevailing at the household level.

Socio-cultural factors, norms and customs of communities are crucial in influencing nutritional health status of an infant. The environment in which care is given to infants also affects feeding behaviour of the infant. Evidence shows that children born in urban area breast fed in early hours earlier than babies born in rural areas. In some cultures, male babies were breast fed after three (3) days of birth whilst girls are breastfed after four (4) Days. In some cultures, the first breast milk (colostrums) is expressed out for the reason of being harmful unclean and or unwholesome. Colostrums decreases infant morbidity and mortality especially

in developing countries by reducing risk of infections and diseases such as, diarrhoea, gastroenteritis, respiratory and other infections (Ahmad et al. 1999).

According to Ahmad et al (1999) reasons for discarding colostrums were as follows:

- It is dirty and the body can contract disease.
- It contains blood or pus and therefore not good for babies.
- It causes abdominal pains, diarrhoea and other digestive problems.
- Water and sheabutter with herbs (sampuliving among kusasi ethnic group to stop navel pains) was given to infants whilst mothers wait for clean whitish breast milk.
- Inscribed Islamic verses washed with special water for protection against disease.

The average length of exclusive breast feeding in Ghana is four (4) months (Annim, Awusabo-Asare, & Amo-Adjei, 2013). Forty –one percent of breast fed children and eleven percent of non breast fed children between six to twenty three months are fed accordingly as recommended by infant and young children feeding (IYCF) practices (Annim, Awusabo-Asare, & Amo-Adjei, 2013).A study conducted in low socio-economic settlements of Karachi, Pakistan, revealed that newborns were bathed immediately after delivery as the vemix was considered “dirty looking” and it was felt it should be removed. Daily massage of the newborn with mustard oil and risky feeding practices such as giving prelacteals, supplementary feeds, delaying first feed were common. Apart from breast milk which was the preferred feed during neonatal period, other feeds like honey, ghutti and water were also given in order to reduce colic or act as laxative, these were perceived health benefits mentioned by mothers as well as TBAs (Fikree et al., 2005).

A cohort study conducted by UNICEF (2015) used total of 255,495 live-born women-infant dyads as the sample for the study. Rates and determinants for the exclusive breastfeeding sub-

study at 42 days post-partum were assessed from among a sub-sample of 105,563 subjects. Although there was heterogeneity by site, and early initiation of breastfeeding after delivery was high, the Pakistan site had the lowest rates of early initiation of breastfeeding. The Pakistan site also had the highest rate of lack of exclusive breastfeeding at 42 days post-partum. Across all regions, factors associated with failure to initiate early breastfeeding included nulliparity, caesarean section, low birth weight, resuscitation with bag and mask, and failure to place baby on the mother's chest after delivery. Factors associated with failure to achieve exclusive breastfeeding at 42 days varied across the sites. The only factor significant in all sites was multiple gestation.

However, a study conducted by Yadav (2007) on traditional practices in newborn care in Nepal shows that colostrums is regarded as dirty milk in some communities, and babies were fed with cow or goat milk immediately after birth for the popular belief that it will make the baby become more intelligent.

Biks (2015)studied the risk factors that are associated with infant mortality in Northwest Amhara Region, Ethiopia. A prospective open cohort study involving 1752 infants (1472.4518 person years of follow-up) was undertaken from November 2009 to August 2011. Kaplan-Meier Survival analysis was used to estimate infant mortality rate. Risk factors associated with infant mortality were assessed using multivariate Poisson regression. The overall infant mortality rate was 88 per1000 person-years. After controlling other important predictors in multivariate Poisson regression, infants not exclusively breastfed [IRR = 7.86, 95% CI: (5.11, 12.10),], breast milk initiated after 24 hours of birth[IRR = 4.84,95% CI: (2.94,7.99)], mothers not washing hands with soap after visiting toilet and before feeding child[IRR = 4.61, 95% CI: (2.24, 9.48)], being rural residents [IRR = 2.33, 95% CI: (1.12, 4.88)], infants born within 24 months for the previous birth [IRR = 2.79, 95%CI: (1.88,

4.15)], have increased the risk of infant mortality. In conclusion, exclusive breast feeding is the strongest predictors of infant survival in these predominantly rural setting wherehygienic standards are poor. Supporting mothers to exclusively breast feeding which is cost effective, safe and feasible strategy can help reduce infant mortality in the study setting.

2.3Timing of Initiation of breast feeding

Provision of mother's breast milk to infants within one hour of birth is referred to as "**initiation of breastfeeding**" and ensures that the infant receives the colostrums, or "first milk", which is rich in protective factors (Paddock, 2007).Breastfeeding in the first hour of life shows that early initiation and exclusive breastfeeding for six months can save lives. A 2006 study published in the journal paediatrics suggested that 41% of newborns that die in the first month of life could be saved if breastfed in the first hour of life. The WHO indicates that colostrums in the first hour increases the likelihood that babies will continue to be breastfed which gives them the ability to fight malnutrition. Breastfeeding in the first hour or so after birth also confers benefits to the mother such as improved lactation and less loss of blood. In conclusion it is imperative to encourage initiation of breastfeeding in the first hour after birth because it has an added advantage of helping to bond mother and baby in a natural, uninterrupted way and maximise the chance the infant will latch onto the breast and stimulate lactation.

2.3.1 Initiation of Breastfeeding

According to Deogaonkar and Milind (2004) early initiation of breastfeeding within 1 hour after birth was commonly practiced; TBAs ensured that newborn babies they deliver are breastfed immediately after birth. Breastfeeding was initiated within the first hour after birth. Breastfeeding practices, (especially, breastfeeding on demand) as well as hygienic

breastfeeding practices should be reinforced. Knowledge on more serious newborn danger signs other than high body temperature, diarrhoea, excessive crying was minimal. Although mothers claim they will take their newborn babies to the hospital upon recognition of the perceived danger signs, the practice of buying “over-the-counter” drugs to treat newborn babies as well as the giving of enema were identified.

Ani, Kaur and Kumah (2011) conducted a study on the effect of initiation of breast-feeding within one hour of the delivery on "maternal- infant bonding". Two hundred and eighteen mother infant dyads were enrolled for the study and considered for analysis. Each group (control and experimental) comprise of one hundred and nine mother infant dyads. Mothers who initiated breast feeding after one hour of the delivery were considered in the control group and the mothers in the experimental group initiated breastfeeding within one hour of the delivery. The result revealed that the initiation of breast feeding within an hour of delivery improves maternal infant-bond. Khadduri et al. (2007), state that most women breastfed their babies, but initiation within 1 hour of birth and colostrums feeding were not common.

2.4Complementary Feeding

Complementary feeding is the timely introduction of safe and nutritional foods in addition to breast-feeding (BF), clean and nutritionally rich additional foods is introduced at six months of infant Age. Complementary feeding strategies embraces a wide variety of interventions designed to improve not only the quality and quantity of these foods but also improve the feeding behaviours; such as effective and timely provision of appropriate complementary foods (nutritional counselling) and education to mothers about practices of complementary feeding on growth.

2.4.1Practicesrelated to complementary feeding

Mothers with infants with diarrhoea diseases are encouraged to feed children with breast milk and or normal food to increase the amount of fluids given. This prevents severe dehydration. Infants are usually given koko made from fermented millet or corn dough with little or no sugar. Initially it is very light and becomes thicker as the child grows. The child is sometimes also given light soup. It normally starts before or at 4 months. By six months solid foods e.g. mashed yam, tuozafi (T Z), wean mix and orange juice are introduced.

Abang (2013) assessed breastfeeding and complementary feeding practices and the association between duration of EBF with the growth of infants at six months of age in the Builsa district in the Upper East region. The study was conducted in two parts. The first was a qualitative study utilizing focus group discussions (FGDs) with mothers with six months old infants recruited from six communities in the Builsa district. The second was a cross-sectional survey of 290 mother-child pairs recruited from six health facilities in the Builsa district. Results showed that cultural beliefs underline most of the breastfeeding and complementary feeding practices. Early and late introduction of complementary food, water and traditional herbs/liquids to newborn babies are common. Grandmother's support for EBF, thickness of porridges and age of introduction of complementary food were significantly associated with duration of EBF.

A study conducted in Haryana, India revealed that 75 percent of newborns were given prelacteal feeds of honey, tea and diluted milk, and babies are often not breastfed during the first 3 days. They are often given sweetened water, this presumes that colostrums was discarded (Bhandari et al., 2003).

Studies show that receiving appropriate, adequate and safe complementary foods starting at six months of age leads to better health and growth outcomes (UNICEF, 2013). The complementary feeding period is the most challenging when it comes to infant feeding as it has been widely recognized that optimal complementary feeding does not depend on only what is fed but also on how, when, where and by whom the child is fed (Pelto et al., 2002).

A study in India revealed that caregivers lack the awareness and knowledge of what and how often to feed their infants (Sharma, 2005). With regards to the challenges of what to feed, how and when to feed during the complementary feeding period, WHO/UNICEF in a review in 1998 on complementary feeding presented age specific guidance on the nutritional requirements from complementary food in breastfed children. These guiding principles on complementary feeding were recommended to serve as a guide for countries to develop locally appropriate feeding recommendations. It is recommended that complementary feeding starts at 6 months and breastfeeding continued on-demand until two years of age or beyond. The 2008 GDHS reported that 75% of children 6-9 months were consuming complementary foods implying that 25% of children in this age group did not meet the recommendation to start complementary feeding at 6 months.

Good hygiene and safe food handling are very essential since the peak incidence of diarrhoeal diseases occur during the complementary feeding period. It is recommended that caregivers and children wash their hands properly before food preparation and eating, storing food safely, using clean utensils, bowls and cups as well as avoid the use of feeding bottles as these bottles are sources of dangerous pathogenic organisms (PAHO/WHO, 2003). These practices are especially important in areas with poor access to safe water and sanitation as unhygienic practices and unsafe handling of food can contribute to diarrhoeal diseases and morbidity (Kramer and kakuma, 2002; Vaahtera et al., 2001).

The amount of complementary food needed by a child increases as the child gets older since a child's energy requirements increases with age. It is recommended that children at 6-8 months, 9-11 months and 12-24 months receive 137-187 g/day, 206-281 g/day and 378-515 g/day amount of complementary food respectively. Due to the difficulty in measuring these amounts, the GHS has used common household measures to determine the amounts of food to be given. Hence it has recommended that children at six months consume one stew ladle, children 7-8 months consume one soup ladle, children 9-11 months consume one to two soup ladles and children 12-24 months consume two soup ladles of complementary food.

2.5 Completeness of Infant Immunization

According to the guidelines of world Health Organization (WHO, 2006) and United Nation International Children's Emergency Fund (UNICEF) for an infant to be considered as being immunized or vaccinated children should receive the following vaccinations; A dose of BacilleCalmette Guerin (BCG) at birth, Oral poliomyelitis (four doses), pentavalent vaccine, Measles at nine month (where there an outbreak, it is given at six months and repeated at one year. Yellow fever vaccine between nine to twelve months.

According to UNICEF and WHO (2014) Child immunization measures the percentage of children ages 12-23 months who received vaccinations before 12 months or at any time before the survey. A child is considered adequately immunized against measles after receiving one dose of vaccine.

Pediatrics (2002) performed a retrospective cohort study of 504 children who were adopted from other countries and evaluated in 1997 and 1998. The goal was to determine the acceptability of overseas vaccinations for meeting US immunization requirements. They assessed immunization records for both valid documentation of receipt of vaccine and

comparability with the recommended US schedule. Pediatrics (2002) determined the number of children who were up to date (UTD) for diphtheria-tetanus-pertussis, polio, hepatitis B, and measles-mumps-rubella vaccines under the US schedule.

Results showed that children's mean age at initial US evaluation was 19 months; 71% were girls, and most (88%) had resided in orphanages. They were adopted from16 countries, most frequently from China (48%) and Russia (31%). Thirty-five percent (178) of children had overseas immunization records, 167 (94%) of which were considered valid. Most children with valid records (112 [67%] of 167) were UTD for 1 or more vaccine series under the US Schedule. The majority (65%) of internationally adopted children had no written records of overseas immunizations. Among the 178 children with documented overseas immunizations, 167 (94%) had valid records and some vaccine doses that were acceptable and UTD under the US schedule. Additional research and more specific guidance in the most cost-effective approaches to evaluation of overseas vaccinations are needed to ensure appropriate state-side vaccination and to improve the health of these children and their communities.

Dummer and Parker (2012) conducted a study that included 8,245 babies born in Nova Scotia during 2006. Immunization data were derived from three sources: Provincial Medical Insurance Physician Billing data, public health records, and self-report by parents. Immunization uptake rates for vaccines included in the Nova Scotia immunization schedule were calculated at ages 12, 18 and 24 months. Logistic regression was used to analyze vaccine uptake in relation to socioeconomic factors. A telephone survey of a sample of parents of study children less than 25 months was completed.

The overall immunization completeness rate was 49% at 12 months, 40% at 18 months and 58% at 24 months of age. Immunization completeness was significantly higher in more

socially disadvantaged communities. It was concluded that Nova Scotia spends many millions of dollars on vaccine purchase and administration, but, as with numerous Canadian jurisdictions, there is no accurate system for monitoring or evaluating the program. The timeliness and completeness of immunization administration to pre-school children in Nova Scotia is inadequate. Further work should elucidate the barriers and enablers to immunization to ensure that public health education targets those most likely to be under-immunized. A provincial vaccination database should be established to monitor and evaluate the system.

According to the guidelines of world Health Organization (WHO) and United Nation International Children's Emergency Fund (UNICEF) for an infant to be considered as being fully immunized or vaccinated children should receive the following vaccinations.

A dose of BacilleCalmette Guerin (BCG).

It is recommended per the guidelines that before 12 months the child should have completed the vaccination. The Ghana Demographic and Health Survey (GDHS) recorded that Vaccination information is obtained in two (2) ways; from health cards and mother's verbal reports.

The WHO (2005) stipulates that BCG should be given as soon after birth as possible in all populations at high risk of tuberculosis infection, and a single dose of OPV should be given at birth or two weeks after birth (this is recommended to increase early protection). Hepatitis B vaccine (HBV) should be integrated into national immunization programmes in all countries by 2020. Where perinatal infections are common it is important to administer the first dose as soon as possible after birth. It is estimated that about 12 million pregnant women in Sub-Saharan Africa do not get tetanus immunization, however, the presence of a midwife, nurse or doctor at child birth in developed countries is taken for granted (Vinod, 2005).

The Ghana Demographic and Health Survey (GDHS) recorded that Vaccination information is obtained in two (2)ways; from health cards and mother's verbal reports.

2.6 Knowledge and Practices related to Childhood illnesses

2.6.1Acute Respiratory Infection:

Acute respiratory infection is an infection that may interfere with normal breathing. It usually begins as a viral infection in the nose, trachea or lungs. Infections can spread through the entire respiratory system if not dealt with medically. This infection is crucial since it can spread from one person to another. The disease is quite dangerous for children.

Respiratory tract Infection including pneumonia is the leading cause of death among children under 1year in Ghana. Early diagnosis and treatment of antibiotic against pneumonia could prevent a large proportion of death.It was found out that giving cough mixture to infants besides fatality adverse effects includes convulsions rapid heart rates and reduced levels of consciousness (Awasthi et al, 2006).

2.6.2Malaria:

Malaria is an infection of the blood that is carried from person to person by mosquitoes. Malaria has existed for thousands of years and can be found almost every part of the globe. Millions of people are infected every year and close to one million of them die. Malaria is caused by protozoan of the genus plasmodium.

Malaria can result in mortality in infants and children under five years. Studies have shown that twenty-two percent of under five mortality is caused by malaria (Ghana Health Service, 2006). Ghana has made several efforts to control malaria; the latest

being roll back malaria initiative that was introduced in 1999 and introduction of insecticide – treated mosquito nets (ITNS) and protective measures and prompt effective treatment for malaria especially among pregnant women and children under 5years.

2.6.3Diarrhoea Disease:

The Ministry of Health's Standard Treatment Guidelines (2004) defines diarrhoea as passing frequent, loose, watery stools three or more times in a day. Diarrhoea is often accompanied by vomiting. It is very common in children. The WHO (2000) defines diarrhoea as the passage of three or more loose or liquid stools per day.

Diarrhoea is a common disorder of the gastrointestinal system experienced by most of the population sometime in their lives. Interventions may be considered necessary by patients because of their beliefs and attitude towards normal bowel function (Hogue, 2000). Causes of diarrhoea are mostly the use of contaminated water from unhygienic practices in food preparation and excreta. Diarrhoea causes severe dehydration that leads to major cause of morbidity and mortality.

2.6.4Other Child Health Care Practices

Improvement in the survival of the newborn is dependent on healthcare that spans antenatal, intranatal and postnatal periods, that is, interventions directed to mothers during pregnancy;labour and delivery have a profound impact on newborn survival especially during the first week of life when three-fourths of neonatal mortality occurs. Moreso, improvements in the survival of the newborn includes the care given to women in the pregnancy period as for example; nutrition of young girls can have an impact on their adult height which in turn can influence outcomes for labour and delivery. Another example would be that the

pregnancy folic acid status of the mother can determine the incidence of some congenital abnormalities. Maternal care is therefore not only important for reducing maternal mortality but also neonatal mortality.

A study conducted in a rural community in northern India to assess household practices that can affect neonatal health among 200 caregivers reports that more than half of the caregivers recognized fever, irritability, weakness, abdominal distention/vomiting, slowbreathing and diarrhoea as danger signs in neonates. 30.38 percent of caregivers saw illness in neonates manifest in the form of continuous crying (Awasthi et al., 2008).

Another study in Nepal reports that newborn babies are considered dirty since they came out of their mother's womb, so almost all newborn babies are bathed within the first hour of birth (Yadav, 2007). The WHO also recommends that newborns should be observed for crying and breathing immediately after delivery and asphyxiated newborns should be recognized and resuscitated, and that newborns should be breastfed within one hour and should only be fed on breast milk.

In Pakistan, though respondents knew about the benefits of clean delivery, they rarely practiced it, moreso, good knowledge and practices for maintaining the newborn's warmth were predominant, while delayed initiation of breastfeeding, avoidance of colostrum and prelacteal feeding were also common. Unhygienic cord care, including an unclean cut and application of ghee (black cosmetic powder) on the cord-stump, was the norm. Knowledge of some danger signs in newborns was common, but timely action upon recognition was not provided (Yadav, 2007).

Dhaded et al (2015) conducted a study on infant survival practices using prospectively collected data with high follow up rates (99%), we documented characteristics associated with neonatal mortality. Low birth weight and prematurity are among the strongest predictors of neonatal mortality. Other risk factors for neonatal deaths included male gender, multiple gestation and major congenital anomalies. Breech presentation/transverse lie, and no antenatal care were also significant risk factors for neonatal death. Coverage of interventions varied by setting of delivery, with the overall population rate of most evidence-based interventions low. This study informs about risk factors for neonatal mortality which can serve to design strategies/interventions to reduce risk of neonatal mortality.

The Newhints research (2007) reports that 'Asram' is considered the most common problem in newborns and that almost all cases of severe illness in newborns is attributed to Asram. (Described as a sickness that attacks children under one month old or in the womb, caused in numerous personalistic ways; for instance by seeing the breasts or stomach of the pregnant woman, or a pregnant woman walking past a house with Asrammedicine in it). And herbs are used to both protect from and to treat Asram (by bathing soon after birth).

A study conducted among the rural poor in western Uttar Pradesh, to identify factors influencing newborn care shows that nearly all newborns were left wet and naked on the floor until the placenta was delivered and bathed immediately after birth, and very few birth attendants washed their hands with soap before assisting the delivery. It also reports the use of new blade dipped in hot water to cut the cord and unsterilized cord tie after birth. Mothers'/caretakers' behaviour were influenced by Mother-in-Laws advice, traditional beliefs, and pursuance of a practice because it was the norm in the community (Sethi et al., 2005).

According to Deogaonkar and Milind (2004) the use of sterilized instruments or materials in the Asante-Akim town for cord cutting and tying of the cord was common, but, application of harmful substances such as ash, salt, tomato juice and mashed uncooked cocoyam on the cord stump of newborn babies must be prevented because it leads to the contraction of various childhood illnesses. Although there was enough evidence about mothers' knowledge on newborn care, harmful and unhygienic newborn care practices were common, this can be attributed to tradition and lack of family support as most of these practices are carried out after discharge from the hospital and in the absence of the TBA (in deliveries outside health facilities). Newborn babies were bathed with herbal preparations with the aim of protecting them from falling sick (especially from contracting a disease traditionally called "Asram"). Mothers attribute "asram" to evil spirits (believed to be transmitted by people with 'bad eyes') to either the unborn child or the neonate, mothers believe that it can be treated only with traditional medicine(s). Majority of mothers would not give their newborn babies to strangers, this they claim prevent newborn babies from contracting diseases which may be transferred physically or spiritually to them.

2.7 Socio-Economic Factors

Regional variations in the causes of perinatal and neonatal mortality and morbidity rate is linked to the level of social and economic development, the quality of health services, the environmental circumstances as well as cultural practices (WHO, 2002). The health of a country is directly dependent on its economic and social development. Social and economic growth is also based on the healthy living conditions and access to good and quality health care for all the people of the nation, and it is their right. The health indicators of a society or nation are therefore affected by inequalities in economic and social conditions. The most affected indicators of health in a country are maternal and infant mortality rates.

Socio-economic factors that affect access to health care and causes child mortality operates at the individual, family and community level and is a complex issue. The individual woman makes decisions about her health and the health of her child depending on her educational level, occupation, level of personal income or wealth and their autonomy. The aggregate family income, occupation and education of family members could also affect access to health care for the woman and her newborn baby. With the community, the collective resources and wealth plays an important role in the socio-economic aspects of the health needs of community members (McCarthy & Maine, 1992) and impacts child survival.

Parlato et al (2004), classified constraints influencing people's ability and willingness to change intrapartum care practices into: informational, social, cultural, and economic. Informational constraints refers to constraints in knowledge such as the clients' lack of information regarding current recommended essential newborn care practices and their health outcomes, that is, a major reason for not adopting a new practice could simply be lack of knowledge and a sound understanding of its availability, use and benefits.

2.8Traditional Practices

Some traditional practices of newborn care may not be in accordance with these guidelines. The fact that most births take place at home shows that such traditional methods might be used more frequently. Hygiene and aseptic conditions may be unknown or very difficult to achieve in many poor communities. People may not be aware of the environmental dangers of infection and may not make much effort in combating them, this pervasive acceptance of unhygienic conditions may extend to cord care, drying and wrapping of the newbornetc (Parlato et al., 2004).

In cultures where birth is considered ‘polluting’, skin-to-skin contact or delayed bathing may be regarded as a dangerous practice, moreso, they could be seen as a violation of religious beliefs, perceived as compromising the religious standing of those who come into contact with the ‘polluted’ infant.

Socio-cultural factors of practices such as the family’s belief that applying substances on the cord stump quickens the healing process whereas in reality, this practice rather increases the risk of infection. There’s often a religious or cultural significance to the application of certain substances. Not all traditional practices are harmful, some modern practices, such as bottle feeding and the use of pacifiers or dummies, are considered unsafe. Because each community has its own unique culture and tradition, traditional practices may differ from community to community (WHO, 2006).

The World Health Organization further maintains that some modern practices such as bottle-feeding, use of pacifiers and separation of mother from her newborn baby are discouraged and special efforts are made to study home remedies for simple problems and to promote those that are effective. Some traditional practices such as applying unclean substances on the cord are dangerous and should be discouraged or replaced with safer alternatives.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

Chapter three presents the methodology that was used in order to test the hypothesis. It elaborate/describes the research design, study setting, study population, sample size sampling techniques, data collection procedure, data analysis procedure and ethnical consideration. Instrument that were used in the research and statistical techniques used in the study are described.

3.2 Study Area

Ashaiman municipal is a district withinthe Greater Accra Region of Ghana. It was formerly a sub district under the Tema metropolitan health directorate until 2008 when it was demarcated as a new municipal. It lies within the south-eastern part of Ghana and is located about four (4) kilometers at the northern part of Tema and thirty (30) kilometers from Accra the capital city of Ghana.

Ashaiman municipality is borded on the south by the main Accra-Tema motor-way, east by the Akosombo road, north by the Michel camp and Zenu road and west by Adjei-kojo.Ashaiman thus shares a boundary currently with Tema metropolitan area and KponeKatamansomunicipal.The municipal spans over a land size of 45km².

3.2.1 Demographic Characteristics ofAshaiman Municipality

Ashaiman is a sprawling “urban settlement” parts of which exhibit characteristics of a slum. This pertains especially around the core business artena of the community. The 2010 population census report estimated the population of Ashaiman to be 190,721 growing at a

rate of 4.6%, which is higher than the national growth rate of 2.6% (Ghana Statistical Service, 2012).

The 2010Population Housing Census (PHC) report estimated that 93,727 of Ashaiman population were males with 97,245 being females. With an inter-censal growth rate 4.6%, current estimates show that 49.07% are Males and 50.92% are females. This compares with the regional figures which has the same higher female proportion of sex distribution.

Table 3.1 Table of Age-Sex Composition of Ashaiman population 2010

Age Cohort	Males		Females		Total Population	
	Absolute	%	Absolute	%	Absolute	%
0-14	29,798	48.96	31,065	51.04	60,863	31.87
15 – 64	61,605	49.07	63,949	50.93	125,554	65.74
65 +	2,324	51.02	2,231	48.98	4,555	2.39
Total	93,727	49.07	97,245	50.92	190,972	100

Source: GSS, 2010 Population and Housing Census

TheAshaiman population for the year 2014 was 215,777 projected from the 2010 population census with a growth rate of 3.1%, giving a population density of 4,795 per square kilometers. The rapid population growth can largely be attributed to the fact that Ashaiman continues to serve as a dormitory town for most youths who migrate from the surrounding communities and other parts of the country to Ashaiman in search of jobs in the Tema Metropolis and other neighbouring West African countries.

As a result, there is increased social vices: Ashaiman being mostly slum has heightened degrees of social vices which include high crime rates, drug abuse, prostitution, teenage pregnancy, child labour, high school drop outs, malnutrition due to financial constraints and

lack of knowledge, malaria due to poor sanitation conditions, Road traffic accidents, all these vices are due to the socioeconomic status of the community. Sexually transmitted disease such as HIV/AIDS infection is prevalent in the municipality, due to the high rate of prostitution and drug abuse, High prevalence of tuberculosis as a result of overcrowding and poor sanitation.

3.2.2 Health Directorate of Ashaiman

Ashaiman municipal health directorate is a district of the highest administrative authority which represents Ghana health service in the municipality. It coordinates and plans the activities of the various health programs for all health facilities both private and public including clinics, maternity homes and herbal centers in the municipality.

Its major collaborators /stakeholders include District Assembly, Ministries departments and Agencies (MDAs) including social welfare, Ghana educational service and Youth and sports, Agriculture, Roads and Highways and Faith based organizations.

The Ashaiman municipal health directorate reports directly to the Regional Health Directorate and the Ashaiman municipal Assembly. Currently the municipality is divided into seven (7) sub municipal areas for the purposes of planning and delivery of services; namely;

AmuiJor, Blakpatsona, Nii Man, Gbemi, TsinaiAgber, Mantseman and Maamomo. Six out of the seven sub- municipalities have no functional public facility .The municipality has one (1) polyclinic. The polyclinic provides quality of care delivery for the insured with valid national health insurance scheme and to the uninsured community members. There are eighteen (18)registered private clinics/hospitals and maternity homes well spread in the municipality which supplement the efforts of the public health facility available. These private facilities also provide a wide range of services i.e. theatre, scan, maternity, laboratory, etc. that caters the needs of the community members, workers and their dependents. The municipality lacks

CHIP compounds but has forty –two (42) CHIP zones whose activities is to run child welfare clinics. These CHIP zones are headed by health personnel precisely community health nurses whose activities are to run child welfare clinics, visit homes to render health services to pregnant women, under five children and the aged, they also run school health talks by visiting the various schools located within the community, these CHIP zones are located within private health facilities, others are under trees, canopies and the rest are in assembly provided buildings.

There are forty-one (41) pharmacies and licensed chemical shops which are located all over the municipality and this serves as the first point of call for most people seeking health care.

3.3 Data Collection Techniques and Tools

A questionnaire was used to collect data. A pilot study was conducted in crystal hospital and its environs with the same characteristics as in the study area. After the research assistants were trained to what they will do in the field. The pilot resources were not added in the study result. The purpose of the research study was communicated to mothers who were assured that the questionnaire would be treated with confidentiality and the information was to be used for academics work as for probably policy change.

3.4Study Population

The study was on infant survival as practise among women with child under one year as Ashiman. Ashiman has a population of wife of 64,733 of which 400 hundred women with child 0 - 12 months were selected using the following methods.

3.5 Research Design

The study was conducted using the quantitative approach to research. According to Burns and Grove(2005) quantitative research approach is a formal, objective, systematic process in

which numerical data are used to obtain information about the world. The study also adopted the cross-sectional research design. Malhorta, Hall and Shaw (2007) defined cross-sectional design as a type of research design involving the collection of information from a given sample of population elements only once". This was used because data was gathered from the target respondents only once.

3.6Sampling Method

Across sectional study was carried out in Lebanon zone II and Ashaiman polyclinic and in the community.Four hundred mothers with children under one year were selected using a Monkey survey calculator to obtain a sample size with total WIFA of 64,733 at 95 percent confident interval with margins of error of 5 percent.Cross sectional quantitative methods and simple random sample was used.

A sample size of 100 mothers with children under one year was selected in Lebanon Zone II Clinic and Ashaiman Polyclinic.There is CWC in every week in Ashaiman Clinic. The sample size was divided into four(4)parts that is 25 for each week. All registration numbers of infants in week one register were written on a piece of paper, folded and put in a box.

The box was shaken vigorously to make sure all pieces of paper were well mixed.

A piece of paper was picked after each vigorous shake till the 25^{th} piece of paper was picked.

The papers were selected and those mothers were interviewed, where the mothers were not around, the registration number was kept and the mother interviewed on the next visit.

The same procedure was repeated for all the weeks in Lebanon Zone II Clinic.

In Lebanon Zone II community, the area was divided into four(4) parts, the Northern part, South, East and West part.A random sample was used to select the first house. After the first

house, every fourth house was entered, till the 100 respondents were successfully selected and interviewed.The same was repeated in ZongoLaka and Lowcost community.

TheQuestionnaire was administered at separate times in each of the clinics.Thedata collected was analysed using STATA.

3.7Study Variable / Unit

Children from 0-12 months were studied as the study unit or variable. Mothers with children from 0-12 months are the respondent.

3.8 Sample size Calculation

Study was conducted among women with children under one year at Ashaiman.Woman in fertility age (WIFA) in Ashaiman totally 64,733using monkey survey calculator, the total population of 64,733 at 95 percent confident interval with margin of error of 5 percent yielded a sample size of 400.

3.9Pre-Testing

Designed questionnaire were administered to respondents at crystal hospital in Ashaiman and in the community. 50 respondents were used for the pre - test exercise, 25 respondents at the crystal hospital and 25 respondents in the community. The pre - test exercise was to help identify the questionnaire whether it met its objectives of the study (research).The questionnaires were clearly, simple and easily understood.

3.10Data Handling

Mothers with children one year and below with the ages between 16-40 years were interviewed face to face with instant answers at the clinics and in the community.

The questionnaire consists of Demography of the mother and objectives of the research. Infant survival practices among women with children under one year at Ashaiman questions were asked in the language that the respondents' best understood clearly. The interviewer wrote exactly the answers the respondents gave.

3.11Data Analysis

Data obtained from the questionnaire survey was analysed using statistical package for social sciences (STATA). The analysis of data was gathered, organized and interpreted using statistical tools such as frequencies, mean and percentages. Therefore mainly descriptive statistical tools were used. Descriptive tools such as frequency and percentage were used to analyse the data. Descriptive tools helped to easily comprehend the data collected.

3.12Ethical Consideration

Written information consent was obtained from each woman beforeemployment into the program. The data obtained was kept strictly confidential and made available to only persons connected to the study.

Ethical approval for the conduct of the study was obtained from Ethical review committee of the Ghana health service. Administrative approval for the study was obtained from district assembly municipal health directorate, directors of the health facilities and authorities of the participating communities.

3.13Limitations to Study

The current study is limited in scope and sample size. This may render the results unrepresentative enough for generalization. Also due to the limited time available in

completing the project several concepts such as infant mortality issues were not explored enough adequately.

CHAPTER FOUR

RESULTS

4.1 Data Analysis and Discussion of Results

Four hundred participants were interviewed in Ashaiman and the results were as follows; First the demographic characteristics of the respondents are provided and then the results of the main findings are discussed.

Table 4.1.1Demographic Characteristics of Respondents

Variable	**Frequency**	**Percent**
Age group of mother		
16 to 34	355	88.75
35 to 45	42	10.5
46 to 48	3	0.75
Age group of infants in months		
≤3	86	21.5
4 to 5	125	31.25
6 to 7	69	17.25
8 to 12	120	30
Religion		
Christian	361	90.25
Muslim	39	9.75
Ethnicity		
Akan	146	36.9

Dagomba	38	9.6
Ewe	134	33.8
GA/Ga Adangbe	54	13.6
Krobo	8	2.0
Other	20	5

Source: Field Survey, 2016

The minimum age of a mother is sixteen years whiles the maximum is forty-eight years, with the majority ages falling between sixteen and thirty four years. The majority age group is represents about 88.75% of the sample size. Meanwhile the age group of mothers between 46-48 represents the least represented age group of 0.75% of the sample size.

Also the age group of infants between 4-5months represented the largest sample compared to infants under 3months, 6-7months and 8-12months. 6-7months old infants were the least represented with 17.25% of the sample.

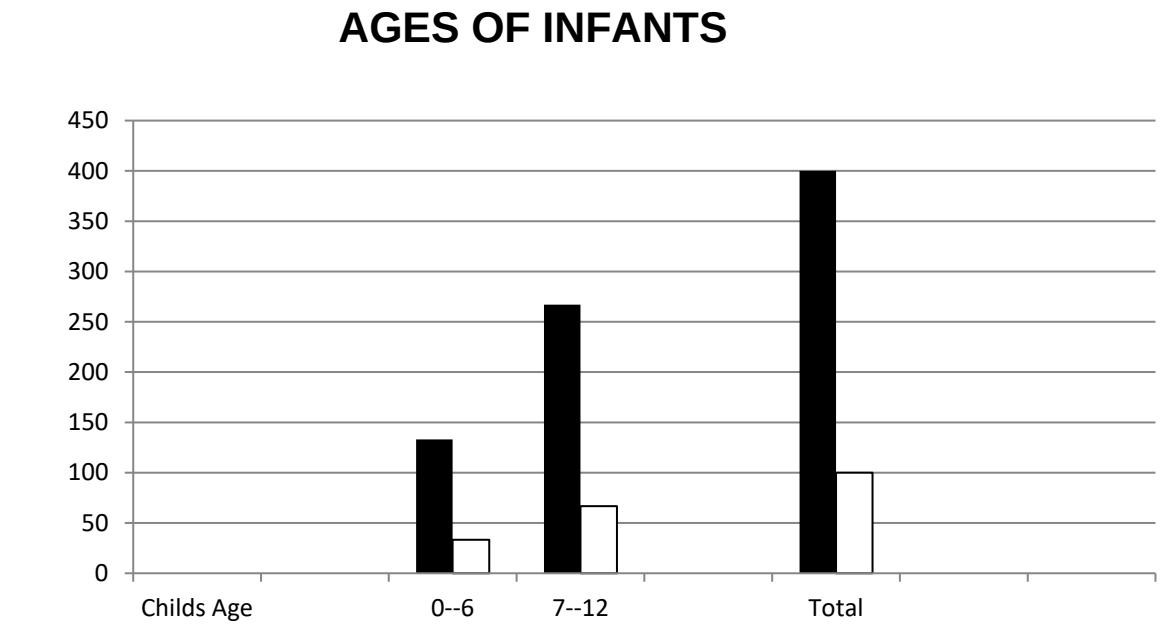
Among the correspondent interviewed, majority were Christians. Most of the mothers are Akans and Ewes while the rest of the sample of mothers were distributed amongst Ga-Adangbes, Krobos and Dagombas as well as other ethnic groups not captured by the survey instrument.

Education		
None	54	13.5
Primary and JSS/JHS	229	57.25
Secondary	101	25.25
Tertiary	16	4.0

Source: Field Survey, 2016

Mothers who obtained JHS and primary level education represents 57.25% of the sample studied. However 13.5% did not receive any formal education whereas only 4% attained tertiary level education.

AGE(MONTH)	FREQUENCY	PERCENT
0-6	268	67.0
7-12		33.0



From a graphical perspective the number of infants to the percentage of infants was displayed on the histogram. It is shown that majority of (infants) are between 7-12 whiles the rest fell between 0-6 months. The table also indicates similar information where 67% was infants between 0-6months whereas 33% were between 7-12months.

Table 4.1.2 Place of Delivery

Place of Delivery		
Delivery Place	**Frequency**	**Percent**
CHAG	2	.5
Home	17	4.3
Private health facility	89	22.3
Public health facility	292	73.0
Total	400	100.0

Source: Field Survey, 2016

Majority of deliveries are supervised in public health facility whereas minority of deliveries were supervised in CHAG. There were relatively few people who delivered at home.

Table 4.1.3 TIMING OF INITIATION OF BREAST FEEDING AFTER BIRTH

Time of initiation of breastfeeding	**FREQUENCY**	**PRECENTAGE**
Immediately	212	53.00
30 minutes after	109	27.32
One hour after	15	4.00
Other than one hour	64	16.04

Source: Field Survey, 2016

Table 4.1.3 showed the time of initiation of breastfeeding after delivery. Results showed that 53% representing 212 mothers immediately initiated their newborn babies. Meanwhile 27.32% representing 109 mothers initiated the newborn babies after 30 minutes of delivery

whereas 4% and 16.04% respectively initiated the newborn baby one hour after delivery and other than one hour after delivery. The distribution indicates that majority of the sample immediately initiates the new born baby.

Table 4.1.4 **Why you started breast feeding at this time**

	FREQUENCY	PERCENT
Health directive	326	81.5
Hunger/No Food	18	4.5
No reason	31	7.8
Lack of fitness	15	3.8
Personal decision/belief	10	2.5
Total	400	100.0

Source: Field Survey, 2016

Table 4.1.4 enumerates various reasons why mothers initiated breastfeeding their newborn babies at the times indicated in table 4.3. About 81.5% of respondents indicated health directives as the reason behind the time of initiation of breast. The health directive includes midwife, nurse and doctor's advice on when to initiate the newborn baby to breastfeeding. About 4.5% of mothers indicated that they initiated their newborn baby to breast feeding because the baby was hungry. About 7.8% of mothers have no reason for initiating their newborn babies at the said time. Also 3.8% of mothers indicated that they were not fit enough to provide their newborn baby with breast milk. Lastly 2.5% of mothers decided to feed the newborn baby based on their personal decision.

Table 4.1.5 **Problem with breast milk on first day after delivery**

	FREQUENCY	PERCENT
No	373	93.25
Yes	27	6.75

Source: Field Survey, 2016

Table 4.1.5 indicates whether or not mothers encountered any problems in relation to breast feeding on their first day of delivery. About 91% of respondents indicated that they had no problems whereas 9% indicated that they had problems.

Table 4.1.6 **What did you do when you had problems with flow of breast milk**

	FREQUENCY	**PERCENT**
I expressed it (forced the milk out) by hand	11	2.75
I did Nothing	14	3.5
I applied Ointment/Drugs	2	.5
No answer	373	93.25
Total	400	100.0

Source: Field Survey, 2016

Table 4.1.6 indicated what mothers did when they had problems with the flow of breast milk. About 2.75% forced it while 3.5% of respondents did nothing about it. However 0.5% of respondents either took in drugs or applied some ointment on their breast in other to produce the breast milk.

Table 4.1.7 **Still breast feeding**

	FREQUENCY	**PERCENT**
No	15	3.75
Yes	385	96.25

Source: Field Survey, 2016

Table 4.1.7 showed whether mothers were still breast feeding their 0-12months old baby. About 96.25% of respondents affirmed that they are still breast feeding their new born babies. About 3.75% of respondent showed an alternative view point.

Table 4.1.8 If No, Why?

	FREQUENCY	**PERCENT**
No reason	6	40.0
due to medical challenges	9	60.0
Total	15	100.0

Source: Field Survey, 2016

Respondents who were not still breastfeeding their newborn babies provided some alternatives to that effect as indicated in table 4.8. About 40% of respondents had no reasons whereas 60% had medical challenges such as a mother falling into coma after delivery and the challenge of recovering from a caesarean operation after delivery.

Table 4.1.9 COMPLEMENTARY FEEDING PRACTICES

Introduction of complementary food	**FREQUENCY**	**PRECENTAGE**
Below 6	43	10.75
Above 6	122	30.5
Not yet	235	58.75

Source: Field Survey, 2016

Table 4.1.9 showed the introduction of complementary feeding to babies. About 10.75% of mothers introduced complementary food when the baby is below six months. About 30.5% of respondents introduce complementary feeding when the baby is above 6months. However 58.75% of mothers are yet to introduce complementary feeding to their wards.

Table 4.2.0 Why do you start introducing complementary food at that age?

	FREQUENCY	**PRECENTAGE**
No response	233	58.3
Health directive	70	17.5
Inadequate breast milk	40	10.0
Personal Decision	18	4.5
Not yet/others	39	9.8
Total	400	100.0

Source: Field Survey, 2016

Table 4.2 indicates a number of reasons in relation to the timing of the initiation of complementary feeding. About 58.3% of respondents did not respond to the timing of the initiation of complementary feeding. About 17.5% of respondents initiated complementary feeding through health directives issued by health officials. Also 10% of respondents

indicated that the breast milk was inadequate for the baby. About 10% of mothers who initiated complementary feeding did so based on personal decisions. About 9.8% have not initiated complementary feeding yet.

Table 4.2.1 Practices of complementary feeding initiation

Fruits		
No	60	36.36
Yes	105	63.64
Wash hands before preparing food		
No	2	1.2
Yes	163	98.8
Does baby vomits out food as he/she takes in food		
No	138	83.64
Yes	27	16.36
Total	**165**	**100.0**

Source: Field Survey, 2016

Table 4.2.1 indicates the main practices under initiation of complementary feeding. About 36.36% of mothers do not provide fruits as complementary ignition practice whereas 63.64% does. Also 98.8% of mothers who initiate complementary feeding wash their hands before doing so. About 1.2% however do not.

About 83.64% of respondents indicated that baby does not vomit out complementary food where as 16.36% indicated that babies vomit complementary foods.

IMMUNIZATION

A GRAPH SHOWING INFANTS 0 – 12MONTHS AND STAGES OF COMPLETION OF IMMUNIZATION

The table below summarizes the number (percentage) of babies who have completed their immunization cycle, or are on course for the immunization or have not completed the immunization cycle.

Table 4.2.2 Status of Immunization

Status of baby	Frequency	Percentage
Immunization not completed	16	4.0
Immunization completed	32	8.0
Immunization on course	352	88.0

Source: Field Survey, 2016

About 88% of respondents indicated that their babies' immunization is on course. About 8% indicated that immunization has been completed whereas 4% indicated that it is not completed.

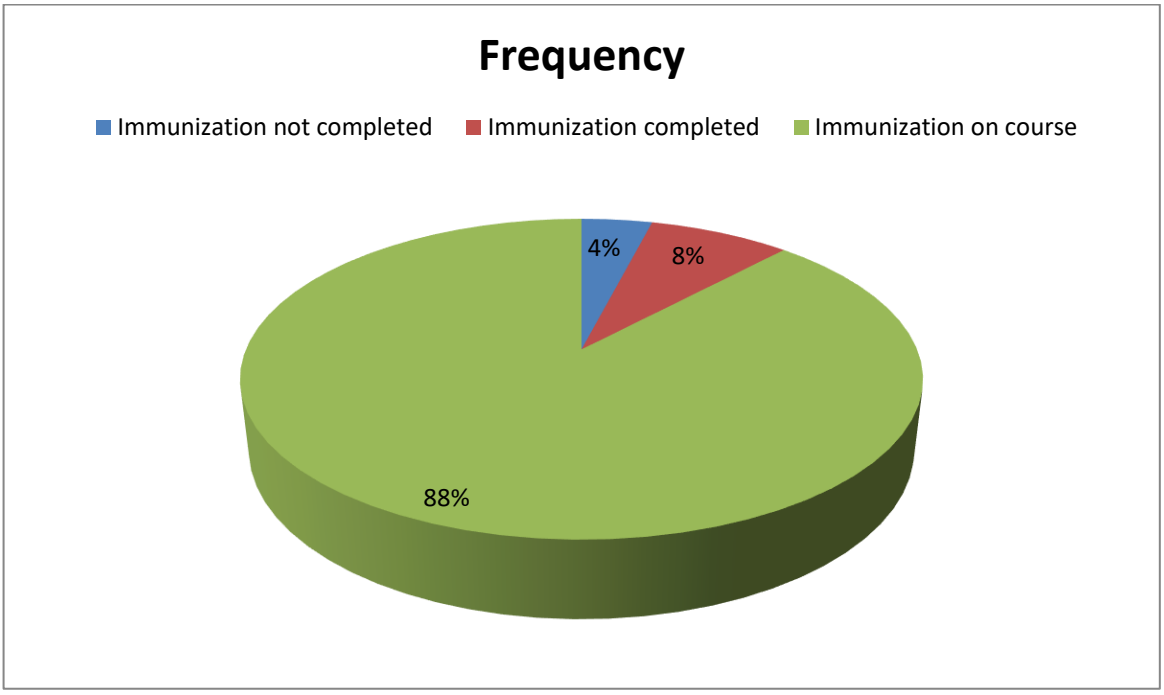


Table 4.2.3

Last recorded weight after Immunization	FREQUENCY	PERCENTAGE
0-2kg	7	1.8
3-5kg	160	40.0
6-8kg	185	46.3
9-11kg	44	11.0
over 12kg	4	1.0
Total	400	100.0

Source: Field Survey, 2016

Table 4.2.3 displays the last recorded weight for the babies. The majority of babies weighed between 6-8kg representing 46.3% whereas only 1% weighed over 12kg.

CHILDHOOD ILLNESS

Table 4.2.4 FEVER

What do you do when infant is having high fever		
Activity	**Frequency**	**Percent**
Tepid Sponging	30	7.5
Bath cold water	51	12.75
Bath warm water	28	7.0
Paracetamol syrup	168	43.9
See the doctor	34	7.8
Haven't experienced it	89	22.9
Total	400	100.0

Source: Field Survey, 2016

From the table above 43.9% of mothers provide paracetamol syrup to Their wards whenever they have fever. About 22.9% have not experienced It yet. Only 7% of mothers will bath their wards with warm water only When infant is having high fever.

Table 4.2.5 VOMITING

What do you do when infant is vomiting		
Activity	**Frequency**	**Percent**
Go to health centre	174	43.5
Did nothing	55	13.75
Give paracetamol	5	1.25
Have not experienced it	163	40.75
Gave ORS	3	0.75
Total	400	100.0

About 43.5% of respondents go to the health care centre when infant is vomiting. Also 40.75% of respondents have not experienced their infant vomiting before. Also 13.75% of respondents did nothing when infant is vomiting.

DIARRHOEA

Table 4.2.6 What do you do when infant is having loose stool?

Activity	**Frequency**	**Percent**
Go to health centre	171	42.75
Did nothing	27	6.75
Self medicate/see a chemical seller	6	1.5
Have not experienced it	182	45.5
Gave ORS	6	1.5
Breastfeed more	8	2.0
Total	400	100.0

Source: Field Survey, 2016

Table 4.16 indicates what mothers do when infant is having loose stool. About 42.75% of mothers indicated that they visit the health centre, 45.5% of mothers indicated that they have not experienced it whereas only 1.5% indicated that they provide or see a chemical seller and gave ORS respectively.

DIARRHOEA AND VOMITTING

Table 4.2.7 What do you do when infant is having both condition above?

Activity	Frequency	Percent
No idea	15	3.75
Have not experienced it	199	49.75
Go to clinic	186	46.5
Total	400	100.0

Source: Field Survey, 2016

Table 4.17 indicates what mothers will do when infant is having diarrhoea and vomiting. About 49.75% of mothers indicated that they have not experienced it whereas 46.5 will go to the clinic. However only 3.75% had no idea in relation to what they will do.

DIFFICULTY IN BREATHING

Table 4.2.8 What do you do if the baby is having difficulty in breathing?

Activity	Frequency	Percent
Haven't experienced it	199	49.75
provide fresh air	2	0.5
no idea	18	4.5
Go to clinic	181	45.25
Total	400	100.0

Source: Field Survey, 2016

About 49.75% of mothers indicated that they haven't experienced their infant having difficulty in breathing. Meanwhile about 45.25% go to the clinic when it happens whereas only 0.5% provide infant with fresh air when infant experiences difficulty in feeding.

COUGHING

Table 4.2.9 What do you do when baby is coughing?

Activity	Frequency	Percent
no idea	10	2.5
Go to clinic	115	28.75
Self medicate/see pharmacy	16	4
Have not experienced it	104	26
Give cough mixture	155	38.75
Total	400	100.0

Source: Field Survey, 2016

On the issue of what mothers do when infant is coughing, about 38.75% of mothers give cough mixture. About 28.75% go to the clinic whereas only 2.5% have no idea.

Table 4.3.0 ITN USE

Number of times child sleeps under ITN		
Activity	**Frequency**	**Percent**
Do not use ITN	177	44.3
<4 days	40	10.0
> 4 days	183	45.8
Total	400	100.0

Number of times mother sleeps under ITN		
Activity	**Frequency**	**Percent**
Do not use net	202	50.5
<4 days	42	10.5
> 4 days	156	39.0

Total	400	100.0

Did Child sleep under ITN last night		
Activity	**Frequency**	**Percent**
No	199	49.8
Yes	201	50.3
Total	400	100.0

Did mother sleep under ITN last night		
Activity	**Frequency**	**Percent**
No	230	57.5
Yes	170	42.5
Total	400	100.0

Source: Field Survey, 2016

Table 4.20 indicates the use of insecticide treated mosquito nets (ITN)

About 44.3% do not use ITN. Meanwhile only 45.8% used ITN more than

4days. Also 50.5% of mothers do not use ITN. However 50.3% of mothers

Indicated that their infant slept under ITN the previous night. To conclude

57.5% of mothers did not sleep in ITN the previous month.

Table 4.3.1 ITN POSSESSION

Did you receive ITN During pregnancy		
Activity	**Frequency**	**Percent**
No	294	73.5
Yes	106	26.5
Total	400	100.0

If yes, how many		
Activity	**Frequency**	**Percent**

1	96	90.6
2	10	9.4
Total	106	100.0

Did you receive ITN After delivery		
Activity	**Frequency**	**Percent**
No	343	85.8
Yes	57	14.3
Total	400	100.0

If yes, how many		
	Frequency	**Percent**
1	45	78.9
2	11	19.3
3	1	1.8
Total	57	100.0

Source: Field Survey, 2016

Table 4.21 analyses ITN possession. A large number of mothers (73.5%) did not receive any ITN during pregnancy. Only 26.5% received theirs. About 90.6% of those who received it got only 1 whereas the rest got two. 85.8% of mothers also indicated that they did not receive ITN after delivery. Only 14.3% received it after delivery. About 78.9% of mothers who received ITN after delivery got only one whereas 1.8% received three ITN.

CHAPTER FIVE

DISCUSSION OF RESULTS

5.1 Timing of initiation of breast feeding after delivery

From the analysis it was realized that most mothers (about 53%) breastfed their infants immediately after delivery while only a few (20.04 %) breastfed their infants one hour after. Though a marginal improvement has been observed over the years in relation to meeting WHO's standards there is still more work to be done. Generally, the finding of the current study is consistent with WHO (2006) recommendations that newborns should be breastfed within one hour and should only be fed on breast milk. The finding of the current study is however inconsistent with some breast feeding practices in the Asante-Akim town of the Ashanti region. Deogaonkar and Milind (2004) indicated that newborns are breast fed one hour after delivery. A study conducted by Yadav (2007) on traditional practices in newborn care in Nepal shows that colostrums is regarded as dirty milk in some communities, and babies were fed with cow or goat milk immediately after birth for the popular belief that it will make the baby become more intelligent. Bhandari et al (2003) study in India revealed that newborns were given prelacteal feeds of honey, tea and diluted milk, and babies are often not breastfed during the first 3 days. These practices seem to relegate the recommendation offered by WHO to health units around the globe.

Meanwhile the average length of exclusive breast feeding in Ghana is four (4) months (Annim, Awusabo-Asare, &Amo-Adjei, 2013). Forty–one percent of breast fed children and eleven percent of non breast fed children between six to twenty three months are fed accordingly as recommended by infant and young children feeding (IYCF) practices (Annim, Awusabo-Asare, &Amo-Adjei, 2013).To conclude breast feeding newborn babies immediately after delivery is highly consistent with WHO's directive. This means that

Ashaiman Municipal health centre complies with the World Health Organization's recommendation.

5.2 Practices related to introduction of complementary feeding

From the analysis gathered a number of respondents (about 30.5%) introduced complementary food after six months whereas a few introduced it before six months. Meanwhile, according to WHO (2006) newborn babies should be given exclusive breastfeeding for 6months. This means that some mothers have applied this survival technique in the wrong way by introducing complementary feeding within the first 6months of birth. Some mothers also indicated that as a way of introducing their newborn babies to complementary feeding, they introduce fruits for a start. They however indicated that the newborn babies do not vomit after the introduction of this feed.

Results from a study conducted in Builsa district in the Upper East region (Abang, 2013) showed that cultural beliefs underline most of the complementary feeding practices. Early and late introduction of complementary food, water and traditional herbs/liquids to newborn babies are common. Grandmother's support for EBF, thickness of porridges and age of introduction of complementary food were significantly associated with duration of EBF. This result is somewhat consistent with the findings of the current study.

However Bhandari et al (2003) indicated that in India, newborn babies are given sweetened water during the first three days instead of breast milk. This finding is inconsistent with the WHO's recommendation. This is because complementary foods are introduced before breast feeding. Fikree et al (2005) also indicated that in Pakistan delayed breast feeding is the norm. Parents offer prelacteals, supplementary feeds such as ghutti and water. All these practices do not conform to the recommendations offered by WHO.

5.3 The completeness of infant immunization by twelve months

The results of this study showed that infant immunization completeness by twelve months is on course and is consistently being ensured by mothers and health officials. About 8% of children were fully immunized, whereas 88% are still being immunised. Meanwhile only a handful of respondents (4%) are yet to engage their newborn babies in the immunization process. UNICEF (2007) has found that many infants did not receive routine and standardized immunization within the West-Africa sub-region. The report stated that rural areas within countries such as Ghana, Nigeria and Ivory Coast did not meet the standardized immunization processes.

According to WHO (2006) by breast-feeding, a mother begins the immunization process at birth and protects her child against a variety of viral and bacterial pathogens before the acquisition of active immunity through vaccination. According to WHO (2005) immunization should be given as soon as a child is born especially in populations that have high risks in tuberculosis. They also recommended that immunization may be given 2weeks after birth. Vinod (2005) indicated that Africans do not get tetanus immunization. Drummer and Parker (2012) indicated that the immunization completeness rate was higher in more socially disadvantaged communities of Nova Scotia.

5.4 Knowledge and practices related to other childhood illness

General responses gathered on childhood illness showed that mothers either provide their babies with self-medicated drugs or send them to the nearest health facility (About 43.5% of respondents indicated that they either provide self medicated drugs or send the infant to the nearest health facility). According to Deogaonkar and Milind (2004) childhood illnesses may be contracted more easily within the Asante-Akim district due to out-dated traditional birth practices. In Northern India Awasthi et al (2008) indicated that some caregivers saw illness in neonates manifest in the form of continuous crying, irritability and weakness. Knowledge of

some danger signs in newborns was common, but timely action upon recognition was not provided (Yadav, 2007). Common illness such as irritability, fever, headache, malaria and diarrhoea were found across various cities where similar research was conducted. From a domestic perspective households can be regarded as a nation's health production system, in that they produce health from the local community level to that of the wider society. Newborn care remains a neglected problem and these impacts negatively with government pledging to reduce under 5 years mortality by the year 2020, however, the survival of humankind as a whole will be impossible without protecting maternal and newborn lives.

CHAPTER SIX

CONCLUSIONS AND RECOMMENDATIONS

6.1Conclusions

Ashaiman has the population that is mixed with those in low literacy and socio - economic status out weighing the high literacy and socio-economic class. It was not therefore surprising as the greater part of the respondents were Primary , and JHS/JSS as far as education level is concerned. The minimum age of the participant was16 years while the maximum is 48 with the mean age of 25. Ashaiman has a lot of private facilities but the turn out in Public health facilities is encouraging with 73 percent respondents delivered in only public health facilities. This may be as the result of the free material service that is being rendered in the government settings.

Respondent are still breastfeeding their infants between 0-12 months this means that they understood the message to breast feed till child is 2 years. Prolonged breastfeeding has advantages as a method of family planning and it also helps in contracting the uterus to normal position.

From the data, about 10.75 % of mothers introduced complementary food when the baby is below 6 months. About 30.5 % of the respondent introduced complementary feeding when the baby is above 6 months. Whoever 68.75 % of mothers are yet to introduced complementary feeding to their wards. At 6 months of age, it is believed that nutrients in the breast milk are inadequate to support the growth of the child so there is the need to compliment the breast milk with food. It was surprising that out of 400 participants, only 30 percent introduced food at the right age, 69.5 percent did not introduce complementary food after 6 months. With mothers whose infant started complementary feeding almost 98.8 percent were practising good hygiene practises?

Even though health - education units are doing their work by educating mothers with infant and child under five of what to do when the child has fever, there is still the need to intensify the education as only 43.9 percent were able to give syrup paracetamol to their infant with high fever. High fever is an indicator for infants getting convulsion and the more it is prevented the better. 13 percent of infants do not receive any first aid when vomiting. Infants loosing electrolytes through vomiting is a serious sign of becoming severely dehydrated leading to collapse of the vein that can result in death. Even though the number is small, no child should die as a result of dehydration that can be highly prevented; the same apply to having loose stool. There is new school of taught that says that, infants should not be given cough mixture.

One of the effective way to prevent malaria that kill under 5 is the usage of insecticide treated mosquito net(ITN).Result of the research confirmed that 44.3 percent of infants do not use ITN. Ten percent slept in ITN less than the last four days of the study. Only 45.8 percent slept in ITN continually for the last 7days of the study. Mothers who slept in ITN's the last night of the study were 42.5 percent. Almost 73.5 percent of respondents do not receive ITN during their pregnancy and of those who received the ITN during pregnancy received only 1 which is 90.6 percent .With mothers after delivery, 85.8 percent do not receive ITN.

Finally the research work considered assessing child survival practices among mothers with children under one year of age in Ashaiman.

From the analysis it was realized that most mothers (about 53%) breastfed their infants immediately after delivery while only a few breastfed their infants one hour after.

A number of respondents, about 30.5% introduced complementary foods after six months whereas a few introduce it before six months.

The results showed that infant immunization completeness by twelve months is on course and is consistently being ensured by mothers and health officials. About 88% of the children had been immunized. Meanwhile only a handful of respondents are yet to engage their newborn babies in the immunization process.

General responses gathered on childhood illness showed that mothers either provide their babies with self-medicated drugs or send them to the nearest health facility (About 43.5% showed that mothers either provide self medicated drugs or send infant to the nearest health facility.)

6.2 Recommendation

- It is recommended that mothers be educated thoroughly on the timing of breast feeding and its practices.
- It is recommended that mothers take the advice of health officials on when to initiate complementary foods and what type of foods to initiate the child with. This however should be consistent with WHO's standards.
- It is recommended that a record keeping immunization initiation booklet be provided to the family of the infant so that they can monitor the immunization cycle of the child.
- It is also recommended that childhood illnesses be minimized if not prevented by encouraging mothers to consistently visit health care units for assistance when the need arises.

- ❖ It is recommended that mothers should be provided with ITNs and encouraged to sleep under them.
- ❖ It is recommended that the good work the health education unit is doing should be intensified and frequent updates made known to them by the Ministry of Health so that they can educate the public on current issues in relation to infant survival practices.

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INFANT FEEDING AND, CHILD AND SURVIVAL PRACTICES

IDENTIFICATION

1. DATE:……
2. NAME OF INTERVIWER:……
3. QUESTIONNAIRE NUMBER……
4. LOCATION……..
5. HOUSE NUMBER:……
6. AGE OF CHILD: ____ ___ months

7. Age of mother:___ ___ yrs

8. No. of biological children: ___ ____

9. Religion of mother:	☐ Christian ☐ Muslim	☐ Other:_____
10. Ethnicity of mother:	☐ Ga/Ga Adangwe ☐ Akan ☐ Krobo	☐ Dagomba ☐ Ewe ☐ Other:_____
11. Highest educational level:	☐None ☐Primary+JSS/JHS	☐Secondary ☐Post-secondary
12. Where did you deliver this child?:	☐Home ☐ Public health facility ☐ Private health facility	☐ Neither home or health facility ☐ Other:_____
13. Who attended to the delivery?	☐Nurse/Midwife ☐ Traditional birth attendant	☐ Other:_____
14. Who has been available to support you at home	☐ Father of child ☐ My mother ☐ My mother-in-law	☐ My siblings ☐ Other:_____

TIMING OF INITIATION OF BREAST FEEDING AFTER DELIVERY

1. At what time did you start breasting feeding after delivery?
   a. ☐Immediately
   b. ☐30 minutes after delivery
   c. ☐one hour after delivery
   d. ☐Others (specify)……
2. Can you briefly explain to me why did you started breastfeeding at the time that you did? ……..
   ……..
3. Was the baby able to suck?
   a. ☐Yes
   b. ☐No

I. If No, what was the reason?.....

4. Did you have problem with the flow of breast milk`
5. within the first day after delivery?
   a. ☐Yes
   b. ☐No

II. If yes, how long did the problem last:

☐Within one day

☐Within three days

☐Within seven days

☐Seven or more days

III. If yes, what did you about it?_____

6. Are you still breasting feeding?
   a. Yes ☐
   b. No ☐

If no, why? .....

PRACTICES RELATED TO COMPLEMENTARY FEEDING

1. At what month did you start introduction of other foods.

   Why do you start at that age?……`

2. After feeding the baby, do you add fruits?
   a. ☐Yes
   b. ☐No
3. Do you prepare food separately for the child or the child takes family food?
   a. Prepare food separately ☐
   b. takes family food ☐
   c. others……
4. Do you prepare fresh food?
   a. Yes ☐
   b. No ☐

5. Do you wash hands before preparation of the baby's food and before feeding the baby?
   a. Yes ☐
   b. No ☐
6. Does the baby vomit and or pass loose stool after feeding?
   a. Yes ☐
   b. No ☐

   If Yes how many times in a day?
   a. Twice ☐
   b. Three times ☐
   c. Four times and more ☐
7. Does the baby vomits out the food as he/she has taken it?
   a. Yes ☐
   b. No ☐

IMMUNIZATION

1. Inspect the child ROAD-TO-HEALTH chart for completeness of immunization:

☐Immunization is complete-for-age

☐Immunization on course for age

☐Immunization is NOT complete-for-age

2. What is the last recorded weight of the child?

Weight: ____ ____ . ___ kg Date of recorded weight: ___ ___/___ ___/___ ___

CHILDHOOD ILLNESSESS

1. What do you do when the infant is having high temperature?.....

.....

2. What do you do when the your infant is vomiting?.....

……

……

3. What do you do when the infant is having loose stools?.....

.....……

……

4. What do you do when the infant is having both condition above?.....
……
……
……
……..

5. What do you do when the baby is having difficulty in breathing?.....
……
……
……
……
6. What do you do when the baby is coughing?.....
……
……
……
……

MALARIA PREVENTION

1. Number of nights slept under a net within the past 7 nights?

Child: _____ nights

Mother: _____ nights

2. Slept under a net last night?

Child: ☐Yes ☐ No

Mother: ☐Yes ☐ No

3. Did you receive free insecticide –treated net during the following times

During pregnancy: ☐Yes ☐ No. If YES, how many ____

After delivery: ☐Yes ☐ No. If YES, how many _____