

## CHAPTER ONE

### 1.0 INTRODUCTION

#### 1.1 BACKGROUND INFORMATION

Newborn health and survival depend on the care given to the newborn, although newborn care is a very essential element in reducing child mortality, it often receives less than optimum attention. There have been agreements to affirm the world's commitment to improving newborn health. Current global evaluations confirm that commitment to improving newborn health makes meaningful socio-economic contributions (Yinger & Ransom, 2003). Various reasons can be attributed to why the health of the newborn has been neglected despite the huge mortality rates and why most neonatal deaths are unseen and undocumented.

Although child survival programmes have helped reduce death rates among children under-five years over the past 25 years, the biggest impact has been on reducing mortality from diseases that affect infants and children over one month old. As a result, greater proportions of infant mortality occur during the first month of life (the neonatal period), a period when a child's risk of death is nearly 15 times greater than at any other time before the first birthday (Yinger & Ransom, 2003).

Tinker and Ransom (2003) stipulate that, though newborn health is closely related to that of their mothers, newborns have a unique need that must be addressed in the context of maternal and child health services. They further argued that millions of newborn deaths could be avoided if more resources were invested in proven low-cost interventions designed to address newborn needs.

It is estimated that almost two-thirds of infant deaths occur in the first month of life, of whom, more than two-thirds die in their first week, and among whom, two-thirds die in their first 24 hours (Lawn et al., 2001).

The World Health Organization (WHO) stresses the need to focus more on the most vulnerable children; the newborns. Many conditions resulting in newborn deaths can either be prevented or treated using low-cost interventions. There is the need for a combined approach to the mother and her baby during pregnancy, to have someone with knowledge and the skills with her during child birth and effective care for both mother and baby after birth (Brundtland cited in WHO, 2002).

Addressing neonatal mortality requires a continuity in the elements of care, which is lacking in many settings/communities with care for the neonate often receiving little attention in either maternal or child health programmes. The greatest gap in care often occurs during the critical first week of life when most neonatal and maternal deaths occur, usually at home and without any contact with the formal health sector (Lawn et al., 2005). About 70 percent of all sickness care takes place in the home (WHO, 2002). It is estimated that 60 percent of newborn deaths occur on the first day of delivery as a result of asphyxia, 47 percent on the second day due to infections, and 81 percent is due to severe infections. However, triplets have 4 times risk of dying, twins have 5 times risk, low birth weight babies have 8 times risk of dying and partially breast fed babies have 4 times risk of dying (WHO, 2006). The average neonatal mortality rate in developing countries is over eight (8) times (33/1000 live births) that prevailing in developed countries (4/1000 live births), (Parlato et al., 2004).

With 41 neonatal deaths per 1000 live births, the risk of neonatal death is highest in Africa with the sub-Saharan African regions of Eastern, Western and Central Africa having between 42 and 49 neonatal deaths/1000 live births. This is closely followed by South-Central Africa with 43 neonatal deaths/1000 live births, whereas the neonatal mortality rate for Latin America and the Caribbean is 15/1000 live births (WHO, 2006).

The neonatal mortality rate (NMR) in Ghana is 43 per 1000 live births (GSS, NMIMR & ORC Macro, 2004), and the neonatal mortality rate for year 2008 is 31 per 1000 live births (GSS, GHS & MEASURE DHS, 2009). Many factors account for this high NMR

and these include household practices such as inappropriate cord care, bathing babies immediately after delivery, socio-cultural beliefs and practices.

The ideal situation is to admit every ill newborn baby to hospital but hospitals with facilities for newborn care are inaccessible for rural populations. Parents may be unwilling to move ill newborn babies from home because of traditional beliefs and practical difficulties; so most newborn deaths occur at home. As a result of serious difficulties in transporting sick newborns to hospital, those who arrive are generally seriously ill and eventually die.

## **1.2 PROBLEM STATEMENT**

Although there have been dramatic improvements in child survival, the burden of mortality in the first month of life has remained virtually unchanged. An increasing proportion (almost 40 percent) of deaths of children under the age of five occurs during the first 28 days of life. Each year, 4 million newborns die - three-quarters during the first week - of which at least 1 million die in their first 24 hours. Most newborn deaths occur at home, in the absence of any contact with a skilled health care provider (Lawn et al., 2005). Many of the world's 4 million stillbirths and 500,000 maternal deaths also occur close to the time of birth. About 99 percent of all newborn deaths occur in low- and middle- income countries, with two-thirds of those occurring in Asia and Africa (Lawn et al., 2001).

The health of the newborn has been neglected despite the huge number of deaths due to various reasons such as: mother's inability to seek skilled care during delivery, unhygienic delivery practices which result in infections of the newborn, bathing baby immediately after delivery, improper cord care, delaying immediate contact between mother and newborn because of the belief that the newborn is dirty and must be cleaned before contact and the fact that most neonatal deaths are unseen and undocumented.

Addressing neonatal mortality requires a continuity of care between maternal and child health which is lacking in many settings with care for neonate often receiving little attention in maternal and child health programmes.

Major causes of newborn deaths include birth asphyxia (21 percent), infections: tetanus, sepsis, meningitis, pneumonia and diarrhea (42 percent). The birth process was the antecedent cause of 2/3 of deaths as a result of infections; lack of hygiene at child birth and during newborn period and home deliveries without skilled birth attendants. Low birth weight infants and preterm newborns as well as social, cultural and health practices which delay care to the newborn, contribute significantly to neonatal deaths. It is argued that up to 72 percent of these neonatal deaths (almost 3 million deaths) could be prevented through basic, cost-effective interventions (Lawn et al., 2005).

Factors such as low income, poverty, illiteracy, home deliveries, i.e. lack of skilled care at birth, no health system at the grass roots, dysfunctional distant facilities, low demand for newborn care and harmful traditional practices can be associated with poor newborn health and survival.

Most neonatal deaths can be avoided by measures such as clean delivery, resuscitation, management of infections, thermal protection, breastfeeding, and eye care to reduce blindness, but some of these measures are however, ignored in the Asante Akim-North district. Elderly women who are inclined with traditional beliefs and practices in the community greatly influence young mothers of neonates in using all sorts of herbs and other concoctions in either treating sick neonates or protecting the newborn from becoming ill.

Most traditionally-oriented parents may be unwilling to move ill newborn babies from home because of traditional beliefs such as the fear of people with 'bad eyes' transmitting sicknesses (such as '*Asram*') to the newborn when they see it, the fact that the newborn is not yet considered a human being and parents/caretakers shouldn't expose them too early, and practical difficulties such as unavailability of health facilities, inaccessible roads leading to these facilities. As a result of serious difficulties in transporting sick newborns to hospitals, those who arrive are generally seriously ill and eventually die.

The situation is not different in the district under study. This study sought to investigate the household practices that influence newborn survival in the Asante Akim-North district of the Ashanti Region.

### **1.3 RATIONALE FOR THE STUDY**

The greatest gap in newborn care is often during the critical first week of life when most neonatal and maternal deaths often occur at home and without any contact with the formal health sector. Some unacceptable practices such as unskilled attendants during delivery, unhygienic delivery practices, taboos and superstitions associated with caring for the newborn greatly affect newborn survival in the Asante Akim-North district of the Ashanti region. This study therefore, sought to identify the gaps in the knowledge and practices of newborn care and to providing inputs into developing feasible and sustainable community-based interventions to improve neonatal survival in the Asante-Akim North District.

Policies will be developed pertaining to neonatal health and survival. Thereafter all stakeholders will be tasked to implement the policies so as to give neonatal survival issues the needed attention. Community-based volunteers will be trained and given the necessary skills to ensure that the needs of neonates and their mothers are met. Neonatal survival will be made an issue of national interest to all stakeholders; hence household practices in caring for the newborn will be improved and modified in order to save newborn lives.

### **1.4 RESEARCH QUESTIONS**

1. What socio-economic factors affect newborn care in the Asante-Akim North District?
2. What are the delivery practices among women in the district?
3. Are mothers and caretakers able to recognize newborn danger signs?
4. What are some of the traditional diseases associated with the newborn and how are these diseases treated?
5. What practices are carried out in protecting the newborn from becoming sick?
6. What traditional practices influence newborn care?

## **1.5 MAIN OBJECTIVE**

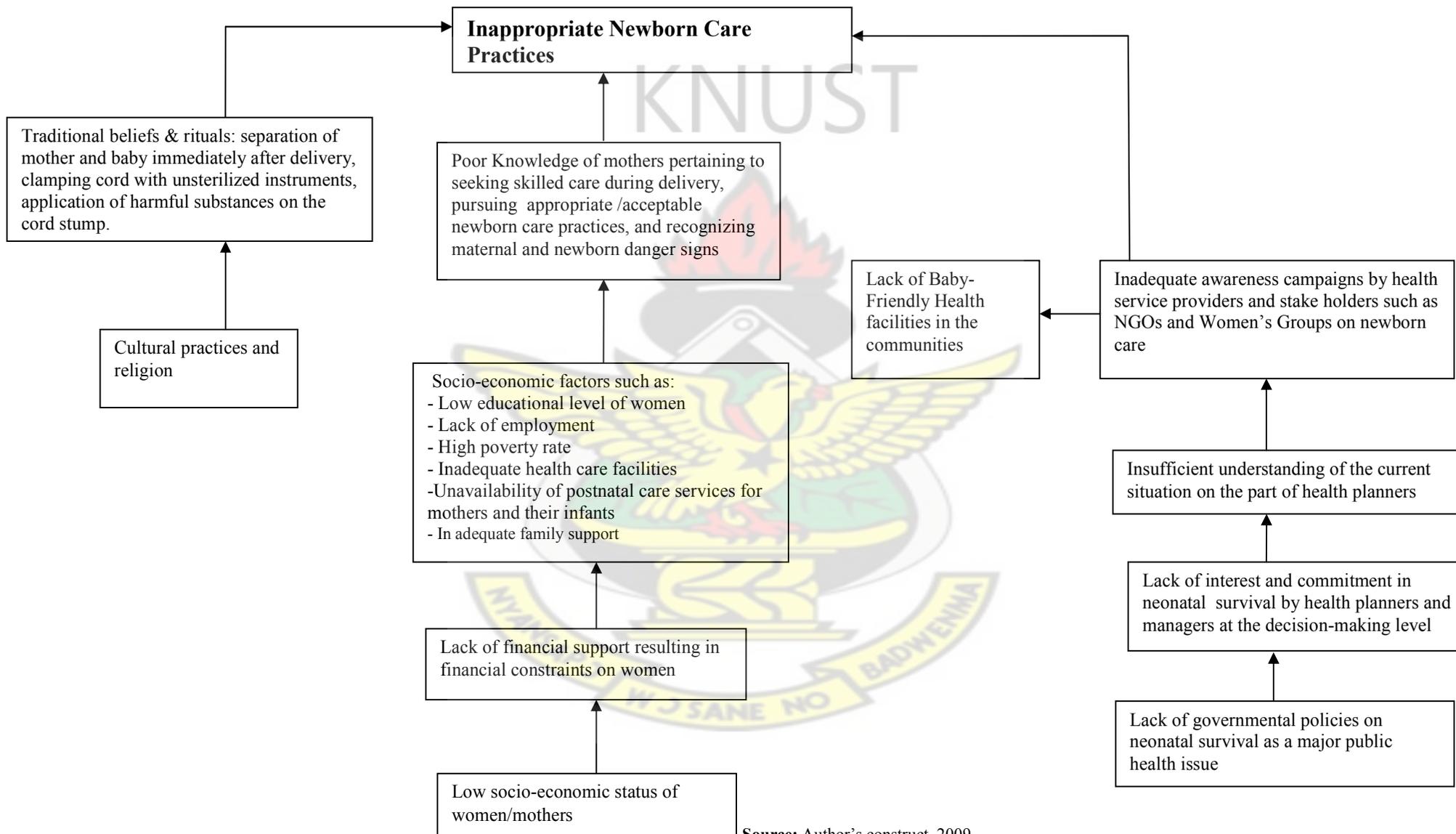
To identify the household practices that influence newborn care and survival in the Asante-Akim North District of the Ashanti region.

### **1.5.1 SPECIFIC OBJECTIVES**

1. To identify the socio-economic factors that affect newborn care.
2. To identify the delivery care practices among women in the Asante-Akim North District.
3. To determine the mothers' or caretakers' ability to recognize newborn danger signs.
4. To explore the traditional practices that influence newborn care.
5. To make recommendations to policy makers and other stakeholders based on the outcome of the study to improve household practices in newborn care.



**FIGURE 1.1: CONCEPTUAL FRAMEWORK: HOUSEHOLD PRACTICES THAT INFLUENCE NEWBORN CARE AND SURVIVAL**



Source: Author's construct, 2009.

Figure 1.1 indicates factors that influence newborn survival at the household level.

Low socio-economic status of mothers of newborns as a result of low educational levels of these mothers, lack of employment, high poverty rate, inadequate health care facilities in the communities and also, the lack of financial support from their husband/partners, lead to financial constraints on these women. Poor knowledge of mothers on neonates pertaining to seeking skilled care during delivery as well as their inability to recognize newborn danger signs also result in inappropriate newborn care.

Traditional beliefs and practices such as separating newborns from their mothers immediately after birth, application of harmful substances to the cord could also adversely affect neonatal survival.

Moreover, there is lack of baby-friendly health facilities and mother-support groups in the communities. The problem is further compounded by the lack of governmental policies on neonatal survival, which stems from the lack of interest and commitment in neonatal survival issues by public health officials and inadequate awareness campaigns by health service providers and stakeholders on neonatal survival.

## **1.6 PROFILE OF STUDY AREA**

### **1.6.1 LOCATION AND SIZE**

The Asante-Akim North district is one of the 21 districts in the Ashanti region, the district covers about 5.6 percent of the total land area of the Ashanti region and it shares boundaries with Sekyere East district in the north, Asante-Akim south district in the south, Kwahu South district in the east, and Ejisu-Juabeng district in the west. The district covers an area of 1,361 square km with an estimated population of 159,829 (projection from the 2000 population census).

### **1.6.2 POPULATION**

The Asante-Akim North district has a population of about 159,829 (projection from 2000 Population Census). There are 115 communities and 21 Community Health Planning Services (CHPS) zones in the district, because part of the Afram Plains can be located in

this district with 21 (CHPS) zones, the Afram Plains is made up of 40 percent of these communities.

Majority of the inhabitants belong to the Akan tribe, there are other tribes which are predominantly from the northern part of Ghana, such tribes include; Frafras, Kokombas, Sissalas, Dagombas and Kussasis. The main language spoken is Twi, education levels are low. Petty trading in foodstuff is also brisk due to the district's location. Religions include: Christianity, Islam and Traditional.

### **1.6.3 ADMINISTRATION**

The district consists of five sub districts namely: Konongo Odumase, Agogo, Juansa, Dwease/Praaso and Amantenaman.

The district is managed by a District Chief Executive and a District Coordinating Director assisted by two deputies. There is a District Director of Health Services, District Health Management Team (DHMT) which is responsible for managing health activities, traditional authorities such as Chiefs and Queen Mothers rule the towns and villages.

### **1.6.4 INFRASTRUCTURE**

There are 2 Training Colleges, 4 Senior High Schools and about 210 first cycle institutions as well as 12 Day Care centers in the district. A first-class road network from Accra passes through Konongo Odumase to Kumasi while a 30 km second-class road stretches from Konongo to Agogo, other forms of communication in the district include telephones – mobile phones and landlines, fax and email services.

Hydroelectric power supply and pipe-borne water exist in the main towns of the district. Hand-dug wells are also found in the smaller towns and villages. The main economic activity in this district is small-scale farming (subsistent farming).

### 1.6.5 HEALTH FACILITIES

The study area is served by eleven (11) health care facilities including three (3) private health care centres. There is a District Health Management Team (DHMT) which is responsible for managing health activities. The district has herbalists and spiritualists estimated to be around one hundred and fifty (150) operating with licenses from the Asante-Akim North District Administration. There are orthodox and private health facilities as well as unorthodox or traditional health care providers.

### 1.6.6 HEALTH INFORMATION

Antenatal Care registrants in the district was 4,509 (72.9 percent), supervised delivery was 3,638 (58.8 percent) whereas postnatal care indicator was 3,013 (48.7 percent). Infant mortality rate for the year 2006 was 9.1/1000 Live Births, constituting 47.7 percent of the under-five mortality. However, the neonatal mortality rates are not known, probably due to the fact that majority of newborn deaths occur in the home and are not documented. This study seeks to investigate the household practices that affect newborn care and survival. The top five causes of under-five mortality are: malaria, septicaemia, anaemia, malnutrition and pneumonia. Whereas the postnatal care indicator was 3,013 (48.7 percent), EPI coverage for the year 2006 was 78.8 percent. (Asante-Akim North District Annual Report, 2006).

**Table 1.1: EPI COVERAGE FOR YEAR 2006**

ANTIGEN	COVERAGE (%)
Measles	67.6%
Yellow Fever	66.6%
OPV3	70.7%
Penta3	70.7%
BCG	95%
TT2	80%

**Source:** Asante-Akim North DHMT Annual Report, 2006.

## **1.7 SCOPE OF STUDY**

The study focused on newborn care practices that are carried out at the household level. Socio-economic status of mothers of neonates was assessed, immediate newborn care practices in relation to the WHO guidelines on some of the essential newborn care practices such as; clean child birth, drying and warming, cord care, immunization, early and exclusive breastfeeding practice were also captured. Mother's ability to recognize and manage newborn illnesses and traditional practices in newborn care were explored.

## **1.8 ORGANIZATION OF THE REPORT**

Chapter one consists of an overview of newborn health and survival in the world as a whole and specifically in sub-Saharan Africa with statistics of neonatal mortality rates in some developing as well as developed countries and specifically Ghana. The problem under study including the major causes of neonatal morbidity and mortality and rationale for the study are also elaborated. Research questions, specific objectives, conceptual framework are all found in this chapter. The chapter also elaborated on the district profile in terms of location and size, population, administration, infrastructure, health facilities available, as well as health information.

Chapter two consists of literature review pertaining to socio-economic factors, immediate newborn care; clean child birth, drying and warming, cord care, immunization, early and exclusive breastfeeding practices, recognition and management of newborn danger signs and traditional practices. It also looks at the World Health Organization guidelines on essential newborn care.

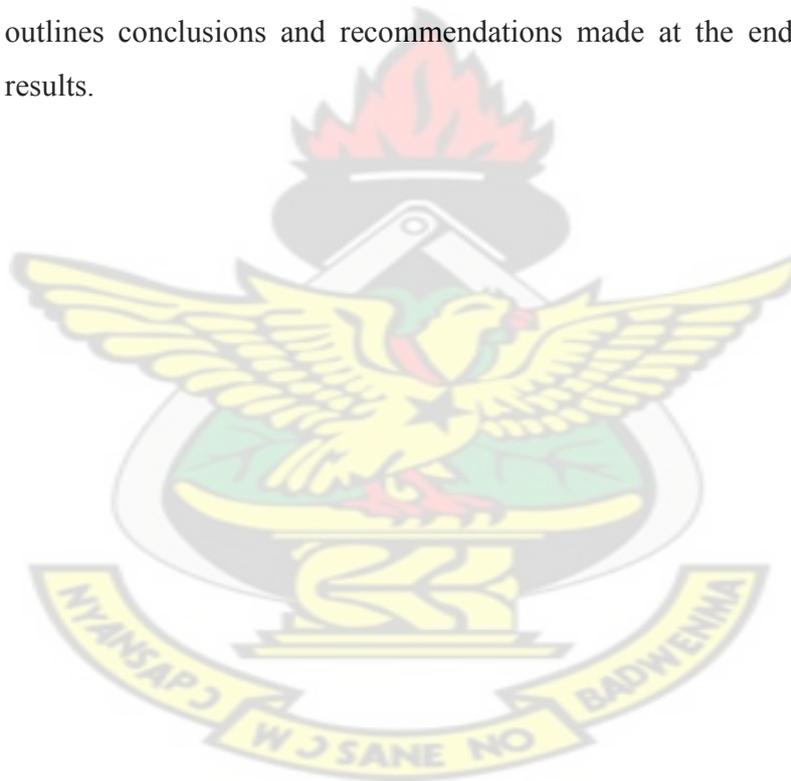
The third chapter describes the methodology, study type and study design, study population, sampling techniques and the sample size for the study. Study variables, data collection techniques and tools are also found in this chapter. It also talks about data handling and analysis, statistical methods, ethical consideration, assumptions and limitations of the study.

Chapter four presents the findings of the study with regards to the specific objectives which are socio-economic status of respondents, mothers' ability to recognize and manage newborn illnesses, and traditional practices using tables, graphs and charts.

The chapter also reports on immediate newborn care practices such as clean child birth practices, hand washing, cleaning of the perineum, time of initiating breastfeeding, hygiene during breastfeeding. Report on the practices by TBAs in the district is also found in this chapter.

Chapter five consists of discussion of the results from the previous chapter citing literature to support research findings informed by the specific objectives of the study.

Chapter six outlines conclusions and recommendations made at the end of the study based on the results.



## CHAPTER TWO

### 2.0 LITERATURE REVIEW

Survival of the newborn is an issue of great concern especially for the developing world. Care for the neonate often receives little attention in maternal and child health programmes. Though various efforts have been made by governments to reduce infant mortality, neonatal mortality keeps increasing. 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, 1996). Almost two-thirds of infant deaths occur in the first month of life, among those, more than two-thirds die in their first week and among those, two-thirds die in their first 24 hours after birth (Lawn *et al*, 2001).

Improvement in the survival of the newborn is dependent on healthcare that spans antenatal, intranatal and postnatal periods, i.e. 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. 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).

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 this impacts negatively on MDG4 on child health which pledges

to reduce under 5 years mortality by the year 2015, however, the survival of humankind as a whole will be impossible without protecting maternal and newborn lives.

## **2.1 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).

Almost all maternal mortality is avoidable, the death of a woman during pregnancy or childbirth is a violation of her rights to life and a social injustice to her, her family and the community. 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. Women in India for example, find themselves in subordinate positions to men socially, economically and culturally, these women are largely excluded from making decisions, they have limited access to and control over resources, they are restricted in their mobility, and are often under threat of violence from male relatives (Deogaonkar, 2004).

Socio-economic factors that affect access to health care and causes maternal mortality operates at the individual, family and community level and is a complex issue. The individual woman makes decisions about her health 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).

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.

Social constraints are related to the social patterns in a community that discourage the adoption of essential newborn care practices, for instance, older relatives such as mothers-in-law in many traditional areas still have considerable say over decisions concerning pregnancy, birth and child care, whereas their influence may be weaker in modern urban communities, the influence of the media may be rather stronger.

An example of a cultural constraint would be that, husbands in more traditional areas may dictate their wives' activities but this may be minimal or absent in some urban areas where women have greater independence and education. An example of economic constraint would be the unavailability of cash to pay for essential newborn care services (Parlato *et al.*, 2004).

## **2.2 DELIVERY CARE PRACTICES**

### **2.2.1 IMMEDIATE NEWBORN CARE**

There are marked variations in patterns of newborn care and interventions. Knowledge on what is needed for optimal newborn care is lacking in many cases. Modern hospital practices as well as traditional practices neglect the basic needs of newborns, these basic needs include: warmth, cleanliness, breast milk, safety and vigilance. Other interventions such as: thermal protection, breast-feeding, eye care (to reduce blindness), have essential preventive effects (WHO, 2006).

The World Health Organization (WHO, 1996) recommends the following essential newborn care interventions:

- Clean childbirth and cord care in order to prevent infection
- Thermal protection in order to prevent and manage newborn hypo/hyperthermia
- Early and exclusive breastfeeding which should be started within 1 hour after child birth
- Initiation of breathing and resuscitation to facilitate early asphyxia identification and management
- Eye care for the prevention and management of ophthalmia neonatorum
- Immunization: at birth with Bacilli Calmette-Guerin (BCG) vaccine, Oral Poliovirus vaccine (OPV) and Hepatitis B virus (HBV) vaccine
- Identification and management of the sick newborn
- Care for the preterm and/or low birth weight newborn

The study focused specifically on practices such as clean child birth, Early and exclusive breastfeeding, immunization of BCG and OPV, recognition and management of the sick newborn.

### **2.2.2 CLEAN CHILDBIRTH**

Newborns are more likely to survive if delivery is clean, that is if actions are taken to help prevent infection. Ensuring a clean delivery implies:

- That all those attending to the mother and newborn wash their hands with soap and water before during and after delivery.
- The perineal area of the vagina is washed before each examination and before delivery, and no foreign material is introduced into the vagina (the examiner's hand only when necessary).
- Delivery surface is clean, or at a minimum, birth doesn't occur on the bare floor. (Parlato *et al.*, 2004).

In Pakistan, though respondents knew about the benefits of clean delivery, they rarely practiced it, moreover, 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).

### **2.2.3 DRYING AND WARMING**

Parlato *et al.* (2004), share the view that newborns regulate their body temperature much less efficiently than the adult and they lose heat more easily especially from the head. In agreement with the WHO (1996), they therefore recommend that, newborns should be thoroughly dried immediately after delivery and kept warm, the newborn should be thoroughly dried with clean towel as soon as the head and body are delivered in order to prevent hypothermia, this also helps in limiting the loss of body heat, and the stimulation produced could promote breathing and aid an asphyxiated newborn. It is also recommended that bathing should be delayed to between four to six hours after birth (WHO 1996). However in Pakistan, it was observed that dais (traditional birth attendants) leave newborns unattended to, sometimes on the floor or ground, until the placenta is delivered, then the babies are washed with warm water and soap 1-2 hours after delivery. Dais hardly only wipe babies with dump cloth (Khadduri, *et al.*, 2007).

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.

#### 2.2.4 CORD CARE

There should be clean cord care procedures which are crucial in infection prevention. The umbilical cord should be cut with a clean (sterilized) blade and tied with clean (sterilized) materials, and no substances should be put on the cord stump (WHO, 1996).

Sometimes blades of grass, bark fibres, reeds or fine roots are used to cut the cord. This is harmful because these materials often harbour tetanus spores from the soil and thus increase the risk of neonatal tetanus. Materials such as threads, strips of cloth and strings are used to tie the cord (Woodruff *et al.*, 1984).

The cord stump remains the major means of entry for infections after birth. Principles of clean cord stump care stipulate keeping the cord dry and clean and nothing is applied anything on it, neither at home nor in the health facility. The stump will dry and mummify if exposed to air without any dressing, binding or bandages. It will remain clean if it is protected with clean clothes and is kept from urine and soiling. No antiseptics are needed for cleaning. If soiled, the cord can be washed with clean water and dried with clean cotton or gauze. Local practices of putting various substances on the cord stump - whether in health facilities or homes - should be carefully examined and discouraged if found harmful and substituted with acceptable ones (WHO, 2006).

If the umbilical stump becomes red, drains pus with the redness extending to the skin around it, the baby stops suckling well, is sleepy, does not wake up or is having difficulty breathing, this may be a sign of serious infection. The mother or caretaker should seek help from a health facility. The baby must be referred immediately to the hospital for proper treatment (WHO, 2006).

In the Sylhet District of Bangladesh, among the substances that were applied on the cord stump, after cord cutting; *turmeric* was the most common. Umbilical stump care revolved around bathing, skin massage with mustard oil and heat massage on the umbilical stump. Mothers were the principal provider for skin and cord care during the neonatal period. Unhygienic cord care practices are prevalent in the study area. (Alam *et al.*, 2008).

### **2.2.5 IMMUNIZATION**

The WHO (1996) 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 1997. Where perinatal infections are common it is important to administer the first dose as soon as possible after birth.

### **2.2.6 EARLY AND EXCLUSIVE BREAST-FEEDING**

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.

However, a study conducted by Yadav (2007) on traditional practices in newborn care in Nepal shows that colostrum 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.

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 colostrum that offers protection from infection, gives important nutrients, and has a beneficial effect on maternal uterine contractions. Khadduri *et al.* (2007), state that most women breastfed their babies, but initiation within 1 hour of birth and colostrum feeding were not common.

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. A skilled person can help to facilitate the process by ensuring correct positioning and attachment. A healthy baby has no need for large volumes of fluid any earlier than they become available physiologically from the mother's breast. There is no evidence to support the practice of providing supplementary feeds of water, glucose or formula. Traditional prelacteal feeds should be strongly discouraged although harmless rituals may be allowed so long as they do not delay breast-feeding. Every birth attendant should also know the importance of unrestricted feeding and the ways to support breast-feeding mothers. Mothers should be instructed about the need for an adequate diet to sustain lactation. They should be helped and encouraged if they have difficulties breast-feeding (WHO, 1996).

However, 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 colostrum was discarded (Bhandari *et al.*, 2003).

Rooming-in has many advantages over separating babies from mothers. In health facilities, its advantage, in addition to breast-feeding, is to prevent nosocomial infections.

### **2.3 RECOGNITION AND MANAGEMENT OF NEWBORN ILLNESS**

According to the WHO (1996), many newborn problems can be prevented by the interventions described above. However, when a disease occurs, many deaths can be avoided if the signs are recognized early and the newborn managed effectively.

Since most infants are either born at home or are discharged from the health facility early, families should be able to recognize signs of newborn illnesses and bring the newborn infant to the attention of a health worker.

The World Health Organization (1996) highly recommends early recognition of major newborn illnesses both at home and at the health centre in order to refer the baby to hospital for management.

The WHO explains further that many signs of the normal transition period mimic those of early disease. Differentiation of signs of mild illness from normal transitional variation is difficult. Therefore disease is often in an advanced stage when the newborn is brought to the attention of the health workers. Danger signs in the newborn period are also non-specific; they can be a manifestation of almost any newborn disease.

The most common presentation of illness in an infant who has been doing well after birth is that he or she stops feeding well, is cold to the touch or - in rare cases - has fever. Breathing may be fast and difficult with grunting and intercostal retractions; the infant may be irritable but may become lethargic and not wake for feeds.

The infant may vomit, have diarrhoea and a distended abdomen. If pus is draining from red swollen eyes or from the umbilicus, classification of the problem is easier. Jaundice on the first day and convulsions are always a sign of a serious illness (WHO, 1996).

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, slow

breathing 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).

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 Asram medicine in it). And herbs are used to both protect from and to treat Asram (by bathing soon after birth).

## **2.4 TRADITIONAL PRACTICES**

Traditional practices cannot be neglected in considering the achievement of better neonatal care in developing countries, this is because most deliveries occur at home and health services may not be available. Even those babies delivered in hospitals may be affected by traditional practices after discharge and these practices have a major impact on neonatal morbidity and mortality patterns (WHO, 2006).

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. A study conducted in the Brong Ahafo region of Ghana reports that application of hot water and shea butter on the cord was common and it is believed that applying nothing to the cord to ‘force it off’ and help it heal would negatively affect the newborn baby including discomfort and potential death for the baby, discomfort for the mother because she is confined to the room till the cord stump is off, and a delay in the child becoming a human being among some ethnic groups. (New Hints, Report 2007).

A study conducted among the rural poor in western Uttar Pradesh, to identify factors in 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. Timely initiating of breastfeeding was not done. 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).

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 newborn etc (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. A study conducted in Haripur district of Pakistan, showed that most deliveries take place at home, with the dai (traditional birth attendant) being the preferred attendant because she is experienced and locally accessible, she usually cuts the cord, ensures baby's breathing, washes the newborn and provides immense postpartum maternal support (Khadduri *et al.*, 2007).

A study conducted in low socioeconomic 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 breastmilk 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).

Socio-cultural reasons 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).

There is therefore the need to identify traditional and cultural practices and evaluate the extent of their impact. Ante-natal and intra-natal care practices such as resuscitation, thermal control, feeding and infection control for instance can be classified as either good practices worth promoting, harmful practices that should be stopped, harmless practices which may be ignored for the time being or practices that need further research before decisions can be arrived at as per their beneficial or harmful effects (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**

### **3.0 METHODOLOGY**

The present study was carried out in the Asante-Akim North District of the Ashanti Region. Data were collected from 38 communities in 3 sub districts.

Live births within one month prior to the study were eligible for the study. A structured questionnaire was used to elicit data pertaining to socio-demographic characteristics such as respondents' education, occupation, religion, knowledge on the availability of health facility in their communities, ANC visits, place of delivery, care at birth, cord care, breastfeeding practices, immunization, knowledge on newborn danger signs, and some traditional practices that are carried out to prevent newborns from falling sick. TBAs were also sampled and interviewed.

#### **3.1 STUDY DESIGN AND TYPE**

A non-interventional study with cross-sectional design, involving 370 mother and newborn pairs was undertaken in the Asante-Akim North District from July to September 2008.

#### **3.2 STUDY POPULATION**

The study population was mothers and or caretakers of newborn babies in the Asante-Akim North district. Mothers had to be ordinarily resident in the district to be eligible for the study.

#### **3.3 SAMPLING TECHNIQUE AND SAMPLE SIZE**

Simple random sampling method was used to select 3 sub districts from the 5 sub-districts, 38 communities were then randomly selected. Community-based surveillance volunteers and TBAs assisted in the tracking of mother and newborn pairs. TBA's in the selected communities were interviewed to ascertain their knowledge and influence on newborn survival.

Since the prevalence of neonatal mortality in the district was not known, a 50 percent rate was assumed (Araoye, 2003), with a 0.05 margin of error at 95% Confidence Interval (CI) to calculate the sample size as shown below:

Formula used: 
$$n = \frac{Z^2 pq}{d^2}$$

when n = sample size

Z reliability coefficient

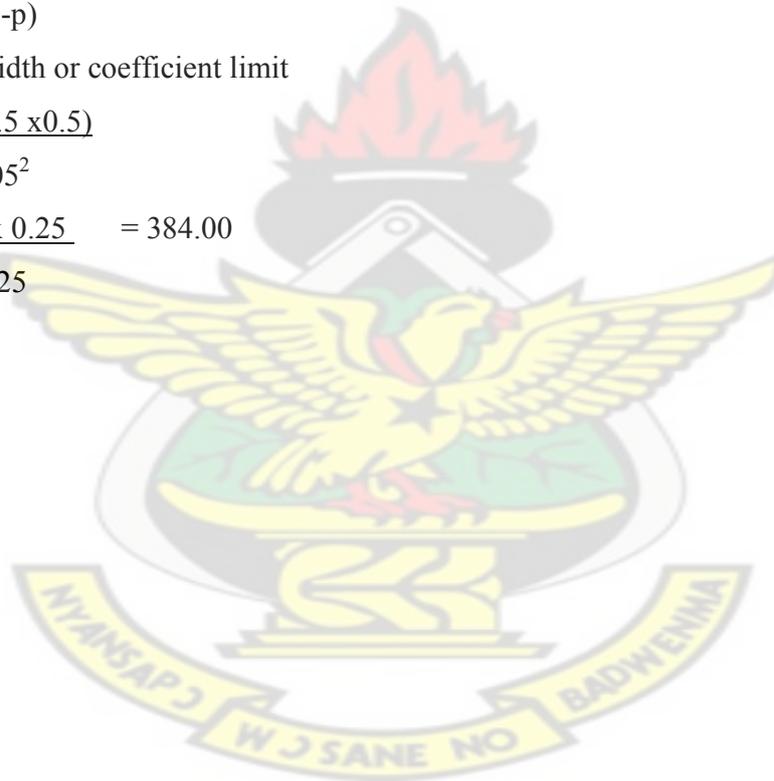
p → population proportion = 50%

q = (1-p)

d = width or coefficient limit

$$n = \frac{1.96^2(0.5 \times 0.5)}{0.05^2}$$

$$n = \frac{3.816 \times 0.25}{0.0025} = 384.00$$



### 3.4 STUDY VARIABLES

The study variables are shown in table 3.2 below:

**Table 3.2: Study Variables**

Objective	Variable	Conceptual definition	Indicators	Data Collection Method	Scale of Measurement	Source
To Identify delivery practices among women	Delivery Practice	Seeking skilled attendance & hygiene during delivery	Degree of awareness, knowledge	Interview/questionnaire administration	Ordinal	Community
To identify cultural beliefs & practice affecting newborn care	Cultural beliefs and practices	local norms, practices and views in caring for the newborn	What is done to the newborn and the mother's mindset about the newborn	Interview/questionnaire administration	Nominal	Community
To determine mother's ability to recognize newborn danger signs	Ability to recognize newborn danger signs	Prompt care seeking behaviour during sickness in baby	Degree of awareness/knowledge	Interview/questionnaire administration	Nominal	Community
To determine the socio-economic factors affecting newborn survival	Socio-economic factors	Education, employment status, availability of health care	Level of education, employment status, accessibility of health care	Interview/questionnaire administration	Ordinal	Community

**Source: Author's Construct, 2009.**

### 3.5 PRE-TEST

With the help of two field research assistants trained for a period of two weeks, pre-test was carried out in a community called Gyidim which had been identified to have similar characteristics, this enabled study instruments to be modified where necessary.

### 3.6 DATA COLLECTION TECHNIQUES AND TOOLS

Data were collected using a structured questionnaire on socio-economic factors, delivery practices, knowledge on newborn danger signs as well as traditional practices. TBA's were also interviewed using interview guide.

### **3.7 DURATION OF STUDY**

The study was conducted over a three-month period, from July to September 2008. Structured questionnaires were administered to mothers of newborn babies in the Asante-Akim North district.

### **3.8 DATA HANDLING AND ANALYSIS AND STATISTICAL METHODS**

At the end of data collection day, the tools were checked for accuracy and consistency. Questionnaires judged to be incorrectly filled were either rejected or the data collector had to return to the data collection site to correct the errors. Data collected were kept in a cabinet under lock and key to protect the study participants and to ensure confidentiality of data collected. Data were coded, cleaned, and double-entered. Epi-info version 3.5 (CDC, Atlanta) was used for data entry, while R Development Core Team (Vienna) and Microsoft Excel 2007 softwares were used to analyze data.

### **3.9 ETHICAL CONSIDERATION**

Ethical clearance was obtained from the Committee for Human Research, Publications and Ethics of the Kwame Nkrumah University of Science and Technology and Komfo Anokye Teaching Hospital (CHRPE-KNUSTKATH). Administrative clearance was obtained from the District Assembly as well as the District Health Administration, before conducting the research.

A verbal informed consent detailing the study purpose, benefits and absence of possible risks of the study to the respondents was provided. Study participants were assured of absolute confidentiality.

### **3.10 ASSUMPTIONS**

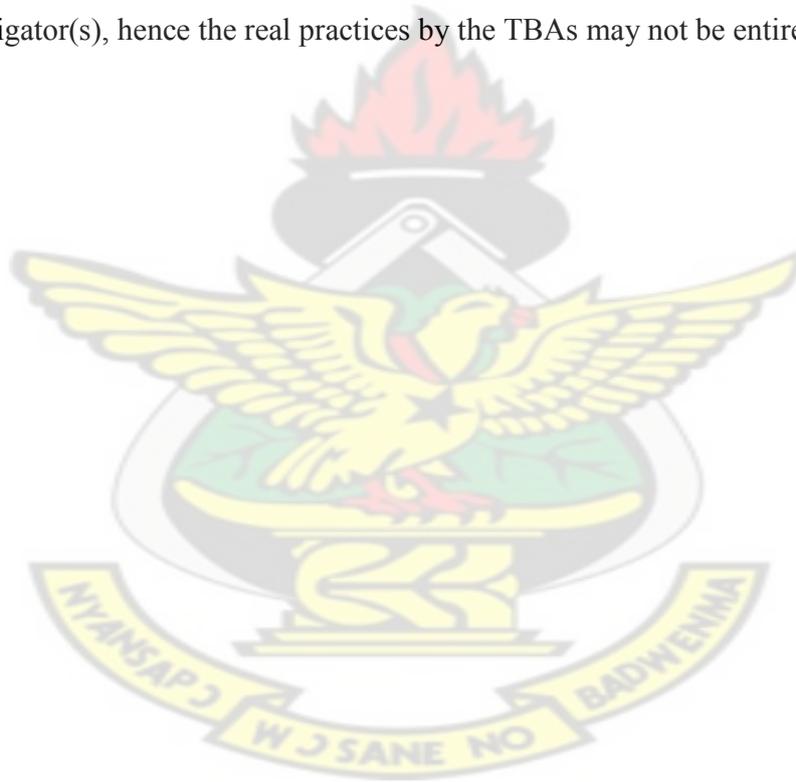
It was assumed that:

- Mothers of newborns may have some difficulties recalling events.
- Study participants have prior knowledge about basic practices in newborn care.

### 3.11 LIMITATIONS

This study was based on reported newborn care and cannot be based on actual observations. As a result, responses for some of the practices could not be obtained in situations where deliveries took place in health facilities, as mothers were not aware of those practices.

There is the likelihood of missed information on neonates who were hospitalized before the visit, however, their number was not significant. Mothers may know the healthy practices for newborns and may respond accordingly without practicing what they report. Moreover, response to some of the practices by TBAs may be influenced by the presence of the investigator(s), hence the real practices by the TBAs may not be entirely captured.



## CHAPTER FOUR

### 4.0 RESULTS

This chapter presents the findings of the study. All tables and graphs in this chapter are computed from data collected from the field (Asante-Akim North District).

#### 4.1 SOCIO-DEMOGRAPHIC CHARACTERISTICS

The study population consisted of 370 mothers, and 10 Traditional birth Attendants (TBAs) were sampled and interviewed. Table 4.1 illustrates socio-demographic characteristics of respondents.

**Table 4.1: SOCIO-DEMOGRAPHIC CHARACTERISTICS**

<b>Characteristic</b>	<b>N=370</b>	<b>%</b>	<b>Characteristic</b>	<b>N=370</b>	<b>%</b>
<b>Education</b>			<b>Occupation</b>		
None	52	14	Unemployed	83	22
Primary/JSS	282	76	Petty Trader	135	37
SSS	25	7	Farmer	77	21
Vocational/Technical	7	2	Seamstress/Hairdresser	58	16
Tertiary	4	1	Apprentice	5	1
<b>Religion</b>			Housewife	4	1
Christians	319	86	Civil Servant	4	1
Muslims	41	11	Public Servant	4	1
Traditional	1	2			
Other	8	2			
<b>Marital Status</b>			<b>Existence of Health Facility</b>		
Not Married	93	25	Yes	324	88
Married	227	75	No	46	12

Source: Field data, 2008.

From Table 4.1, 76 percent of mothers interviewed were educated up to basic level, i.e. from primary to Junior Secondary School (JSS), 14 percent of mothers had no education. Majority of respondents 86 percent were Christians and about 75 percent of respondents were married. Thirty-seven percent were petty traders while 22 percent were unemployed.

Eighty-eight percent respondents confirmed that there are health facilities in their communities, 12 percent had no idea about the existence of health facilities in their communities.

## 4.2 IMMEDIATE NEWBORN CARE

### 4.2.1 CLEAN CHILDBIRTH

**TABLE 4.2: HAND WASHING BY ATTENDANTS**

Did the attendant wash his/her hands before attending to you?	Response Frequency	Percent (%)
Yes	335	90.29
No	12	3.23
Can't tell	23	6.19
Total	370	100

**Source: Field data, 2008.**

Approximately 90 percent of respondents confirmed that those who attended to them washed their hands as shown in Table 4.2.

**TABLE 4.3: CLEANING OF PERINEAL AREA OF THE VAGINA**

Cleaning of the perineum your vagina	Response Frequency	Percent (%)
Yes	310	83.78
No	44	11.89
Can't tell	16	4.32
TOTAL	370	100

**Source: Field data, 2008**

From Table 4.3, 84 percent of respondents recalled that their perineum was cleaned before delivery, 11 percent respondents did not have their perineum cleaned, 4 percent however could not remember whether their perineum was cleaned or not before delivery.

**TABLE 4.4 COVERING OF DELIVERY SURFACE**

Was any material used to cover the delivery surface	Response Frequency	Percent (%)
Yes	351	95.12
No	9	2.17
Can't Tell	10	2.71
TOTAL	370	100

**Source: Field data, 2008.**

Ninety-five percent of respondents said the surface on which they delivered was covered with clean sheet (cloth).

**TABLE 4.5: SPONTANEOUS CRYING AFTER BIRTH**

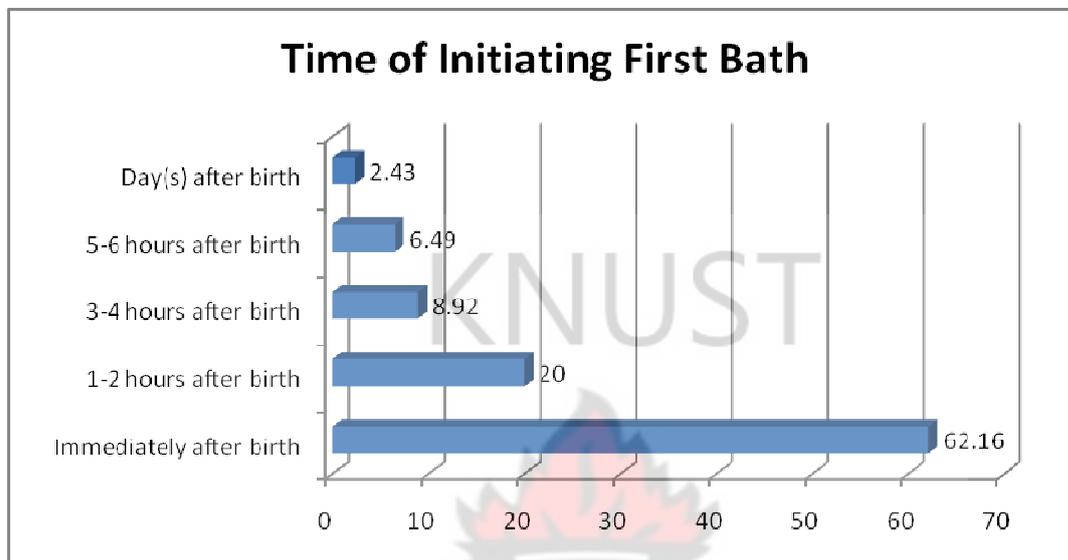
Did your baby cry spontaneously after delivery	Response Frequency	Percent (%)
Yes	323	87.53
No	40	10.84
Can't tell	7	1.63
TOTAL	370	100

**Source: Field data, 2008.**

From Table 4.5, approximately 88 percent of respondents said their babies cried spontaneously after delivery.

## 4.2.2 DRYING AND WARMING

FIGURE 4.1: TIME OF INITIATING THE FIRST BATH

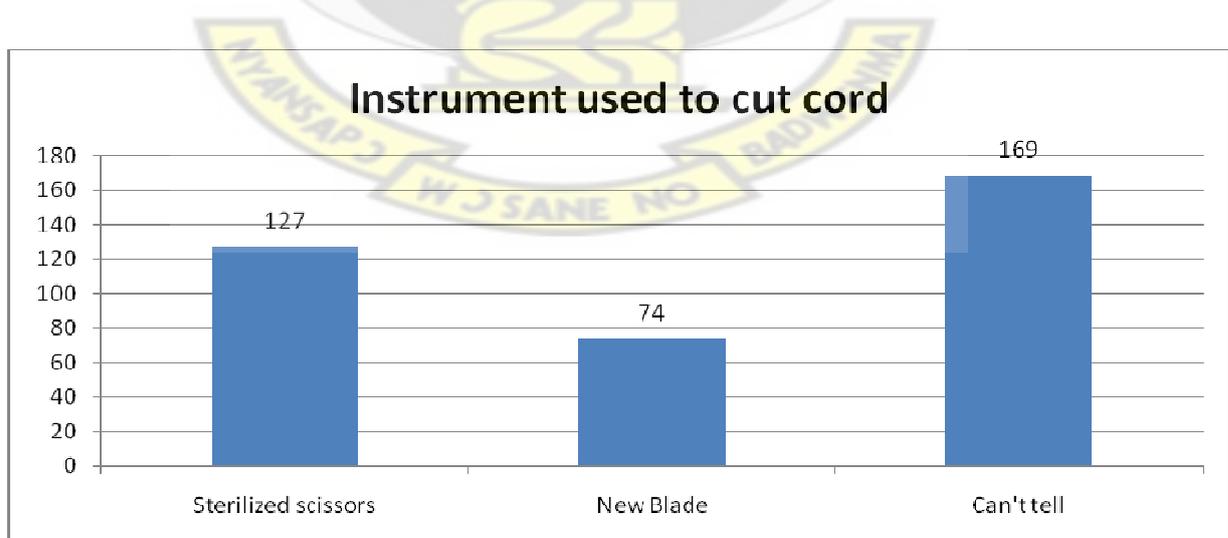


Source: Field data, 2008.

From Figure 4.1, more than half (62 percent), of respondents had their babies bathed immediately after delivery, 20 percent of respondents had their babies bathed between 1-2 hours after delivery. It was observed that all respondents practiced rooming-in.

## 4.2.3 CORD CARE

FIGURE 4.2: INSTRUMENT USED TO CUT THE CORD



Source: Field data, 2008.

Out of the 370 people interviewed, 127 (34 percent) as in Figure 3, recalled that sterilized scissors were used to cut the cord of their newborn babies, 74 (20 percent) of respondents said new shaving blades were used to cut the cord of their newborn babies after delivery and 169 (46 percent) of respondents could not remember exactly what was used to cut the cord of their newborn babies after birth.

**TABLE 4.6: STATUS OF INSTRUMENT USED**

Was the instrument used to cut the cord sterilized	Response Frequency	Percent (%)
Yes	346	93.51
No	10	2.70
Can't tell	14	3.78
Total	370	100.00

**Source: Field data, 2008.**

Approximately ninety-four percent of respondents said the instrument used to cut the cord was sterilized and void of contamination, while 4 percent said the instrument used to cut the cord was not clean.

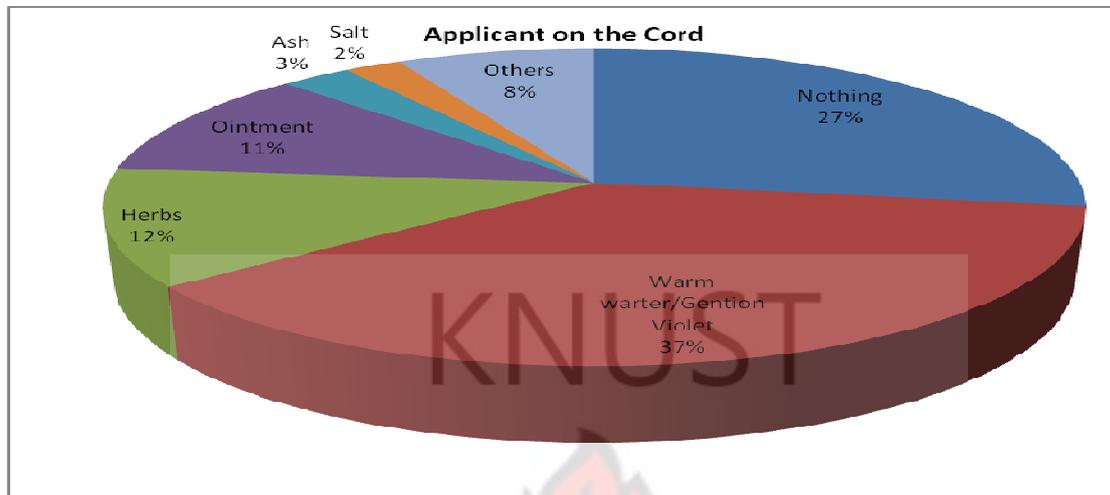
**TABLE 4.7: MATERIAL USED TO TIE THE CORD**

Material used to tie the cord		
What was used to tie the cord	Frequency	Percent (%)
Cord clamp	256	69.38
Thread	72	19.24
Can't tell	19	5.15
Others	23	6.23
TOTAL	370	100

**Source: Field data, 2008.**

From Table 4.7, 69 percent (256) of respondents said the cord of their newborns was clamped, this is practiced only in health institutions, 20 percent (72) of respondents said the cords of their newborns was tied with thread, 6 percent (23) of respondents mentioned other things such as wrapping with cotton wool, covering with rag and some herbs, mothers' spittle which is presumed to be unsterile.

**FIGURE 4.3: CORD MANAGEMENT**



**Source: Field data, 2008.**

Approximately 37 percent (138) of respondents applied warm water and gentian violet on the cord stump, 27 percent (101) of respondent did not apply anything on the cord stump, and 12 percent (44) respondents applied herbs, the remaining 8 percent (28) of respondents applied other things such as spirit, amoxicillin, cocoyam, tomato juice etc on the cord stump.

**TABLE 4.8: IMMUNIZATION**

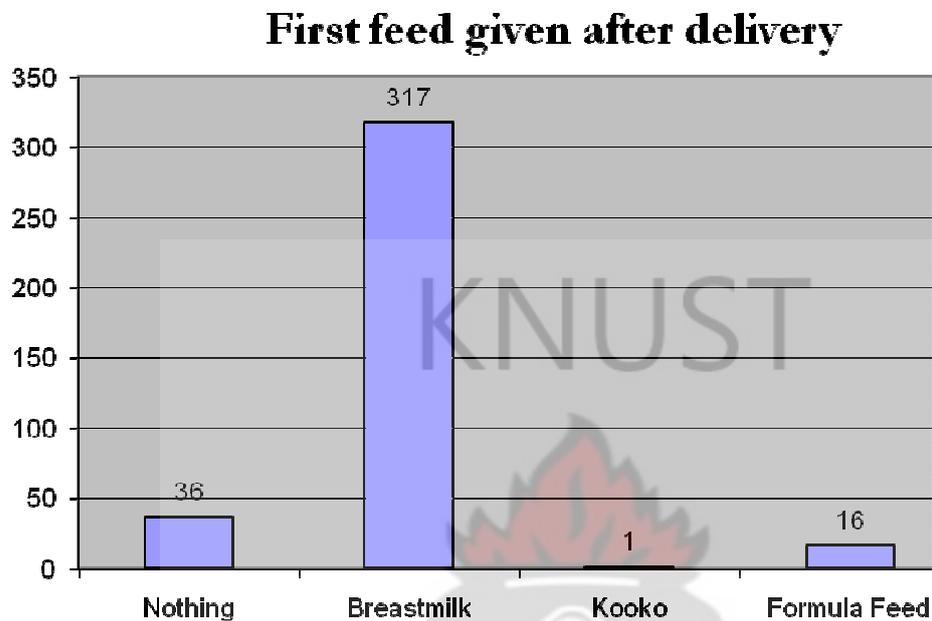
Was your baby immunized after birth	Frequency	Percent (%)
Yes	353	95.41
No	17	4.59
Total	370	100

**Source: Field data, 2008.**

From table 4.8, 95 percent (353) of respondents had their babies immunized with OPV and BCG, either on the day of delivery or within two weeks after delivery.

#### 4.2.5 BREASTFEEDING PRACTICES

FIGURE 4.4: FIRST FEED GIVEN AFTER DELIVERY

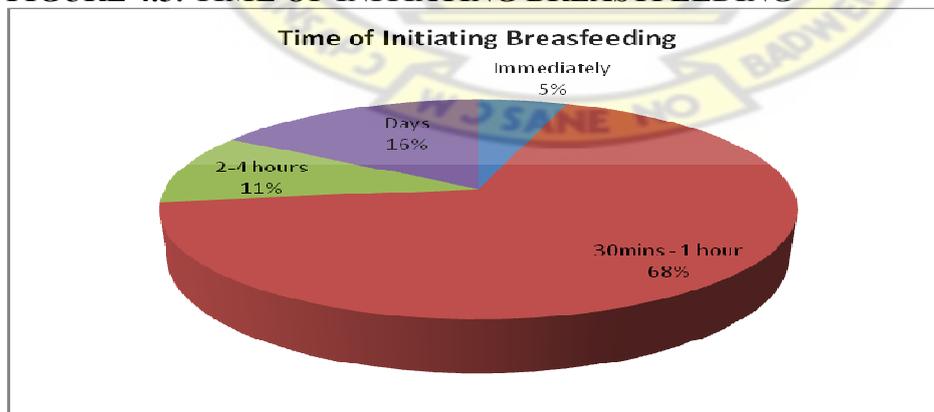


Source: Field data, 2008.

From Figure 4.4, 317 (86 percent) of respondents gave breast milk as the first feed to their newborns, and 36 (10 percent) of respondents gave nothing, however, 16 (3 percent) of respondents gave formula feed as the first feed to their neonates.

#### 4.2.6: TIME OF INITIATING BREASTFEEDING

FIGURE 4.5: TIME OF INITIATING BREASTFEEDING



Source: Field data, 2008.

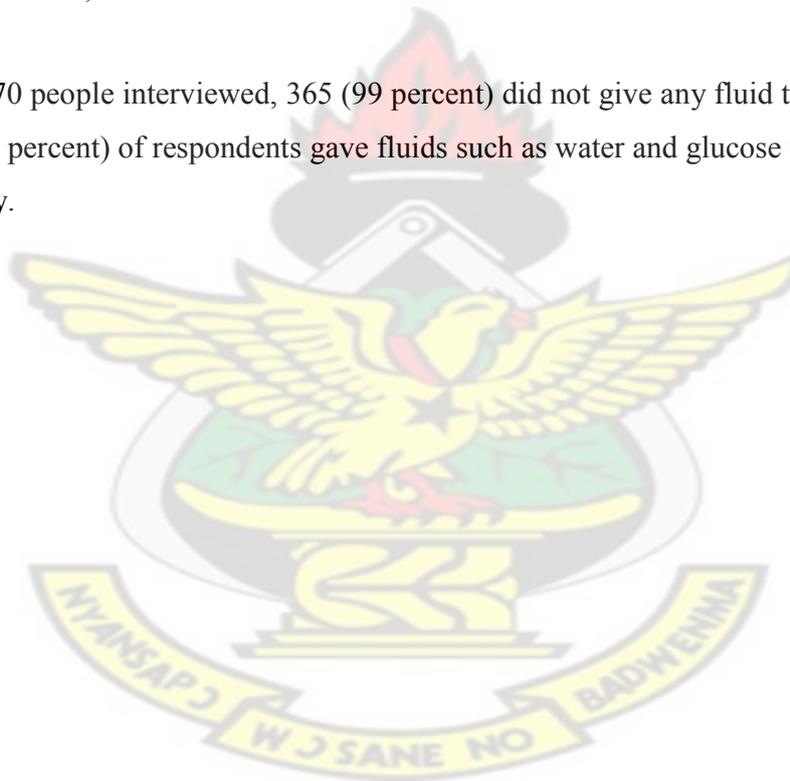
From Figure 4.5, 68 percent of respondents breastfed between 30 minutes to 1 hour after delivery, 16 percent breastfed days after delivery whereas only 5 percent of respondents breastfed their babies immediately after delivery.

**TABLE 4.9: GIVING OF FLUID(S) AFTER BIRTH**

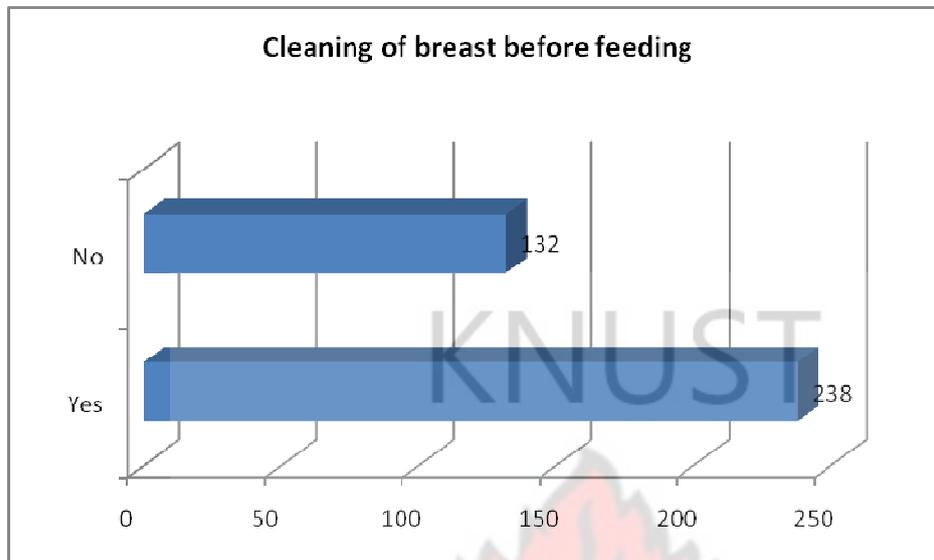
Giving of fluid after delivery		
Did you give any fluid other than breast milk	Frequency	Percent (%)
Yes	5	1.35
No	365	98.65
TOTAL	370	100

**Source: Field data, 2008.**

Out of the 370 people interviewed, 365 (99 percent) did not give any fluid to their babies, whereas 5 (1 percent) of respondents gave fluids such as water and glucose to their babies after delivery.



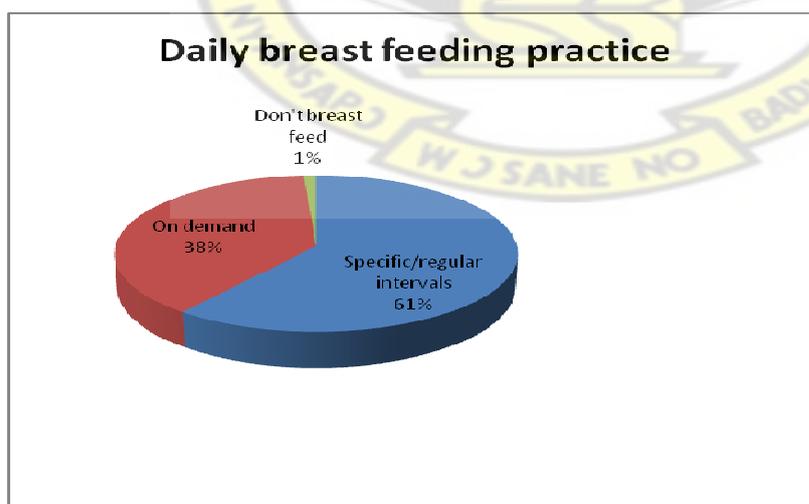
**FIGURE 4.6: CLEANING OF BREAST BEFORE FEEDING**



**Source: Field data, 2008**

From Figure 4.6, 64 percent (238) of mothers said they clean their breasts before breastfeeding, while 36 percent (132) of them said they don't clean their breasts. Of the 64 percent mothers who clean their breasts before feeding it to their babies, 22 percent (80) used either their towels or a piece of cloth to clean their breasts, however, the remaining 21 percent (76) used their babies' towels, dresses, nappies, cot sheets etc to clean their breast.

**FIGURE 4.7: DAILY BREASTFEEDING PRACTICES**



**Source: Field data, 2008.**

Sixty-one percent (224) of respondents breastfed at specific/regular intervals, while 38 percent (142) breastfed on demand.

**TABLE 4.10: MANAGEMENT OF NEWBORN ILLNESSES**

Management of Newborn Illnesses		
Response	Frequency	Percent
Go to the Hospital	338	91.35
Give Enema	1	0.27
Give first aid	7	1.89
Buy drugs from the drug store	24	6.49
Total	370	100

**Source: Field data, 2008.**

Most mothers named at least three perceived danger signs in newborns, especially, high body temperature, inability to suckle and excessive crying.

Ninety-one percent (338) of respondents said they will visit the hospital whenever either of them falls sick, six percent (24) of respondents said they will buy medication from the drug store.

#### 4.4 TRADITIONAL PRACTICES

**TABLE 4.11: THINGS DONE TO PROTECT BABY FROM FALLING SICK**

Things done to protect baby from falling sick		
Response	Frequency	Percent
Bath baby with soap, sponge, water etc	313	84.51
Bath baby with Herbal preparation	26	7.03
Bath baby with Alata Semina	15	4.05
Smear baby with Sheabutter/kaolin	16	4.32
Total	370	100

**Source: Field data, 2008.**

Approximately 85 percent (313) of respondents bathed their babies with soap, sponge, water either with or without disinfectant (detol) in order to protect their babies from falling sick, 7 percent (26) bathed their babies with herbal preparations (without knowing the content) to protect their babies from contracting “Asram” (disease of the newborn believed to be given to them by people with evil eyes).

**TABLE 4.12: GIVE BABY TO STRANGERS**

Give Baby to Strangers		
Response	Frequency	Percent
Yes	5	1.35
No	365	98.65
Total	370	100

**Source: Field data, 2008.**

About 99 percent (365) of mothers said they would not give their babies to strangers for fear that the strangers would transfer diseases they may be harbouring to their babies either physically or spiritually, however, only 1 percent (5) of mothers would give their babies to strangers without entertaining any such fears.

#### **4.5 TRADITIONAL BIRTH ATTENDANTS (TBAs)**

All the ten TBAs interviewed said they have received training from the Asante-Akim North District Health Management Team (DHMT), Konongo and Agogo Primary Health Care Unit respectively, they added that they receive regular training from these two teams.

Half of the TBAs interviewed had no form of education, the remaining half had basic education, all the TBAs interviewed do not have delivery rooms of their own, they rather walk to the pregnant women’s homes to attend to them when they are called. One TBA made mention of the fact that she sometimes uses one of her rooms to deliver women when they come to her house. However, all of them were given delivery kits with contents such as towel, rubber mackintosh, gloves, cotton, disinfectant, alcohol/spirit, sterile thread (for tying the cord), soap dish and a small brush.

According to the TBAs, they use rubber mackintosh and collect freshly washed cloths (from the pregnant women who are about to deliver) to cover the delivery surface, they stressed on the fact that they don't allow women to deliver on the bare floor. With hand washing, the TBAs interviewed said they wash their hands with soap, and water before attending to their clients. They also confirmed that they use either cotton wool or sanitary pad and alcohol/detol to clean the perineum of their clients before delivery, they tie the newborn babies' cord with thread, and then rub it with alcohol.

The TBAs interviewed said they bath the newborn babies soon after the placenta is delivered, usually between 30 minutes to one hour after delivery, they dress babies up and wrap them with freshly washed cot sheets or cloths (which are collected from the mothers) before giving their newborn babies to them. They said they ensure that mothers breastfeed their babies within the first hour after delivery, they also advise mothers to give only breast milk to their newborns, but this advice is sometimes ignored by some mothers, so they end up giving other fluids to their newborns.

With regards to immunization, the TBAs said they are not trained to immunize newborns so they advice mothers to either go to the nearest health facility to immunize their newborns or tell the mothers to go for immunization as soon as the Health Team arrives (which is usually on weekly basis). The TBAs interviewed reiterated that they advice and insist that the mothers they attend to report to the nearest health facility for the necessary procedures (which may be beyond their competence) to be carried out and also to register their babies.

## **CHAPTER FIVE**

### **5.0 DISCUSSION**

This chapter discusses the implications of data gathered and reported in chapter four, their relevance was identified in relationship with literature.

#### **5.1 SOCIO-DEMOGRAPHIC CHARACTERISTICS OF RESPONDENTS**

Some communities were inaccessible during the rainy season, it is assumed that neonates in those communities may not have access to health care during that time. More than three quarters (86 percent) of the respondents were Christians, 11 percent were Moslems and the remaining 3 percent, traditionalists. Although majority (75 percent) of respondents said they were married, quite a number of them (25 percent) were not married.

#### **SOCIO-ECONOMIC FACTORS**

In this study, availability of health facilities in the communities, education and occupation were used as proxy socio-economic indicators. The population in the study area was characterized by low socio-economic status with majority, (76 percent) of mothers interviewed having basic education (from primary to JSS level), 14 percent of mothers had no education at all, 7 percent of the mothers were educated up to the Senior Secondary School level, and 3 percent of mothers had either vocational or technical training.

There are only two major health facilities in the district; Konongo Odumasi Government Hospital and Agogo Presbyterian Hospital. These two health facilities serve as major referral centers for the 11 health facilities in the district. Although more than half (88 percent) of respondents knew about the existence of health facilities in their communities, they are inaccessible to most communities in the periphery.

Though the Asante-Akim North District Health Management Team and the Primary Health Care Unit of Agogo Hospital have adopted means of paying regular health visits

to the peripheral communities, this effort may not be enough to cater for all newborns in the district, this is because the 12 percent respondents who did not know about the existence of a health facility in the district is quite significant.

With regards to occupation, 37 percent of respondents were engaged in petty trading, 22 percent of respondents were unemployed, 21 percent of respondents were farmers, and 16 percent of respondents were either seamstresses or hairdressers, with the remaining 4 percent constituting civil/public servants and housewives. This may indicate a low income level of respondents, hence respondents did not have any regular source of income. Relating Deogaonkar's assertion on socio-economic factors, it was realized that the respondents' ability to adopt healthy newborn care practices at the household level was influenced by their lack of regular or major source of income, with regards to the 37 percent respondents who are engaged in petty trading and the 22 percent of respondents who are unemployed. This is confirmed by McCarthy and Maine, 1992, that the aggregate family income, occupation and education of family members could affect access to health care for the woman and her newborn baby.

## **5.2 IMMEDIATE NEWBORN CARE**

The study revealed that 90 percent of mothers interviewed recalled that those who attended to them washed their hands. Though this confirms that the World Health Organization's (WHO 2006) recommendation is being adhered to in the district, 3 percent of mothers said their attendants did not wash their hands and 6 percent of mothers couldn't tell whether those who attended to them washed their hands or not, this indicates the need for more education on clean delivery practices.

Majority (84 percent) of mothers said the perineal area of their vagina were cleaned before delivery, 12 percent said their perineums were not cleaned while 4 percent couldn't recall if their perineum were cleaned or not. This implies that although the recommendation that the perineal area is cleaned before delivery is being adhered to, there's the need for more effort to reinforce this practice.

Most of the respondents (95 percent), recalled that the delivery surface was covered with rubber mackintosh and cloth, 2 percent said it was not covered, while 3 percent of mothers could not tell whether the surface on which they delivered was covered or not probably due to the fact that they were not conscious at the time of delivery. This practice should be encouraged.

Eighty-eight percent of respondents recalled that their babies cried spontaneously after delivery, 11 percent said their babies did not cry, and that they were either bathed or slapped at the buttocks etc before they cried, and 2 percent of respondents couldn't tell whether their babies cried spontaneously after birth or not. This shows that the WHO (1996) recommendation on observing the newborn baby for crying and breathing was being adhered to, however, there is the need for a more extensive education on observing babies to cry spontaneously after birth by health care providers.

#### **5.4 DRYING AND WARMING**

Sixty-two percent of respondents had their babies bathed immediately after birth, 20 percent had their babies bathed between 1-2 hours, while 2 percent had their babies bathed day(s) after birth (probably due to the fact that their babies were sick). Similarly, a 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 after delivery. Meanwhile Khadduri et al., (2007) also report in their study that *Dais* leave newborns unattended to, sometimes on the floor until the placenta is delivered, then the babies are washed with warm water and soap 1-2 hours after delivery, and that the *Dais* hardly wipe babies with dump cloth. This suggests that the WHO's (2006) recommendation, supported by Parlato et al., (2005) that there should be delayed bathing for 4-6 hours is not being practiced.

#### **5.5 CORD CARE**

Thirty-four percent respondents recalled that sterilized pairs of scissors were used by their attendants to cut the cord, (only practiced in institutional deliveries), 20 percent said a new shaving blade was used, 46 percent could not tell what was used, this suggests that

materials such as grass and reeds mentioned by Woodruff et al, (1984) may have been used.

Approximately 70 percent of respondents said the cord of their newborn babies were clamped using cord clamp, (in institutional deliveries), 20 percent respondents said the cord was tied with thread, while 11 percent of respondents could not tell what was used to tie the cord. This presumes that infection prevention/control may not be considered in some of the deliveries as stipulated by the WHO (1996), since one cannot tell whether the thread used to tie the cord was sterilized or not. With majority (93 percent) of respondents, confirming that the instrument or material used to tie the cord was clean or sterilized, only 3 percent said the material used was not clean, this presumes that infection control is largely ensured.

With the question of what is applied on the cord, 27 percent of respondents said they don't apply anything on the cord stump. 37 percent of respondents apply warm water and gentian violet on the cord stump, 12 percent respondents said they apply herbs on the cord, 11 percent of respondents apply ointment which they claim was sold to them at the health facilities by the Nurses/Midwives. This defies the WHO (2006) recommendation that nothing is applied on the cord stump, rather it should be washed with clean water and dried with clean cotton wool when soiled. Other substances applied on the cord stump include; ash, salt, mashed uncooked cocoyam, amoxicillin, tomato juice, fume from lantern/fire. This may suggest a high incidence of infection among newborns in the district. In agreement with the World Health Organization, local practices of putting various substances on the cord stump should be carefully examined and discouraged if they are found to be harmful and they should be replaced with those that are acceptable (WHO, 2006). This finding is similar to that of a study conducted in Bangladesh where unhygienic cord care practices were prevalent and turmeric was the most common substance that was applied on the cord stump, mainly done by mothers (Awasthi et al., 2008).

## **5.6 IMMUNIZATION**

Majority (95 percent) of respondents had their babies immunized with OPV and BCG, only 5 percent respondents did not immunize their babies. This suggests that the WHO's (2006) recommendation of given BCG and OPV to the newborn is largely being adhered to, and it also confirms EPI coverage of 78.8 percent in the district for the year 2006. (Asante-Akim North District Annual Report, 2006).

## **5.7 EARLY BREASTFEEDING PRACTICES**

A greater proportion (86 percent) of respondents gave breast milk as the first feed to their newborns, this shows that there was adherence to the WHO (1996) recommendation of early and exclusive breastfeeding which should be initiated within 1 hour after child birth. Ten percent of respondents gave nothing because breast milk was not established immediately after delivery, and 4 percent gave formula feed. Reasons for giving formula feed included; insufficient or no breast milk, although most mothers claimed they were educated to give only breast milk during antenatal clinic.

Eighty-five percent of mothers interviewed did not give any fluid after birth, while 15 percent of mothers gave fluids such as water, glucose, and gin mixed with water after birth. Seventy-three percent of mothers initiated breastfeeding within the first hour after birth, 11 percent of mothers initiated breastfeeding 2-4 hours after birth, while 16 percent of mothers initiated breastfeeding days after delivery. This suggests that most mothers know the benefits of feeding colostrum to their newborns, unlike the study in Nepal where mothers in some communities believe that colostrum is dirty milk and should be discarded, and where newborn babies were fed with cow or goat milk immediately after birth with the belief that the babies will become more intelligent (Yadav, 2007). Another study by Khadduri et al (2007) showed that initiation of breastfeeding within 1 hour of birth and colostrum feeding was not common.

Majority of mothers interviewed (64 percent), said they cleaned their breasts before breastfeeding, and a considerable number (36 percent) of mothers said they don't clean their breasts. Out of the 64 percent mothers who cleaned their breasts before feeding it to

their babies, 22 percent use their towels or a piece of cloth, 21 percent use their babies' towels, dresses, nappies, and cot sheet, 14 percent used only water, 3 percent use their hands or fingers, 2 percent use cotton wool and water, 2 percent of mothers lick their nipples with the tongue. The remaining 2 percent take their bath before breastfeeding. This implies that hygiene is not adequately ensured during breastfeeding. With regards to breastfeeding practice, majority (61percent) of mothers interviewed said they breastfeed at specific/regular intervals, 38 percent breastfeed on demand. This suggests the need for extensive education on daily breastfeeding practices.

### **5.8 RECOGNITION AND MANAGEMENT OF NEWBORN DANGER SIGNS**

Most mothers mentioned high body temperature, diarrhoea, refusal to suckle, excessive crying and “Asram” as perceived danger signs in newborns. They don't believe their newborns can be treated at the health facilities for the condition they call “Asram”, they would rather treat their newborns with traditional medicine from the herbalist. Ninety-one percent of mothers interviewed said they will visit the hospital upon recognition of the danger signs they mentioned above. Six percent will buy “over-the-counter” drugs to treat their babies, whereas 3 percent of the mothers interviewed will give first aid or enema.

### **5.9 TRADITIONAL PRACTICES**

Approximately 84 percent of mothers mentioned that they use soap, sponge and warm water with or without disinfectant (detol) to bath their newborn babies in order to protect them from falling sick, 7 percent bath their babies with herbal preparations (without knowing the content of the preparation) in order to protect their babies from falling sick, particularly, from contracting “Asram”. Four percent smear their babies with sheabutter or with kaolin and 4 percent either bath their babies with *Alata Semina* (traditional soap) or give enema with the aim of protecting the newborns from falling sick. Nearly 99 percent of respondents interviewed said they will not give their babies to strangers for fear that the stranger may transfer disease(s) he or she is harbouring to the newborn baby either spiritually or physically.

## CHAPTER SIX

### 6.0 CONCLUSIONS AND RECOMMENDATIONS

#### 6.1 CONCLUSIONS

The district was characterized by low socio-economic status, but this does not seem to have any influence on newborn care practices. Though more than half (75 percent) of respondents were married, financial support from their husbands pertaining to caring for their newborn babies was not forthcoming. Health facilities were available in some communities but they did not befit modern status.

Clean delivery care practices such as hand washing, cleaning of the perineum of the vagina before delivery, and covering of the delivery surface with clean sheets were largely adhered to in the district. However, the practice of bathing newborn babies immediately after birth was the norm by both health institutions and TBAs. The use of sterilized instruments or materials 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.

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, diarrhea, 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.

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.

## **6.2 RECOMMENDATIONS**

There is the need to extensively train all health care providers including TBAs, in the district on newborn care. Women should be educated more on neonatal and early neonatal care, not only when they go for ANC visits, it should be in the form of campaigns, at market places, palaces, mosques, palaces and in churches. Men should not be left out of this because meaningful impact will be made if all parties get involved in providing appropriate care to our newborn babies.

There should be effective awareness programmes on girl-child education in the district. Scholarships should be made available by the Government through the District Assembly for all girls of school-going age in the district, this will motivate a lot of females in the district to attain higher education and in effect raise the socio-economic status of women in the District.

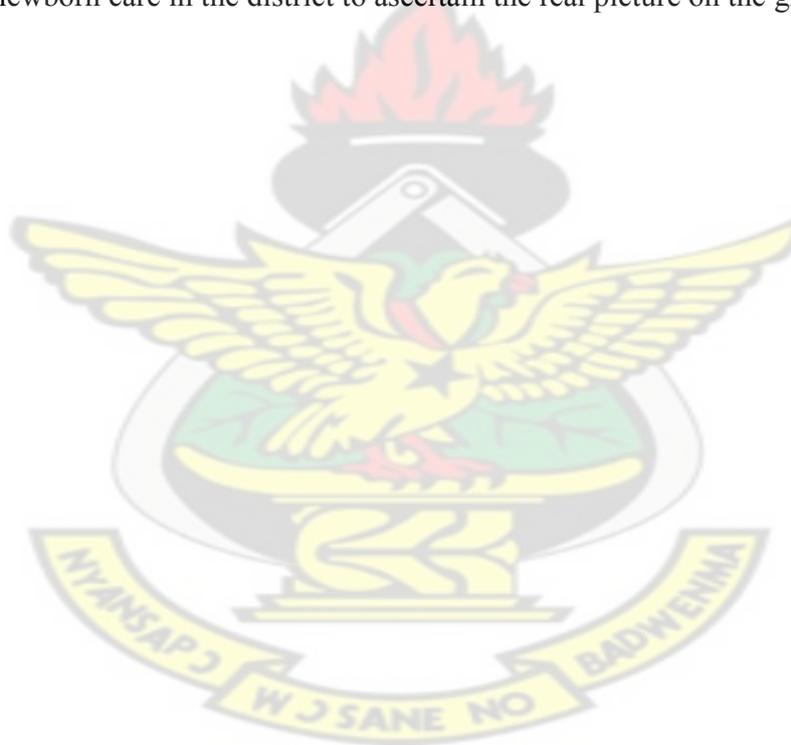
Government and NGOs should train women in the district (using the District Assembly's Common Fund etc) to acquire more productive skills in order to make them more self-sustainable. Women groups should also be mobilized by chiefs, opinion leaders and other good-spirit people to acquire more productive skills.

There is the need for continuous effective campaign on saving new born lives. Health care providers must organize educational programmes for all persons in the Asante-Akim

North district on appropriate delivery care practices such as delay bathing of newborn babies immediately after birth, proper cord care practices, exclusive breastfeeding, breastfeeding on-demand, hygienic breastfeeding practices, as well as recognition and management of more severe danger signs in the neonate.

The District Health Management Team and the Primary Health Care Unit should discuss the prevailing unhealthy practices with health care providers including TBAs so that those practices can be prevented. There should be a bylaw on the care for the neonate by both parents, to ease mothers of the burden of caring for their neonates all by themselves without getting the needed financial support from their husbands.

There is the need for a qualitative study on the traditional beliefs and practices influencing newborn care in the district to ascertain the real picture on the ground.



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## QUESTIONNAIRE ON THE HOUSEHOLD PRACTICES THAT AFFECT NEWBORN CARE

Record Number	
Name of Community/facility	
House Number	
Date of Interview	DD: /MM: /YY:

### Section A: Socio-demographic Characteristics

1. Age of Respondent

15-20 yrs	1
21-25yrs	2
26-30yrs	3
31-35yrs	4
36-40yrs	5
41-45yrs	6
46-50+	7

2. Parity

1
2
3
4+

3. Baby's Age

4. Sex of Baby: Male

Female

5. Ethnicity

Akan	1
Bono	2
Ewe	3
Ga/Adangbe	4
Hausa	5
Nzema/Ahanta	6
Foreigner	7
Other (specify)	8

6. Respondent's Religion

Traditional	1
Christian	2
Moslem	3
Other(specify)	4

7. Marital Status

Single	1
Married	2
Divorced	3
Widowed	4

6. Level of Education

None	1
Primary/JSS/JHS	2
SSS/SHS	3
Vocational/Technical	4
Tertiary	5
Non Formal	6
Other (specify)	7

7. Occupation

Unemployed	1
House Wife	2
Farmer	3
Trader	4
Civil Servant	5
Public Servant	6
Other (specify)	7

8. Is there a health facility in this community? Yes  No

9. If yes to Q8, what is the name?

10. ANC attendance: Yes  No

11. If yes, number of visits

Once	1
Twice	2
Thrice	3
Four Times	4
Can't Remember	5
Other (specify)	6

**Section B: Delivery Care**

12. Where did you deliver?

Hospital	1
Maternity Home	2
Clinic	3
TBA	4
Herbalist	5
Home	6
Other (specify)	7

14. Why did you choose to deliver at the above?

15. How did you deliver?

Spontaneous Vaginal Delivery	1
Caesarean Section	2
Vacuum Extraction	3
Other (specify)	4

16. Who attended to you during delivery?

Doctor	1
Nurse	2
Midwife	3
TBA	4
Herbalist	5
Mother/Relative	6
Friend/Neighbour	7
Self	8
Other (specify)	9

17. Did he/she wash his/her hand before attending to you? Yes

No

18. Was any material used to cover the surface on which you delivered?

Yes	1
No	2
Can't Remember	3
Other (specify)	4

19. If yes to Q.16, what was used?

Cloth	1
Rubber Makintosh	2
Sack	3
Leaves	4
Other (specify)	5

20. Was the above mentioned material clean?

Yes	1
No	2
Can't tell	3

21. Did your baby cry spontaneously after delivery?

Yes	1
No	2
Can't tell	3

22. If no to Q.21, what was done to make baby cry?

**Section C: Immediate Newborn Care Practices**

23. What was used to cut the cord after delivery?

24. Was the above mentioned material clean?

Yes	1
No	2
Can't tell	3

25. What was applied on the cord stump?

26. How was baby cleaned after delivery?

27. What was used to wrap baby after delivery?

28. Approximately how long after delivery did you first breastfeed your baby?

Immediately	1
30 minutes -1 hr	2
2-4hrs	3
Days	4
Other (specify)	5

29. What was the first feed you gave to baby immediately after delivery?

Breast milk	1
Kooko	2
Formula feed	3
Other (specify)	4

30. Did you give any fluid to baby immediately after delivery?

Yes	1
No	2

31. If yes to Q.30, what did you give?

32. Do you clean your breast before breastfeeding the baby? Yes  No

33. If yes, what do you use to clean your breast before breastfeeding?

At specific Regular Intervals	1
On demand	2

34. How often do you breastfeed baby in a day?

Don't breastfeed	3
Other (specify)	4

35. When did you start bathing the baby?

Immediately after birth	1
1 – 2hrs after birth	2
3– 4hrs after birth	3
5 – 6hrs after birth	4
7 +hrs after birth	5
Other specify	6

36. How many times do you bath baby in a day?

None	1
Once	2
Twice	3
Thrice	4
Other (specify)	5

37. What do you use to bathe baby?

38. What do you use to treat the cord stump?

39. Was your baby immunized at birth?

Yes	1
No	2

40. Was your baby ill immediately after birth?

Yes	1
No	2

41. If yes, what was baby suffering from?

Difficulty in Breathing	1
Jaundice	2
Bleeding	3
Inability to suckle	4
Inability to urinate/defecate	5
Anaemia	6
Other (specify)	7

42. Did you have any of these conditions after delivery?

Anaemia	1
Jaundice	2
Fever	3
Other (specify)	4

43. How did you know that you have the above disease?

44. What do you do when either you or your baby falls sick?

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45. Do you give your baby to strangers? Yes  No

46. Would you give your baby to someone who coughs? Yes  No

47. How do you know when baby is sick?

Has diarrhea	1
High body temperature	2
Fast breathing	3
Feels hot/cold	4
Sweating	5
Shivering	6
Vomiting	7
Other (specify)	8

48. What do you do to treat baby?

Nothing	1
Give Enema	2
Take Baby to the Hospital	3
Go to the Herbalist/TBA	4
Go to the Shrine	5
Other (specify)	6

49. Who assists you financially in caring for the baby?

Husband	1
Mother	2
Grandmother	3
Uncle	4
In-law	5
Other (specify)	6

50. Do you have any other comments to make?

----------

Thank you.

## QUESTIONNAIRE FOR TRADITIONAL BIRTH ATTENDANTS

Record Number	
Name of Community	
Date of Interview	DD: / MM: / YY:
HSE.NO.	

1. Level of Education

None	1
Primary/JSS/JHS	2
SSS/SHS	3
Vocational/Technical	4
Tertiary	5
Non Formal	6
Other (specify)	7

2. Have you received any training? Yes  No

3. If yes mention the type of training(s) you received

4. Do you have a delivery room? Yes  No

5. Do you have delivery kit(s) that you use for delivery? Yes  No

6. If yes list the content(s)

7. What material do you use to cover the surface during delivery?

Cloth	1
Rubber Makintosh	2
Sack	3
Leaves	4
Other (specify)	5

8. Do you wash your hands before attending to client(s) who come to deliver? Yes  No

9. If yes, what do you use to wash your hands?

10. If no why?

11. Do you wash the perineum of your client(s) before delivery? Yes  No

12. What instrument(s) do you use to cut the cord?

13. What do you apply on the cord?

14. Do you give babies to their mothers immediately after delivery? Yes

No

15. How long do you wait before you give the baby it first bath?

Immediately after delivery	1
1 – 2hrs after birth	2
3– 4hrs after birth	3
5 – 6hrs after birth	4
7 +hrs after birth	5
Other specify	6

16. What do you use to rap baby after delivery?

17. How long does it take for mothers to breast feed after delivery in your facility?

Immediately	1
30 minutes -1 hr	2
2-4hrs	3
Days	4
Other (specify)	5

18. What is the first feed that you give to babies who are delivered in your facility?

Nothing	1
Breastmilk	2
Koko	3
Formula Feed	4
Other (specify)	

19. Do you give babies water? Yes

No

20. Do you immunize babies delivered in your facility? Yes

No

21. If yes what are the vaccines?

22. If no why?

23. Do you have any comment(s) to make?

## INFORMED CONSENT FORM

### INFORMATION SHEET

**Title of the research:** Household Practices that Influence Neonatal Survival in the Asante-Akim North District of the Ashanti Region

**Name(s) and affiliation(s) of researcher(s) of applicant(s):** This study is being conducted by Marah Awunyo of the Kwame Nkrumah University of Science and Technology.

**Purpose(s) of research:** This study seeks to explore household practices that influence neonatal survival in the Asante-Akim North district of the Ashanti Region

**Procedure of the research, what shall be required of each participant and approximate total number of participants that would be involved in the research:**

The study population will consist of mothers with babies aged 0-28 days resident in the Asante-Akim North District. A purposive sampling method will be used to recruit 400 participants into the study. TBAs and elderly women in the communities will be interviewed. Participants will be enrolled into the study at the postnatal clinics, then a follow-up will be made to interview participants. Inform consent forms will be explicitly explained to participants before administering the questionnaires. Participants will have the liberty to withdraw from the study any time they so wish. Questionnaires used for the interview will be coded before administering them to respondents in order to minimize the loss of confidentiality.

**Risk(s):** Sensitive questions will be asked which might make mothers feel uncomfortable.

**Benefit(s):** This study aims at improving household practices in newborn care, and also improving neonatal survival.

**Confidentiality:** Information collected will be coded and no name will be recorded in order to protect the identity of the study participant. Interviews will be conducted at places that will ensure maximum privacy of study participants and also reduce discomfort. The Ethics Committee will be given access to the records collected during the study.

**Voluntariness:** Your participation in this research is completely voluntary. Participants who fit the inclusion criteria can **voluntarily** give their consent to participate.

**Alternatives to participation:** Individuals who qualify to participate in this study but are not willing to do so will not be affected in any way by their decision.

**Consequences of participants' decision to withdraw from research and procedure for orderly termination of participation:** Participants can choose to withdraw from the research at anytime. Also, information that has been obtained about participants before they

choose to withdraw may have been modified or used in reports and publications. These cannot be removed anymore. However participants' wishes will be complied with as much as is practicable.

# KNUST

