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**MRC**  
Medical Research Council

**“Assessment of Knowledge, Attitude and Practice of  
Primary Health Care Workers in Postpartum Care in The  
North Bank East Division Of The Gambia”**



UNIVERSITY OF OSLO

**Thesis Submitted by:-**

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**as partial completion of the Master of Philosophy  
Degree in International Community Health**

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**May 2001**

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## **DEDICATION:**

**Dedicated to my wife Oumie Fatty and children Fatou Manneh and Isatou Manneh for their patience during my absence.**

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# **“ASSESSMENT OF KNOWLEDGE, ATTITUDE AND PRACTICE OF PRIMARY HEALTH CARE WORKERS IN POSTPARTUM CARE IN THE NORTH BANK DIVISION OF THE GAMBIA”**

**Fadinding Manneh<sup>1</sup>, Johanne Sundby<sup>2</sup>, Ramatulie Cole Ceesay<sup>3</sup>, Gijs Walraven<sup>4</sup>**

## **ABSTRACT**

Only a small proportion of women in developing countries –less than 30% -receive adequate postpartum care (WHO 1998). In very poor countries and regions, as few as 5% of women receive such care. A large proportion of maternal deaths occur during the first 6 weeks after delivery, and postpartum care might help to prevent many of these deaths. In developing countries, 90% of new mothers receive postpartum care. (WHO 1997).

The health policy for The Gambia affirms the integration of Maternal and Child Health (MCH) and Family Planning services, postpartum care being a major component of this integrated approach. However the attention for ‘a healthy start’ for the Gambian child (nearly 94% of women report their child receiving a vaccination at the first MCH visit) seems to get the cost of the Mothers in the MCH services – there is not enough attention for the mothers especially in the postpartum period (Walraven et.al 1999)

Care during the postpartum period should provide opportunities to check that both mother and baby are doing well, provide support to breast feeding, family planning and enable the health workers to detect and manage health problems early.

***MAIN OBJECTIVES:-The overall objectives of the study was to assess knowledge, attitudes and practices of primary health care workers in primary post-natal care in the North Bank East Division of the Gambia.***

**SPECIFIC OBJECTIVES** (i) To obtain Nurses' and Traditional Birth Attendants' (TBAs) understanding of postpartum health problems. (ii) To describe the knowledge, attitude, and practice of Nurses and TBAs in postpartum care (with emphasis on breastfeeding, postpartum sepsis control, postpartum family planning and postpartum anaemia). (iii) To obtain information from postnatal mothers regarding birth related illnesses, health seeking behaviour during the postnatal period, and perception



postnatal care and needs and demands (iv) To obtain Nurses' opinion concerning problems they have in providing postnatal care as well as potential strategies for improving postpartum care. (v) To compare knowledge, attitude and practice of the professional health workers -nurse- midwives and the non -midwives in postnatal care (specifically on anaemia, breastfeeding, postpartum sex and postpartum family planning) to determine if training contributes to a significantly better knowledge, and practice.

**DESIGN:-** a cross-sectional descriptive study.

***METHODS:*** semi-structured questionnaires were used to collect data from (a) 31 nurses from the 5 health facilities and 9 Primary Health Care Villages (b) 53 TBAs from 4 Primary Health Care (PHC) villages (c) 119 women attending an MCH clinic who fulfilled the inclusion criteria

3 focus group of nurses were convened during 5<sup>th</sup> October to 12<sup>th</sup> October 2000. The group discussions were held with the view of soliciting more important and in-depth information from the participants in the groups that might not have been fully addressed in the questionnaires.

**RESULTS:** - There is a need to improve knowledge and practice of the TBAs in the four components the survey examined. The study revealed that there is room for improvement demonstrated by the positive attitudes of the TBAs on all the four themes. The level of knowledge and practice in all the four components studied among the health profession was reasonable but there is still room for improvement. Most women attend clinics at delivery for child health reasons, but less for their own health. Although not surprising, a relatively high proportion of mothers reported symptoms during the postpartum period. A large proportion received help from facilities and/or home based care. A number of specific operational barriers that hinder postnatal care services have been outlined. Shortage of staff, lack of supervision, gaps in technical competence, poor supplies, poor staff attitude and cultural barriers among others. Each of these is an important barrier. Potential strategies to improve the situation outlined include continuing education of health staff, logistical support and community education, integrating of services and monitoring and evaluation of progress.

**CONCLUSION:** The prevention, recognition and management of complications depend on experience and training, and regular training of health workers in all forms plays a major role in safe motherhood. What is needed is the development of locally appropriate

comprehensive simple intervention plans needed before and during pregnancy, during delivery and after delivery for mothers and newborn linking and maximizing the skills health workers.

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**RECOMMENDATIONS** - the issue of postnatal care should now be addressed fully in integrated approach making use of the health system and its collaborating partners. “Primary Postnatal Care Package” could be developed and tested for its effectiveness in No Bank East Health Division.

**KEY WORDS:** -Postpartum care; Traditional Birth Attendants with midwifery skills; Knowledge; Attitude; Practice; Postpartum anaemia; Postpartum Sepsis, Breastfeeding; Postpartum Family planning.

Nurses and health professionals have been used interchangeably in the text.

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## **ACRONYMS AND ABBREVIATIONS**

AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Care
BHF	Basic Health facility
CACs	Catchment Area Committees
CHN	Community Health Nurse
CHW	Community Health Worker
DHT	Divisional Health Team
DHT NBDE	Divisional Health Team, North Bank Division East
DoSH	Department of State for Health
EPI	Expanded Program on Immunization
ESU	Epidemiology and Statistics Unit
IEC	Information Education and Communication
MCH/FP	Maternal and Child Health/Family Planning
MRC	Medical Research Council
NACP	National AIDS Control Program
NBDE	North Bank Division East
NGO	Non Governmental Organization
NU	Nutrition Unit
PHC	Primary Health Care
PHPNP	Participatory Health Population and Nutrition Project
PNC	Postnatal Care
STD	Sexually Transmitted Disease
TBA	Traditional Birth Attendant
UNICEF	United Nation International Children Emergency Fund
VDCs	Village Development Committees
VHS	Village Health Services
VHW	Village Health Worker
WB	World Bank
WHO	World Health Organization

***In Tanzania, expectant mothers tell their older children:***

***"I am going to the sea to fetch a new baby.***

***The journey is dangerous and I may not return..."***

**Source: <http://www.gatesfoundation.org/globalhealth/reprochildhealth.htm>**

## **CHAPTER 1**

### **1: INTRODUCTION**

#### **1.0: INTRODUCTION**

Pregnancy and childbirth are special events in the woman's lives, and indeed in the lives of their families. It can be a time of hope and joyful anticipation. It can also be a time of fear, and suffering and even death. Although pregnancy is not a disease but a normal physiological process, it is associated with certain risks to the health and survival of both for the woman and for the infant she bears. These risks are present in every society and in every setting. In many developing countries each pregnancy represents a journey into the unknown from which too many women never return.

Millions of women do not have access to good quality health services during pregnancy and child b especially women who are poor, uneducated or who live in rural areas. Less than half of the women developing countries get adequate health care during and soon after birth, despite the fact that most mater deaths take place during these periods (WHO 1997).

Every year there are an estimated 200 million pregnancies in the world (Graham 1997). Complications pregnancy and childbirth constitute the leading cause of deaths and disability among women 15-49 years of e and 90 percent of these deaths occur in Sub-Saharan Africa and Asia. Globally, each year almost 585,000 die direct results of complication arising during pregnancy, delivery or the puerperium making maternal morta the health statistics with the largest disceprency between developed and developing countries (Stars 1997).

Several factors contribute to the decision to provide postnatal care and have been mentioned elsewhere (Bla 1997, Bick and MacArthur 1994). According to the Manual of Maternal and Health services in the Garr “every mother should have the opportunity to be seek advice and be examined by a senior nurse/midwife/ doc CHNs and TBAs should home visit every mother who has delivered in their area to advice and make sure i both mother and child are doing well. Special attention should be given to hygiene, breast-feeding and adequ nutrition of the mother. Remember that the postnatal period is the ideal time for providing information counseling on family planning to mothers and should therefore be part of the postnatal care given to moth During the first visit to the infant welfare clinic, the mother should also be provided with postnatal care.

Even though over half of the maternal deaths (estimated at 61-72% Abouzahr et al. 1998, Li XF et al, 19 Vigas 1992, Bhaitia 1988, Chen 1974) occur in the postpartum period in developing countries much attent has been focussed on the prenatal care for preventing maternal mortality.

Few community based studies of postpartum morbidity have been carried out in developing countries, howe where such studies have been conducted, ill health and serious illnesses have been found to be comm (Walraven et al 1998, Finger 1997, Uzma et al.1999). These limited findings suggest that the postpartum per is a time of extreme health risk for many women in developing countries. Thus implying the importance postpartum care, a grossly neglected area.

Only a small proportion of women in developing countries –less than 30% -receive adequate postpartum c (WHO 1998). In very poor countries and regions, as few as 5% of women receive such care. The lack of c may be most life threatening, since these are the time when sudden emergency complications are most likely occur and the early postpartum periods is the time most maternal deaths occur. In developed countries, 90% new mothers receive postpartum care. (WHO 1997). Why this differences in coverage? If mothers rece postpartum care as effectively as they receive prenatal care, maternal mortality could reduce. “The fact that th

are so few maternal deaths in industrialized world, only goes to show what can be done when there is the will and resources to do so” (Stars 1997)

In general the main purpose of postnatal care is: to promote and monitor the physical and psychological health of the mother; to ensure a successful infant feeding and to monitor various aspects of infant health; to foster the development of good maternal –infant relationships (MacArthur. 1999; WHO 1994)

Women, families and even health professionals are often not aware of the risks to women during this period. This is one of the most life threatening period for the woman yet hardly any serious attention is given to this period (Abouzahr 1998 et al., WHO 1997). Therefore in order to substantially reduce maternal mortality and morbidity, a systematic postpartum approach may be needed.

## **1.1 PURPOSE OF THIS STUDY**

This study tried to establish community based and primary health care postnatal knowledge, attitudes and practices, information obtained through a survey using interviews and focus group discussion techniques.

The ultimate goal is to improve maternal health and the findings of this survey will help the researcher determine the needs to implement and evaluate an appropriate improved postpartum intervention.

## **1.2 STUDY AREA AND POPULATION**

### **1.2.1 THE COUNTRY (THE GAMBIA)**

#### **1.2.1.1: NATURAL FEATURES**

The Gambia is a small, (10,669 sq.km.) country on the West African Coast. It has a narrow strip of territory varying in width from 24-50 kilometers and stretching 350 kilometers inland from the Atlantic Ocean.

The country has a Sahelian climate characterized by a long dry season (January to May, November to December). The rainfall, from June to September, averages 850 mm-1200 mm that varies from year to year.

The economic base of the Gambia is heavily reliant on agriculture with groundnut being the main cash crop. Nearly 60% of the arable land is under groundnut cultivation. Rice, millet and sorghum are grown largely for domestic consumption.

In addition to agriculture and light industry, tourism and commerce are also important sources of foreign exchange as well as providing employment for more than 2% of the labor force on a seasonal basis.

#### **1.2.1.2: DEMOGRAPHIC CHARACTERISTICS**

Despite its smallness the Gambia is one of the most densely populated countries with a population of 83 persons per square kilometers in 1990.

The Gambia has conducted four national censuses which basic data on children ever born and children surviving were collected from all women. The most recent census 1993 estimated the population at 1,038,145 people with an annual growth rate of 4.1% and a significant migrant component of 1.2%. The same source also shows dramatic reductions in mortality during the previous ten years. Infant mortality rate for the country as a whole was 85 per 1000 births in 1993 (23% reduction from 167/1000 in 1983) and on average 16% of children die before their fifth birthday (Department of State For Health (DoSH) 1998). The very high coverage in the immunization program (82% in 1991) has probably been a major factor in the decline.

Adult mortality was lower than expected based on childhood estimates; 79% of females and 78% of males survived to their seventieth birthday. Overall life expectancy in 1993 was 60.0 for women and 58.3 for men (MacLeod 1998).

### **1.2.1.3: SOCIOECONOMIC**

The National population is comprised of four main ethnic groups, Mandinka (40%) Fulla (19%) Wollof (15%) and Jola (11%). The majority of the population are Muslims (95%) with a minority of Creoles (1%) who are Christians. Beyond the coastal urban area populated by some 200,000 people, 85% of the population live in rural areas.

“Despite this ethnic pluralism, there is a measure of homogeneity in cultural traditions which has engendered a degree of uniformity in the way in which beliefs and food habits, involving food taboos, fertility, sociological rites of passage and traditional medicine influence, the health practice of the Gambian people. Some of these customs have a gender disposition, and often inflict hazards on the health of pregnant women and teenage girls particularly in the rural areas” (Gambia Health Policy 1998). Per capita income was US\$320 in 1996 and only 38% of the population over the age 10 had attended primary school in 1993.

### **1.2.1.4: OVERVIEW OF THE HEALTH SECTOR**

The Gambia adopted Primary Health Care (PHC) in 1978 and since then it formed the basis of national health policy. The PHC system is organized around the primary, secondary and tertiary levels of care. With the implementation of the PHC program, considerable gains have been made. 90% of the population live with



7.5km of a health facility and 80% of the villages have a PHC program (Department of State For Health (DoS 1998)

The most recent policy document is the statement of health policy for the years 1994-2000 which focuses improving access to health care for all citizens and improving the quality of care provided.

Health services are mainly provided through government referral hospitals, major health centers, minor health centers, dispensaries, outreach stations and health post. In addition there are private clinics and hospitals providing services. These are mainly concentrated in the Greater Banjul area (the coastal urban area of country). Furthermore a number of Local and International NGOs provide institutional, technical and operational support to service delivery. Local NGOs are also involved in direct delivery in the areas of nutrition and family planning.

About 40% of health services are provided through outreach stations. An extensive Maternal and Child Health service has ensured that over 90% of pregnant women make at least one antenatal visit to a clinic for review by a nurse. In addition a trained traditional birth attendant (TBA) or health worker attends an estimated 60% of births.

Community Health Nurses form the link between the village level primary health care services and the referral health services available at dispensaries and health centers. Each of

Community Health Nurses are responsible for the supplies, supervision and the continuing education of the village health workers (VHWs) and TBAs in about 5 PHC villages.

A mobile MCH team comes to do clinics in a monthly rotation. At these clinics, the aim is to train local CHNs, VHWs and TBAs work together with the district health staff, and the target population includes residents from the surrounding villages nearby.

The Gambia has achieved remarkable progress in child health. Between 1983 and 1993 a reduction of 23% in the infant mortality rate was recorded from 167/1000 to 85/1000 births. The under-five mortality rate was 260/1000 in 1983, and was reduced by 47% to 137/1000 in 1993, the maternal mortality rate now 1050/100,000 was 2000/100,000 before the introduction of PHC (Department of State For Health (DoSH) 1995). These are remarkable achievements for a country with a per capita income estimated at \$320 and public recurrent budget spending on health is estimated at \$6.50 per head. This success has been achieved through years' of support of low cost, village-level health care services, basic curative and preventive services in health centres and an effective immunisation programme.

Family planning services have been integrated into the MCH services but not to a very great success contraceptive prevalence rate is at 12.8% compared to the level of knowledge at 80.6%. Total fertility rate : remains high at 6.0. Early marriage and low age at first birth are contributing factors. Adolescent pregnancy especially among schoolgirls are on the increase.

In 1988 user fees were introduced in the health services a strategy to increase financial resources to ensure dependable and reliable supply of drugs. MCH pregnant registration costs D5.00, MCH infants' (C registration D5.00 (\$0.5); delivery fee D12.50 (\$1.25) and Family planning services are free. Recovery has been around 25-30%. The strategy of cost recovery is being strengthened through the Bamako Initiative at the primary and secondary levels with a new focus on cost sharing, active community participation and local control revenue.

To support the health system, health services have been decentralized to 6 Health Divisions with community management teams. The role of the Department of State for Health is policy formulation, training and capacity building, and supervision. The Divisional Health Teams are responsible for the provision of technical support and supervision of the health units and facilities, and implementation of plans and policies.

A significant section of the population still consult traditional healers, either as the only source of care or in addition to modern health care.

## **1.2.2 THE STUDY AREA (NORTH BANK EAST DIVISION)**

### **1.2.2.1: GEOGRAPHY**

North Bank East Health Division is situated in the north eastern part of the North Bank East Health Division, stretching along the north bank of the River Gambia .It is 75 km long and varies in width from 7.5 to 28 km. The Division has a total surface area of 12,250 km<sup>2</sup> (representing 11% of the country's area), of which only 68% is dry land.

### **1.2.2.2: TOPOGRAPHY**

North Bank Health Division, like The Gambia as a whole, is generally very flat with little topographic variation between the 'uplands' and 'lowlands', the maximum elevation being 37m.

### **1.2.2.3: CLIMATE**

The climate of NBD is typical of the sub-sahel region; the dominant aspect being an inter-annual four-month wet season, followed by an eight-month dry season. The latter is of course characterized by hot, dry winds (the Harmattan) originating in the Sahara.

There is considerable air temperature variation between the coastal areas and inland. In coastal areas, the Atlantic Ocean moderates diurnal and seasonal variations. Mean monthly minimum and maximum temperatures at Kerewan range from 18 - 33 °C in January and from 24 - 39 °C in May respectively.

**The rains usually occur between June and October, with August being the wettest month.**

#### 1.2.2.4: DEMOGRAPHIC PROFILE

Demographic data	Source		North Bank	North Bank East Division		
				1993		
				Total	Male	Fema
<b>Population size</b>	Census 1993	Total population		84,899	40,395	44,50
	„	<1year		2,247	1,160	1,087
	„	1-4 years		12,531	6,263	6,268
	„	5-14 years		25,461	12,255	13,20
	„	15-34 years		24,936	10,740	14,19
	„	35-54 years		12,271	6,278	6,405
	„	55-74 years		5,018	1,753	2,254
	„	75+ years		1,309	669	640
	„	N/S		1,116	666	450
<b>Population density /km2</b>	„		69			
<b>Crude birth rate</b>	„		51.6			
<b>Crude death rate</b>	„					
<b>Life expectancy at birth</b>	„		55.4			
<b>Annual population growth rate 1983 -1993</b>	„		3.4			
<b>Maternal mortality</b>	„		13.5			
<b>Child mortality /1000 live births</b>	„		129			
<b>Child survival ( % surviving in the first year of life)</b>	HFA 2000			92		
<b>population of children &lt; 5yrs</b>				17.4%		
<b>Total fertility rate</b>	1993 Census			6.84		
<b>Population of women 15-49 years</b>	1993 Census			43.70%		

Source: Central statistics National population Census 1993

The North Bank population comprises several ethnic groups, the main ones being Mandir (49%) Wollof (24%), Fula (20%), Jola (2.8%) and Serere (2.6%). In addition around 14% the population are migrants, mainly from Senegal, with others from Mali, Guinea, Guin Bissau and elsewhere. At the same time out migration of young Gambian males, seeki employment in the Greater Banjul area and overseas is common.

#### 1.2.2.5: ECONOMIC SITUATION

Agriculture is the backbone of the economy and engages 70% of the labour force. The uplands are the most intensively cultivated areas, and this is increasing as the lowland swan areas become more prone to salt water intrusion and iron toxicity.

Other small scale enterprise activities throughout the division include metalworking and weldi woodworking, wood carving, automotive workshops, tailoring, soap making, tie dyeing, pottery, weavi juice making and food processing

### **1.2.2.6 TRANSPORT AND COMMUNICATION**

North Bank East Health Division is connected with the southern part of the country via ferries crossing at Kerewan, and Farafenni. With the completion of the new road and bridge at Kerewan, a major increase in traffic in the North Bank Division is expected. There is a fairly good network of secondary graveled roads throughout the Division most of which are in a good condition. Transportation is mainly by bicycle, horse and donkey carts and bush taxis.

### **1.2.2.7: HEALTH CARE FACILITIES**

#### **1.2.2.7.1 GOVERNMENT FACILITIES**

Health care services are delivered at two levels, Village Health Services (VHS) and Baobab Health Services (BHS), providing both primary and secondary care.

A **Hospital** has also been built in Farafenni with 250 beds (at the moment with 151 beds in use) and became operational since February 1999. The referral hospital provides a range of services including essential obstetric care such as caesarian sections and blood transfusions.

There is currently 1 **Minor Health Center** at Kerewan. This facility offers a lower range of services including (obstetric services) skilled attendance at delivery, in-patient and outpatient services, and also preventive health services both at facility and community levels. It is staffed with professional nurses and doctors and public health officers.

There are 2 **Dispensaries** located at Salikene and Ngayen Sanjal. These provide the most basic health care including consultations and treatment of minor conditions, immunizations and other preventive services and uncomplicated deliveries. These facilities have recently been staffed with professional nurses and doctors and public health officers.

There are 45 **Village Health Services**. In 1983 a PHC program which incorporated a street mother and child component was introduced in the study area. This program included the identification and training of traditional birth attendants (TBA) in each PHC village. Within the study area, 44 of the 178 villages are as of now sufficiently large (population  $\geq 400$ ) to be designated as PHC villages.

#### **1.2.2.7.2 PRIVATE AND NGO FACILITIES**

**Medical Research Council:** The main research institution of the health division. MRC staff conduct research projects in the division. The MRC doctors provide medical, surgical, obstetric and gynae services in close collaboration with the Hospital doctors in Farafenni Hospital. Furthermore the doctors provide curative and preventive health services at village level in collaboration with the Divisional Health Team.

Njaba Kunda - Bohum Clinic: This facility offer services as described for the dispensaries is staffed with professional and non -professional nurses.

Farafenni and Njaba Kunda Family planning Clinics provide family planning services

Other Government and departments and NGOs actively involved in health activities with the Division include Water Resources, ADWAC, WIF and FORUT. They supplement efforts in areas of PHC; MCH/FP and population related activities.

### **1.2.2.8 HEALTH STATISTICS**

MCH activities have increased from 7 outreach clinics in late 1970s to 19 in 1998. There are 44 PHC villages, 43 trained TBAs, 39 trained assistant TBAs and 42 VHWs. The Infant Mortality Rate (IMR) has dropped from 217/1000 live births in 1983 to an estimated 97/1000 in 1993. Maternal mortality over the last 15-20 years has dropped from 1,005-2,326 to 4 per 100,000 live births (Walraven et al 2000a).

Access to health services has improved over recent decades with 84% of households in NI living within 1 hour, and 99% within 2 hours of the nearest health facility (i.e. hospital, health center, dispensary or village health service). This proximity of health facilities is above average relative to the other rural Divisions, suggesting a good spread of facilities within the Division. Health indicators in North Bank Division compare favorably with the other administrative divisions, excluding Banjul and Kombo Saint Mary.

Despite these achievements, the IMR and Maternal Mortality Ratio (MMR) remain high. The PHC review of 1995 indicates that over 20% of Primary Health Villages are not functioning due to ineffective Village Development Committees, lack of support for Community Health Workers, embezzlement of drug sales revenue by VHWs and poor supervision by CHNs and DHTs.

The North Bank East Health Division was identified by the principal researcher and supervisors as the preferred area for this work because: -

Prerequisites for successful program implementation and its sustainability are the presence of a sufficiently large and stable network of collaborating partners. The Gambia Family Planning Association (GFPA) is a major collaborating partner in the field of IEC and as well as service delivery in family planning in the North Bank. The Medical Research Council is a major collaborating partner in the field of research and training. The Gambia German Family

planning Program (GGFPP) is an “umbrella term” for combining major implementers in the field of Family Planning, in the Gambia (now Reproductive Health) and The German Agency for Technical Cooperation (GTZ) is the supporting agency for this organization.

A functional health structure in terms of infrastructure, equipment and administration and a dynamic Divisional Health Team, indicated by the continuous availability of services and trained personnel which can take on board the additional tasks.

This was the first comprehensive study on knowledge, attitudes and practices of nurses and traditional birth attendants in postnatal care in the Gambia. Given the importance of postnatal care, a study was necessary to understand issues surrounding postnatal care in the Gambia.

## **1.3 OBJECTIVES OF THE STUDY**

### **1.3.1: MAIN OBJECTIVE**

The overall objective of the study was to assess knowledge, attitudes and practices of primary health care workers in providing postnatal care in the North Bank East Division of the Gambia.

### **1.3.2: SPECIFIC OBJECTIVES**

Objective 1: -To obtain Nurses' and Traditional Birth Attendants' understanding of postpartum health problems.

Objective 2 .To describe the knowledge, attitude, and practice of Nurses and TBAs in providing postpartum care (with emphasis in breast-feeding, postpartum sepsis, postpartum hemorrhage, postpartum anemia and postpartum depression)

Objective 3: to obtain information from postnatal mothers regarding their birth related illnesses, health seeking behavior during the postnatal period, and their perceptions of postnatal care and their needs and demands.

Objective 4: To obtain Nurses' opinion concerning problems they have in providing postnatal care as well as their potential strategies for improving postpartum care.

Objective 5: to compare knowledge and practice of the professional health workers -*nurse-midwives* and the *non-midwives* in postnatal care (specifically on anemia, breastfeeding, postpartum sepsis and postpartum family planning) to determine if training contributes to significantly better knowledge, attitude and practice.

The four main areas breast-feeding, postpartum sepsis prevention and control, postpartum family planning and postpartum anemia have been selected as areas of interest. It envisaged that improving these four major areas will greatly improve maternal health and further more these areas are in line with our preventive measures to improve maternal health. Of course not forgetting other preventive measures like information on prevention of sexually transmitted diseases, including HIV which could all form part of an overall package in postnatal care.

## **1.4 RESEARCH QUESTIONS**

What are the nurses' and traditional birth attendants' understanding of postpartum health problems?

What is level of knowledge, attitude and practice towards postpartum care among nurses and traditional birth attendants in the North Bank Division of the Gambia?

What is the input of nurses concerning potential strategies for improving postpartum care

What are the related illnesses, health seeking behavior during the postnatal period, and perceptions of mothers about postnatal care they received in the north bank east division? What are their needs and demands?

Is there any difference in knowledge attitude and practice of the *nurse-midwives* and the *non-midwives* in postnatal care (specifically anemia, breastfeeding, postpartum sepsis and postpartum family planning).

## **1.5 HYPOTHESIS**

The null hypothesis for objective 5 was - There is no difference in knowledge and practice between the *nurse-midwives* and the *non-midwives* in postnatal care (specifically anemia, breastfeeding, postpartum sepsis and postpartum family planning).



## **1.6 VARIABLES**

### **1.6.1: TRADITIONAL BIRTH ATTENDANTS**

*Background characteristics: -examined age, geographical location, when trained as a TB continuing education and supervision, marital status, number of children ever had, number children alive.*

Knowledge: - in diagnosis, management and prevention of infection, anemia in postpartum care, exclusive breast feeding, family planning advice and methods, review of common problems women may encounter in the post natal period.

Attitude: -attitudes towards postpartum family planning, exclusive breastfeeding management and prevention of infection and anemia.

Practice: -quality of practice in diagnosis, management and prevention of infection and anemia in the puerperium care, establishing exclusive breast feeding, providing improved family planning advice

### **1.6.2: NURSES**

*Background characteristics: - examined cadre of staff, age, sex, marital status, location when last had in-service training in maternal health, when last completed formal training.*

Knowledge: - in diagnosis, management and prevention of infection, anemia in postpartum care, 10 steps in establishing successful breast-feeding, family planning advice and method review of common problems in the postpartum period encountered in the health workers daily practice.

Attitude: -attitudes towards postpartum family planning, exclusive breastfeeding, management and prevention of infection and anemia

Practice: -quality of practice in diagnosis, management and prevention of infection and anemia in the puerperium, 10 steps in establishing successful breast-feeding, providing improved family planning advice

### **1.6.3: POSTNATAL MOTHERS**

**Background characteristics:** examined maternal age, place of delivery of present child, date of delivery, who conducted the delivery, number of children ever had, number of children alive

The primary outcome of interest: reasons for being at the clinic on that day, postpartum morbidity and mothers perception of the help they received. Postpartum care: - postpartum examination, postpartum home visits by Community Health Nurse, postpartum home visits traditional birth attendant, postpartum advice on breast-feeding, anemia, sepsis and family planning. Mothers' experience of the care they received in the MCH clinics since delivery and mothers perception of postnatal care.

## 1.7 OPERATIONAL DEFINITIONS

- 1.7.1 Post-natal care: all activities performed during the puerperium (first 42 days after giving birth) to ensure prevention and early detection and treatment of complications and disease, and the provision of advice and services on breastfeeding, birth spacing, immunization and maternal nutrition.
- 1.7.2 Knowledge: the facts, information, understanding and skills that a person has acquired through experience or education.
- 1.7.3 Attitude: a way of thinking about something or behaving towards something
- 1.7.4 Practice: the actual doing of something; action as contrasted with ideas.
- 1.7.6 Exclusive breast-feeding: refers to giving the infant only breast milk-no other liquid solids, except vitamin or mineral drops and medicines to around 6 months
- 1.7.7 Postpartum anemia hemoglobin level lower than 11g/dl observed during the puerperium
- 1.7.8 Postpartum family planning: -provision of guidance and advice on birth spacing and limitation and technical methods that are available for doing so to individuals, couples and families during the postnatal period.
- 1.7.9 Postpartum sepsis: - fever and one of the following present during the first six weeks after delivery: -abnormal vaginal discharge e.g. pus, abnormal foul odor of discharge, pelvic pain, delay in the rate of the decrease in the size of the uterus, feeling of malaise, abdominal tenderness.
- 1.7.10 MCH team member: - any person working in the component of maternal and child health in the health care system
- 1.7.11 Community health nurse: -nurses supervising traditional birth attendants at village level
- 1.7.11 Traditional birth attendant: -traditional women with midwifery skills who have undergone the Department of State for Health training program
- 1.7.12 Health Professional: any person working in the component of MCH and have undergone pre-service training in nursing as registered nurse, enrolled nurse or community health nurse.
- 1.7.13 Nurse Midwife: any of the nurses that have undergone further training in midwifery and is certified

## **CHAPTER 2**

### **LITERATURE REVIEW**

#### **2.0 LITERATURE REVIEW**

The data for the reproductive health indicators are less impressive than they should be. Worldwide, it is estimated that 600 000 maternal deaths occur each year with an overwhelming majority of them in developing countries. In developing countries the ratio is nearly 50 times higher than in North America and Europe, at 500 maternal deaths for every 100,000 live births, and may be as high as 1000 per 100 000 in some regions; in developed countries there are 5-30 maternal deaths for every 100,000 live births (WHO 1999).

**Similarly less impressive reproductive health indicators are available from the Gambia. The national maternal mortality figure was high at an estimated level of 1,050/100,000 live births in 1990, and the rates were twice as high in the rural areas compared with urban places. A recent reproductive age mortality survey in the MRC Farafenni demographic and health surveillance area suggests a major reduction in maternal mortality over the last 15-20 years from 1,005-2,326 to 424 per 100,000 live births (Walraven et al 2000a). It is most likely that improved access to emergency obstetric care has played the major role in this reduction. But even at this reduced level, maternal mortality remains at a level**

**times as high as in many countries in Western and Northern Europe, and North America.**

*Maternal & pregnancy related prevention strategies have traditionally focused on the prenatal and delivery period yet recent studies have concluded that the postpartum period is just as critical. After a woman gives birth, she has to face caring for the newborn, as an especially challenging task for the first time mothers but also to ensure her own recovery from pregnancy and delivery (WHO 1997). The postpartum period is an integral part of the process of childbearing, and should be used as an opportunity to provide continued care to the woman and the neonate.*

There is low coverage of post-natal care in the Gambia. The health policy affirms the integration of Maternal Child Health and Family Planning services, postpartum care being a major component of this integrated approach. It is envisaged that by integration, services may better meet clients' needs, and integrated services may improve the efficiency and effectiveness of services. Postpartum period is equally an important period as prenatal period and that therefore continued care should be provided for the woman during the postpartum period. However there is little or no attention given to this period compared to the care given during pregnancy. The reason may be that ante-partum care is mainly focusing on the newborn's health.

Many postpartum women also want to space or limit child bearing in order to protect their own health and that of their infants. Despite these special needs, health services often pay little attention to postnatal care, including the need to begin contraception when fertility returns.

Breast-feeding is one of the most important contributions to neonatal, infant and child health growth and development. The benefits are greatly enhanced if breast-feeding starts within one hour after birth, with demand feeding and no pre-lacteal feeds. Apart from the clear nutritional superiority of breast milk, breast-feeding protects against infant deaths and morbidity. Infants who are exclusively breast-fed are likely to suffer only one quarter as many episodes of diarrhea and respiratory infections as babies who are not breast-fed. Mothers also benefit from breast-feeding too. It reduces the risk of postpartum hemorrhage and lowers the risk of breast and ovarian cancer. It contributes to child spacing and reduces fertility (Bal Mother Package 1998).

Health workers are supposed to provide breast feeding support and counseling to mothers, however reports from many surveys indicate low knowledge of health workers in breastfeeding as perceived barrier to assisting mothers to breastfeed (Rea MF. et al 1999; Patton C.B et al 1996; Becker GE 1992; Lewinski CA 1992).

A recent health seeking behavior survey in the Farafenni area in the Gambia indicates that 94% of women attend an MCH clinic within 30 days after delivery mainly for child health reasons (Walraven et al. 2000b). However little health education is given at the women's postpartum visit, with less than a quarter of the women attending receiving information on family planning or breastfeeding (22 and 20%, respectively). (Fertility rates remain

high with and the figures for the rural areas are closer to 7.5 children.) One third of the women introduced of feeding in addition to breastfeeding to their newborns within the first four weeks, leaving exclusive breastfeeding as illusion.

Following childbirth, a health worker should ideally see the woman, within 3 days, so that any problems (such as hemorrhage or infection) can be detected and managed early. An additional postpartum care visit within the first six weeks after delivery enables the health workers to make sure that the mother and baby are doing well and to provide advice and support for breastfeeding and to offer family planning information services.

In addition to maternal deaths the burden of disease is huge. Forty percent or more of pregnant women in developing countries may experience acute obstetric problems during pregnancy, childbirth and the postpartum period; an estimated 15% of pregnant women develop life-threatening complications (WHO 1994).

As many as 300 million –more than one quarter of all-adult women now living in the developing world may suffer from short or long-term illness related to pregnancy and childbirth (UNICEF 1996). Death and disability related to maternal causes accounts for 18% of the burden of disease among women of reproductive age in developing countries.

Puerperal sepsis is the main life-threatening condition of the postpartum period. Community factors which increase a woman's risk of developing puerperal sepsis and of dying from it, include: delivery by untrained traditional birth attendant; traditional practices such as insertion of foreign objects and substances into the vagina; lack of transportation and resources; distance from the woman's home to the facility; the inadequacy of health facilities which are often ill-staffed and ill-equipped; cultural factors which delay care seeking behavior; the lack of knowledge about signs and symptoms of puerperal sepsis and of its risk factors; and the lack of postnatal care (Abouzahr et al. 1998).

**Besides continuing attention for proper hygiene during the delivery, one postpartum visit with emphasis on simple complications as an issue within one week of delivery is a feasible task for the TBA (71% of the women were visited by the TBA in the first 7 days in the Farafenni area)(Walraven 2000). During that visit the TBA could check that the woman has no fever, that suitable hygiene care especially the breasts and genitalia is given, and that there is satisfactory establishment of breastfeeding.**

**WHO estimates that more than half of the pregnant women in the world have a haemoglobin level indicative of anaemia (WHO 1998). Holmboe-Ottesen (1996) has indicated that an average of 4.5 billion equivalent to 370 million women in developing countries are anaemic. Most anaemia are due to insufficient iron in the diet compared to the nutritional demands and chronic intestinal infections (hook worms). Severe anaemia is the consequence of frequent pregnancies and births, when all the**

factors interplay and lead to a vicious circle that results in an increasing severe condition. Almost 10% of all maternal deaths occur between one day to six weeks postpartum.

Anaemia among women of reproductive age heavily contributes to maternal mortality and morbidity. Based on the tabulation in a 1992 WHO overview no data for all women in the reproductive age group are available from The Gambia, but there are estimates for pregnant women (61%; Powers et al. 1985), lactating women (41-47%; Powers et al. 1987, Prentice et al. 1983), and non-pregnant women (49%; McGregor 1984). Routine administration of iron and folic acid to all pregnant women visiting antenatal clinics is standard treatment practice in The Gambia, but not to non-pregnant women of reproductive age. Anaemia in pregnancy combined with partum related blood loss might leave the mother very weak.

The high levels of attendance for the vaccinations of the infant provide a unique possibility to give attention also to the mother, without forgetting the child. An intervention to improve post-natal care should make use of the existing system of primary health care, which includes trained (traditional) birth attendants (TBAs) with midwifery skills and Community Health Nurses (CHNs).

This study therefore tried to establish information on primary health care workers knowledge, attitudes and practices on postnatal care, through a survey using interview and focus group discussions techniques with a view of helping the researcher determine the needs to implement and evaluate an appropriate improved postpartum intervention. To evaluate an improved postpartum intervention program it is important to establish appropriate indicators and methods to measure levels and trends in post-natal care, with special attention to hygiene, anemia, breast feeding, and family planning.

## **2.1 WHAT HAS BEEN DONE SO FAR TO IMPROVE MATERNAL HEALTH**

Women's contribution are critical to social and economic development. Their health and wellbeing matters to themselves, to their families and to the communities. Moreover, the health and wellbeing of women is a critical ingredient of the generation of the future. Women undertake a vital function of bearing and raising our children. Yet insufficient attention has been paid to ensuring that they do so safely.

Governments and health advocates, having recognised that the safe motherhood is the key component of efforts to improve women's reproductive health rights, launched the global Safe Motherhood Initiative at an international conference held in Nairobi, Kenya in 1987. Its aim was to draw attention to the dimensions and consequences of poor maternal health

developing countries, and to mobilise action to address high rates of deaths and disability caused by complications of pregnancy and childbirth.

Services to make motherhood safer should be readily available through a network of linked community health care that policy makers from around the world have pledged to provide. These include:

- ◆ Community education on safe motherhood
- ◆ Antenatal care and counseling, including the promotion of maternal nutrition
- ◆ Skilled assistance during child birth
- ◆ Care for obstetric complications, including emergencies
- ◆ Postpartum care
- ◆ Management of abortion complications, post abortion care and where abortion is illegal, safe services for the termination of pregnancy
- ◆ Family planning counseling information and services
- ◆ Reproductive health education and services for adolescents

In the Gambia, the four main sub-components namely, MCH/FP, adolescent Health, Expanded Program on immunization (EPI) and Nutrition have been combined under the name Family Health. The ultimate desire of the broad program area of family health is to increase access to and to improve the quality of family health services.

The MCH/FP sub-component is a delivery system that provides antenatal care to pregnant women, infant welfare services to the under fives and family planning services to women and men of reproductive age. Services are provided through a schedule of routine MCH/FP clinics both at the community and health facility levels. The government provided MCH/FP services are complemented by relevant NGOs involved in health service delivery.

The sub-component has undertaken expansion and strengthening service delivery point training of staff, increasing awareness of individuals and communities and undertaking operational research to improve on service delivery.

In the Gambia to improve obstetric care, seven health centers were upgraded and equipped to handle emergency obstetric care and staffed with medical officers, midwives and nurses. Anesthetists who had been trained in essential obstetric care, including surgical contraceptive services were also made available in some of these centers. These centers are supported by three referral hospitals and, at community level, by mobile outreach teams.



and government trained TBAs. The program also included provision of emergency transport and upgrading of communications systems. Telephone systems were established to link health centers to referral hospitals and all the centers were provided with ambulances.

Despite this progress, maternal mortality and morbidity and fertility remain unacceptably high. One of the major areas lacking attention is the postnatal care. The issue of postnatal care could now be addressed fully in an integrated approach making use of health system and collaborating partners. A “Primary Postnatal Care Package” could be developed and tested for its effectiveness in a pilot area.

## **CHAPTER 3**

### **METHODOLOGY**

#### **3.1 THE STUDY DESIGN**

The study was carried out during June to November 2000. A cross-sectional descriptive study design was applied for this survey. This type of study provides valuable information that can easily provide insight into an issue; it is useful for obtaining insight into situations and problems concerning which one may have little knowledge.

Semi-structured questionnaires were developed to answer questions on knowledge, attitudes and practice on breastfeeding, family planning, anaemia and sepsis prevention and control from traditional birth attendants and health professionals. We also used semi-structured questionnaires to interview postnatal mothers to obtain information regarding their birth-related illnesses, health seeking behavior during the postnatal period, and their perceptions of postnatal care and their needs and demands. Further review of literature was done to generate more information on this chapter. We also conducted focus group discussions with health professionals to get to know more about the constraints the health workers felt they had providing postpartum care, and what they thought could be done to get over these constraints (how the situation could be improved).

The community health nurses and traditional birth attendants were visited in their homes while the rest of the health professionals were recruited from the clinic. Postnatal mothers were also recruited from clinic settings.

The study was approved by the Gambia Government/Medical Research Council Ethics Committee and the Norwegian Committee for Medical Research. A written request was sent to both committees, outlining the nature and purpose of the study. The nature and rationale of the study were also explained at a meeting with the Divisional Health Team members. Consent was sought from individual participants before they were interviewed. There was a written introductory statement used with the questionnaires, explaining to the informants the rationale and procedure of the study and the use of expected results. For the focus group discussions, individual participation was solicited by direct personal communication, and

through arrangements made by the officers' in-charge of these catchment areas as well as staff of the Divisional Health Team. Consent to participate was assured by attendance.

The participants were informed that they were free to either participate or not to participate. They were also informed that if they could not participate there are no consequences.

## **3.2 SUBJECTS AND METHODS**

### **3.2.1 TRADITIONAL BIRTH ATTENDANTS**

The number of TBAs was limited, therefore, all the traditional birth attendants that fulfilled the inclusion criteria were recruited. The TBAs were eligible for the study if they had undergone the TBA training provided by the Department of State for Health (DoSH), were certified as trained TBAs and were practicing at the time of the survey.

***The list of the TBAs provided by the Divisional Health Team indicated more TBAs than the actual number of TBAs who were practicing (the list indicated 88 trained TBAs, but the CHNs confirmed 58 TBAs who were practicing). The Community Health Nurse (CHN) supervisors identified all the TBAs who fulfilled the inclusion criteria and these were the ones recruited.***

53 TBAs from 43 Primary Health Care (PHC) villages participated in the survey. 5 TBAs were not available for interview at the time of data collection. The 30 TBAs non-practicing were excluded from the survey. There were no untrained TBAs.

### **INSTRUMENT DEVELOPMENT**

The TBA questionnaires consisted of 37 items (annex 2). It consisted of five main components each with sub-sections.

- ◆ breast-feeding : knowledge (4 items) , attitude (4 items), practice (4 items)
- ◆ infection control : knowledge (2 items), attitude (1), practice ( 2)
- ◆ postpartum anemia : knowledge ( 4 items), attitude ( 1 item), practice ( 3 items)
- ◆ postpartum family planning : knowledge (3 items), attitude ( 6 items), practice ( 2 items)

- ◆ postpartum health problems: knowledge (1 item)

To measure knowledge, attitude, and practice of the traditional birth attendants, each item each of the sub-sections were given points, the total of which gave the score for that section. The scores were then graded.

- ◆ Breast-feeding: knowledge maximum achievable score 10 points, attitude maximum achievable score 4 points, practice maximum achievable score 11 points
- ◆ Sepsis control and prevention: knowledge maximum achievable score 6 points, attitude maximum achievable score 2 points, practice maximum achievable score 6 points
- ◆ Postpartum anemia: knowledge maximum achievable score 11 points, attitude maximum achievable score 8 points, practice maximum achievable score 8 points
- ◆ Postpartum family planning: knowledge maximum achievable score 7 points, attitude promoting family planning either by current use, ever use or want to use in future connotes positive attitude non promotion of family planning, non ever use and will never use connotes negative attitude; and practice maximum achievable score 5 points
- ◆ Postpartum health problems: knowledge maximum achievable score 6 points

### **Details of the scoring system are available in annex 5**

The questionnaire consisted of 23 open ended questions and 14 multiple choice questions. The instrument was reviewed by physicians, nurses and staff of the Nutrition Unit of DoS and a senior researcher in reproductive health before the implementation of the survey.

Pilot survey data was collected from 10 TBAs at a different setting and the final modifications made to the survey were based on their responses

The following modifications were made: -

#### **SECTION 1: EDUCATIONAL AND DEMOGRAPHIC FACTORS**

- ◆ Question 2. What is your age? Was missing in the original questionnaire and we could not determine ages. This was included after the pre test.
- ◆ Question 7 was included as a separate question after, to indicate what areas the training covered.

#### **SECTION 2. BREASTFEEDING**

- ◆ Questions 14 and 15 were added to examine more about the attitude

- ◆ Question 16 how soon do you put the child to the breast after delivery was further categorized based on the responses.
- ◆ Question 18 what would you do if a woman has swollen and tender breasts was added measure practice
- ◆ Question 19 a practice question for breastfeeding (formally question 28 as a separate question) was brought under right section for ease of flow of questions and further simplified the analysis.

#### **SECTION 4 POSTPARTUM SEPSIS**

- ◆ *Question 24 a practice question for sepsis (formally question 27 as a separate question) was brought under right section for ease of flow of questions and simplified the analysis.*

#### **SECTION 5 FAMILY PLANNING**

- ◆ Questions 36 to 40 (see annex 2) were missing in the questionnaire before the pretest. They were later included to measure attitude. The only original question: -how do you feel about providing counseling and family planning services woman who have never delivered, did not provide sufficient information on attitude.
- ◆ Question 43 a practice question on family planning (formally question 29 was a separate question) was brought under right section for ease of flow of questions and simplified analysis.

#### **SECTION 6**

- ◆ Was originally section 2. But was later moved to section 6 for logical flow of questions and consistency.

We were also able to estimate time necessary to conduct each interview, based on which we drew up the timetable for the final field exercise.

#### **3.2.2 NURSES INTERVIEWS**

***31 nurses from the 5 health facilities and 9 Primary Health Care Villages participated in the survey. 1 Nurse who was on annual leave was not available for interview at the time of data collection. The health professionals were eligible for the study if they have undergone pre-service nursing training. They must either be state registered nurses or midwife, state enrolled nurses or midwife, Community Health Promoters.***

***health nurses or midwives. These nurses must currently be in active service either government or private employment. The list of the nurses obtained from the Divisional Health team was used to identify the nurses. All nurses without pre-service training (nurse attendants) have all been excluded from the survey.***

Different cadre of trained nurses who provide mother and child care exist in the Gambia and include community health nurses (CHN), enrolled state nurses (SEN) state registered nurses (SRN) CHN/SEN-midwives and SRN-midwives.

CHNs are trained for eighteen months on basic nursing care, mother and child care, community health, health education and nutrition. A total of 30 hours is spent on mother and childcare. After the CHNs complete their training they are based in primary health care (PHC) key villages and supervise four to six PHC villages. When not working at village level CHNs are based at basic health facility level and work with other service providers providing MCH services.

In the basic course SENs spend at least 18 weeks Obstetric and gynaecological nursing with 1000 hours of classroom based teaching on postpartum care. The training lasts for 2 years. Both SEN and CHN training are neither to give students international qualifications nor to give great depths of knowledge in academic subjects. The course prepares them as enrolled nurses for the Gambia.

The CHN/SEN midwives proceed on a one-year post-basic course in midwifery to provide basic maternity care. The Medical and Health Department is responsible for the training of CHNs, SENs and CHN/SEN midwives.

The Gambia College under the education department is responsible for the training of SRNs and SRN midwives. The training for the SRN is three years, which gives students international qualifications as well as great depths of knowledge in academic subjects. The midwifery course for SRNs is also one year and is more advanced. They are taught to deal with the complications of delivery more extensively.

The whole MCH package, including postpartum care, is offered to women by the TBAs collaboration with the health workers (CHNs, SENs and SRNs and the midwives).

### **INSTRUMENT DEVELOPMENT**

The nurses' questionnaire consisted of 40-items (annex 1). It consisted of five main components each with sub-sections.

- ◆ Breast-feeding : knowledge (5 items) attitude (3 item) practice (4 items)
- ◆ Sepsis control : knowledge (3 items) attitude (1) practice ( 2)
- ◆ Postpartum anemia : knowledge ( 5 items) attitude ( 1 item) practice ( 4 items)
- ◆ Postpartum family planning : knowledge (4 items) attitude ( 4 items), practice ( 3 items)
- ◆ Postpartum health problems: knowledge (2 item)

To measure knowledge, attitude and practice of the nurses, each item in each of the sub-sections were given points, the total of which gave the score for that sub-section

- ◆ Breast-feeding: knowledge maximum achievable score 14 points, attitude maximum achievable score 6 practice maximum achievable score 12 points
- ◆ Sepsis control: knowledge maximum achievable score 9 points attitude maximum achievable score 6 points practice maximum achievable score 6 points
- ◆ Postpartum anemia: knowledge maximum achievable score 14 points attitude maximum achievable score 2 points practice maximum achievable score 11 points
- ◆ Postpartum family planning: knowledge maximum achievable score 9 points; attitude :promoting family planning either by current use , ever use or want to use in future connotes *positive attitude* non promotion of family planning , non ever use and will never use connotes *negative attitude*; practice maximum achievable score 5 points
- ◆ Postpartum health problems: knowledge maximum achievable score 5 points

### **Details of the scoring system are available in annex 6**

The questionnaire consisted of 25 open ended questions and 15 multiple choice questions. The questionnaires underwent both face validity and content validity testing. A physician, nurses and staff of the Nutrition Unit and a Senior Researcher in Reproductive Health reviewed the instrument.

The final modifications made to the survey were based on their reactions and comments.

### **3.2.3: FOCUS GROUP DISCUSSIONS**

3 focus group of nurses were convened during 5<sup>th</sup> October to 12<sup>th</sup> October 2000. The group discussions were held with the view of soliciting more important and in-depth information from the participants in the groups that might not have been fully addressed in the questionnaires. (Varkevisser et al.1991)

Two (2) groups were formed through a random selection of nurses that participate in the maternal and child health clinics (MCH/FP). These two groups excluded the nurses' in-charge of the health facilities. The different cadres of nurses were fully represented in each of the groups. The Number of nurses in the study area was limited and also for convenience reasons we combined nurses from the four different health facility catchment areas to form the two groups. (The groups were generally homogenous) Group One (1) comprising of Saliker Njaba kunda and Kerewan, catchment area participants, Group Two (2) Farafenni and Ngeyen sanjal catchment area participants.

Another group, Group Three (3), consisted of all the officers' in-charge of the four health facilities and the Divisional Public Health Nurse of the Divisional Health Team. It was a homogeneous group too. The participants in this group were the heads of the different health facilities in the division and the cadre that participates in the operational planning of the health division.

### **3.2.4 EXIT INTERVIEWS**

Women were recruited from 9 Maternal and Child Health (MCH) outreach clinics in the North Bank East Health Division, of The Gambia. These clinics were selected through purposive sampling of the 17 outreach clinics held monthly. This was done to ensure that all the 9 PHC key villages were represented and also each primary health care (PHC) Key village was represented by at least one clinic. Women were eligible for the study if they had 6 weeks to 6 months old babies. This period would have provided the mother an opportunity to have received postnatal care. Furthermore the time passed was not too long for the mother to remember events surrounding her most recent delivery. Included in the sample were mothers coming from villages with a trained traditional birth attendant (TBA) and another inclusion criteria was that they had spent their first week of delivery at village level with a TBA present. Mothers of infants less than 6 weeks or more than 6 months were excluded. Non-urban primary health care villages were also excluded.

### **INSTRUMENT DEVELOPMENT**

The questionnaires consisted of 18 open ended questions and 16 multiple choice questions. The questionnaires underwent both face validity and content validity testing using random



sampling of mothers with 6 weeks to 6 months old babies. The instrument was reviewed by Physicians, Nurses and Researchers in Reproductive Health.

Pilot survey data were collected from 15 mothers. Apart from the final modifications made to the survey based on the responses, we further reviewed the translations, and included additional need for instructions for probing certain open ended questions. It also gave an opportunity to decide on the most convenient time to interview the subjects. Additional supervision was required for one of the interviewers.

## **CHAPTER 4**

### **DATA COLLECTION**

#### **4.1 TRADITIONAL BIRTH ATTENDANT INTERVIEWS**

*The plan for the data collection was made with the CHN supervisors at their monthly joint in-service meeting at the DHT. Each CHN proposed a date when his circuit was to be visited, by which time he would have informed the eligible interviewees to expect an interview.*

*Two days were allocated for each circuit. The TBAs were visited at their homes. The CHN accompanied the investigator to all the TBAs visited.*

*A face-to-face interview with each woman was conducted using semi-structured questionnaires. To ensure data quality, the principal investigator performed all the data collection by administering the questionnaires. Because of the details of the questionnaire and the multiple sections, each questionnaire took on average 30-45 minutes to administer.*

#### **4.2 NURSES INTERVIEWS**

*A face-to-face interview with each nurse was conducted using semi-structured questionnaires. To ensure data quality, the principal investigator performed all the data collection by administering the questionnaires. Because of the details*

*of the questionnaire and the multiple sections, each questionnaire took on average 30-45 minutes to administer*

### **4.3 FOCUS GROUP DISCUSSION**

The research team consisted of 3 members: one member acted as facilitator for the focus group, another member served as recorder, and the third member served as second facilitator. The FGD was guided by a discussion guide, which had a list of topics to be covered (annex 3).

The facilitator introduced himself and other members of the research team. The participants also introduced themselves by name, designation and station. The facilitator further explained to the participants the purpose of the FGD and the use of the information to be collected. People were encouraged to be free to say what they wanted and also let others have their own turn.

The participants were informed that confidentiality would be maintained outside the group ensuring that information collected was only limited to the research team, and that no names would appear on the final write up of the paper.

To open the discussions, each group was asked “what are postpartum services / what do postpartum services comprise of”? This was to solicit the main themes in postpartum care perceived by the groups. Furthermore it was to open a way of getting into the main themes of interest of the researchers for further discussion (breastfeeding, sepsis control, family planning prevention and management of anemia) (see Appendix 4). Each of the focus groups lasted approximately two hours.

### **4.4 EXIT INTERVIEWS**

Four experienced research assistants helped in the data collection. These were Medical Research Council (MRC) field workers experienced in interviewing local women. The workers were not the objects of the study themselves hoping that the information will not be biased as opposed to if government health workers were recruited. A two days training was conducted for the interviewers. They were trained on the administration of this questionnaire. The session started with the basic introduction on why this study was needed.

We went through each question on the questionnaire, which was in English. The PI explained what each question was meant to reveal and was then translated into the local language by the

field workers. Each person was given a chance to interpret each question in his or her own understanding and we all adopted the appropriate common interpretation according to the meaning of the question. The same procedure was used for the three dominant local languages (Mandinka, Wollof, and Fula) in which the questions were asked.

A face-to-face interview with each woman was conducted in the Maternal and Child Health out reach clinics in the 9 PHC villages (during clinic sessions). The person giving immunizations which is the last exit point for women attending clinics identified the eligible women. The number of eligible women could not be estimated at the start of the clinic because women arrived at an ad hoc basis. The women were selected randomly at the time of immunization of their children. No woman was asked to wait therefore giving an opportunity for every woman to participate. Women who consented participated in the study.

Questions were asked regarding postnatal care or services received. Mothers were further asked to qualify the support they had received.

## **CHAPTER 5**

### **DATA ANALYSIS/VARIABLES**

#### **5.1 TRADITIONAL BIRTH ATTENDANTS**

- ◆ *Demographic data examined: age, marital status, geographical location, when trained as a TBA, number of children ever had, number of children alive, in-service training duration past year and contents of training.*
- ◆ *Knowledge: - in diagnosis, management and prevention of infection, postpartum, exclusive breast feeding, family planning advice and methods, and a review of common problems in the postpartum period women may encounter.*
- ◆ *Attitude: -attitudes towards postpartum family planning, exclusive breastfeeding, management and prevention of infection and anemia*
- ◆ *Practice: -quality of practice in diagnosis, management and prevention of puerperal sepsis and anemia in the postpartum period, establishing optimal breast feeding and providing improved family planning advice and service.*

Statistical analysis was performed using Epi. 6 software packages. For some of the open-ended questions, pre-categories were developed for the responses. But for some, responses were categorized after collecting the information based on the research questions. Answers with similar themes were categorized.

***No statistical tests of significance were performed. We provided only descriptive data. Our aim was to look at actual responses from the respondents and to determine which specific areas require improvement in the knowledge and practice.***

## **5.2 NURSES INTERVIEWS**

- ◆ *Demographic data examined: age, marital status, geographical location, when trained a health professional, in-service training during past year and contents of training.*
- ◆ Knowledge: - in diagnosis, management and prevention of infection, anemia in postpartum, exclusive breastfeeding, family planning advice and methods, review of common problems in the postpartum period women may encounter.
- ◆ Attitude: -attitudes towards postpartum family planning, exclusive breast-feeding management and prevention of infection and anemia
- ◆ Practice: -quality of practice in diagnosis, management and prevention of puerperal sepsis and anemia in the postpartum period, establishing optimal breast feeding and providing improved family planning advice and service.

Statistical analysis was performed using SPSS and Epi. 6 software packages. Some of the open-ended question pre-categories have been developed for the responses. But for some, responses were categorized after collecting the information based on the research questions. Answers of similar themes were categorized.

***Our aim was to look at actual responses from the respondents and to determine which specific areas require improvement in their knowledge and practice. Descriptive statistics was used to summarize findings.***

We compared knowledge and practice of the *nurse- midwives* and the *non -midwives* postnatal care (on anemia, breastfeeding, postpartum sepsis and postpartum family planning). The SPSS software package was used to perform a student's t-test to compare the mean scores of the two groups (midwives and non midwives) and to determine any difference and whether the difference were significant at a 95% level of significance ( $P \leq 0.05$ ).

The t-test, also referred to as Student's t-test, is used for numerical data to determine whether an observed difference between the means of two groups can be considered statistically significant (Varkevisser et al 1991.2).

The major components (anemia, breastfeeding, postpartum sepsis and postpartum family planning) had sub-sections on knowledge and practice. Each of the sub-sections had ba

questions to measure either knowledge or practice (Annex 6). Each of these questions was given numerical values and the various values were added up to give a total score for each sub-section. The scores for each sub-section were then computed and the means of the two groups (midwives and non-midwives) were then compared using the Student's t-test.

### **5.3 FOCUS GROUP DISCUSSIONS**

All 3 focus group discussions were recorded and audio taped. They were then transcribed. The statements with similar characteristics were categorized for each main theme. The transcriptions were reviewed independently by the research team to ensure that it reflects the discussions as completely as possible. The transcriptions were further reviewed by other independent researchers for major agreements and disagreements among the groups.

For the purpose of analysis, dominant themes are those that were identified in all the 3 groups, recurrent themes are those that are identified in the 2 groups and minor themes are those identified in only one group.

### **5.4 EXIT INTERVIEWS**

***Demographic data examined maternal age, place of delivery of present child, date of delivery, who conducted the delivery, number of children ever had, number of children alive.***

The primary outcome of interest was reasons for being at the clinic on the day of the interview, postpartum morbidity and mothers' perception of the help they received. Seven aspects of postpartum care were evaluated: - postpartum examination, postpartum home visit by the Community Health Nurse (CHN), postpartum home visits by TBAs and mothers' perceptions of postpartum advice on breast-feeding, anaemia, sepsis and family planning.

Statistical analyses were performed using Epi. 6 software packages. For some of the open-ended questions, pre-categories had been developed for the responses, and for some categories were developed after collecting the information. No statistical tests were performed. It was purely descriptive.

# CHAPTER 6

## RESULTS

### 6.1 TRADITIONAL BIRTH ATTENDANTS INTERVIEWS

38 (71%) of the TBAs were estimated to be between 50 and 80 years old. 40 out of the TBAs interviewed were married, 12 TBAs were widowed, and one TBA was divorced. 37(70%) TBAs had their official training in the last 6 years. Less than half 21(40%) of TBAs had in-service training during the past year. Out of the 21 that had training, 18 (86% and 19 (91%), respectively, indicated having been trained in antenatal care and labor & delivery care. Only one TBA mentioned having had training in postpartum care.

#### 6.1.1: BREAST-FEEDING

##### **BREAST-FEEDING KNOWLEDGE**

44 (83.0%) of the TBAs were able to correctly define exclusively breastfeeding. Almost 70% knew that exclusive breastfeeding should last to around 6 months. Further asked about the benefits of breast-feeding, 33 (62%) of the TBAs mentioned that breastfeeding is a hygienic source of energy, nutrients, and fluids, 22 (42%) said it contains disease-fighting substances, 21 (39.6%) indicated the importance of breastfeeding for mother and child bonding, and 6 (6%) mentioned that it is cheap and convenient. However, the importance of breast-feeding to the mother was less known. Only 2 (4 %) of the TBAs mentioned breast-feeding as a family planning method and 13 (25%) stated that sucking makes the womb stay firm and therefore less bleeding.

Knowledge of breastfeeding problems women may encounter in the postpartum period (Table 1) was found to be good. Almost 34 (64.2%) of the TBAs knew more than three possible breastfeeding problems.

**Table 1** breast-feeding problems women may encounter in the early days of breast-feeding as reported by TBAs

Responses	Freq N=	%
Don't think has enough milk	40	76
Swollen breast	39	74
Painful breasts	34	64



Hot and red area of the breast/infections	21	40
Cracked nipples/sore nipples	16	30

**Basic breast-feeding knowledge was examined through four question (annex 5). The maximum achievable score was 10. Scores for the total sample ranged from 1 to 10 (mean score was 6.3) 17(32%) TBAs had a good knowledge scores of >7. 18(34%) had moderate or average knowledge with scores ranging from 6 to 7 and 18(34%) also had poor knowledge with scores < 6.**

#### **BREAST-FEEDING ATTITUDE**

48(91%) of TBAs did ever breast-fed. However 43 (90%) of TBA who ever breast-fed did not –exclusive, and their reasons were that this new concept of exclusive breast-feeding was not known at the time they were breast-feeding. There was strong enthusiasm among TBAs exclusively breast-feed if they were breast-feeding now. 47(89%) of the TBAs advocated breast-feeding if a mother makes a decision to bottle feed her baby .The main reasons given were that bottle feeding is dangerous, it causes infection like diarrhea because some people cannot keep the bottles clean. 7(13%) TBAs advocated for breast-feeding because of the nutritive values of breast milk to the child and the protection from infections. 7(13%) TBAs will encourage bottle-feeding so that the child doesn't go hungry if the mother goes to the field. The TBAs demonstrated positive attitude towards breast-feeding 41 (77%). They would advocate exclusive breast-feeding up to around 6 months.

#### **BREAST-FEEDING PRACTICE**

**40(75%) TBAs initiated breast-feeding within one hour of delivery. The main reason for the delay in early initiation of breast-feeding was that TBAs had to make sure that both mother and child had bath before establishing breast-feeding. The advice given to mothers to assist them in the practice of breast-feeding were: encouraging frequent sucking by the child 41(77%), put the child to the breast within 1 hour of delivery.**

***by 21(40%) and promote exclusive breast-feeding 21(40%. Some other answers were “advice on FP” in two questionnaires and “encouraging pre – lacteal feeds with little warm water”. Overall only 18 (34%) TBAs in practice provide at least 3 important advises to mothers in order assist them in breastfeeding.***

***Less than one quarter of the TBAs provide the appropriate management if a mother has swollen and tender breasts (Table 2)***

**Table 2 TBAs' activities if a woman has swollen and tender breasts**

Responses	Freq N=	%
◆ I will encourage the mother to continue breast-feeding the child	20	38
◆ I will refer to the health facility because I cannot manage it	18	34
◆ I will advice on warm damp cloths to be applied on the breasts	7	13
◆ I will express the milk and give to the child to drink until the breast is soft enough for the baby to take	5	10
◆ I will squeeze the milk and throw away because it is bad milk	5	10
◆ Stop breast-feeding the child the breast has disease that can be transmitted to the child, get bottle and artificial milk and feed the child	3	6
◆ If the swelling doesn't go down / or not improved for 2 days I will refer	3	6
◆ Others	2	4

When asked what they would do if a mother in law reports to them that a young mother wasn't breast-feeding properly, 15(28%) TBAs said that they would examine the mother and 13(24%) will examine the child and see what the problem was. If they couldn't help establish breast-feeding they would refer. 29(55%) TBAs would just refer without any effort to handle the problem themselves. One TBA said she said she would "*remove the child tongue tie, because it prevents the child from suckling*".

Breastfeeding practice was measured through four questions (see Annex 5). The maximum achievable score was 11. The scores of the total sample ranged from 0 to 11(mean score was 4.6) 8(15%) demonstrated good practice with scores >7,11(21%) graded between 6 to 7, moderate in practice and 34 (64%) had scores less than 6 indicating poor practice. Overall many of the TBAs (64%) would not be able to provide appropriate breastfeeding assistance or guidance to mothers.

### **6.1.2: POSTPARTUM SEPSIS**

#### **KNOWLEDGE ON POSTPARTUM SEPSIS**

Only 9 TBAs were able to mention at least 3 signs and symptoms of postpartum sepsis and about a quarter had misconceptions about the disease. The best answers the TBAs listed were abnormal vaginal discharge in 14(26%) and severe pain and tenderness in lower belly 32(60%). Other responses mentioned as signs and symptoms included: *abrupt cease of flow of lochea, changes in the eyes, injuries to the vulva, the uterus will come out, the woman will have a puffy face, when the mother sits hers clothes will get wet (meaning that the woman*

*will be incontinent of urine*). Further more only one (1) TBA was able to mention at least main causes or contributing factors to postpartum sepsis (Table 3).

**Table 3 TBA responses to possible contributing factors to puerperal sepsis**

Responses	Freq. N=	%
Poor hygiene by the mother after delivery	21	40
I don't know	9	17
Retained products of delivery	6	11
If air enters the woman's womb	5	9
Unclean delivery	3	6
Delayed delivery	0	0
Premature rupture of membranes	0	0
Others	7	13

***Other misconceptions the TBAs had like, “big babies “drinking cold water immediately after delivery”, the notice “it is due to God” and “when the mother refuses to sit in one place after delivery” were all mentioned as contributing factors to puerperal sepsis.***

***To measure knowledge on postpartum sepsis, two questions were asked (Annex 5). The maximum achievable score was 6. Scores of the total sample ranged from 0 to 6 (mean score was 1.6). Only one TBA had good knowledge with an average score of > 4, 7(13%) had moderate/average knowledge with scores ranging from 3 to 4 and 45(85%) had poor knowledge scores of less than 3. Overall 85% of the traditional birth attendants had poor knowledge of postpartum sepsis***

#### **ATTITUDE TO POSTPARTUM SEPSIS**

***A positive attitude to postpartum sepsis was demonstrated. About 42 (80%) of the TBAs expressed concern over postpartum sepsis and described it as a public health problem.***

## **POSTPARTUM SEPSIS PRACTICE**

The TBAs mentioned the following as what they do or advise mothers to prevent puerperal sepsis: - promote regular cleaning of genitals 29(55%), bathing with (salt & water) twice daily 15 (28%), regular replacement of sanitary cloths 26 (49%), and clean, hygienic assistance at delivery 6(11%). Overall only 10 were able to mention at least 3 important advises or things to do to prevent sepsis.

12 (23%) of the TBAs will recognise the disease, and 52 (98%) will refer and one will further advise on hygiene if a woman comes to her 7 days after delivery with fever and abdominal pains.

Three TBAs mentioned that the uterus could have a problem for which they gave their explanation as: -: *“she could have bad blood in the uterus”, “The uterus could have been shaken up. This happens when a woman is not steady after delivery.”* And *“The woman could have drunk cold water which made blood to get stuck in the uterus.”* One TBA said *“I will advise her to squat and I will expel the clots by pressing the abdomen”,* another TBA said *“I will give her local herbs to drink, this reduces the fever and increases the woman’s strength and expels the clots.”*

***We measured practice of TBAs on prevention and management of sepsis through 2 questions (Appendix 1). Maximum achievable score was 6. Scores for the total sample ranged from 1 to 6 (mean score was 2). Only two TBAs indicated good practice with an average score of > 4. 11(21%) had scores of 3 to 4 indicating moderate practice and 40 (76%) who had scores less than 3, could not demonstrate the right procedures related to prevention and management of sepsis. Overall 76% of the traditional birth attendants demonstrated poor practice in the prevention and management of postpartum sepsis.***

### **6.1.3 POSTPARTUM ANAEMIA**

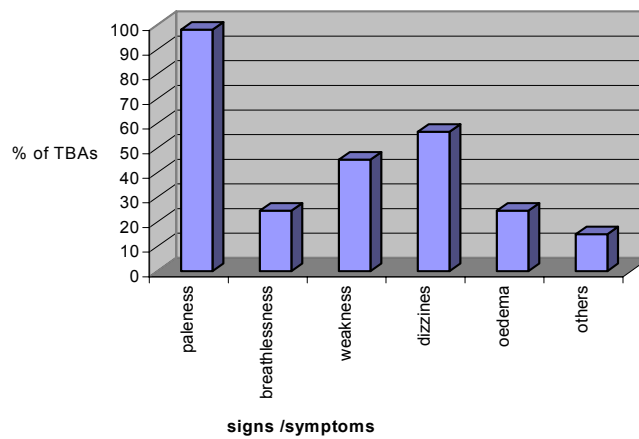
#### **KNOWLEDGE ON POSTPARTUM ANAEMIA**

*42(79%) of the TBAs were able to relate anemia to reduction of blood in the woman's body, which indicates good knowledge. On the causes of anemia, 18(34%) TBAs mentioned malaria, poor nutrition was mentioned by 30 (68%) and a further 11 (32%) mentioned "heavy work load". However only 2 traditional birth attendants knew more than two causes of anemia.*

*As a consequence of anemia 50 (94%) mentioned death of the mother, indicating a high level of perceived seriousness of the disease among the TBAs. Other answers given were, decreased work capacity mentioned by 27 (51%), tiredness and weakness by 38 (72%). At least 24 (45%) of the TBAs were able to recall three important consequences.*

When asked about the signs and symptoms of anemia, the TBA responses are shown in Figure 1.

**Fig 1 description of signs and symptoms of anaemia by TBAs**



27(51%) of the TBAs were able to recall at least three signs and symptoms. The most commonly mentioned was paleness of the mucous membranes.

***To measure knowledge on postpartum anemia, 4 questions were asked (Annex 5). The maximum achievable score was 11. Scores of the total sample ranged from 3 to 10 (mean score was 5.8). 7(13%) TBA had good knowledge with scores of > 7, 25(47%) had moderate/average knowledge with scores ranging from 6 to 7 and 21(40%) had poor knowledge with scores less than 5. Overall knowledge was moderate.***

#### **ATTITUDE TOWARDS POSTPARTUM ANAEMIA**

***The TBAs demonstrated a very positive attitude towards anemia. All the TBAs 53 (100%) mentioned that anemia was a serious health problem and at least 43 (81%) were able to link anemia to the consequences.***

#### **PRACTICE ON POSTPARTUM ANEMIA**

When the TBAs were asked “You are called to a compound and you find a woman who has collapsed. You know she has delivered a baby 4 days ago. She is pale, but wakes up and is able to talk to you. What do you do?” 48 (91%) of the TBAs recognised that the woman was anaemic and 53 (100%) mentioned instituting early referral to a health facility, while 3 (5.7%) would also provide dietary advice.



A good number of the TBAs provide good dietary advice to lactating mothers (see Table 4)

**Table 4** dietary advice TBAs provide to lactating mothers

<b>Responses</b>	<b>Freq. N= 53</b>	<b>%</b>
Foods rich in minerals and vitamins (green leafy vegetable)	53	100
Foods rich in protein (meat, fish, eggs, milk, beans etc)	50	94
Foods rich in carbohydrates (cereals , tubers etc)	29	55
Fats and oils	14	26
Eat enough food or regular meals	5	9

***The main rationale behind the advice was that the mother would have enough milk 50(94%) which will improve the health of the child. 36 (68%) of the TBAs also mentioned improving the health of the mother as the rationale for their advice. At least 33 (62%) of the respondents had both maternal and child health concerns for the advice they provide.***

*We measured practice of TBAs on prevention and management of postpartum anaemia through 3 questions (Annex 5). Maximum achievable score was 8. Scores for the total sample ranged from 3 to 7 (mean score was 5). 23(43%) TBAs had good practice with average score of > 5, 27(51%) had scores of 4 to 5 indicating moderate practice and 3 (6%) had poor scores of less than 4. The majority of the TBA (51%) were moderate in their practice in management of postpartum anaemia.*

#### **6.1.4 FAMILY PLANNING**

##### **KNOWLEDGE ON FAMILY PLANNING**

The TBAs were asked to define family planning in their own understanding. 51 (96%) of the TBAs defined family planning as spacing of family. Another 2 (4%) also included “family size limit” in their definition.

When the TBAs were asked about family planning methods they knew, 43 (81%) were able to mention at least three modern family planning methods. Pills and injectables were the best-known contraceptives. 50(94%) TBAs knew about the pills and 49 (93%) were able to mention the injectables. IUCD and condoms were listed by 30(57%). Non of the respondents mentioned sterilization as a family planning method. One TBA said that “*regular check-ups*” could function as a family planning method. The majority of the TBAs counseled their clients in family planning in order to give information and to assist them in making a choice (45 (85%)).

***To obtain information on TBAs’ level of knowledge on postpartum family planning, 3 questions were asked (Annex 5). The maximum achievable score was 7. Scores of the total sample ranged from 1 to 7 (mean score was 5). 18(34%) TBA had good knowledge with***

**scores > 5, 32(60%) had moderate/average knowledge with scores ranging from 4 to 5 and 3(6%) had poor knowledge with scores less than 4. Overall knowledge was moderate.**

**ATTITUDE TOWARDS FAMILY PLANNING**

The experience the TBAs themselves had with modern family planning was very limited. 13 (25%) practiced family planning of whom 6 (46%) practiced traditional methods. The

majority who used family planning did so to space their births. Only one TBA out of 13 did so to limit the number of births. The majority of the 36 (86%) who never used a method said they would use family planning now if they had a need for it. Another two TBAs who used traditional methods said they would use modern contraceptives now.

50 (94%) of the TBA indicated that they would provide family planning counseling and services to the woman who has newly given birth. 3(6%) of the TBAs will not advocate family planning and the reasons given were *“I don’t know what to tell them, because I have little knowledge of family planning.”* *“People in the village don’t like family planning.”* And finally one TBA stated that *“It is not good. It makes people not to deliver and I will not get what I used to get from them if they’re not delivering.”*

**PRACTICE ON FAMILY PLANNING**

Responses from the TBAs on methods of family planning they would recommend for mothers breast-feeding for less than 6 months are summarized in Table 5. Only 6 traditional birth attendants could advise or recommend three appropriate methods.

**Table 5 Family planning method (s) TBAs would recommend or advice mothers who are breast-feeding for less than 6 months**

<b>Responses</b>	<b>Freq. N=53</b>	<b>%</b>
Injectables	33	63
Pills	21	40
IUCD	13	25
Condoms	10	19
Don’t know	7	13

Progesterone only pills	5	9
Combined oral contraceptives (Lofeminal)	4	8
Foaming tablets	3	6
Combined oral contraceptives (microgynon)	2	4
Others	2	4
Sterilisation	0	0

21(40%) TBAs mentioned “pills” but could not explain what types of pills. The most recommended method was injectables 33(62%). Only 5 (9%) mentioned progesterone pills. Sterilization was not mentioned at all.

When the TBA was asked what would she do if she met a proud mother with 3 months old baby at the bus stop and she tells her that she was considering using family planning, 32 (60%) would counsel the woman and refer her to an appropriate place for service. 16(32%) of the TBAs will only refer without counseling, and two will only counsel and not refer.

*We measured practice of TBAs on postpartum family planning through 2 questions. Maximum achievable score was 5. Scores for the total sample ranged from 0 to 5 (mean score was 2). 6(11%) TBAs had good practice with average scores > 3, 18(34%) had scores 3 indicating moderate practice and the majority of the TBAs 29 (55%) who had scores less than 3 demonstrated poor practice in family planning.*

#### **6.1.5: TRADITIONAL BIRTH ATTENDANTS UNDERSTANDING OF HEALTH PROBLEMS THAT WOMEN MAY ENCOUNTER AFTER DELIVERY**

**Table 6 TBAs list of health problems that women may encounter in the postpartum period (the first 6 weeks of delivery)**

<b>Responses</b>	<b>Freq. N=53</b>	<b>%</b>
Abdominal pains	34	64
Postpartum haemorrhage	15	28
Headache	14	26
Puerperal genital infections	10	19
Dizziness	9	17
Eclampsia	8	15
Prolapsed uterus	7	13
Breast problems	7	13
Postpartum anaemia	7	13
Malaria	6	11
High blood pressure	6	11
Death of the mother	5	9
Vesico vaginal fistula	3	6
Postpartum mental problems	2	4

Knowledge was very low, only 14 (26%) of the TBAs were able to mention at least three health problems that women may encounter after delivery. Furthermore, the most frequently mentioned problem (abdominal pains) is of less clinical importance than most of the other problems they did not recall.

## **6.2 NURSES INTERVIEWS**

The age-range of the participating nurses was between 23 and 44 years. The majority of the nurses were CHNs 18 (58%) and 10(32%) of the health workers had midwifery skills. 68% were male and 32% female. 22 (71%) nurses were married and 7(23%) were single.

Most nurses were working at health center level 22 (71%) and the remaining 9 (29%) were village based. 18 (58%) nurses had obtained their most senior qualification less than four years ago. Further in-service training followed during previous year for 27(87%) nurses. The major areas covered were antenatal care 16(59%) and family planning 24(89%). Postpartum care training was given to 12 (44%) of the health workers who had in-service training. Only 2(11%) received training on delivery care.

### **6.2.1 NURSES' UNDERSTANDING OF HEALTH PROBLEMS THAT WOMEN MAY ENCOUNTER AFTER DELIVERY**

Only 68% of the nurses interviewed could correctly define the postpartum period as the period from immediately after delivery to 6 weeks. Nurses' list of health problems that women may encounter in the postpartum period is shown in Table 7.

**Table 7 Nurses' list of health problems women may encounter in the postpartum period (the first 6 weeks of delivery)**

<b>Responses</b>	<b>Freq. N=31</b>	<b>%</b>
Puerperal sepsis	28	90%
Hemorrhage	26	84%
Anemia	24	74%
Postpartum mental problem	12	39%
Malaria	7	23%
Other infections	7	23%
Breast problems	7	23%
Abdominal pain	6	19%
Postpartum hypertension	6	19%
Postpartum eclampsia	5	16%
Bladder/urinary problems	4	13%
Death of the mother	3	10%
Prolapsed uterus	2	7%

Others	10	32%
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*Almost 75% of the nurses were able to mention major problems in the postpartum period like haemorrhage, postpartum sepsis, and anemia. However few nurses mentioned breast problems.*

Almost 68% of the nurses knew 4 health problems women could encounter in the postpartum period.

### **6.2.1 BREAST-FEEDING**

#### **BREAST-FEEDING KNOWLEDGE**

The majority of nurses (58%) demonstrated good breast-feeding knowledge. 94 % of the nurses were able to correctly define exclusively breast-feeding and 97% knew that exclusive breast-feeding should last to around 6 months. 19(61%) could recall more than 4 benefits of breast feeding (65% mentioned hygienic, 48% mentioned source of energy, nutrients, and fluids 68% said it contains disease- fighting substances 58% indicated mother and child bonding and 68% mentioned that it is cheap and it needed no extra equipment and is convenient). However only 32% mentioned breast-feeding as a family planning method. 29 (94%) nurses mentioned more than three correct breast problems that could occur in the postpartum period.

Table 8 shows nurses' responses to mention 10 steps to successful breast-feeding. Only 5 (16%) of the nurses could recall more than any three steps and 17(55%) could not recall any one step. Knowledge was generally low.

**Table 8 Nurses' list of the 10 steps to successful breast-feeding.**

Responses	Freq. N=31	%
◆ Give new-born infants no food or drink other than breast milk, unless medically indicated.	10	32
◆ Encourage breast-feeding on demand	5	16
◆ Give no artificial teats or pacifiers (also called dummies or soothers) to breast-feeding infants	5	16
◆ Help mothers initiate breast-feeding within a half-hour of birth	4	13
◆ Show mothers how to breast-feed and how to maintain lactation even if they should be separated from the infants	3	10
◆ Inform all pregnant women about the benefits and management of breast-	2	7

feeding		
◆ Practise rooming-in - allow mothers and infants to remain together 24 hours a day.	2	7
◆ Foster the establishment of breast-feeding support groups and refer mothers to them on discharge from the hospital or clinic	0	0
◆ Have a written breast-feeding policy that is routinely communicated to all health care staff.	0	0
◆ Train all health care staff in skills necessary to implement this policy	0	0

Basic breast-feeding knowledge was examined through five questions (see Annex 6). The maximum achievable score was fourteen (14). Scores of the total sample ranged from 3 to 13 (mean score was 9.4, S.D. 1.9). 18(58%) nurses were graded as having good knowledge with scores more than 9,11(35%) had average knowledge with scores ranging from seven to nine and 2(6.4%) were graded poor knowledge with scores below 7.

#### **BREAST-FEEDING ATTITUDE**

***The nurses demonstrated a positive attitude to breast-feeding. 30 (97%) thought exclusive breast-feeding is good and should be encouraged. The nurses mentioned that they will advice the mother to breastfeed if in their practice a mother makes a decision to bottle feed her baby 30(97 %). The reasons given against the practice of bottle-feeding were that bottle-feeding is dangerous, and it causes infection like diarrhea because some people cannot maintain hygiene of the bottles. 28(90%) nurses reported that breast-milk is best for the child, it gives energy to the child and protects him from infections. One nurse will encourage bottle-feeding if the mother is dead or is a working mother.***

## **BREAST-FEEDING PRACTICE**

***Almost all the nurses will put the child to the breast within one hour of delivery and 25 (80%) will do so within 30 minutes after delivery. Almost 65 % of nurses will in practice provide at least 3 important advises to mothers in order to assist them in breast-feeding with emphasis on encouraging frequent suckling, explaining the importance of breast-feeding, promoting exclusive breast-feeding for up-to around 6 months. However little emphasis was made on use of colostrum, early initiation of breast-feeding, avoiding pre-lacteal feeds as well as the importance of hygienic care of the breast.***

Nurses have demonstrated less competence in the management if the woman has swollen and tender breasts. Only 18 (58%) of the nurses will encourage continuation of breast-feeding, 14 (47%) will express the milk and give the child to drink until the breast is soft enough for the baby to take, 20 (65%) nurses reported that they will provide analgesics, while 5 (16%) will advise on damp cloths to be applied on the breast, only 2 (7%) will refer and 1 (3%) will express the milk and throw away because it is bad milk.

If a mother in-law comes to the nurse two days after her daughter in law gave birth and says that her grandchild is not breast-feeding properly, the responses from the nurses as to what they will you do? is shown in Table 9. Majority of the nurses showed an appropriate management plan.

**Table 9      Nurses' activities if the mother in low reports two days after her daughter in law gave birth and says that her grandchild is not breast-feeding properly.**

<b>Responses</b>	<b>Freq. N= 31</b>	<b>%</b>
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Check the mother	27	87
	28	90
<b>Check the child</b>		
Handle minor problems	30	97
Refer major problems	28	90
Just refer	1	3

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Breast-feeding practice was examined through four questions (see Annex 6). The maximum achievable score was twelve (12). Scores of the total sample ranged from 6 to 12 (mean score was 9.3, S.D. 1.6). 15(48.4%) nurses had good practice with scores more than 9, 15(48.5%) were average in practice with scores between seven and nine and 1(3%) had a poor practice with a score below 7.

### 6.2.3: POSTPARTUM SEPSIS

#### **KNOWLEDGE ON POSTPARTUM SEPSIS**

25 (81%) of the nurses could mention at least 3 major important signs and symptoms of postpartum sepsis. A large majority of the nurses (28 (90%)) mentioned elevated temperature, abnormal foul odour of discharge (28 (90%)), severe pain and tenderness in the lower abdomen (20(65%)), and abnormal vaginal discharge (17(55%)) as signs and symptoms of postpartum sepsis.

Nurses' responses for the causes or contributing factors to sepsis are summarised in Table 10. Contributing factors to puerperal sepsis were not well known amongst the nurses. Only 52% knew at least 3 causes.

**Table 10 Nurses' responses to possible contributing factors to puerperal sepsis**

<b>Responses</b>	<b>Freq. N=</b>	<b>%</b>
Poor hygiene by the mother after delivery	23	74
Unclean delivery	23	74
After episiotomies	15	49
Retained products of delivery	13	42
Antenatal reproductive tract infections	5	16
Premature rupture of membranes	0	0
Delayed delivery	0	0
Others	5	16

The management of puerperal sepsis at the corresponding nurses' level of work was asked. At the health facility level, 18(82%) nurses reported to give antibiotics to mild cases however only 11 (50%) mentioned referral if very sick/retained products or failure to improve in 48 hrs and 4 (18%) will just refer to the next referral point. One respondent will give fefa and treat for malaria. At community level, (N=9) all the nurses working at this level will refer and three will recognise the disease and advise on hygiene.

Basic knowledge of postpartum sepsis was examined through three questions (see Annex 6). The maximum achievable score was nine (9). Scores of the total sample ranged from 3 to 8 (mean score was 5.6,S.D. 1.3). 8(26%) nurses had good knowledge

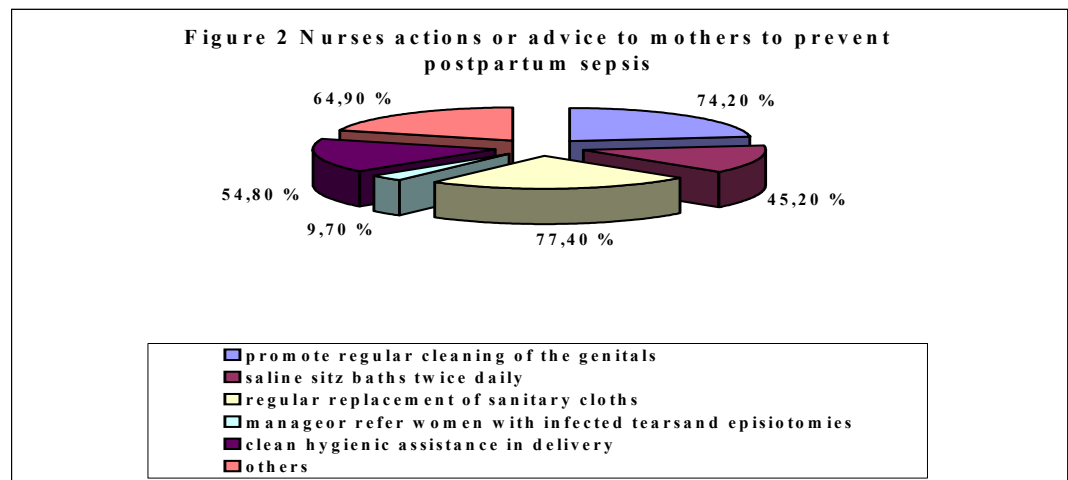
with scores more than 6,22(71%) were average in knowledge with scores between four and six and 1(3%) had poor knowledge with an average score below 6.

**ATTITUDE TO POSTPARTUM SEPSIS**

***The majority of nurses (30(97%)) expressed concern over postpartum sepsis and described it as a public health problem, an indication of a helpful attitude.***

**POSTPARTUM SEPSIS PRACTICE**

Figure 2 illustrates responses from nurses concerning management of sepsis. The



majority (23(74%)) illustrated good practice.

The respondents were presented with a case: A woman comes to see you 7 days after delivery with fever and lower abdominal pains, what will you do?” All the midwives (N=10) recognised the disease, 7 would treat with antibiotics and analgesics would be added by three of the respondents, one participant would see the patient within a week and 2 will further promote personal hygiene for the patient. Non of the respondents mentioned referral if very sick or retained products or failure to improve within 48 hrs. The non- midwives (N=21). 14 (67%) recognised the disease and 15 (71%) would refer. Two respondents mentioned that they would advise on personal hygiene and 7 (33%) would treat the patients by them selves.

Basic practice of postpartum sepsis control and management was examined through two questions (see Annex 6). The maximum achievable score was six (6). Scores of

the total sample ranged from 2 to 6 (mean score was 3.5, S.D. 1.1). 5 (16%) nurses were graded good practice with scores more than 4, 20(65%) were average in practice with scores ranging from three to four and 6(19%) had poor practice with scores below 3.

#### **6.2.4 POSTPARTUM ANAEMIA**

##### **KNOWLEDGE ON ANAEMIA**

Only a small number of nurses 7 (22%) were able to define anaemia for pregnant and lactating mothers as haemoglobin below 11 g/dl. Furthermore only one nurse was able to classify anaemia into the three different levels of severity with haemoglobin levels correctly stated. As the causes of anaemia, 25(81%) mentioned malaria and 28 (90%) stated poor nutrition, 17(55%) mentioned bleeding, 13(42%) mentioned worm infestation and only two (7%) mentioned frequent pregnancies. Infections/PID/STD were mentioned by 5(16%). Three respondents mentioned heavy workload as a cause for anaemia.

Almost all the respondents 30(97%) mentioned death as a possible consequence of anaemia. The less serious consequences that could pose health problems were listed by about 9-12 (30-39%) of the interviews (frequently mentioned were infections, heart failure, decreased work capacity, tiredness and weakness). Other answers that were given were “*hypoglycaemia*” and “*infertility*”; furthermore 5(16%) mentioned “*not enough breast-milk*” as a consequence.

When asked to list the signs and symptoms of anaemia, all the nurses mentioned paleness of the mucus membranes, 21(68%) listed tiredness and/or breathlessness, 16(52%) mentioned dizziness, 12(39%) reported oedema and 11(36%) mentioned weakness.

***Knowledge on anaemia was examined through five questions (see Annex 6). The maximum achievable score was fourteen (14). Scores of the total sample ranged from 3 to 12 (mean score was 6.2, S.D. 2.2).***

***2(6%) nurses had good knowledge with scores more than 9,10(32%) had average knowledge with scores ranging from seven to nine and 19(61%) had poor knowledge with scores less than seven.***

#### **ATTITUDE TOWARD S ANAEMIA**

***At least 29 (94%) nurses expressed concern over anemia and described it as a public health problem.***

#### **PRACTICE ON ANEMIA**

22 nurses work at facility level. For the management of anaemia at their facility of work, 20 out of the 22 health facility nurses reported that they will commence folate and iron treatment, 5 will treat for worms and malaria, 16 will provide dietary advice and nine will monitor progress of treatment. Non of the participants either mentioned to refer if the patient's condition is not improving nor laboratory confirmation of level of anaemia.

Eight out of the nine community level nurses will commence iron and folate treatment, 2 will refer to a health facility for confirmation, 9 will provide dietary advice and two will monitor progress. Non mentioned clinical detection or to refer if condition is not improved. One respondent would advise patient to reduce workload.

70% of the nurses will provide dietary advice to lactating mothers covering at least 3 main categories of food. All the respondents told the women to eat high protein diet when they provide dietary advice to prevent anaemia. The women were also advised to eat foods rich in vitamins and minerals by 29(94%), carbohydrates were advocated by 20(65%) and 4(13%) also recommended fats. The respondents 5(16%) also recommended women to eat regularly.

The reason for this dietary advice to lactating women was to improve both mother and child's health 16(52%). About one third of the respondents 10 (32%) said the advice was given only for child health reasons and 5 (16%) reported to give this advice only for the health of the mother.

When the nurses were asked “You are called to a compound and you find a woman who has collapsed. You know she has delivered a baby 4 days ago. She is pale, but wakes up and is able to talk to you. What do you do?”

Out of 31 nurses 14(45%) reported that they will measure the haemoglobin, 11(36%) will check vital signs, 6(19%) will also check for malaria and start appropriate treatment and 28(90 %) will refer soon.

To measure level of practice among the nurses in relation to prevention and management of anaemia, four questions were asked. The maximum achievable score was eleven (11). Scores of the total sample ranged from 4 to 9 (mean score was 3.5, S.D 1.3). 7(23%) nurses were graded good in practice with scores more than 7, 15(48%) were average in practice with scores ranging from six to seven and 9(29%) who had scores below 6 were graded poor.

#### **6.2.5 POSTPARTUM FAMILY PLANNING**

##### **KNOWLEDGE ON FAMILY PLANNING**

10(32%) of the nurses defined family planning as “spacing of family” while 21 (68%) defined family planning as “spacing and limiting of family size”. One respondent further mentioned treatment for infertility. Only 18(58%) of the nurses were able to define lactational amenorrhea method as a temporary contraception provided by breast feeding if the woman is practising exclusive breast-feeding on demand, not menstruating and the baby is less than 6 months.

On the advice they would you give to mothers on how to breast-feed to ensure an effective LAM, the response of the nurses are shown on Table 11. The main advice they will provide is breast-feed on demand about 6-10 times per day. Fewer nurses provided other advice. Other answers were “*I think it’s natural. No advice is needed.*” and one respondent stressed that “*LAM is effective for 6 months only*” and added this to his advice.

**Table 11 Advice nurses would give to mothers on how to breast-feed to ensure an effective LAM**

<b>Responses</b>	<b>Freq: N=31</b>	<b>%</b>
◆ Breast-feed on demand about 6-10 times per day	22	71
◆ Breast-feed child at least once during the night(no more than 6 hours should pass between any 2 feeds)	9	29
◆ LAM is less effective if your baby feeds less than 6-10 times/day	7	23

or may choose to sleep throughout the night		
◆ Other	2	7
◆ Don't know	2	7

More than 97% of the nurses mentioned that counselling is important to give information about family planning to enable clients to make an appropriate choice.

Family planning knowledge was examined through four questions (see Appendix 6). The maximum achievable score was nine (9). Scores of the total sample ranged from 3 to 9 (mean score was 6.0, S.D. 1.9). 14(45%) nurses had good knowledge with scores more than 6, 12(39%) had average knowledge with scores ranging from four to six and 5(16%) had poor knowledge with scores below 4.

#### **ATTITUDES TOWARDS FAMILY PLANNING**

***The attitude towards family planning was very positive. 27(87%) of the nurses did ever use family planning methods before. 17(63%) used it for birth spacing while 10(37%) did so to prevent unwanted pregnancies and 8(30%) wanted to prevent infections. Three nurses used family planning to limit family size. Condoms were the most popular method used 14(52%). Other methods used, were pills, by 8(30%), injectables 5(19%), IUCD 2(7%), abstinence 2(7%) and calendar method was practiced by one of the respondents. All the other nurses will use it in future.***

#### **FAMILY PLANNING PRACTICE**

About family planning methods they provide for lactating mothers less than 6 months, 22(71%) of nurses will give progesterone only pills, 14(45%) will provide condoms, 13(42%) will introduce injectable after 6 weeks, 10 (32%) will advocate for IUCD immediately post delivery or 6 weeks postpartum, 11(37%) will advise on LAM, and

5(16%) advocate abstinence. The majority 25(81%) will give combined oral contraceptives.

When the nurse was asked what (s)he would do if (s) he is met by a proud mother with a 3 months old baby at the bus stop who confides to her that she is considering using family planning, 30(97%) will refer her to an appropriate place for service. Twenty-five out of the thirty will first counsel her before the referral. 5(16%) thought the bust stop was an inappropriate place to discuss.

Family planning practice was examined through two questions. The maximum achievable score was five (5). Scores of the total sample ranged from 2 to 5 (mean score was 3.6, S.D. 1.0). 17(55%) nurses had good practice with scores more than 3, 8(26%) who had 3 scores were graded average and 6(19%) who had scores below 3 were graded poor in practice.

### **6.3 ANALYSIS OF KNOWLEDGE AND PRACTICE OF MIDWIVES VERSUS NON-MIDWIVES ON POSTNATAL CARE**

***(anaemia, breastfeeding, postpartum sepsis and postpartum family planning)***

We compared knowledge and practice of the *nurse- midwives* and the *non -midwives* in postnatal care on anemia, breastfeeding, postpartum sepsis and postpartum family planning

#### **Midwives versus non –midwives: Breast-feeding knowledge and practice**

Basic breast-feeding knowledge was examined through five questions (Annex 6). The maximum achievable score was fourteen (14). Scores of the *midwives* ranged from 9 to 13 (95% confidence interval for mean 10 to 12). The scores for the *non-midwives* ranged from 3 to 9 (95% confidence interval for mean 8 to 10).

***The midwives had a significantly better average knowledge on breast-feeding (Table 12)***



***p <0.001). We reject the null hypothesis and conclude that there is a statistically significant difference between the two means.***

Breast-feeding practice was examined through four questions (Annex 6). The maximum achievable score was twelve (12). Scores of the *midwives* ranged from 7 to 11 (95% confidence interval for mean 8 to 10). The scores for *non- midwives* ranged from 6 to 12 (95% confidence interval for mean 9 to 10).

***There was no significant difference in the practice to support breast-feeding between midwives and non-midwives (Table 12;  $p>0.8$ ). We accept the null hypothesis and conclude that the observed difference is not statistically significant.***

**Table 12 Midwives versus non –midwives: Breast-feeding knowledge and practice**

Variable	cadre	N	Mean score	Std. Deviation	t-test for equality of means		
					Sig.(2 tailed)	Mean difference	95% confiden interval of t difference
Breast –feeding knowledge	midwives	10	10.80	1.13	0.001	1.94	0.82 - 3.06
	Non-midwives	21	8.86	1.90			
Breast feeding practice	midwives	10	9.30	1.49	0.83	-0.13	-1.37- 1.11
	Non-midwives	21	9.43	1.66			

**Midwives versus non –midwives: Sepsis knowledge and practice**

Basic knowledge of postpartum sepsis was examined through three questions (Annex 6). The maximum achievable score was nine (9). Scores of the *midwives* ranged from 4 to 8 (95% confidence interval for mean 5 to 7). The scores of the *non-midwives* ranged from 3 to 8 (95% confidence interval for mean 5 to 6).

***There was no significant difference in knowledge in postpartum sepsis we measured between midwives and non-midwives (Table 13;  $p>0.2$ ). We accept the null hypothesis and conclude that the observed difference is not statistically significant.***

Basic practice of postpartum sepsis control and management was examined through two questions (Annex 6). The maximum achievable score was six (6). The scores of the *midwives* ranged from 3 to 5 (95% confidence interval for mean 3 to 4). The scores for the *non-midwives* ranged from 2 to 6 (95% confidence interval for mean 3 to 4).

***There was no significant difference in practice of midwives and non-midwives in prevention and management of postpartum sepsis we measured***

***p>0.8. We accept the null hypothesis and conclude that the observed difference is not statistically significant.***

**Table 13 Midwives versus non –midwives: Sepsis knowledge and practice**

Variable	cadre	N	Mean score	Std. Deviation	t-test for equality of means		
					Sig.(2 tailed)	Mean difference	95% confiden interval of t difference
Postpartum sepsis knowledge	midwives	10	6.00	1.15	0.24	0.57	-0.41 –1.56
	Non-midwives	21	5.43	1.39			
Postpartum sepsis practice	Midwives	10	3.60	0.69	0.83	0.08	-0.66 -0.81
	Non-midwives	21	3.52	1.28			

**Midwives versus non –midwives: Anaemia knowledge and practice**

Knowledge on anaemia was examined through five questions (Annex 6). The maximum achievable score was fourteen (14). The scores for the midwives ranged from 5 to 9 (95% confidence interval for mean 6 to 8). The scores for non-midwives ranged from 3 to 12 (95% confidence interval for mean 5 to 7).

There was a significant difference in the mean scores between midwives and non- – midwives in relation to knowledge in anaemia we measured (**Table 14**, 5.0 vs 3.85)  $p < 0.05$ ). We reject the null hypothesis and conclude that there is a statistically significant difference between the two means.

To measure level of practice among the nurses in relation to prevention and management of anaemia, four questions were asked. The maximum achievable score was eleven (11). The scores for the *midwives* ranged from 4 to 8 (95% confidence interval for mean 5 to 7). The scores for the *non- midwives* ranged from 4 to 9 (95% confidence interval for mean 6 to 7).

There was no significant difference in the practice of support for anaemia between midwives and non-midwives we measured (**Table 14**)  $P>0.8$ . We accept the null hypothesis and conclude that the observed difference is not statistically significant.

**Table 14 Midwives versus non –midwives: Anaemia knowledge and practice**

Variable	Cadre	N	Mean score	Std. Deviation	t-test for equality of means		
					Sig.(2 tailed)	Mean difference	95% confidence interval of difference
Anemia knowledge	midwives	10	5.00	1.41	0.05	1.14	-0.002 – 2.28
	Non-midwives	21	3.86	1.42			
Anemia practice	Midwives	10	6.30	1.33	0.88	-0.08	-1.17 – 1.01
	Non-midwives	21	6.38	1.40			

**Midwives versus non –midwives: Family planning knowledge and practice**

Family planning knowledge was examined through four questions. The maximum achievable score was nine (9). The scores of the *midwives* ranged from 3 to 9 (95 % confidence interval for mean 5 to 7). The scores of the *non-midwives* ranged from 3 to 9 (95 % confidence interval 5 to 7).

***There was no significant difference in knowledge in family planning that was measured between midwives and non-midwives. (Table 15, 6.10 vs 6.00;  $p>0.8$ ) We accept the null hypothesis and conclude that the observed difference is not statistically significant.***

Family planning practice was examined through two questions. The maximum achievable score was five (5). The scores of the *midwives* ranged from 2 to 5 (95% confidence interval for mean 3 to 5). The scores of the *non-midwives* ranged from 2 to 5 (95% confidence interval for mean 3 to 4).

***There was no significant difference in family planning practice that was measured between midwives and***

**non-midwives. (Table 15, 3.99 vs 3.48;  $p>0.35$ ). We accept the null hypothesis and conclude that the observed difference is not statistically significant.**

**Table 15 Midwives versus non –midwives: Family planning knowledge and practice**

Variable	cadre	N	Mean score	Std. Deviation	t-test for equality of means		
					Sig.(2 tailed)	Mean difference	95% confidence interval of difference
family planning knowledge	midwives	10	6.10	1.79	0.89	0.10	-1.40-1.60
	Non-midwives	21	6.00	2.02			
Family planning practice	Midwives	10	3.90	1.19	0.35	0.42	-0.51 –1.36
	Non-midwives	21	3.48	1.03			

## **6.4 FOCUS GROUP DISCUSSIONS**

Following the introduction of the purpose of the session and self-introduction by participants, the facilitator opened the discussion by asking participants

**What are postpartum services or what does postpartum service comprise of?**

All the groups agreed that postpartum care or services are services or care provided to mothers and children from delivery to 6 weeks.

### **6.4.1 MAJOR POSTNATAL CARE THEMES**

Occasional open-ended, non- directive questions from facilitator further brought a wide range of ideas on the subject. When asked to list the elements of postpartum care, the following responses were given (Table 16). The responses were mainly reflecting on two issues: - examination and treatment of mother and child, and advice on health issues.

**Table 16 Responses of nurses to the major postnatal care themes**

<i>Responses</i>	<i>Group 1</i>	<i>Group 2</i>	<i>Group 3</i>	<i>Theme</i>
<i>Breast-feeding and breast care which includes:-</i>	✓	✓	✓	D
◆ Physical examination to detect any breast problems			✓	
◆ Check for any breastfeeding problems or if the child is breastfeeding well establish the cause, manage minor problems and refer any outstanding problems			✓	M
◆ Advice on diet to improve breast milk			✓	
◆ Advice on breast care	✓		✓	R
◆ Provide information on importance of breast milk/breastfeeding		✓	✓	R
<i>Preventing and managing of puerperal sepsis</i>	✓	✓	✓	D
◆ performing physical examinations to assess if the uterus is involuting normally			✓	M
◆ assessing the lochea to detect any deviations from normal for example offensive odor, fever, sub-involution, pains			✓	M
◆ initiate treatment and management for any abnormalities			✓	M
◆ advice on personal hygiene	✓	✓	✓	D
◆ give information on importance of breast-feeding in helping uterus to involute			✓	M
<i>Anaemia</i>				D
◆ Detection			✓	M
◆ Provide dietary advice	✓	✓	✓	D
◆ Provide treatment for minor problems but if severe refer			✓	M
<i>Family Planning Services</i>				D
◆ Provide family planning service or counseling to the women during their first visit to the clinic postpartum			✓	M
◆ Provide services -by assisting women to use a method	✓	✓	✓	D
◆ Refer others that need special care example tubal ligation			✓	M
◆ Refer to other available sources for services not at your disposal			✓	M

All the 3 groups identified the 4 themes (breast-feeding, family planning, infection control and anemia) but differed in emphasis. Although other themes came up our discussion concentrated on the above four areas. Groups one and two emphasized on providing advice in all the four themes in their deliberations, while group three (3) emphasized on diagnosis, treatment and prevention in all the themes.

***When further asked about what they thought about the position of postpartum care in the overall MCH set-up, participants mentioned that:***

While maintaining the view that postpartum care is crucial for the women, all groups agreed that postpartum care does not carry the same attention as other MCH activities in their facilities.

There was a total agreement among the groups that there was a feeling amongst health workers that:

*“ It is not important to provide any more care for the woman since the woman has undergone normal delivery”* The groups further mentioned that postpartum care receives little attention therefore the different components also do not receive attention.

One of the groups mentioned that workers concentrate on postpartum women identified as at risk during the pregnancy period or during delivery, women who had caesarian section and so on. *“Women who do not have problems are seen to be normal and considered unnecessary to have any further care after delivery.”*

Other themes surfaced but this discussion only concentrated on the four (4) major areas (breast-feeding, family planning, sepsis control and anemia)

The facilitator then directed the discussion on the 4 major themes in the discussion guide. This mainly concentrated on what the participants mentioned in their list of contents of postnatal care.

Introducing this topic, with the view of soliciting information on factors that hinder health workers from providing each of the above mentioned themes, the moderator stated that, “you have mentioned that postpartum care is comprised of.....”: -

***BREAST-FEEDING AND BREAST CARE: WHAT ARE SOME OF THE PROBLEMS THAT HINDER YOU FROM PROVIDING THIS CARE?***

Many participants reported that *“we assume mothers already know much about breast-feeding and therefore the health workers do not give them information.”* They

acknowledged that this was wrong. With open-ended non-directive questions from the facilitator, the discussions on the topic continued and provided information on Table 17.



**Table 17 Nurses responses to problems that hinder them from providing postpartum breastfeeding help or information**

<b>Responses</b>	<b>Group 1</b>	<b>Group 2</b>	<b>Group 3</b>	<b>Theme</b>
◆ Staff expressed that “communities have their own cultural beliefs, which are hard to change with our health programs”. Mothers and community members refuse to accept new ideas. This is further complicated by communities lack of knowledge in breast-feeding for example communities continue to give pre-lacteal feeds	✓	✓	✓	D
◆ Health workers are not well equipped with the right information regarding breast-feeding, as a result, health workers provide incomplete information to the communities	✓	✓	✓	D
◆ “mothers tell health workers that they are exclusive breast-feeding but in reality they are not practicing it because the mothers are not convinced about it”.	✓			M
◆ The baby friendly community initiative program (a breast-feeding package) currently being implemented in other divisions is yet to be implemented in the north bank division	✓			M
◆ Clinics are usually quite heavy and staff do not have time to provide women such information or care. Health workers do not take time to explain reasons behind the advice they give to these women.	✓			M

**FAMILY PLANNING OR BIRTH SPACING (FAMILY PLANNING INFORMATION AND SERVICES TO POSTNATAL WOMEN), WHAT ARE SOME OF THE PROBLEMS THAT HINDER YOU FROM PROVIDING THIS SERVICE?**

The dominant theme in this topic was “ *decision-makers and influential people in the community (men) have been sidelined in the family planning program. It is difficult to get the women to practice family planning without the consent of these people* ”However the discussions on the topic continued and provided the following information:-

**Table 18 Nurses responses to problems that hinder them from providing postpartum family planning**

<i>Responses</i>	<i>Group 1</i>	<i>Group 2</i>	<i>Group 3</i>	<i>Thei</i>
♦ Cultural and religious believe. The majority of people are Muslims, who believe that Islam is against family planning. This is hard for health workers to breakthrough.	✓	✓	✓	D
♦ There is lack of knowledge in the community about the concept of modern family planning. People interpret family planning (use of contraceptives) as “ <i>killing babies</i> ”. It is also a notion in the community that, it encourages promiscuity therefore the people who want to use the family planning services do not want to be seen at family planning clinics.	✓	✓		R
♦ There is no time allocated for family planning in the MCH clinics			✓	M
♦ There is lack of privacy in the clinics, meaning there is no room to provide this service to the women	✓	✓	✓	D
♦ Shortage of commodities affects the provision of services. “ <i>If the clientele cannot access the services they opt for, they will not come back for example there is shortage of depo injection.</i> ”	✓	✓	✓	D
♦ Negative attitude of nurses towards the community deters the community from receiving the service. This is due to the heavy workload on the nurses or as a bad habit of the nurses.			✓	M
♦ Lack of trust between health workers and the community. The participants stated that “ <i>some community members have a feeling that confidentiality will not be ensured if they receive family planning services from the facilities, as a result they do not come forward</i> ”. Example they cited was that some people will only ask for services from specific people in the facilities other wise they prefer to do without the service.			✓	M
♦ Health workers are not well equipped with the right information regarding the different contraceptives. They mentioned that they belief contraceptives are usually issued wrongly to clients.	✓	✓		R
♦ There is lack of confidence among health workers to stand out and talk about family planning. Majority of the people are Muslims who against family planning. The staff fear to talk about family planning publicly.		✓		M

**PREVENTION AND MANAGEMENT OF POSTPARTUM ANAEMIA: -WHAT ARE SOME OF THE PROBLEMS THAT HINDER YOU FROM PROVIDING THIS CARE?**

The main theme discussed here was the lack of facilities to determine women's hemoglobin. The hemoglobinometers supplied to the health facilities some years back were all broken and staff had no means of checking women's hemoglobin. Further, there was no organized program to routinely check hemoglobin for postpartum women. Other responses are presented on (Table 19)

**Table 19 Nurses responses to problems that hinder them from providing services to reduce postpartum anaemia**

Responses	Group 1	Group 2	Group 3	Thei
◆ <i>"We think the community knows a lot about anemia and we do not provide preventive services on anemia for them"</i>			✓	M
◆ The community thinks postpartum bleeding is a normal phenomenon. This delays women with postpartum bleeding to seek help early			✓	M
◆ The community does not have the required information and knowledge regarding anemia; as a result they delay in seeking help.	✓		✓	R
◆ Women also complain of side effects of the tablets (usually vomiting during the pregnancy) given to them as a result they stop taking it.		✓	✓	R
◆ Shortage of iron tablets			✓	M
◆ Lack of required information and knowledge regarding anemia, as a result the necessary preventive services and care are not provided to the communities		✓		M
◆ People in the communities have the relevant food stuff that they could eat for their own well being, however they reserve these food for important visitors even when they are advised by		✓		M
◆ <i>"We think anemia is not a problem in the postpartum period and we often do not consider it".</i>	✓	✓		R

**PREVENTION AND CONTROL OF PUERPERAL SEPSIS: - WHAT ARE SOME OF THE PROBLEMS THAT HINDER YOU FROM PROVIDING THIS CARE?**

Information regarding factors hindering health workers to provide advice on preventing sepsis and hygiene is presented in Table 20

**Table 20 Nurses responses to problems that hinder them from providing services to prevent and control postpartum sepsis**

<b>Responses</b>	<i>Group 1</i>	<i>Group 2</i>	<i>Group 3</i>	<i>Thei</i>
◆ Participants stated that most sepsis occurs through poor management of labor. Their own impression is that there is lack of knowledge among traditional birth attendants and health staff regarding puerperal sepsis. Poor attitude of staff in management of labor also contributes to the problem.		✓	✓	R
◆ <i>“Communities still have harmful practices (for example use of herbs and leaves on tears after delivery) and this can lead to sepsis but communities do not want to change from this practice. This is as a result of community’s lack of knowledge on the harmful practices”.</i>		✓	✓	R
◆ <i>Staff are unwilling to provide services to prevent sepsis in women. “We think we do not have time while there is enough time or we think it is not important”</i>	✓	✓	✓	D
◆ Lack of sterile equipment in the facilities. This contributes to poor outcome of deliveries such as sepsis.		✓	✓	R
◆ <i>Communities do not know about postnatal sepsis. Health workers do not give them information regarding sepsis because they think it is not important.</i>	✓			M

**GENERAL POSTNATAL CARE**

The lack of emphasis and support for postnatal care services in the general health care delivery set-up has been the major theme. This has overshadowed the whole issue of the importance of postnatal care and services. Defects in the infrastructure, shortage of resources (human and material) were discussed as contributing factors to the problems of postnatal care. Other barriers the health workers mentioned are reported in Table 21.

**Table 21 Nurses responses to problems that hinder them from providing general postpartum care**

<i>Responses</i>	<i>Group 1</i>	<i>Group 2</i>	<i>Group 3</i>	<i>Theme</i>
♦ Lack of mobility to conduct home visits for postnatal women contributes to the problem of postnatal care	✓	✓	✓	D
♦ There is lack of privacy in the clinics and therefore there is no room to provide postnatal care to the women	✓	✓	✓	D
♦ The general lack of postnatal care service in the health system is the major contributing factor to all the above problems.	✓	✓	✓	D
♦ Not enough human resources and therefore staff do not have time to provide postnatal care for the women	✓	✓	✓	D
♦ The practice that women stay indoors for one week after delivery delays women's time to seek for help during the postpartum period. As a result patients arrive in complicated states.			✓	M
♦ The poor management of staff at the service areas contributes to the inefficient provision of services. Some will be busy while others will be doing nothing.			✓	M
♦ Women assume that health workers should initiate the process of providing help to them rather than the women initiating the process of seeking postnatal help.		✓		M

**6.4.2: HEALTH WORKERS INPUT CONCERNING POTENTIAL STRATEGIES FOR IMPROVING POSTPARTUM CARE**

The discussion finally focussed on health workers input concerning potential strategies for improving postpartum care. The facilitator summarized the problems the health workers mentioned under each theme. Each of the problems were reviewed separately and the participants were asked to identify and describe ways in which the problem could be addressed.

The responses were then categorized under 5 main headings to include all the responses for all the 4 main themes.

## **LOCAL INSTITUTIONAL ARRANGEMENTS**

- ◆ All the groups emphasized the importance of postnatal care and establishing postnatal clinics to provide postnatal care and services. They all suggested assigning special days for postnatal services. The participants further emphasized that health workers should be more proactive to find out about the problems of postnatal women.
- ◆ The discussion from groups one and three further suggested that both antenatal and postnatal services should be integrated. *“Since provision had been made for pre-natal care, the same service (structure) room could be used to provide postnatal services. Both antenatal and postnatal services combined and provided by the same people. It could be a “cocktail” clinic. Information and service related to family planning, anemia, sepsis control, breast-feeding can be provided.”*
- ◆ All groups agreed that postnatal home visits should be re-introduced. The participants could not recall why postnatal home visits were stopped.
- ◆ The groups also suggested that postnatal information should start early in the antenatal period *and* should continue after delivery. They also suggested the involvement of the husbands in the information sharing. All women who deliver in the facilities should have their hemoglobin checked before discharge and this should be repeated at 6 weeks postpartum. This could be done together with antenatal women.
- ◆ It was also suggested that labor wards should be build as annexes to the primary health care posts to reduce sepsis, this as most deliveries are done in the women’s home in very unhygienic conditions.
- ◆ Labor wards in the health facilities should start the providing postnatal services before discharge and women should stay in for 24hours to allow time for postnatal care.

## **LOGISTICAL SUPPORT:** *the major recommendations from the participants were: -*

- ◆ To replace all hemoglobin meters in all the health facilities and train staff on how to use and maintain them.
- ◆ Provisions of more resources, for example, motorcycles and fuel for follow up activities.

- ◆ Provision and replacement of worn out equipment in the labor wards as well as the delivery kits of the traditional birth attendants.
- ◆ Provide new structures to accommodate postnatal services in the existing facilities
- ◆ Provide all key villages with hemoglobin –measuring machines so that the CHNs could check the hemoglobin for the women.
- ◆ The traditional birth attendants should be provided with gloves and should be encouraged to use these.
- ◆ Drugs for postnatal use should be made available in the clinics (antibiotics, iron tablets and contraceptives)

**IMPROVING IN HUMAN RESOURCE CAPACITY**

- ◆ *All the groups concluded that all health staff should be trained in postnatal care and services (since every body participates in MCH activities)*
- ◆ *Training and retraining of the traditional birth in all the villages would improve postpartum care.*
- ◆ The groups also urged central level to increase the number of trained staff in the facilities

**IEC AT BOTH COMMUNITY AND SERVICE AREAS:** The participants recommended: -

- ◆ Growing and increasing awareness in the community for PNC as a logical next step after ANC and delivery
- ◆ Routine education in MCH clinics with emphasis on the different components of postnatal care (breast-feeding, postpartum sepsis, family planning and anemia),
- ◆ Community education on breast-feeding using posters, video shows
- ◆ Conducting organized community nutrition education programs geared towards increasing knowledge in anemia and its prevention
- ◆ Village meetings with influential groups (elders and religious leaders) to discuss family planning
- ◆ Encouraging girls’ education in the local communities. This will enhance their understanding of planning of families.
- ◆ Actively involving the community in the activities of the facilities

**MONITORING AND EVALUATION:** *The following suggestions were made: -*

- ◆ Staff at health facilities should regularly and timely request for family planning commodities to prevent any shortages
- ◆ The DHT should regularly provide supportive supervision to the service areas (and provide training )
- ◆ The health facilities should conduct regular staff meetings, this will provide opportunities to discuss problems and identify potential solutions.





## 6.5 EXIT INTERVIEWS

*A total of 119 women attending an MCH clinic who fulfilled the inclusion criteria were approached regarding participation in this study. Three refused and 116 consented. Complete data were available for all the 116 subjects.*

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### DEMOGRAPHIC CHARACTERISTICS

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<i>Responses</i>	<i>Freq. N=116</i>	<i>%</i>
<b>Age of respondent</b>		
Range 16-45		
Mode 30		
Mean 27.127		
<b>Place of delivery of present child</b>		
Home	85	73.3
Health facility	30	29.5
Other	1	0.9
<b>Who conducted the delivery</b>		
Self	1	0.9
Nurse	32	27.6
Traditional birth attendant	68	58.6
Relatives	15	12.9
<b>Number of children ever had</b>		
Range 1-11		
Mode 3		
Mean 4.6		
<b>Number of children alive</b>		
Range 1-11		
Mode 4		
Mean 3.8		

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## **POSTNATAL CARE**

113 (97%) women reported that they came to the clinic for child health reasons. 65 (56.0%) of the women did suffer or observed abnormal health problems after current delivery (during the first 42 days). When asked what were their major complains 41 (63.1%) suffered from severe abdominal pains, 15 (23.1%) dizziness, 14 (21.5%) general body pains, 8 (12.3%) severe headache, 3 (4.6%) breast problems, 4 (6.2%) anaemia, 28 (43%) had some other complains or problems, 3 (4.6%) vaginal blood loss, 7 (10.8%) fever.

53 (81.5%) reported that they received help. The remaining 12 (18.5%) did indicate that they needed help which was not available to them.

As indicated in the percentages , some women received help from more than one source.31 (59.6 %) and 28 (48.1%) received help from the health facility and home based care respectively. The majority of mothers (35 or 66%) received help from the nurses while 14 (26%) and 7 (13 %) received from relatives and traditional birth attendants, respectively, and 1(2 %) was assisted by a traditional healer. 48 (90%) expressed satisfaction about the help they received.

With regards to postnatal examinations: only 16 (14 %) of the total sample were examined at MCH clinic during the first 42 days after delivery and all these women were seen at an MCH clinic during this period. When asked what was done during the examination, 8 (50%) reported that their blood pressure had been measured, 6(38%) had abdominal palpation, 4(25.0%) had vaginal examination, and 3(19%) had their conjunctiva examined for anaemia.

Only 17(14.7%) reported that they were visited by the CHN within the first week of delivery. Further asked what was being done, 1 (5.9%) said their abdomen was palpated, 17 (100.0%) reported that their blood pressure measured, 1 (5.9%) had examination of private part, 1(6 %) had the eyes checked for anaemia, and 4(23.5%) said they were given tablets to drink. Eight (47 %) of the women were only asked if they had any problems.

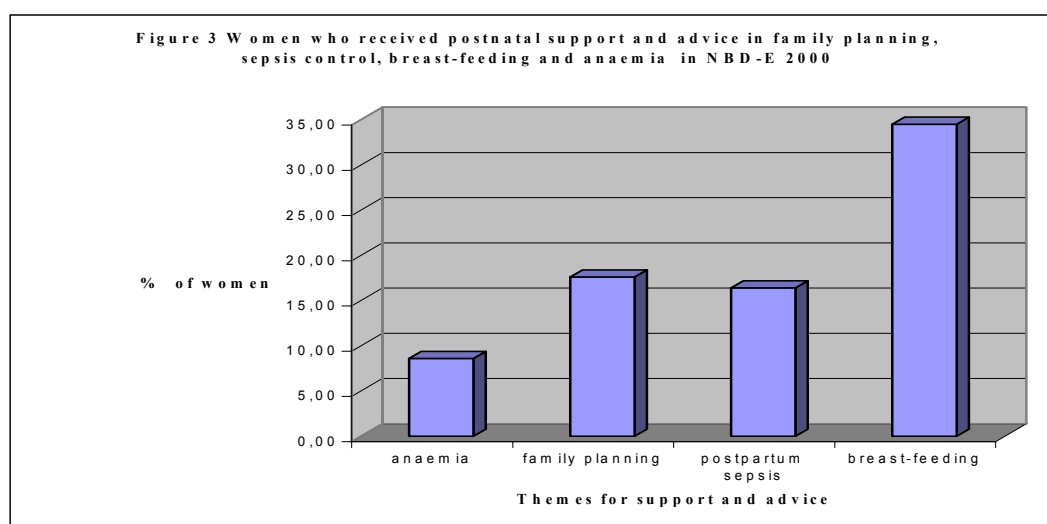
The TBAs visited more than two thirds (87.1%) of the women during the first week after delivery. 74 (73 %) said the TBA only came to bath the baby, 12(12 %) mentioned the TBA massaging their body, 6(6 %) helped the woman to sitz bath,

36(36 %) advised the woman on diet and 9 (9 %) only asked if the woman had any problems.

Only 40 (34.5%) of the women received breast-feeding advice after present delivery (Figure 3). And nurses, traditional birth attendant and family members provided information. Information received as reported by the women included cleaning of the breast before feeding 13 (33 %), exclusive breast-feeding for 4-6 months 15 (38 %), importance of breast-feeding to the child 24 (60%) and use of colostrum 6 (15%).

Asked whether they had any information about anaemia post delivery, only 10 (8.6%) women responded positively, and information centred mainly on dietary advice.

Only 19(16.4%) were given information or advice on hygiene, and further only 17(15 %) women had any form of discussions on family planning post delivery. However 74 (68.5%) indicated their desire for family planning services or advice. This includes 8 women who already had information but still expressed a desire for more information



and service.

When the women were asked about their experience in the clinic for the care they received after the most recent delivery, 97(84 %) indicated that they had not received any attention in the clinic after delivery although the children received the required attention. 65 (56.0%) mentioned that mothers should be checked, so that care providers can detect any hidden health problems and provide appropriate help. 14 (12%) women indicated that mothers should be provided with health information after

delivery, which is lacking (for example care of the child, family planning). Several women stated that care for mothers should continue after delivery, with as the main reason that “if the mother is healthy she will better care for the child”. 14 (12%) women reported that they thought mothers do not need any attention if they are not sick or have any problems after delivery, and 17 (15%) women had no opinion on whether postnatal care is necessary or not.

## **CHAPTER 7**

### **DISCUSSION**

#### **7.1 TRADITIONAL BIRTH ATTENDANTS' INTERVIEWS**

*The results of this survey show that there is a need to improve knowledge and practice of the TBAs in the four components the survey examined. The study further revealed that there is room for improvement demonstrated by the positive attitudes of the TBAs on all the four themes. TBAs have shown that they were willing and were prepared to in-corporate new ideas from training by formally making requests to upgrade their knowledge and skills in areas where they thought they needed it.*

*The combination of availability and acceptability of traditional birth attendants in rural areas increases their potential to improve the health status of women and children in their communities. This potential has long been recognized, and from the early 1970s the WHO has actively encouraged countries to establish TBA training programs and utilize them as extensions*

*of their maternal and child health services (Eades et al. 1993; Solomon and Rogo 1988)*

*Recently questions have been asked whether TBA training can actually help improve maternal outcomes at all and that training TBAs may not be worth the resources (Refs). There seems to be no consensus on what to do with this major and continuing workforce in maternity care.*

*A recent study in Ghana found no statistical difference in eight of 10 indicators for whether TBA training resulted in better health for mothers (Finger 1997). Evaluation of TBA records in Andhra Pradesh, India, showed no decrease in death rates (Eades 1993).*

*It is almost impossible to make a categorical statement about the impact of TBA training on maternal mortality. There are however indicators which point to the fact that TBA training produces positive results. In the Farafenni area of the Gambia (where this study was conducted) the maternal mortality fell to half the pre-intervention levels 3 years after the introduction of a primary health care programme including TBA training. The authors*

***acknowledged that improved transportation also might have contributed to this decrease (Greenwood 1990). TBAs have been instrumental in bringing maternal mortality down to the lowest rate in the Indo-Pakistan subcontinent (Kamal 1992). TBAs have also contributed to maternal and neonatal health in southern highlands of Papua New Guinea (Alto 1991)***

***The provision of a health worker with midwifery skills at every birth, plus access to emergency hospital obstetric care is considered the most crucial intervention for Safe Motherhood. The resource implications of providing a professional midwife for each home birth are considerable and have been described (Walraven 1999). Until all women and children have access to acceptable, professional health care services, the majority of rural women in many developing countries will continue to utilize the services of the TBAs. The training of the TBAs shall continue and the training programs should include ongoing support and supervision.***

***In many countries traditional birth attendants assist 60-80% of deliveries (Leedam 1985, Kamal 1998). The acceptability of TBAs in rural areas increases their potential to improve the health of women and children***

*in their communities. Even when the services of a midwife or physician are available, many women prefer the services of a TBA. Ekaren et al (1975) found that reasons for preference for a TBA had little to do with scarcity of hospitals and maternity clinics. The patients' perceptions of TBAs that they are experienced, kind, have skills and interest in the welfare of the baby attracted the clientele. Williams and Yumkella (1986) found that 85% of mothers preferred TBAs because they were easily accessible, friendly and kind during delivery, and were less expensive than a hospital delivery. Sargent (1985) found that clients and TBAs share similar beliefs, values and ideas about the cause of illness. The TBAs duties included healing activities, which patients found valuable. These additional services and perceived socio-cultural similarity may explain many women's preference for a TBA even when modern facilities are accessible (Eades et al 1993).*

*The Department of State for Health in The Gambia has accepted the existence of TBAs as a reality which cannot be obliterated for some time to come, and the idea of increasing the number of trained TBAs has been given high priority (Department of State for Health 1998). As in many other developing countries,*



***in The Gambia most deliveries occur at home (WHO 1997). And therefore most activities surrounding the delivery and puerperium are heavily influenced by traditional beliefs and practices. The strength of the TBA stems from the fact that she is part of the cultural and social life of the community in which she lives. Her weakness lies in the traditional practices, which may be dangerous and harmful. Therefore training to improve the TBAs knowledge and practice is a welcome idea. With suitable training and supervision these dangers can be minimized and her potential used to improve the health of mothers and babies (Leedam 1985).***

Training could help to unlearn wrong information, especially information which leads to faulty practice that can harm patients as indicated in the findings of this study. Example of this were the TBA asking a woman with puerperal sepsis *“to squat and she expel the cloths by pressing the abdomen; also giving a woman with sepsis local herbs to drink with the intention to reduce the fever and increases the woman’s strength to expels clots; removing the child’s tongue tie, if the child cannot suck because it prevents the child from suckling”*.

Solomon (1989) also identified some risky practices among the TBA (for example the TBAs did not observe sterility and asepsis. The TBAs also used herbal medicines during the antenatal period and delivery and these were thought to contain ergot alkaloids and cause tetanic uterine contractions. The TBAs handling of the cord was also unsatisfactory) which a training program was designed for. Training must be repeated to produce lasting changes in behavior and maintaining skills. In our study, almost 70% of the TBAs had their official training in the last 6 years, but less than half had in-service training during the past year.

### **7.1.1: BREASTFEEDING**

One of the roles of the TBA is to assist in ensuring a satisfactory establishment of breast-feeding. The TBAs knowledge in breastfeeding was moderate. The TBAs lack knowledge on the appropriate advice they should provide to mothers in order to assist in successful breastfeeding. Furthermore there was evidence that TBAs lacked knowledge to deal with minor breast problems as well.

### **7.1.2: POSTPARTUM SEPSIS**

Puerperal sepsis is among the five leading causes of maternal deaths in the Gambia. The causes of sepsis were not well known to the TBAs, and the TBAs also had poor knowledge in the prevention and management of sepsis

### **7.1.3 POSTPARTUM ANEMIA**

*Anemia is one of the five commonest causes of maternal mortality in the Gambia usually indirectly through the development of complications during and after delivery ( Ministry of Health 1993). Knowledge of causes of anemia was poor. Only two traditional birth attendants knew more than two causes of anemia. But again the TBAs realized the seriousness of the disease. Also the dietary advice by TBAs appeared good but this finding contradicts results of the exit interviews (sub-component of the study) with postnatal women where only 10% of the women received such advice. Further evidence is needed in this area.*

***As the first point of contact with the health care sector for many women with life threatening complications, however, the TBA is essential in facilitating timely and appropriate care. Generally the TBAs have recognized the severity of the diseases we studied, an indication of positive attitude. Furthermore TBAs have shown that they are prepared to incorporate new ideas from training by formally requesting for training where they thought training was needed. With improved knowledge, we hope the TBAs will act appropriately.***

#### **7.1.4 POSTPARTUM FAMILY PLANNING**

These study findings suggest that the majority of the TBAs surveyed were unaware of the variety of family planning methods appropriate for breastfeeding mothers. The most widely known methods were the pills and the injections. This could largely be attributed to the fact that the TBAs were only familiar with these methods due to wide spread availability of these methods in the community. Furthermore many women in the Gambia practice family planning secretly, hiding their use of contraceptives from husbands, relatives, and neighbors (Luck et al 2000) .We also noticed during the data collection that many women to ensure privacy leave their family planning appointment cards with the TBAs. The study by Luck et al. (2000) further asserted that many women in this study area perceived the injectable contraceptives to be most effective, convenient, and private method. The TBAs in this study could share the same sentiment with these women by assuming that the injectables are the best and therefore are more willing to promote this method.

The TBAs will not offer counseling on a variety of contraceptive methods if they do not know about different potential methods. Revera & Solis (1997) have intimated that many studies show a large proportion of women wish to regulate their fertility, either by spacing or preventing future pregnancies. However, many of these women do not have access to contraceptive options that would enable them to do so.

According to Bledsoe et al (1994) data from rural Gambia on contraceptive user profiles indicated that older women with no education were the most common users of “high-tech” method depo-provera, while younger women more often relied on traditional measures: herbs, charms and abstinence. An apparent need exists to improve TBAs knowledge on the variety of family planning methods. TBAs have been very instrumental in recruiting women for sterilization and IUCD in Faisalabad (Kamal 1992).

The TBAs are part of the local community, culture, and traditions. In the Gambia, both men and women consider bearing children who survive and grow to maturity an imperative. For a woman, bearing children steadily throughout her reproductive years is the most important way of securing her own welfare, demonstrating her commitment to her husband and his family, and showing respect for her family elders who gave her in marriage (Bledsoe et al. 1994). In the Gambia people attach great significance to birth interval length, pouring scorn on a woman with children born less than about two years apart. Many women therefore actively seek ways to achieving the goal of a two-year minimum birth interval and find the solution in the use of western contraceptives technologies, a phenomenon that appears to be leaving birth intervals and total fertility largely unaltered (Bledsoe et al. 1994). Our survey revealed that the TBAs strongly perceived family planning as purposely for spacing and not considering limiting of family sizes, the above explanation could have accounted for this attitude. Training should be able to change this notion among the TBAs. Male marriage and fertility strategies have been found to have strong influence on over all fertility in the Gambia (Ratcliffe et al. 2000). Therefore in order to obtain a comprehensive community based family planning program male involvement must be prioritized and the TBA training program should take note of this.

This study had pointed out that there was willingness to change among the TBAs. 91% (N =40) of non-ever -family planning users indicated their desire to use family planning if opportuned. This appears encouraging and could be a good opportunity to prepare the TBAs to offer appropriate counseling and family planning services to the women.

One striking view about providing family planning services by one of the TBAs: -“*It is not good. It makes people not to deliver and I will not get what I used to get from them if they’re not delivering.*” This must be taken seriously. Although a single TBA expressed this view, others might share the same sentiment and did not express it. 20% of the PHC villages were not functioning effectively, among the contributing factors identified was the lack of community support (in-kind payments) for these community health workers as had been originally agreed (Department of State for Health 1998). If the TBA’s only source of motivation comes from delivering women, then the likelihood for her to advocate for family planning is very narrow. We cannot conclude on only this finding, however, we must emphasize the need to ensure that the communities fulfill the original agreement between the communities and the TBAs. Other wise alternative means of motivating the TBAs should be considered seriously.

We observed large differences between the responses of the TBAs and postpartum women from their exit interviews. 94% of the TBAs claimed they discussed family planning with postpartum mothers but from the exit interviews (a sub-component of this study) only 3 out of 116 interviewed women said the TBAs talked to them about family planning. This requires further investigation.

#### **7.1.5 TRADITIONAL BIRTH ATTENDANTS UNDERSTANDING OF HEALTH PROBLEMS THAT WOMEN MAY ENCOUNTER AFTER DELIVERY**

Postpartum ill health is common (Walraven 2000; Orach 2000; Uzma et al.1999; Fortney & Smith 1996; Bhatia, 1995; Goodburn 1995; MacArthur & Bick1994)

In this study traditional birth attendants understanding of postpartum health problems was poor.

Only 14(26%) of the TBAs were able to mention at least three health problems that women may encounter postpartum. The probable reason may be that the TBAs did not recognize most conditions as illness, but they are aware of these conditions. Therefore it seems that postpartum health problems are unlikely to be treated adequately in the study area.

Goodburn et al. (1995) in their study in rural Bangladesh on beliefs and practices regarding delivery and postpartum maternal mortality found out that participants considered the passage of blood after delivery beneficial in that it is believed to cleanse the birth passage. The Goodburn study also reported that the excess smelly white discharge was identified as a common problem after childbirth. The unpleasant smell was attributed to eating fish, and a mash of chilis, garlic and cumin was considered to be good treatment for it. In other cases, foul smell was attributed to evil spirit. They concluded that women in the study area would not actively seek treatment with antibiotics or consider consulting a formally trained health worker for this condition (Mothers of all ages and TBAs were included in this study). The keys to

prevention of postpartum mortality are primary prevention, early detection and secondary prevention (Li 1995). Therefore an apparent need exists to improve traditional birth attendants knowledge to recognize postpartum health problems and refer early to appropriate levels for management.

## **7.2 NURSES' INTERVIEWS**

*The study was able to identify that health workers have some idea about postnatal care. Level of knowledge and practice in all the four components studied was reasonable but there is still room for improvement. We identified deficiencies in knowledge and practice in the ten steps to successful breast-feeding, classification and management of anemia, causes and management of postpartum sepsis at the various levels of health care, and the appropriate family planning methods after delivery.*

*There were some differences between midwives and non-midwives in knowledge in anemia and breast-feeding, however, the differences were not major if all the components studied were taken into account.*

*The single most critical intervention for safe motherhood is to ensure that a health worker with midwifery skills is present at every birth, and transportation is available in case of an emergency. A sufficient number of health workers must be trained and provided with supplies and equipment especially*

*in poor and rural communities (Stars 1997). Chronic staff shortage has been an issue at Department of State for Health, and the training of midwives remains priority (DoSH 1998) The demand for midwives is great and the Department of State for Health cannot overcome this problem in the short term. Therefore it is wise to further make maximum use of existing staff by giving them proper training and supervision. If health workers without midwifery skills supervise the TBAs as well as perform other maternal health functions, they need additional skills to effectively perform.*

*When we analyzed the staff composition by cadre, more than two thirds of the participants, who provide maternal care, had no midwifery skills. One third of these staff are village based and supervise the traditional birth attendants. It is therefore imperative that that staff at local setting carry out tasks they are not assigned, simply because they are the only staff available. They lack training ironically because the tasks fall out side their job descriptions. Therefore policy changes as to the functions to be performed by different members of the health team, to be based upon the potential for reducing mortality and*

***morbidity are essential for effective delegation of responsibility, training and practice.***

***Koblinsky et al and Tom et al. (in Hardee and Yount 2001), have intimated that local illiterate or literate health workers given proper training and supervision, can successfully perform a variety of tasks normally reserved for more highly trained personnel. In this study we observed less significant difference between midwives and non-midwives in most of the components surveyed. We largely attribute this lack of differences to individual experiences gained from carrying some of the tasks in their routine work. However, we cannot rule out the contribution of midwifery training to the average better knowledge for the midwives in anemia and breast-feeding.***

***Development of human resources for safe-motherhood, through in-service, skills based and initial training as well as through continuing training is a prerequisite for success. Staff should be trained in settings closely resembling those in which they will be working (WHO 1998). A good number of staff received in-service training in reproductive health the past year. The most striking was the major imbalance in number of staff trained in the different areas. Given***



*the fact that training was universal and there was less staff turnover, the reason for the difference could be that there was no post training assessment and retraining and therefore staff could not remember what they were previously trained on. When we design training programs, it is equally important to incorporate follow-up, assessment and retraining to ensure that training achieves the desired goal.*

#### **7.2.1 BREAST-FEEDING**

*Virtually all of the community-based programs that have resulted in reductions in malnutrition have focussed on improvements in infant feeding, especially the promotion, protection and support of breastfeeding (UNICEF 1998). In 1991 WHO and UNICEF jointly launched the Baby Friendly Hospital Initiative (BFHI), which aims to give every baby the best start in life by ensuring a health care environment where breastfeeding is the norm. The initiative is based on the principles summarized in a joint statement issued by the two organizations in 1989 on the role of maternity services in protecting, promoting, and supporting breastfeeding. To become truly baby-friendly, hospitals and maternity ward around the world are giving practical effect to the*

***principles described in the joint WHO/UNICEF statement that have been synthesized into Ten steps To Successful Breast feeding (Saadeh & Akre, 1996).***

***One of the roles of the health workers is to promote, protect and support early and exclusive breastfeeding. WHO (1998) have emphasized that early exclusive breastfeeding should be promoted for all infants. Health workers, families and mothers should be made more aware of the benefits of breastfeeding and the dangers of any thing other than exclusive breastfeeding. It further emphasized that the appropriate steps should be taken to change hospital practices in accordance with the “Ten steps for successful breastfeeding”. Health workers should also be trained in the skills necessary to support breastfeeding mothers.(baby mother package). Breast-feeding is universal in the Gambia but exclusive breast-feeding is rare and weaning foods are introduced by the age of 3 months (Janneh I. 1998, Walraven et al. 2000).***

***Our findings of this survey indicated that health workers lacked knowledge in the ten steps for successful breastfeeding. 55% of the respondents could not recall any one of these steps. This was a***

***clear indication that the health facilities were not fully baby- friendly .The lack of knowledge suggest training and supervision for the health workers in order for the facilities to be able to effectively implement this initiative. The BFHI brought a structured program to breastfeeding support, and in just six years, has helped transform over 12,700 hospitals in 114 countries into Centers for good infant feeding (UNICEF 1998).***

***Postpartum breast problems are common. Glazener et al (1995) in their Grampian study on postnatal maternal morbidity, found out that 33% of mothers experienced breast problems in the first two weeks postpartum and 28% in the weeks after. Common problems included engorgement, nipple pain, inverted nipples, and mastitis. The study intimated that this could be an underestimation as women may have reported these problems elsewhere as baby feeding problems or have perceived it as normal.***

***In our study health workers indicated less competence in the management of minor breast problems. Breast problems have been cited as reasons for stopping breastfeeding, but research has shown how to treat or avert them (Glazener et al 1995).***

***Therefore we could improve on breastfeeding rates and minimize the massive discomfort mothers experience from breast problems through training of health workers who would adequately manage and provide better education for the mothers. Improving the knowledge of health workers in breast-feeding would further foster integration of postpartum care. Maintaining full breast-feeding for up-to around six months has benefits for both mother and child. However results of this survey have shown that health workers emphasize breast-feeding benefits to the child only. Apart from the benefits for the child, women benefit from breast-feeding as a family planning method, by having speedy involution of the uterus after delivery, decreases postpartum bleeding, and may also protect from breast cancer (Blaney 1997).***

#### **7.2.2 POSTPARTUM SEPSIS**

*Puerperal sepsis is the main life-threatening condition of the postpartum period. Globally it is estimated that 15% of all direct obstetric deaths are due to sepsis. Most deaths from sepsis occur during the second week after delivery, but the infection is usually established during delivery or early in the first week. Our study identified that health workers could recognise puerperal sepsis but the causes were not well known to them.*

*Community factors which increase a woman's risk of developing puerperal sepsis and of dying from it, include: delivery by untrained traditional birth attendant; traditional practices such as insertion of foreign objects and substances into the vagina, lack of transportation and resources; distance from the woman's home to the facility; the inadequacy of the health facilities which are often ill-staffed and ill-equipped; cultural factors which delay care seeking behaviour; the lack of knowledge about signs and symptoms of puerperal sepsis and of its risk factors; and the lack of postnatal care (Abouzahr et al. 1998).*

**According to Li (1996) sepsis is the most preventable of all postpartum morbidity. "Vigilant attention to hygiene during delivery, sterilizing labor equipment, materials and delivery room, and using aseptic techniques before and during delivery, regular reinforcement of and attention to necessary supplies (e.g. soap, disinfectants) can prevent much of postpartum sepsis. Treatment of ante-partum infection also can control or prevent severe postpartum infection. Treatment of ante-partum anemia can improve resistance to postpartum infection." The author therefore emphasizes the need for health workers to know more about the causes of puerperal sepsis. This will enable them to use primary preventive measures in their own practice as well as enable them to appropriately educate the communities. The high level of health worker-client contacts at the clinics is an important opportunity to be used to educate the women about sepsis and causes. The community as a whole can be targeted for health education on the major causes of sepsis prevention and the responsibility of families to**

**prevent sepsis. This can only happen if health workers have a good knowledge on sepsis.**

*The great majority of deaths from sepsis can be prevented if complications are detected early and treated promptly. Only 50 % of nurses working at facilities have indicate referral if a woman diagnosed with sepsis does not improve within 48 hrs of treatment. Delay in referral could lead to the lost of the woman's life, therefore improving health workers knowledge on proper management of postpartum sepsis is also crucial.*

**7.2.3: POSTPARTUM ANAEMIA**

Anaemia is major health problem in both pregnant and non-pregnant mothers in our study area (Walraven et al. 2001). Anaemia is very common among women throughout the reproductive age, and contributes heavily to maternal mortality and morbidity (Stars 1997, Walraven 2000, WHO 1998.3). It is estimated that more than 50% of pregnant women in developing countries are anaemic (WHO 1992 C). Anaemia in pregnant women aggravates the effects of maternal blood loss and infections at birth, and is thereby the major contributor to maternal mortality in the postpartum period. In our study, only a small number of nurses 7 (22%) were able to define anaemia for pregnant and lactating mothers as haemoglobin below 11 g/dl. Furthermore only one nurse was able to classify anaemia into the 3 different levels of severity with haemoglobin levels correctly stated.

The major causes, malaria, poor nutrition and bleeding were well known but other causes such as worm infestation and frequent pregnancies were not so well known. (The total fertility rate in the study area was recently estimated at 6.8 (Ratcliffe et al 2000). Hook worm infestation and too frequent pregnancies have been implicated for causing anaemia (WHO 1998, World Bank 1997). The ultimate end result, death, as a possible consequence of anaemia was well known. However the less serious consequences that could pose health problems were not well known. The health workers were also familiar with the signs and symptoms of anaemia.

It is very important to detect anaemia and diagnose its causes early so that treatment can start before the patient is very ill. The limited number of health workers able to define and classify anaemia was surprising and this could adversely affect their reaction to an anaemic woman. The misguided perception of health workers that

anaemia is not a serious problem is an obstacle in anaemia reduction programs (Walraven & Weeks 1999). In a recently concluded study in the same study area by Gosling et al. (2000), by reviewing the recordings of the management decisions made by the CHNs during a study period found that only six out of the nine patients with Hb estimation < 4g dl were referred in agreement with guidelines. The reasons for the inaction by the CHNs was not stated, but could have been an underestimation of the public health importance of anaemia. Screening for anaemia demands both correct measurement and interpretation of findings. The need is therefore obvious to provide adequate training for the nurses in anaemia and strengthened by regular supervision as part of an over all postnatal package.

#### **7.2.4: POSTPARTUM FAMILY PLANNING**

***Some of the knowledge and practice rates we examined indicated much room for improvement. Results have shown that health workers may have their preferred choices of contraception when they counsel or advise mothers of family planning. Only a limited proportion of 68% mentioned family size limitation and /or spacing as compared to 100% who mentioned spacing of the family when they described family planning. Sterilization was not mentioned as a method. Women may be interested in both limiting and or spacing of family size but may not be aware of the contraceptive choice available to them. There is need to emphasize on this during training.***

***Combined oral contraceptives are not recommended for mothers who are breastfeeding less than 6 months, unless other acceptable choices are not***

*available, since estrogen can diminish the amount of breast-milk. 81% of nurses recommended combined oral contraceptives for this period. However this could be due to the lack of sufficient supplies of appropriate choices or they do not know it. The limited number of health workers that provide other postpartum contraceptive options is also striking. There is need to in-cooperate and emphasize on postpartum family planning during training.*

*The Bellagio Consensus Conference on breast-feeding as a family planning method established that mothers not using family planning, but who are fully or nearly fully breast-feeding and amenorrheric, are likely to experience a risk of pregnancy of less than 2 percent in the first six months after delivery. This conclusion came to be known as the “Bellagio consensus” (Kennedy et al 1996). The efficacy of LAM was demonstrated in a clinical study (Short et al. 1991). Only a reasonable number of 18(58%) of the nurses /midwives were able to define lactational amenorrhea method. Further more the advice to ensure an effective practice of LAM was not sufficiently understood. Given the universal breastfeeding practice in the Gambia, health workers*



***can effectively promote LAM in the communities if they have the technical information as well as the appropriate communication and counseling skills. Promoting LAM would foster integration of postpartum care. The full benefits of optimal breastfeeding have been described elsewhere (Janneh I 1998).***

### **7.3 FOCUS GROUP DISCUSSION**

A number of specific operational barriers that hinder postnatal care services were outlined. Staff densities, lack of supervision, technical in-competence, poor supplies, inadequate infrastructure, poor staff attitude, cultural and traditional practices were mentioned as barriers. Each of these is an important obstacle. The lack of attention on postpartum care within the overall health system is an additional problem. However, all the groups recognised and emphasised on the importance of improved postnatal care.

Postnatal care, as it is currently delivered, is largely concerned with infant health rather than with the mother (Bulut and Turan 1995, Walraven 2000b). This is consistent with the findings of these group discussions. Postpartum care receives little attention because participants felt that the general impression is that “*It is not important to provide any more care for the woman since the woman has undergone normal delivery*”. This perception could be the main factor responsible for not providing postnatal care.

The groups realized that postpartum care is crucial for each woman and suggested that both antenatal and postnatal services be provided under the same umbrella through integration of these services. The most fundamental rationale for integrated services is the likelihood that programs will be better able to help clients meet their reproductive health needs (Simmons et al 1990, Robey et al. 1996). The idea of integration is welcome, it would mean better efficiency by requiring fewer worker-client contacts, minimizing duplication and sharing facilities. The issue of lack of privacy as a barrier would be addressed, because the antenatal clinics are generally private and would be a suitable place for providing family planning.

It would be good to make a few observations while implementing this initiative. If we combine the traditional antenatal clinics with other services, the community needs to be well sensitized, well informed and motivated in order for them to make use of the integrated services. The patients might think that they have to wait too long for services or without proper introduction, certain components of the programs might not be utilized. For example, in the Gambia, as in much sub-Saharan Africa, people attach great significance to birth interval length, pouring scorn on a woman with children born less than about two years apart (Bledsoe 1994). Therefore a mother wanting postnatal family planning might fear to come, thinking that people will say she is pregnant.

The community needs to be aware of postnatal care as a logical next step after antenatal care and delivery, as the participants recommended. This should go along with educating the community on components of postnatal care. The community further needs involvement in the health promotion programs, to promote ownership and to ensure sustainable development.

Many women do not use contraceptives because their husbands oppose to it (Robey et al 1996). Meekers and Oladusu (in Robey 1996) mentioned that especially in sub-Saharan countries, family planning programs might have been hindered by focusing mainly on women since family planning decisions are usually made either by the couple jointly or by the male partner. Both findings are consistent with the findings of these group discussions. Therefore the idea of groups recommendation to focus on men as well as women is realistic and crucial to family planning. It is unlikely that women's needs will be met until men's needs are addressed as well. Programs can make men high priority audience and clientele for family planning information service and encourage better communication between wives and husbands about reproductive matters. (Robey et al 1996).

Participants at the focus group discussions suggested providing information about the postpartum period already during antenatal care and to involve the husbands. Bulut and Turan (1995) have discovered that, given the choice of timings, more than 80% of women prefer postnatal information before they give birth. The Bulut study also recommended providing information to couples regarding postnatal services. Given

the large proportion of women who seek antenatal care, is an important opportunity to utilize.

***The practice that women stay indoors for one week after delivery was mentioned as a potential barrier to postnatal care. This should be taken into account in the design of postnatal care programs, as a change in this custom is unlikely.***

Cultural practices and the community's unwillingness to accept new ideas from health workers or to change from their old practices was an issue mentioned by the participants in all the themes discussed. This was one of the barriers to postnatal care. It is in the opinion of the author that the health workers were some how defensive during this discussion, shifting much of the blame on the community without much self-assessment. In order for the health workers to address cultural and traditional barriers to service delivery, the use of appropriate, understandable and practical examples are important. Giving pre-lacteal feeds as well as water in addition to breastfeeding happens often. However, through discussions, community-members recalled that their new born animals breast-fed only without drinking any water for an unspecified period, yet they did not die. Based on this reasoning, the practice of exclusive breastfeeding seemed credible for human babies (Janneh I 1999).

The author strongly believes that addressing cultural barriers has more to do with what the health workers know and how the information is communicated to the communities. This is a better argument for the author than shifting responsibility on the communities for deliberately not accepting new ideas.

**The lack of knowledge on the side of TBAs and health workers as a barrier to providing PNC was mentioned during the discussions. Inadequate knowledge as a barrier to quality care has been mentioned elsewhere (Simons 1990, Abouzahr et al. 1996, WHO 1998, Rivera & Solis 1997). Adequacy of staff training has been cited as an issue by participants also discussed elsewhere (Abouzahr et al 1996, Li X.F et. al 1996, Walraven & Weeks 1999, Blaney 1997, WHO 1998) to improve knowledge and practice and to change staff attitude.**

The need and benefits of training cannot be overemphasized. However, it is worth evaluating the training provided over a period of time. The Gambian Department of State for Health conducts a lot of in-service training but the impact of training on

service delivery had not been evaluated. For staff to attend training is an incentive for them, because every training goes along with financial benefits to participants. Therefore it cannot be ruled out that, training as means of receiving incentives could be one of the factors for recommending further training by the participants.

Deficiencies in essential supplies have serious implications for several reproductive health components (Hardee and Yount 2001). In the discussions, the lack of essential supplies and equipment were mentioned as barriers to providing better services. The frequently mentioned were the lack of HB machines, iron tablets, injectable contraceptives, and other consumables. In Bangladesh, a field worker can identify a basic medical need, such as iron for anemia, but she must rely on hospital referral because there is no basic field distribution of iron tablets (Simmon et al.1990). The barriers to the regular provision of medical support and supplies include resource limitations, inadequate storage capacity, untimely or inaccurate projections for needed supplies, irregular monitoring of supplies use and poor management of available resources (Hardee and Yount 2001). The idea of providing basic medical support is a welcome idea. The health workers will require some support to make better projections for their supply needs to prevent shortages. However, it is incumbent on supervisors to adequately monitor the supplies to ensure their proper usage.

The fact that the haemoglobin meters were all broke down affected the diagnosis and treatment of anaemia. Recently there has been a study on the Hb colour scale as developed by the WHO (Gosling et al. 2000) The results were positive, however after the experiment implementation of the colour scale has not followed. This method in itself is an alternative that makes Hb checks at a village level possible and it could be used in home visits to postnatal women.

Participants recommended that home visits should be reintroduced in the health facilities, and motorcycles and fuel should be provided to undertake this task. It is the opinion of the author that this is not feasible in the short term. Expecting health staff to complete an unmanageable number of tasks over a large geographic area can reduce workers morale, motivation, and productivity, work time and can ultimately hinder the quality of care of the program or selected components.

Furthermore when we implement new initiatives, the long-term possibility of sustaining such initiatives have to be considered. Motorcycles had once been provided to some facilities with back up fuel for follow-ups. However the motorcycles are all broken down now and the effects of the use of these motorcycles on the programs have not been evaluated. It would be appropriate to implement sustainable initiatives. The TBAs visit almost 87% of women during the first week after delivery (M'boge et al 1999), and when given proper training and supervision TBAs can successfully perform the tasks. Our aim should now be to provide adequate supervision and fully integrate them into the system

***The lack of supervision was mentioned frequently during the discussions. This was not a surprise finding as it has been cited elsewhere (Family Health Division 1999). The UNFPA (in Hardee and Yount 2001) have described barriers to adequate supervision to include deficiencies in supervisory training, inadequate transportation, unclear definition of supervisory responsibilities, inadequate materials and checklists, and the absence of a reporting system at the peripheral level.***

***As one of the strategies to improve care, the participants have recommended regular supervision from the Health Team as well as regular local staff meetings. Supervision will play a key role in ensuring that workers are able to perform their expanded duties (Hardee and Yount 2001). Effective supervision, including regular appraisals will help workers perform***

***effectively and discourage them from reverting to their old former practices. Supervisors can encourage positive staff interaction. Building effective working relationships at the local level, paying attention to norms of service, leading by example and effective external interaction are characteristics under the direct control of managers.***

***As we plan to implement new initiatives, the training of supervisors should be considered in the overall package. If supervisors are not trained in the new skill of their staff, they will not be able to adequately supervise the new activities. They will also be less likely to encourage staff to use their newly acquired skills (Hardee and Yount 2001).***

#### **7.4 EXIT INTERVIEWS**

Our results suggest the importance of improving and closely monitoring postpartum care as an integral part of the health system or plan.

Our study shows that that most women attend clinics after delivery for child health reasons, but less so far for their own health (Walraven et al 2000). Although not surprising, a relative high proportion of mothers reported symptoms during the postpartum period a large proportion received help from facilities and/or home based.

Only a small proportion (13.8%) of the women received postnatal examination and the important things were done for that matter. In our study, only 16 (14 %) of the total sample were examined at by a health worker during the first 42 days after delivery. 8 (50%) reported that their blood pressure had been measured, 6(38%) had

abdominal palpation, 4(25.0%) had vaginal examination, and 3(19%) had their conjunctiva examined for anaemia. The postpartum visits should have been a unique opportunity for the health workers to ensure that they were able to recognise, detect and manage any postpartum complications (for example anaemia, sepsis, and breast complications). This was also the time women should have had advice and support for breastfeeding, family planning, nutrition, self-care and hygiene and healing.

Bick & MacArthur (1994) have identified that many women do not initiate medical consultation regarding their health, making it very necessary for health workers to devise means of identifying problems in these women. There could be existing problems that could only be identified if dialogue exists between health workers and the women and attention given. According to Blaney (1999) despite special needs during the postpartum period, health services often pay little attention to postpartum care. "In Ecuador for example, three quarters of women go for prenatal visits but only one-third get postpartum care. In a study in two Kenya hospitals, 92% of postpartum women reported that they wanted to use family planning, but only 2 percent left the hospital with a method after delivery. World-wide, about a third of women with an unmet need for family planning are pregnant or have recently given birth."

Less home visits than expected were conducted by the Community Health Nurses. Although not surprising the TBAs visited a significant number of the women during the first week of delivery, also reported elsewhere (Walraven 2000). However the quality of executed visits was insignificant in both Community Health Nurses and TBAs, because important things for a postnatal visit had not been done. Attention was more on the child.

Support and advice to women on the four key areas (breast-feeding, anaemia, sepsis control and family planning) was generally low. However other studies suggest the need to improve these preventive services. Our findings of only 17(15 %) mothers who had any form of support and advice on family planning post delivery while 66 (%) mothers indicated desire for family planning services or advice seems to go with other previous findings (Bradley et al 1993, Roohey et al. 1996).

Results from demographic and health surveys (1985-1990) conducted in 25 developing countries show that approximately 75% of married women in South-East

Asian, Latin American and North African countries and more than half in sub-Saharan African countries want to space or limit births. In all but three countries, less than 50% of married women use modern contraception. Furthermore, 76% of women in North Africa, 72% in sub-Saharan Africa, 57% in Asia and 53% in Latin America, fall into the high-risk categories of "too young, too old, too soon and/or too many"(WHO 1998).

WHO (1998) intimated that maternal and neonatal deaths can be reduced by reducing the total number of pregnancies, especially those that are high risk. Family planning information and services can help avoid births that are unwanted, too early, too close together, too many or too late. Such high-risk fertility patterns contribute considerably to high numbers of maternal and neonatal deaths.

Family planning can reduce maternal mortality in several ways. First, family planning can lead to a reduction in the number of births and, since every pregnancy is associated with some risk, this in itself helps reduce maternal deaths. Second, family planning can help reduce mistimed pregnancies. Although any pregnancy carries a risk of death or disability, some are more risky than others -- for example, those among very young women, women of high parity and those too old. Third, family planning can help to reduce the number of unwanted pregnancies. Unwanted pregnancy is always a threat to woman's health, either because she may resort to unsafe abortion with all its attendant risks or because she is less likely to take care of herself than if the pregnancy was wanted. Some estimates indicate that access to family planning to prevent mistimed and unwanted pregnancies could reduce maternal mortality by up to one third (WHO 1998).

These findings indicate an apparent need for family planning information and service for the population. To promote family planning and to reduce the incidence of unwanted and mistimed pregnancies, we need to improve on the quality and access to our family planning services. Availability and accessibility of family planning information and services is crucial. We need to integrate the services to effectively link the MCH and family planning services. At present family planning services are offered in separate buildings without any formal mechanisms to assist women in moving from one service to another. A major Information Education and Communication (IEC) strategy should be developed, focusing on birth spacing and



birth timing as important health measures for mother and child. Informing and orienting the media about contraception should be an integral part of the effort. It will be essential to target IEC activities at community level and to involve men (WHO 1998)

Only 40 (34.5%) of the women received breast-feeding support or advice after present delivery and the advice was of poor quality. The fact that breastfeeding is universal in the Gambia, traditional birth attendants and health workers could underestimate the mothers' interest in breastfeeding information and support (Winikoff et al 1986). The lack of knowledge among health care providers (Patton et al 1986 & Lewinski 1992) and also underestimation of the importance of breastfeeding education and support for mothers by service providers could all contribute to the poor quality breastfeeding support the women had received. The importance of breast-feeding has been mentioned elsewhere (UNICEF 1997a, Janneh 1998). Our results agree with a recent health seeking behavior survey in the same study area which indicated that one third of the women introduced other feeding in addition to breastfeeding to their newborns within the first four weeks (Walraven 2000) which could be as a result of poor support and advice to the women.

The need therefore exists to promote breastfeeding for all infants. Health workers and communities should be made more aware of the importance and benefits of optimal breastfeeding. The postnatal care package should include breastfeeding as an integral component. Health workers should be trained in the skills necessary to support breastfeeding mothers.

Only 19(16.4%) of our subjects had information or advice on hygiene. Community factors which increase a woman's risk of developing puerperal sepsis and of dying from it, include: delivery by untrained traditional birth attendant; traditional practices such as insertion of foreign objects and substances into the vagina; prolonged labor and lack of transportation and resources; distance from the woman's home to the facility; the inadequacy of the health facilities which are often ill- staffed and ill – equipped; cultural factors which delay care seeking behavior; the lack of knowledge about signs and symptoms of puerperal sepsis and of its risk factors; and the lack of postnatal care (AbouZahr et al. 1998). This strongly suggests the need for improved community knowledge about postpartum sepsis.

Besides continuing attention for proper hygiene during the delivery, one postpartum visit with an emphasis on simple complications as an issue within one week of delivery is a feasible task for the TBA. TBAs visited 71 % of women within a week of

delivery (Walraven 2000). Early detection would involve asking the mother about redness and pain, checking for fever, checking for foul vaginal discharge, and examining the perineum for healing (Li 1996)

Health care providers (health workers and TBAs) and the community should recognise puerperal sepsis as a public health problem. Furthermore they should be given the required competence on how to recognise puerperal sepsis and how it should be prevented. The health care providers' need for appropriate IEC skills to educate the communities about puerperal sepsis is also of crucial importance.

Anaemia is major health problem in both pregnant and non-pregnant mothers in our study area (Walraven et al. 2001). However this study revealed that the required attention to reduce anaemia was lacking. WHO estimates that more than half the pregnant women in the world have a haemoglobin level indicative of anaemia. For developing countries only, the figure is 56% or 61% if China is excluded. Over one-third of all women in the world suffer from anaemia. In some areas of the Indian subcontinent, 7% of women are afflicted by severe anaemia, which is associated with a five-fold increase in maternal mortality.

Iron and folic deficiency are responsible for these anaemia mainly due to diets with insufficient iron and folate content, to reduced bio-availability of dietary iron and loss due to parasitic infections and repeated attacks of malaria (WHO 1998.3). Anaemia in pregnant women aggravates the effects of maternal blood loss and infections at birth, and is thereby the major contributor to maternal mortality in the postpartum period. It is estimated that postpartum haemorrhage claims at least 150,000 maternal lives annually. The predisposing factors, of which anaemia, given its prevalence in developing countries, has to be one of most significant (WHO 1998.3).

Health workers and traditional birth attendants should be trained in the skills necessary to be able detect early, how to manage and when and where to refer mothers who are severely anemic.

It is also important that health workers, traditional birth attendants and the community know the seriousness and magnitude of anaemia in the community so that anaemia can be given the attention it needs. Health workers, traditional birth attendants and families can improve the prevention and treatment of iron deficiency by encouraging

foods rich in iron and foods that can enhance iron absorption. Insufficient iron and folate supplementation in antenatal care is partly a result of late first consultation. This is a case for universal supplementation and therefore community-based distribution in the postpartum period also deserves consideration (Walraven 2000). TBAs can improve the impact of anaemia reduction programmes by counselling women on why, how, and when to take iron and folate supplementation and by supplying the tablets (Menendez et al. 1994). The prevention and treatment of malaria in pregnancy could effectively be addressed by community based distribution schemes (Greenwood et al.1989). Health workers and the community itself remain the corner stone for improving the health of our women. Our existing structures are suited for improving the conditions of our women with minimal resources. What is required is to make optimal use of existing structures by planning appropriately according to the limited resources available.

Health systems support for postnatal care is an important factor for reducing maternal mortality and morbidity. Given the fact that the majority of the women are less educated but highly motivated to make use of the health services, 94% attend child welfare clinics before 30 days (Walraven 2000), and antenatal care coverage was estimated at 90 % (Department of State for Health (DoSH) 1998) this could be an indication that intervention programs to improve women's health also during the postpartum period will be well utilised. The fact that 89 % of our participants acknowledged the need for continued care after delivery, which is consistent with other findings (Bulut and Turan 1995), clearly indicated that women perceive the importance of the care and would not see it as a mere waste of time and energy.

Therefore the issue of postnatal care should now be addressed fully in an integrated approach making use of health system and its collaborating partners. A "Primary Postnatal Care Package" could be developed and tested for its effectiveness in a pilot area. Previous studies have indicated that intervention programs can be of value even with minimal resources (Greenwood et al 1990). It might not cost much especially in this case using the current PHC system.

#### **7.4.1: WOMEN'S PERCEPTIONS OF POSTNATAL CARE AND THEIR NEEDS AND DEMANDS.**

***The postpartum period, however a woman frequently experiences it, forms part of the normal continuum of the reproductive cycle. This fact should be mirrored by the services which respect that continuum: quality antenatal and intrapartum care can prepare a smoother postpartum; links between all levels and types of Reproductive Health and Child Health services are vital, although it is important not to medicalise this time unnecessarily. Quality postpartum services are a long-term investment in the future health of women and their new-born (WHO 1998.3).***

***Nonetheless, the importance of this period is often neglected by maternity care despite the importance of this period hence limiting the attention given to women's experience of postpartum care. Most writing about women's birthing experience has so far been concentrated on antenatal and labour care (Rice et al 1999)***

Asking women about their experiences is an important method for obtaining information about postpartum morbidity and a critical step towards defining service needs. A number of recent epidemiological studies take this approach and have been instrumental in raising awareness of the hitherto unacknowledged dimensions of the problem of postpartum morbidity. In southern India a detailed interviews with 3,600 rural and urban women, at least 23% reported one health problem associated with

delivery (Bhatia 1995). In a community-based sample of 122 postpartum women, in Bangladesh, 79% of respondents had at one stage during postpartum period significant illness (Uzma 1999). The Grampian study in which 1249 women were surveyed one week, eight weeks and 12 to 18 months after delivery, 85% had at least reported one health problem within 0-13 days (Glazener 1995).

***A review of available literature indicated women's approval of postnatal care. In the study conducted by Bick and MacArthur (1994) in a large maternity hospital in Birmingham on the attendance, content and relevance of six weeks postnatal examination, few women questioned the necessity of attending a postnatal assessment when asked if they had any comments on their postnatal care. In the Bulut (1995) study, women were asked "even if your health and the baby's health are fine, is it necessary for you to visit a health facility for information and advice after the birth". More than 93% of the 146 women included in the sample said they thought such a visit was necessary. These findings are consistent with the finding of our study.***

***Despite this period requiring special needs, only scanty research data are available on the perceptions, needs and demands of women postpartum period (WHO 1998.3). Some research was done among women of different ethnic descent who immigrated to***

***developed countries about their experience and views about postnatal care that they had received. Where such data are available, however, the need has been indicated to improve continuity of maternal care services, which may affect women's postnatal experiences with better attention to individual needs (Yelland et al. 1998, Rice et al. 1999).***

In a study conducted by Yelland (1998) in Australia, to investigate the support, sensitivity satisfaction among 107 Filipino, 107 Turkish and 104 Vietnamese women's experiences of postnatal hospital stay. Overall satisfaction with care was low, and one in three women left the hospital feeling that they required more support and assistance with both baby care and their own personal needs. Of interest is that a number of women in that study commented on the rooming-in policy practiced in many maternity hospitals. Since they had to actively participate in looking after their baby. The women felt they could not rest properly, particularly at night and that staff should have provided more assistance with baby care and the woman's own personal needs to enable this (Yelland 1998). This finding supports findings of other research (Rice et al, 1999). Further, the Yelland study revealed that one third of all women who breast or mixed fed also wanted more help than they received.

***In another study on women's views of postnatal care by midwives at south Austria, women answered the question 'what was most helpful' in their own words. They responded "emotional support; questions answered; information available; information volunteered; help with breast feeding; help with baby care; and physical care". However in that study a significant number of women had their stay in hospital***

***marred by insensitive and judgmental attitudes, conflicting advice and were excluded from decision making by midwives. Comments about midwives having a preoccupation with policies and rules were common (Stamp and Crowther 1994).***

Kline et al (1998) reported in their findings that mothers were dissatisfied with the information they received about their own health, particularly about the postpartum period. Often these women wished for basic information about postpartum depression, fatigue, and when to expect the resumption of their health. Women felt poorly prepared for the postpartum period in part because functional health consequences are not well understood.

In Stamp and Crowther (1994) (Cartwright 1979; Lipsett, 1984; Seguin et al, 1989; Percival 1991) from studies investigating women's perception of their care were all quoted to have agreed that women want appropriate information, to feel in control, to be actively involved, and to be treated with sensitivity, but frequently these needs are not met.

In the Bulut (1995) study conducted in Istanbul, to discover the family health care needs in antenatal, delivery, and postpartum periods, it was discovered that women wanted information on spectrum of topics related to maternal and child health. Topics most frequently mentioned included infant care, breastfeeding, nutrition, and family planning. Fishbein and Burggraf (1997) in their descriptive study of maternal concerns at 2 weeks and mothers' ability to function in various roles, reported that women's early concerns about themselves relate primarily to perineal sutures, breast care, fatigue, and return of their normal figure. These findings suggest that additional education by nurses in hospitals about care of sutures and breast discomfort is needed.

The above findings illustrate that individual women's needs for care differ and that care needs to be re-orientated to address individual needs of these women. According to WHO (1998.3) partly based on the scarce in the literature, but mainly on personal experience of members of a technical working group on issues relevant to the postpartum period, formulated the needs of women as follows: -

**INFORMATION AND COUNSELLING ON**

- ◆ Care of the baby and breastfeeding
- ◆ What happens with and in their bodies including signs of possible problems
- ◆ Self care and hygiene
- ◆ Sexual life
- ◆ Contraception
- ◆ Nutrition

**SUPPORT FROM**

- ◆ Health workers
- ◆ Partner and family-emotional and psychological
- ◆ Health care for suspected or manifested complications
- ◆ Time to care for the baby
- ◆ Help with domestic tasks
- ◆ Maternity leave
- ◆ Social reintegration into her family and community
- ◆ Protection from abuse and or violence

Regarding the preferred source and timing of information, most participants in the Bulut (1995) study said that they preferred to go to a health facility for family planning counseling and services. Several of the women would prefer to have someone visit them in their homes, while others believed either mode was acceptable. Most women would prefer to be given information on infant care, maternal health, breastfeeding, and family planning while they were pregnant. Given the large proportion of women that attend clinics, an important opportunity could be utilized. Kenny et al. (1993) reported that women choosing domiciliary care and women choosing hospital care had different expectations of their postnatal care, but were largely satisfied with the quality of care they chose. The women who chose domiciliary care rated their postnatal care more highly than the women who stayed in the hospital, thus reinforcing the importance of providing women with choices for maternity care which best suits their needs.

However according to WHO (1998.3) a vast majority of women and new-borns needing care are in the community, whether urban or rural, through out the postpartum period, and many will not access formal health system for care even if it is available. Complex patterns of traditional support exist in many societies to provide protection and nurture for around seven to forty days. Therefore formal care provision should build on this pattern and provide an appropriate postpartum care.



## **7.5 LIMITATIONS OF THE STUDY**

*This study, like most in this area, is limited by its very nature. Some TBAs and nurses reported practices inconsistent with routine postnatal care; assessment of behavior by a questionnaire is fraught with real bias, presumably towards perceived correct response. Furthermore the presence of the researchers could have influenced the TBAs and nurses to say what they perceived as correct practice but in real practice it is not done. A limitation of interviews has been the probable difference between what the TBAs say and what they actually do (Lewis et al 1985). A participatory observation without actual questioning of the TBAs and nurses could have provided better explanation. The researchers could accompany a few TBAs and nurses during some weeks practice to actually observe what they do.*

*Furthermore when doing focus group discussions the researcher always has some influence on the results. In this study the co-researcher being a stranger with a white skin and me a former member of the Divisional Health Management Team in the NBED might have caused a bias in the results. During the discussions the participants seemed to be very open, however it could always be that some people still felt shy in expressing themselves and so keeping information behind.*

Furthermore we cannot generalise the findings of our of the focus group discussions.

## **CHAPTER 8**

### **CONCLUSION/RECOMMENDATIONS**

#### **8.1 TRADITIONAL BIRTH ATTENDANTS' INTERVIEWS**

TBAs knowledge and practices were found to be poor in all the five components studied hence the need for improvement.

The areas in which the TBAs need improvement according to this survey are:

- ◆ Breast-feeding – reasons why breast-feeding is good, advice that can be given in order to assist mothers in breast-feeding, management of tender and swollen breasts, assisting in breast-feeding problems.
- ◆ Sepsis – signs and symptoms of sepsis, causes of sepsis, advice on preventing sepsis.
- ◆ Anemia – causes of anemia, signs and symptoms of anemia (especially moderate anemia), dietary advice in relation to the health of the mother.
- ◆ Family planning – family planning as a way to limit family size and contraceptive options available.

The TBAs need regular in-service training to maintain their skills and also to produce lasting changes in behaviour. The Department of State for Health will require providing skilled trainers, designing appropriate training methodologies and materials for an effective training of the TBAs. Furthermore it is important that TBAs are regularly supervised. If the TBA is not regularly supervised there is the tendency for the TBA to slide back into her old ways.

The TBA training manual, which has been developed since the inception of the TBA training program in the Gambia, should be reviewed to incorporate current issues.

This study strongly recommends the revitalisation of the scheme for the communities to provide in-kind support to the TBAs. The communities originally agreed to offer some help to the TBAs, however several studies have shown that this has not been forth coming.

## **8.2 NURSES' INTERVIEWS**

*There was room for improvement in all the five components studied. The ministry of health should provide written protocols and guidelines that clearly define steps for routine management and the management of complications in the postpartum period. These should be made available to health workers and should be used.*

This study recommends improvement in the following areas among others:

- ◆ ***Breast-feeding knowledge in the ten steps for successful breastfeeding and the management of minor breast problems.***
- ◆ ***Puerperal sepsis: The causes, the proper management of postpartum sepsis at different levels of health care***
- ◆ ***Anemia: definition, classification of and different levels of anemia***
- ◆ ***Family planning: Improving the knowledge of health workers in LAM. Family planning methods appropriate for postpartum women***

## **8.3 FOCUS GROUP DISCUSSION**

A number of specific operational barriers that hinder postnatal care services have been outlined. Staff densities, lack of supervision, technical competence, supplies, poor staff attitude and cultural barriers among others. Each of these is an important obstacle.

The objective of the integrated services of MCH/FP has been well emphasised however the dimensions of its practicability are yet to be systematically addressed.

From the group discussions we could gather that there is enthusiasm for postnatal care. The lack of postnatal care has been as a result of lack of emphasis on this particular area. "A Primary Postnatal Care Package" could be developed and tested for its effectiveness in a pilot area

## **8.4 EXIT INTERVIEWS**

Given the need for postnatal care and information expressed by our respondents and from available literature, it is important that we design services such that these needs can be best addressed. Opportunities exist for health workers to make maximum use of to ensure these women and their families receive comprehensive services. Care should also be reoriented to address women's individual needs since their individual needs differ.

## **8.5 GENERAL CONCLUSIONS**

The prevention, recognition and management of complications depends on experience and training, and regular training of health workers in all forms plays a major role in safe motherhood. What is needed is the development of locally appropriate comprehensive simple intervention plans needed before and during pregnancy, during delivery and after delivery for mothers and newborn linking and maximizing the skills of health workers. The issue of postnatal care should now be addressed fully in an integrated approach making use of the health system and its collaborating partners. A "Primary Postnatal Care Package" could be developed and tested for its effectiveness in a pilot area. We should however note that complex patterns of traditional support exist in many societies to provide protection and nurture for around seven to forty days. Therefore formal care provision should build on this pattern and provide an appropriate postpartum care. Previous studies have indicated that intervention programs can be of value even with minimal resources (Greenwood et al 1990). It might not cost much especially in this case using the current PHC system.

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