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**THE INFLUENCE OF THE SPECIAL “ADOLESCENT”  
CLINIC ON PREGNANT ADOLESCENTS IN THE  
KUMASI METROPOLIS.**

BY

**DR. CHRISTIAN NYARKO ADUAMAN**

A DISSERTATION SUBMITTED TO THE UNIVERSITY OF GHANA,  
SCHOOL OF PUBLIC HEALTH IN PARTIAL FULFILMENT OF THE  
REQUIREMENTS FOR THE AWARD OF MASTER  
OF PUBLIC HEALTH (MPH) DEGREE

SEPTEMBER 2001

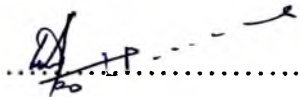
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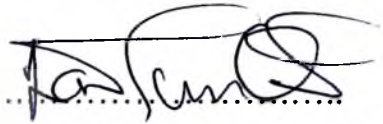
## DECLARATION

I declare that this dissertation has been the result of my own field research, except where specific references have been made, and that it has not been submitted towards any degree, nor is it being submitted concurrently in candidature for any other degree



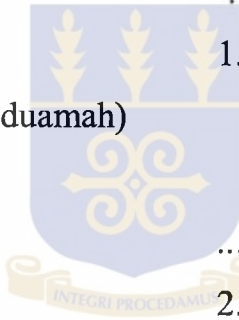
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## DEDICATION

This work is dedicated to my beloved daughter Christabel Aduamah “Mother”, and my Brothers and sisters for the understanding, support and care they gave me during the writing of this dissertation.

May the Good Lord richly bless them all.



## ACKNOWLEDGEMENT

When one climbs a good tree, he gets a good push from people. For this reason, I am most grateful to the Lord Almighty for providing me the opportunity, strength and grace to see me through this Master's programme.

I am indebted to all my lecturers for providing me with the requisite knowledge, which helped me at all levels of my dissertation.

I wish to place on record the enormous support from my academic supervisors, Professor Lawrence Osei and Dr. Clement Ahiadeke, my field supervisor, Dr.(Mrs) Agatha Akua Bonney, for their direction, supervision and constructive contribution during the preparation and the implementation of the research proposal and also the writing up of this document.

I express my profound gratitude for the material, moral, emotional, prayerful and financial support from Rev. and Mrs Edward Kwadwo Berchie, my daughter, brothers and sisters.

I also register my sincere gratitude to the Director, and all the staff of the School of Public Health, the staff of the Kumasi Metropolitan Health Directorate, especially Mrs. Christina Tinkorang (a research assistant) and the other workers who

assisted me in the data collection.

I am also grateful to the staff of the Regional Health Administration especially Mr. Francis Kwaku Simons (Biostatistician) and those under his department.

I also thank all the Nurses and Doctors in the Kumasi Metropolis for their support, and the respondents whom I came into contact during the period of the research.

Finally I thank all those who helped me in diverse ways, and I say, May the Good God Almighty Richly Bless them.

## LIST OF ABBREVIATIONS

ANC	- Antenatal Clinic
BAK	- Bosomtwe Atwima Kwanwoma
DHS	- Demographic Health Survey
FGD	- Focus Group Discussion
FH	Family Health
FM	- Frequency Modulation
GDHS	- Ghana Demographic Health Survey
KMHD	- Kumasi Metropolitan Health Directorate
LBW	- Low Birth Weight
MCH	- Maternal and Child Health
MDAs	- Ministries, Departments and Agencies
MHMT	- Metropolitan Health Management Team
MOH	- Ministry Of Health
NGOs	- Non-Governmental Organizations
NPC	- National Population Council
PPAG	- Planned Parenthood Association of Ghana
RHD	- Regional Health Directorate
SPH	- School of Public Health
TV	- Television
USA	- United States of America
WIFA	- Women in Fertility Age
WHO	- World Health Organization
YDF	- Youth for Development Foundation
YW/MCA	- Young Women/Men Christian Association

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## ABSTRACT

The purpose of this study was to assess the influence of the Special “Adolescent” clinic on pregnant adolescents in the Kumasi Metropolis. The study population included 370 respondents, out of which 61.6% (228) were recruited from the Special “Adolescent” clinic, and 38.4% (142) from the mixed antenatal clinic. The median age was 18 years, with a standard deviation of  $\pm 1.319$ .

From the study most of the formal unions in the pregnant adolescents were from the three northern regions (61.4%). The outcome of the services rendered to the pregnant adolescents at the Special “Adolescent” Clinics was better compared to the Mixed Antenatal Clinic (ANC). The ratio of respondents from the Special “Adolescent” Clinic to the Mixed ANC who knew the purposes of ANC was 3:2. The knowledge of respondents on rest and exercise was higher at the Special “Adolescent” Clinic compared to the Mixed ANC. Knowledge of frequency of ANC visits by respondents was better at the Special “Adolescent” clinic compared to that of the Mixed ANC.

On contraceptives there was comparably poor outcome from both types of clinics. The average waiting time for both types of clinics was 2.5 hours.

It was found out from the study that the pregnant adolescents who attend the Mixed ANC prefer to attend the Special “Adolescent” Clinic. This was because of the attitude of the pregnant older mothers.

Based on the findings, the performance of the Special “Adolescent” Clinic is on the higher side compared to that of the Mixed ANC. It can also be said that the majority of respondents at the Mixed ANC preferred to attend the Special “Adolescent” Clinic. Implying that the Special “Adolescent” Clinic is a better option for the pregnant adolescents.

In conclusion the Special “Adolescent” Clinic should be the model for all pregnant adolescents in the Metropolis and beyond.

# MAP OF GHANA SHOWING THE TEN REGIONS

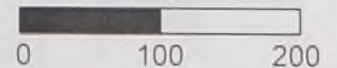


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# MAP OF ASHANTI REGION

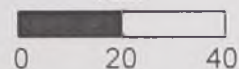
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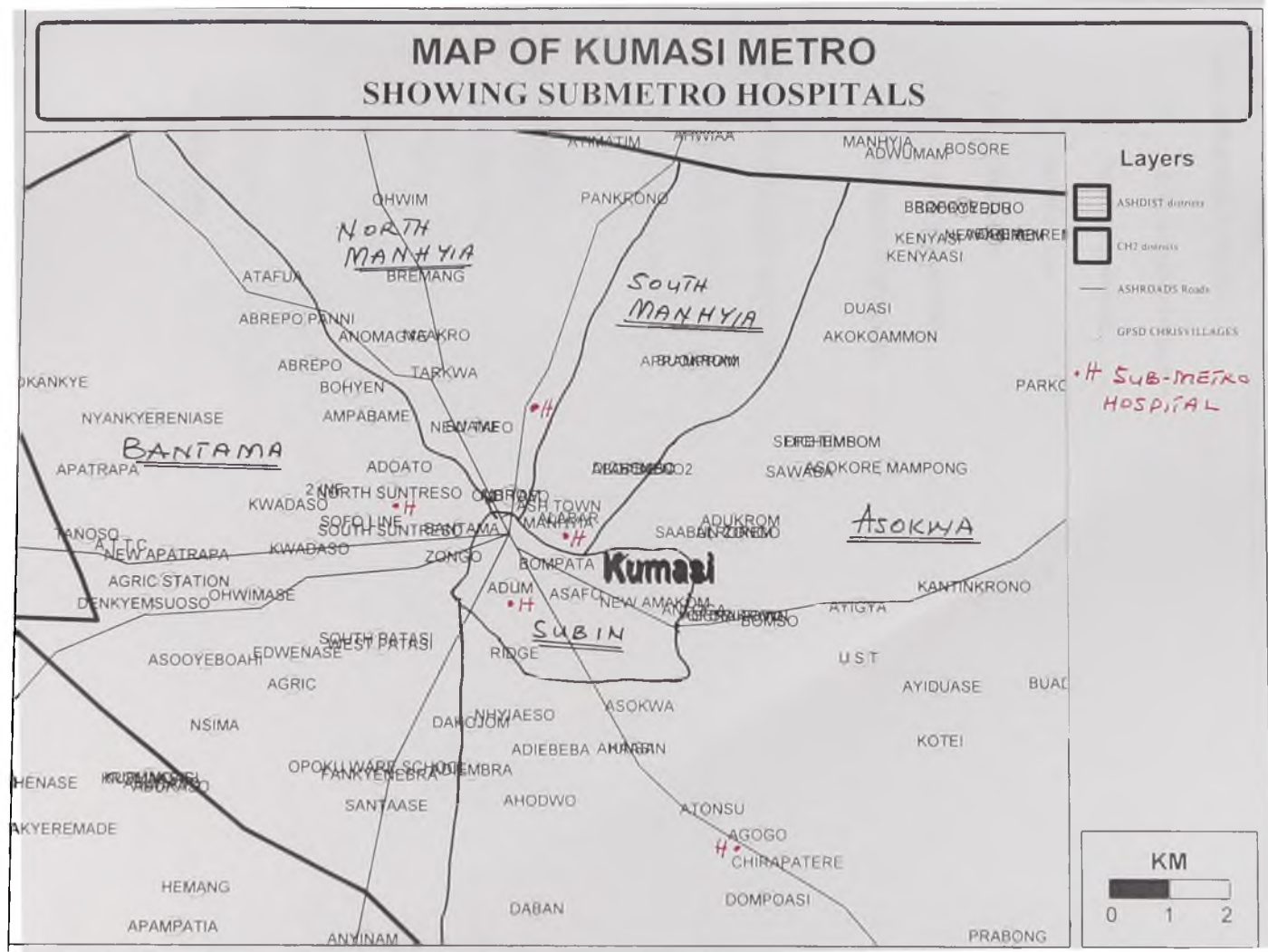
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## CHAPTER ONE

### 1.0. INTRODUCTION

The State of the World Population 1998 approximates that 14 million children are born to adolescents world wide each year, which accounts for 10% of all births. The physical immaturity of many of those young mothers increases their risk of death or serious disabilities; pregnancy related complications are among the major causes of death for girls aged 15 to 19 worldwide (State of the World Population 1998).

In some sub-Sahara African countries as many as 82% of adolescents girls have been married or had premarital sex before the age of 19. Teenage pregnancy rates are difficult to measure, because many pregnancies go unreported or end up in abortion. (Network, 1993). Many adolescents all over the world are sexually active. Their reproductive Health has re become an issue of concern to governments all over the world.

In Ghana the magnitude of adolescent pregnancy is high. According to the Ghana Demographic Health Survey (GDHS) (Ghana Statistical Service (GSS) and Micro International Inc. (MI) 1999), the national teenage pregnancy rate was 14.1% of all adolescent girls in the women in the fertility age group (WIFA). In the same year Ashanti region was 19.6% and the Kumasi Metropolis was 19.5% (KMHA Annual report, 1998). Evidence from literature and informal discussion with the Kumasi Metropolitan Director of Health Services, and the MCH/FP heads in the various Sub-Metropolitan Health Administrations in Kumasi revealed that most teenagers are sexually active before the age of 15 years. And this might have led to the high incidence of adolescent pregnancy in the Metropolis.

During pregnancy the adolescent girls attended the same antenatal clinic (ANC) with the older mothers. It was observed that the pregnant adolescents did not participate fully in

the health education discussions. This could have been attributed to the fact that some of the older mothers were not friendly to the pregnant teenagers or the teenagers felt shy in the presence of the older mothers. It was also observed that the pregnant teenagers did not benefit very much from the health education talks conducted at the antenatal clinics. This was because the nurses probably did not pay attention to the needs of the teenagers, by explaining the risk factors that accompany teenage pregnancy, because they were mixed with the older mothers. These factors prompted the Kumasi Metropolitan Health Directorate to institute measures to take care of the pregnant teenagers. This led to the setting up in 1990 of the Special “Adolescent” Clinic in three out of five government health institutions to take care of the pregnant adolescents. The Special “Adolescent” Clinic has been operating for about ten years, and the Metropolitan Health Directorate has found it prudent to assess the impact of the clinic on the pregnant teenagers.

## **1.1. BACKGROUND INFORMATION**

Kumasi is Ghana’s second largest city and it is about 300 km from the national capital Accra. The Kumasi metropolis is centrally located in the Ashanti Region and in terms of population, it is the largest of the 18 political districts in the region. It has common boundaries with the following districts: Kwabre to the North, Bosomtwe Atwima Kwanwoma (BAK) to the South, Atwima to the East and Ejisu Juaben to the West.

### **1.1.1. POPULATION**

The population of the Kumasi Metropolis stipulated from the 2000 census for 2001 is 1043694, with an annual growth rate of about 3.1%. It is estimated that during the day the population may be about 2,000,000 because of the commercial activities. The population by age grouping is as shown below:

**Table 1.1. Demography of Kumasi Metropolis 2001**

<b>Target</b>	<b>% of Population</b>	<b>Figure for 2001</b>
Children 0-11 months	4%	41748
Children 12-23 months	4%	41748
Children 0-59 months	20%	208718
School Children 6-18 years	30%	313108
WIFA 12-44 years	20%	208718
Expected pregnancy	4%	41748
Expected birth	4%	41748
Adolescents	17%	177428
Men & Women 50-60 years	5%	52184

Source: First Quarter Report 2001 Kumasi Metropolitan Health Administration

### 1.1.2. POLITICAL ADMINISTRATION

Administratively, the Metropolis is divided into four sub-metropolitan areas: Asokwa, Manhyia, Bantama and Subin. The Kumasi Metropolitan Assembly is the highest political authority in the metropolis. It is headed by the Metropolitan Chief Executive (Mayor of Kumasi) and comprises elected and government appointed members and heads of decentralized Ministries, Departments and Agencies (MDAs).

### 1.1.3. HEALTH ADMINISTRATION

Administratively, the Kumasi metropolis is divided into five sub-metropolitan health administrations. The Regional Health Administration (RHA) is the highest body with the Regional Director of Health Services as the head. The Metropolitan Health Directorate is the highest body at the metropolitan level, with the Metropolitan Director of Health Services as the head, whiles the sub-metropolitan health administration is headed by the Medical Officer in-charge of the hospital.

**Table 1.2. Population Distribution per Sub-Metro Health Areas**

Sub- Metropolitan Area	% of the Total	Population
Manhyia South	29%	302671
Asokwa	28%	292234
Bantama	20%	208738
Manhyia North	16%	166990
Subin	7%	73059
Kumasi	100%	1043694

Source – First Quarter Report 2001 Kumasi Metropolitan Health Directorate

## 1.2 PROBLEM STATEMENT

The overall teenage pregnancy rate in Ghana has risen, but the pregnancy rate among sexually experienced teenagers has actually declined by nearly 20% over the past two decades (GSS and MI, 1999). Teenage pregnancy in the Ashanti region and in the Kumasi Metropolis in particular has been on the increase. This could be attributed to the socio-economic hardships, decline in cultural values of the people or due to self and peers pressure on the individuals. Teenage girls who are not supported morally, financially and culturally turn to go wayward and are therefore influenced by peer pressure and possible financial gains from richer men. Culturally some teenagers are given for marriage as early as 12 years usually to older men as a kind of gesture for what somebody has done. This is predominant among some northern tribes who reside in the Kumasi Metropolis. Culture such as “depo/bragoro”, a puberty rite to usher the teenage girls as sexually matured and therefore can have sex or marry has made them to go out to experiment one way or the other. This leads to increase in teenage pregnancy.

From the Ghana Demographic Health Survey 1998, the national teenage pregnancy rate was 14.1%. During the same period the rate in the Ashanti region was 19.6% and that of the Kumasi Metropolis was 19.5% (KMH Annual reports, 1998). There are a number of factors that contribute to the magnitude of the adolescent pregnancy. These include socio-economic (irresponsible parents, that is, lack of parental care, support and control, peer pressure, divorce, orphanage etc.), cultural (“depo/bragoro”, early marriage, beliefs and taboos etc.), education (illiteracy, lack of knowledge etc.), and tourism. Teenager girls are often denied their formal education and employment opportunities, which enhance

decision-making skills and that, can empower them to delay marriage and pregnancy, and refuse unwanted sex (Family Care International 1999). All these factors could account for the high incidence of teenage pregnancy in the Kumasi Metropolis. Literature review and informal discussion with the Metropolitan Director of Health Services, and the MCH/FP heads in the various sub-Metropolitan health administrations revealed that most teenagers are sexually active before the age of 15 years. This might have led to the high incidence of adolescent pregnancy in the Metropolis.

During pregnancy the adolescent girls attended the same antenatal clinic (ANC) with the older mothers. It was observed that the pregnant adolescents did not participate fully in the health education discussions. This could have been attributed to the fact that some of the older mothers were not friendly with the pregnant adolescents. It was also observed that pregnant adolescents did not benefit very much from the health education talks conducted at the ANCs. This was because the nurses did not pay much attention to the needs of the adolescents, by explaining the risk factors that accompany adolescent pregnancy, because they were mixed with the older mothers.

These factors prompted the Kumasi Metropolitan Health Directorate to institute measures to take care of pregnant teenagers. This led to the setting up of the Special "Adolescent" Clinic in three out of five government health institutions to take care of the pregnant teenagers in 1990. The Special "Adolescent" Clinic has been operating for over ten years, however data from the 1997-2000 (Annual reports –Kumasi Metropolitan Health Directorate and Regional Health Administration) show that the adolescent pregnancy is not reducing as expected.

The question is, is the Special "Adolescent" Clinic rather encouraging adolescent pregnancy? From Table 1.3. it is seen that there is no drastic change. From the 1997 and the 1998 values it is seen that there was an increase in both the absolute values and the percentages. Comparing that of the 1998 and the 1999 one there was also a decrease in the absolute figures as well as the percentages. However, comparing the absolute figures and the percentages there was an increase.

**Table 1.3. Adolescent pregnancy in the Kumasi Metropolis and the Ashanti Region**

Year	Expected Pregnancy		ANC Registrants		ANC Teenage Registrants	
	Kumasi	Region	Kumasi	Region	Kumasi	Region
2000	40690	127104	38905	129988	5894(15.1%)	19559(15.0%)
1999	30958	130892	39506	128882	4934(12.5%)	18588(14.4%)
1998	30027	128459	51238	129920	10017(19.5%)	23296(17.9%)
1997	29124	125925	34738	111531	6615(19.0%)	18184(16.3%)

Source – Annual reports –Kumasi Metropolitan Health Directorate and Regional Health Administration

The Metropolitan Health Management Team (MHMT) recognised the high incidence of teenage pregnancy as a major Public Health problem in the Kumasi Metropolitan area (A. Bonney, personal communication).

### 1.3. JUSTIFICATION

Although the causes of teenage pregnancy are deeply rooted in the social fabric of our society innovative adolescent pregnancy prevention programs have been successful and provide examples that can be replicated and adopted throughout the nation. Inherent to the success of these strategies is the underlying need for the teenager to be motivated to prevent pregnancy. We know that emphasizing abstinence and contraceptives alone is not sufficient for adolescents at risk of unintended pregnancy.

The Kumasi Metropolitan Health Directorate has listed teenage pregnancy as one of the priorities of Public Health problems. For that matter the directorate instituted the “Adolescent” clinic about ten years ago to take care of only the pregnant teenagers. Here they educate the pregnant teenagers on the consequences of their pregnancy to their health and what they can do to prevent complications and feature pregnancy before they are ready for it. This study is therefore to evaluate the “Adolescent clinic since its inception. The outcome of the study will therefore contribute to the formulation of adolescent health policies in the Kumasi Metropolitan area.

## **1.4. OBJECTIVES**

### **1.4.1. GENERAL OBJECTIVE**

To assess the effectiveness of the Special “Adolescent” Clinic in improving the well being of the pregnant adolescents within the Kumasi Metropolis.

### **1.4.2. SPECIFIC OBJECTIVES OF THE STUDY**

*1.4.2.1.* To determine if there are any influence of the Special “Adolescent” Clinic on the pregnant adolescents in the Kumasi Metropolis

*1.4.2.2.* To determine whether there are variations in service/service output at the Special “Adolescent” Clinic and the Mixed ANC in the Kumasi Metropolis.

*1.4.2.3.* Identify factors that account for the variation in the utilization of the Special “Adolescent” Clinic and the Mixed ANC.

*1.4.2.4.* To determine the socio-demographic factors that motivate pregnant adolescents to attend the Special “Adolescent” Clinic and the Mixed ANC in the Kumasi Metropolis.

## **1.5. RESEARCH QUESTIONS**

1.5.1. Is the Special “adolescent” clinic having any influence on pregnant adolescents?

1.5.2. Is there any difference between pregnant adolescents attending the Special “Adolescent” Clinic and those who attend the Mixed ANC?

## **1.6. RESEARCH HYPOTHESIS**

$H_0$ -- There is no difference between the Special “Adolescent clinic and the Mixed ANC in services and service output.

## CHAPTER TWO

### 2.1. LITERATURE REVIEW

Many adolescents all over the world are sexually active and there is therefore a high incidence of adolescent pregnancy worldwide. However studies show that teenagers who receive information and services on reproductive health are more likely to delay sexual activity and also have fewer sexual partners. The former are also likely to engage in risky sexual behaviors that will lead to unplanned pregnancies. The vast majority of people who make the decision to become sexually active do so with inadequate information (Family Care International 1999).

Approximately 14 million children are born to adolescent mothers world wide each year-10% of all births. The physical immaturity of many of those young mothers increases their risk of death or serious disabilities; pregnancy- related complications are among the major causes of death for girls age 15 to 19 worldwide (State of the World Population, 1998). Five million unsafe abortions take place among adolescent girls age 15 to 19 years every year, which accounts for a quarter of all unsafe abortions. (The second Decade, 1998). Today in the USA 30% of females are sexually active by age 15, 70% by 18 years. Over 1 million female teenager girls, representing 1 in 10 over 15 years, become pregnant each year (Journal of Adolescent Health, 1997).

For an adolescent girl, an unplanned pregnancy can have several consequences on her life, abandonment by parents, expulsion from school, loss of a job, dishonor for her family if unmarried, several disease, and sometimes death from pregnancy related complications. Because they are afraid, ashamed or desperate, many young women (teenagers) are willing to risk their lives to end an unplanned pregnancy. They seek illegal abortion, often from untrained persons under unsafe conditions, or they try dangerous ways to induce abortion themselves by drinking gasoline, detergents, or drug overdoses, douching with bleaches or inserting objects into their vagina (Network, 2000). A study in Zaire of 2,465 women hospitalized for abortion complications showed that the proportion of induced abortion was greater among women less than 20 years of age. Among patients 18 or younger 58% were treated for complications of induced abortion, and among patients 18 to 19years, the number was 41%. (Network, 1993). Similar study in the University of Calaba Teaching Hospital in Nigeria found that 72% of the patients

hospitalized for abortion complications were less than 20 years of age. Fifty-eight percent (58%) were students, and 11% had undergone a previous unsafe abortion (Network, 1993).

Teenage child bearing is twice as high in the rural areas than in the urban areas in Ghana. Teenage child bearing is especially prevalent in the eastern region (21%) and the Ashanti region (20%) (GSS and MI, 1999). Women with little or no education are about seven times likely to have begun childbearing earlier than women with some secondary education (GSS and MI, 1999). Childbearing during teens also has adverse consequences for the health of the mother, not to mention the social constraints on young women's ability to pursue educational and employment opportunities. In addition, young mothers may not be emotionally mature to bear the burden of childbearing and rearing (GSS and MI, 1999).

Young maternal age has been associated with a number of poor pregnancy outcomes including low birth weight (LBW), prematurity, and perinatal mortality. Although the evidence is extensive, there is considerable debate about the degree to which age is an independent factor accounting for poor outcomes. Socio-demographic factors, poverty, limited education, under utilization of prenatal care, and ethnicity may mediate the effect of young maternal age on pregnancy outcome (Journal of Adolescent Health, 1997).

Long term consequences include chronic pains, ectopic pregnancy, infertility due to infection in the upper genital tract which carry serious socio-economic consequences for women, including abandonment by partners and ostracism by the community (Network, 2000).

It has been shown that there are a number of factors that influence teenage pregnancy; lack of sex education, broken homes, divorce, separation low or absence of contraceptive use, premarital sexual activity, peer group, culture/ethnic background, low level of education, early menarche and marriage. Low level of sex education in the school curriculum for first and second cycle institutions is one of the major reasons for the high incidence of teenage pregnancy. A study by Amadu (1987) on teenage pregnancy among the Tishigu community of Tamale in the northern region of Ghana revealed lack of guidance about sexuality, financial support and peer influence were found to be the major contributing factors. In his study in Accra, Amofo (1987) concluded that the cause of

teenage pregnancy was due to lack of sex education, contraceptive use, illiteracy/semi-illiteracy, low socio-economic status of parents, single parenthood and declining age of menarche.

The ambition of a girl child to attain higher education is strongly associated with a girl's postponement of marriage and childbearing until after her adolescent years. The education that a woman attains during childhood, adolescence, and young adulthood is among the most powerful influence on her life. Education has also been shown to be one of the most important determinants of fertility behavior, with both the age at which childbearing is initiated and the total number of children born during the reproductive period (GSS and MI 1999). Utilization of health and family planning services is also linked to educational attainment. Access to educational opportunities clearly varies with residence. Young women living in urban areas are better educated than rural women. Statistics on DHS data from 33 developing countries (Bongaarts, 1994) found that the median age of marriage and first birth by girls without education was 17.6 years and 19.3 years respectively. Those with primary education were 19.1 years and 20.2 years, and those with secondary education had median age of 21.7 years and 22.8 years respectively. Adolescents have indicated that they need reproductive health services that are private, confidential, affordable, accessible and staffed with sensitive providers. (Weiss et al, 1996). Youth-friendly (adolescent) clinics are being encouraged in South Africa, Asia, Latin America and the Caribbean. Inconvenient hours or location, unfriendly staff and lack of privacy are among reasons many young adults give for not using reproductive health clinics. Adolescent need accessible clinics with nonjudgmental, friendly staff and reduced waiting time (Network, 2000).

Multi-pronged approach that combine pregnancy prevention education, access to contraceptive services, programs to improve life options, and programs to prevent repeated pregnancies have been successful in;

- 1) Delaying the onset of sexual activity of teenage participants,
- 2) Increasing contraceptive use among those who are sexually active and
- 3) Reducing pregnancy rates.

Such interventions should be tailored to meet the particular needs of adolescents at several critical junctions in their social, physical and emotional development. (Adolescent Pregnancy Prevention, 1995).

The prevention of adolescent childbearing and parenthood is critical, because available data indicate that few adolescent parents are adequately prepared to assume the economic, social and psychological responsibility of childcare and childbearing.

Research has shown that women who have their first birth early in life tend to have more children than those who start childbearing later. A rising age at first birth is therefore an important factor contributing to the transition from high to low fertility.

Adolescent pregnancy, abortion and childbearing have become issues of broad national concern. Adolescent sexual activities, the upsurge of adolescent pregnancies, and unsafe abortion with abortion complications and death are becoming a real problem in Ghana (Nabila et al 1996).

## **2.2. CONCEPTUAL FRAMEWORK**

In order to guide the study, a conceptual framework which explains the effect of social, economic, cultural, religious, education and health system factors on adolescent pregnancy has been developed as shown in Figure 1.

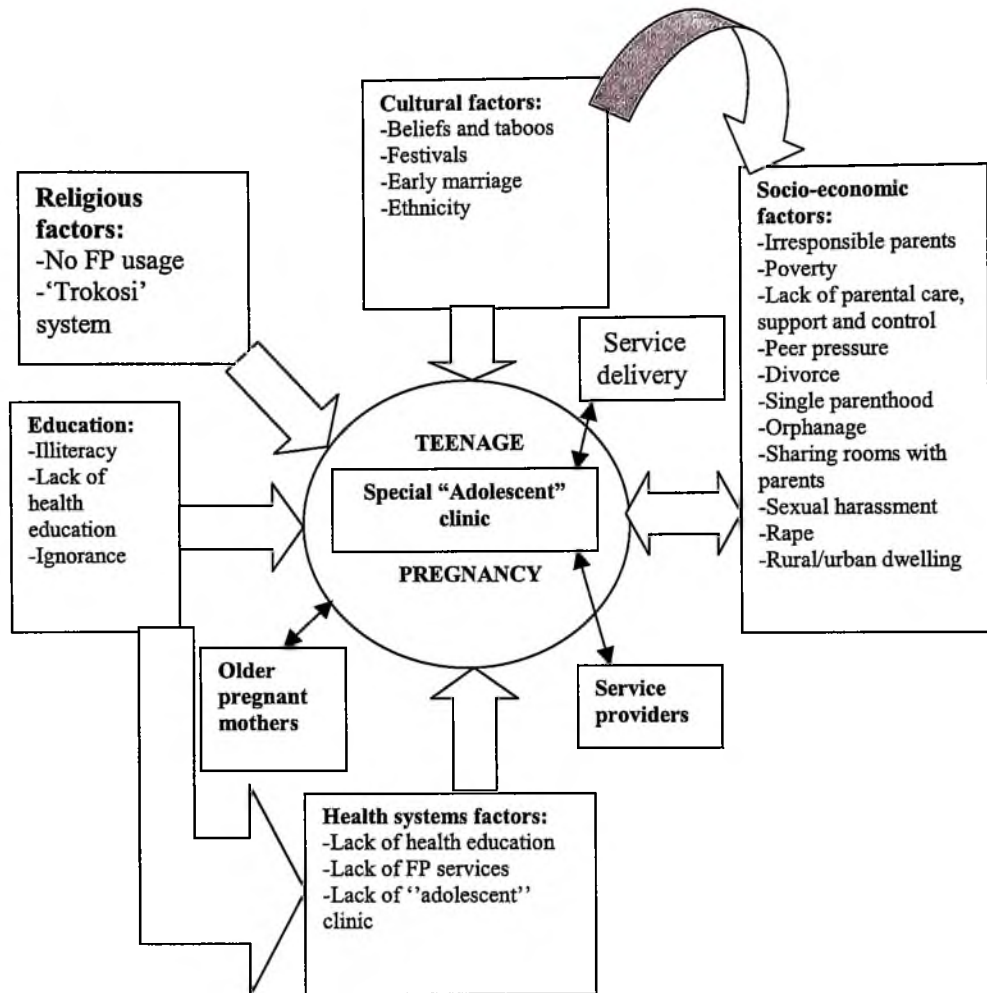
According to the WHO definition, an adolescent is any person girl/boy between the ages of 10 – 19 years. Adolescent pregnancy therefore is the pregnancy that occurs among girls between the ages of 10 – 19 years.

Socio-economic factors such as irresponsible parents, lack of parental care, support and control leads to children taking to bad companies and engaging in early sexual behaviours that lead to adolescent pregnancy. Poverty, single parenthood, orphanage and divorce cause the adolescents to go seeking for money at whatever cost to be able to survive. This could also lead to adolescent pregnancy. Parents sharing rooms with the adolescents also teach them to go out to practice what their parents do in the night. Peer pressure on the adolescent girl, because the friends have boyfriends she will also go for one which can also result in adolescent pregnancy. Sexual harassment and rape are among the causes of adolescent pregnancy. Cultural factors such as beliefs, festivals and early marriage that are purely ethnic, attract people to their hometowns. Artificial family planning, which is not practiced by some religious denominations, is also a contributing factor to the high incidence of adolescent pregnancy in the Kumasi Metropolis.

Education – illiteracy where one cannot read and know what is good for herself, and lack of sex education in homes, schools and the communities also contributes to adolescent pregnancy (AP).

Health system factors:- lack of family planning services and lack of adolescent clinics as well as lack of sex education in schools and communities contribute to the increase in adolescent pregnancy.

**Figure 2.1. The effect of socio-economic factors on adolescent pregnancy**



Source: Author's own source (Aduamah 2001)

In the presence of health systems factors such as availability of family planning services, sex education and adolescent clinics in schools, homes and communities where adolescents can have counseling services, adolescent pregnancy will reduce tremendously, even though socio-economic factors exist. This is because they will know

what to do to prevent pregnancy in the face of all the other factors, religious, cultural and socio-economic factors.

## CHAPTER THREE

### 3.0. METHODS

The purpose of this chapter is to present the research design and methods employed in the data collection, processing and analysis.

#### 3.1. STUDY AREA

The study was conducted in the Kumasi Metropolitan area, which lies almost in the heart of the Ashanti region, and in the middle belt of Ghana. The Kumasi Metropolis has the largest population among the eighteen(18) districts of the region. About 85% of the population live in the urban area, 10% peri-urban and 5% rural. The main occupations of the people are commerce, farming and public service.

**Transport and communication-** The major transportation network in the Kumasi Metropolis is asphalt road, which links all the major road in the city and the major towns in the region and inter- regional capitals. Some of the roads however, are literati and others are single surface coal-tarred. The Metropolis is linked with railway from Accra, and also an airport. The Ghana Telecom, private communication centers and Mobile phone systems/companies provide telecommunication facilities. A number of private and public sector institutions are connected with Internet facilities. The Kumasi Metropolis has also two TV stations and eight FM stations.

**Educational institutions-** In the Kumasi Metropolis includes, 393 Kindergartens, 539 Primary Schools, 237 Junior Secondary Schools, 40 Senior Secondary Schools, 8 Vocational Institutions, 2 Training Colleges, 1 Polytechnic, and 2 Universities.

**Health institutions-** There are 46 hospitals, 39 clinics, 22 maternity homes, 2 homeopathic centers, more than 200 traditional medicine practitioners. In the area of reproductive health, the MOH collaborates with a number of NGOs including; Youth for Development Foundation (YDF), Center for the Development of the People (CEDEP), Young Women/Men Christian Association (YW/MCA), Planned Parenthood Association of Ghana (PPAG), and National Population Council (NPC).

**Social and tourist centers-** There are a number of tourist centers in the metropolis, which attract tourists to the Metropolis. These include the Zoo and Traditional Museum.

### 3.2. STUDY POPULATION

The population for the study was the pregnant adolescents who attended the three Special “Adolescent” Clinics and those that attend the two Mixed ANC. These pregnant adolescents were selected from the five public hospitals, one in each of the five sub-metropolitan areas in the Kumasi Metropolis.

### 3.3. STUDY TYPE/DESIGN

The study is a comparative, cross-sectional institutionally based survey. The study was designed to take samples from the two types of antenatal clinics that exist in the Metropolis; the Special “Adolescent” Clinic which caters for only pregnant adolescents, and the Mixed ANC, which caters for both pregnant adolescents and pregnant older mothers alike. The study was designed to take equal number of respondents from either side, since it is a comparative study. However this could not be achieved because of time constrains, 228 respondents were interviewed at the Special “Adolescent” Clinic, and 142 from the Mixed ANC.

### 3.4. OPERATIONAL DEFINITION OF VARIABLES

**Adolescent** – According to the World Health Organization (WHO) an adolescent is any one (boy/girl) between the ages of 10 and 19 years.

**Adolescent pregnancy** -- These are pregnancies that occur in women age less than 20 years.

**Teenage pregnancy** -- For the purpose of this study teenage pregnancy and adolescent pregnancy are interchangeable, and therefore mean the same thing.

**Determinant** -- Factors that one way or the other influence/contribute to the dependent variable (e.g. teenage pregnancy).

**Community** -- A group of people living in a well-defined settlement who recognize the authority of one head.

**“Adolescent” clinic** – These are special antenatal clinic where only pregnant girls/adolescents, age below 20 years attend.

**Mixed clinic** – These are antenatal clinic where pregnant girls/adolescents and older mothers attend together.

**“Depo/bragoro”**- A puberty rite performed for adolescents during their first menstrual period.

Dependent variable                      teenage pregnancy.

Independent variables that would be explored are: Socio-economic occupation, poverty, lack of employment, contact with tourists, education, lack of sex education, contraceptive use, socio-culture, lack of parental care/control, peer pressure, experimentation/ignorance, rape, sexual harassment, festivities, sharing rooms with parents, ethnicity/early marriage and childbearing, beliefs and taboos,

### **3.5. SAMPLE SIZE DETERMINATION**

The population of the Kumasi Metropolitan area based on the 2000 census is 1,017,246. The women in fertility age (WIFA) group is 20%, which is equivalent to 203,450. The expected pregnancy for the Metropolis is 4% of the population, which is 40,690. From the institutional data, the proportion of adolescent pregnancy for the year 2000 was 15.1%, that is 5894.

Since the entire population cannot be covered due to logistic constraints, the required sample size was computed with the following assumptions:

Prevalence (expected frequency) is 15.10%, worst accepted is 12.00%, at a confidence interval of 95.00%, with expected error of 5.00%, at a Power of 90.00%, the sample size required was 480 respondents. However due to logistics including time constraints it was not possible to study the entire study population of pregnant adolescent needed. A sample of 370 was obtained, as at the end of the study period. There were no non-respondents.

### **3.6. SAMPLING METHOD**

The Kumasi Metropolis has five government hospital, one in each of the five sub-metropolis and the Komfo Anokye Teaching Hospital in the Subin sub-metropolis. The study was conducted in all the five government hospitals. Out of the five, three are operating the Special "Adolescent" clinic and the other two are operating the general/mixed antenatal clinic.

In selecting the respondents, the average weekly attendance of the pregnant adolescents to the antenatal clinics at the various hospitals was determined as Manhyia Hospital 55, Suntreso Hospital 27, MCHH 35, Tafo Hospital 16, and Kumasi South Hospital 12. These figures include the new registrants. However only those who had attended the clinic at least once were selected into the cohort of the study. In the hospitals since the attendance was low especially in the mixed clinic all of the pregnant adolescents who

attended were interviewed. However, at the Special “Adolescent” clinic every other pregnant adolescent who attended the clinic was interviewed.

In all 228 pregnant adolescents from the Special “Adolescent” clinic and 142 pregnant adolescents from the mixed antenatal clinics were interviewed.

### **3.7. DATA COLLECTION TOOLS**

Data was collected from the pregnant adolescents in the hospitals using available information, exit interviews, administering open-ended and close-ended questionnaires and focus group discussions (FGD). Each respondent was interviewed using the questionnaire. The questionnaire elicited information about demographic data, service delivery, staff attitude, and older mothers attitude towards the pregnant adolescents in both the Special “Adolescent” Clinic and the Mixed ANC. There were also five focal group discussions and exit interviews, one in each of the five sub-metropolitan hospitals. Epi-info was used to analyse the data obtained.

#### ***3.7.1. Using available information.***

Available health information from the weekly attendance at the various antenatal clinics, census data, and annual reports of the five hospitals and that of the Metro Health Directorate were used.

#### ***3.7.2. Exit interviews.***

A flexible open-ended questionnaire was used for the exit interviews. The exit interview was conducted after the respondents had collected their drugs and were going home.

#### ***3.7.3. Administering written questionnaires***

The respondents at the various antenatal clinics were interviewed using the open-ended and closed-ended structured questionnaires. Respondents were interviewed in separate rooms to provide privacy and confidentiality. The concerts of the respondents were first sort before they were interviewed. All the respondents were free and provided all the information necessary after the purpose of the study was explained to them.

#### ***3.7.4. Focus group discussions (FGD)***

Six pregnant adolescents were recruited for a 45-minute discussion in each of the five hospitals. The purpose of the survey was explained to the participants and their concert asked for before the discussions began. There was one facilitator and a recorder.

### **3.8. DATA COLLECTION TECHNIQUES**

The following steps were taken before collecting data from the health institutions.

#### ***3.8.1. Seeking permission from relevant authorities and individuals***

Letters were written to all the appropriate authorities and individuals concerned for their permission before the start of the data collection. All those concerned (the Metropolitan Chief Executive, the Regional Director of health Services, the Metropolitan Director of Health Services, and all the Medical officers in charge of all the hospitals) gave their approval for the study. There was no resistance from any quarters.

#### ***3.8.2. Recruitment and Training of Research Assistants.***

Four Research Assistants, two Public Health Nurses, one Disease Control Officer and one National Service Personnel, were recruited for the data collection. Some of them were selected because they were involved in some previous researches of the Metropolitan Health Directorate. They had a one-day training in the administration of the questionnaires. They were introduced to the rationale of the research how to establish rapport with the respondents in order to get good response from them, and translation of the questionnaire into the local language (Twi).

#### ***3.8.3. Pre-testing and review of questionnaire***

Pre-testing of the questionnaire was carried out at the Komfo Anokye Teaching Hospital (KATH). This was done to determine the suitability and clarity of the questions, and to reveal problems that might be encountered in the field. The research team met after the pre-testing to review the data collection tools, and the strategies to be used for the collection of data. A few modifications were made. Some of the questions were deleted others rearranged and section E added to cater for only those pregnant adolescents attending the mixed antenatal clinic.

### **3.9. DATA COLLECTION**

Both primary and secondary data were collected during the study.

#### ***3.9.1. Secondary data***

Secondary data from the antenatal cards of the pregnant adolescents, and the antenatal clinics registers of the five hospitals.

#### ***3.9.2. Primary data***

Primary data were collected through open and closed-ended semi-structured questionnaires, exit interviews and focal group discussions. These were conducted in the

five public hospitals in the five Sub-Metropolis. The respondents were made up of adolescents and Nursing Officers in the various hospitals. In all there were five focal group discussions, one in each of the Sub-Metros, forty exit interview were done and 370 questionnaires were administered.

The authorities at the various health institutions where the study was carried out were informed in advance, and how long the study was supposed to last. However because of the smaller number of respondents per day interviewed especially in the mixed clinics, it became necessary to extend the time for another two weeks. The Special "Adolescent" Clinics were held once a week, Tuesday, Wednesday and Thursday, each day for a different health institution. The other two institutions with the mixed type of antenatal clinic were held daily. After each days work the research team met to go through the questionnaires, check their completeness and plan for the preceding days activities.

### **3.10 LIMITATION TO THE STUDY**

1. Some of the adolescent girls attended other antenatal clinics and the desired number could not be attained.
2. Other adolescent girls may even not know that they are pregnant because they may be seeing spots of blood until it is about five months.
3. The issue of teenage pregnancy is a sensitive one and they may hide it or not talk about it. These may affect the overall results of the study.
4. The number of pregnant adolescents who attended the Mixed ANC were lesser than those who attended the Special "Adolescent" Clinic.

### **3.11. ETHICAL CONSIDERATION**

A questionnaire was well structured for use by respondent. This was first submitted to Metropolitan Health Directorate, the Regional Director of Health Services and the Kumasi Metropolitan Assembly for their comment and approval. The Matrons and the various Sub-Metropolitan Health Management Teams also gave their approval of the questionnaire. When it was duly approved by the by the above institutions informed consent of each respondent was be sort before administering the questionnaire to them. All the respondents gave their concern, there was no none respondents.

The research team assure the respondents of strict confidentiality of information given by them and that the study is purely an academic one. No names were recorded during the course of the study.

## CHAPTER FOUR

### ANALYSIS

There was assessment of the structure and quality of the data and processed them into a suitable form for analysis. The function of the “analysis” was to draw appropriate conclusion from the data and give beneficial recommendations.

#### 4.0 PRESENTATION OF RESULTS

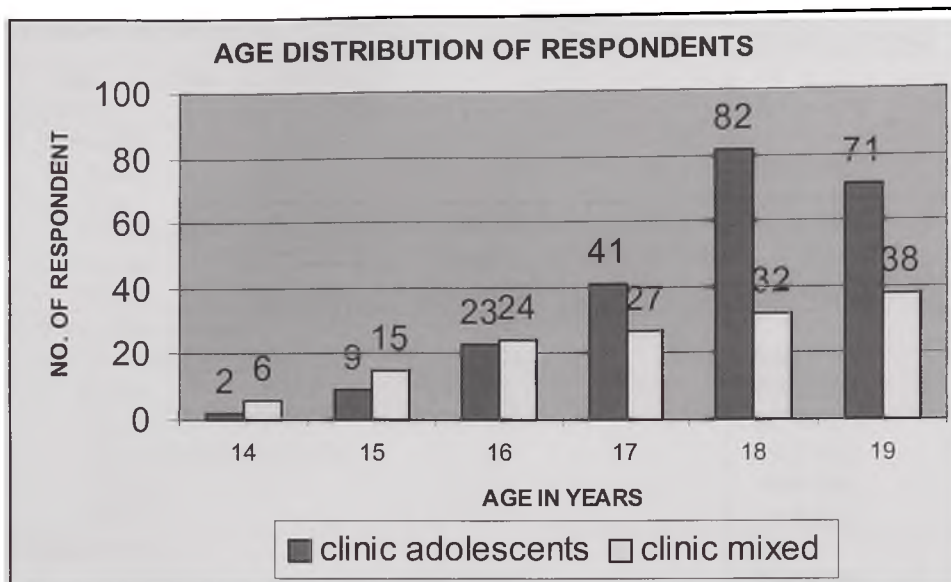
##### 4.1 GENERAL CHARACTERISTICS OF STUDY POPULATION

###### 4.1.1. Description of study population

The study population included 370 respondents, out of which 61.6% (228) were recruited from the Special “Adolescent” Clinic, and 38.4% (142) from the Mixed ANC.

###### 4.1.2. Age Distribution of respondents

The minimum age of the respondents was 14 years and the maximum age was 19 years. The mean age was 17.58 year, and the median age was 18 years. The age distribution is as shown in Figure 4.1. with age 18 being the highest 70.5% (114); and ages 14 being the lowest 2.2% (8) with a standard deviation of  $\pm 1.319$ . The mean age for those who attended the Special “Adolescent” Clinic was 17.8 years, whereas that at the Mixed ANC was 17.3 years. Interview with the health providers showed that the ages of pregnant adolescents who attended the ANCs were between 13 years and 19 years.

**Figure 4.1. Age distribution of respondents by clinic**

#### 4.1.3. Ethnic distribution of respondents

The Study population represented pregnant adolescents from Ghana and other neighbouring countries (Togo and Burkina Faso). Respondents were grouped into the main ethnic groups living in the Kumasi Metropolis, (Akan, North, Ewe and Krobo). The Akans constituted 73.5% of the respondents. The Northerners, made up of the three northern regions (Upper West, Upper East and North) constituted 20.5% of the study population. The Ewes were 3.0% of the respondents and the Krobos were 0.5% of the study population. The respondents from the neighbouring countries were 2.4% (Table 4.1.2). This shows that the Kumasi Metropolis is made up of multi ethnic groups.

Table 4.1. General characteristics of respondents

CHARACTERISTICS	RESPONDENTS ATTENDING CLINIC n(%)	
	ADOLESCENT (N=228)	MIXED (N=142)
<b>1. Age</b> - mean age(standard deviation)	17.8	17.3
<b>2. Ethnicity</b>		
Akan	170(74.7%)	102(71.8%)
Ewe	5(2.1%)	6(4.2%)
Foreigners	3(1.3%)	6(4.2%)
Krobo	1(0.4%)	1(0.7%)
- North	49(21.5%)	27(19.0%)
<b>3. Educational level</b>		
No formal education	30(13.2%)	30(21.1%)
Primary	45(19.7%)	26(18.3%)
Junior Secondary School	112(49.1%)	61(43.0%)
Senior Secondary School	31(13.6%)	10(7.0%)
College	6(2.6%)	9(6.3%)
- Others	4(1.8%)	6(4.2%)
<b>4. Employment</b>		
Unemployed	89(30.9%)	70(49.2%)
Traders	65(28.5%)	43(30.2%)
Seamstress /Hairdressers	11(4.8%)	6(4.2%)
Student/Apprentice	51(22.4%)	15(10.6%)
- Others	10(4.4%)	11(7.7%)
<b>4. Marital status</b>		
Yes	52(22.8%)	31(21.8%)
No	176(71.2%)	111(78.2%)

#### 4.1.4. Level of Education

There were 370 respondents from the two types of clinics who responded, 83% (310) of them had some form of education, while 16.2% (60) did not have any formal education. A higher proportion of the respondents 46.8% (173) had JSS level education, while 11.1% (41) had SSS level education. About 19% (71) of the respondents had primary education. However 2.7% (10) of the respondents had other forms of education (e.g. makaranta) (Table 4.1.3).

#### 4.1.5. Employment

About 43% (158) of the respondents interviewed had no employment, while 57.3% (212) of them were one way or the other employed as shown in Table 4.1.4. Fifty one percent (108) of those employed were petty traders, and 30% (66) were seamstresses or hairdressers. However, 9.9% (21) of the respondents were employed in other fields (e.g. Housekeepers, Communication attendants etc.).

Interviewed with health providers revealed that pregnant adolescents were apprentice seamstresses and hairdressers, traders, house helps and others unemployed.

#### 4.1.6. Age at first sexual intercourse

Of the three 370 respondents interviewed, 57.8% (214) had their first sexual intercourse in the age group 14–16 years. Thirty three percent (122) of them had their first intercourse in the age group of 17–19 years. While 8.9% (33) of them had their first sexual intercourse when they were between 11 and 13 years. One of them however, had her first sexual intercourse between the ages of 8 years and 10 years. The minimum age group at first sexual intercourse was 8–10 years and the maximum 17–19 year group.

The mean age at first sexual intercourse was 15.7 years (Table 4.2).

**Table 4.2. Age at first sexual intercourse**

AGE (IN YEARS)	NO. OF RESPONDENTS n(%)
8-10	1(0.3)
11-13	33(8.9)
14-16	214(57.8)
17-19	122(33.0)
<b>TOTAL</b>	<b>370(100%)</b>

#### **4.1.7. Marital Status**

##### *4.1.7.1. Marital status according to age.*

Twenty two percent (83) of the pregnant adolescents were married out of the 370 respondents interviewed. About fifty three percent (44) of the married were 19 years of age. Twenty nine percent (24) of them were 18 years of age. Eleven percent (9) of them were 17 years. About 2.4% (2) of the married pregnant adolescents were 16 years of age while 4.8% (4) were 15 years of age. However there was no married person at age 14 years. The median age for marriage for this study is 18.2 years.

##### *4.1.7.2. Marital Status according to ethnicity*

Out of the eighty-three married respondents, 61.4% (51) of them were from the Northern regions. About 31.3% (26) of the married were Akans, 6% (5) of them were foreigners, and 1.2% (1) was Ewe. However there was no married person from the Krobo ethnic groups. The Northerners constituted the highest number of married adolescents among the respondents. This may be attributed to the socio-cultural beliefs of the people living there.

#### **4.1.8 . Any other children**

There were seventeen of the pregnant adolescents who already had children. About forty seven percent (8) of them gave birth to their first child in the 17-19 age group, and another 47.1% (8) of them gave birth to their first child in the 14-16 age group. Only 5.8% (1) of them gave birth in the 11-13 age group as shown in Table 4.3. In terms of ethnic background, 58.8% (10) of them were from the Northern ethnic origin. There were 27.4% (5) them from the Akan ethnic group, 5.9% (1) from the Ewe ethnic group and 5.9% (1) Foreigners.

**Table 4.3. Age at first/previous birth**

AGE GROUP	NO. OF RESPONDENTS n(%)
11-13 years	1(5.8)
14-16 years	8(47.1)
17-19 years	8(47.1)
TOTAL	17(100)

**4.1.9. Previous ANC Attendance during the previous pregnancy**

Out of the seventeen respondents who had one child before the current pregnancy, 11.8% (2) of them attended the Special “Adolescent” Clinic, and 88.2% (15) attended the Mixed ANC (Table 4.4).

**Table 4.4. Attendance to the Special “Adolescent” Clinic by those with second pregnancy.**

ATTENDED THE SPECIAL “ADOLESCENT” CLINIC	NO. OF RESPONDENTS n(%)
Yes	2(11.8%)
No	15(88.2%)
TOTAL	17(100%)

**4.2. MAIN FINDINGS: HYPOTHESIS ON RELATIONSHIP BETWEEN THE VARIABLES AND THE TYPE OF CLINIC****4.2.1. Purpose of ANC**

Out of the 369 respondents who answered, 49.3% (182) of them said they were taught the purposes of antenatal visits, however 50.7% said they were not taught and therefore did not know the purposes of antenatal visits. Fifty eight percent (130) of respondents who

attended the Special “Adolescent” Clinic knew the purposes of antenatal clinic, as compared to 37% (52) of those who attended the Mixed ANC as in Table 4.5.1.

( $\chi^2 = 14.86$ ,  $P = 0.00$ ). The difference in Knowledge between the two groups was statistically significant. The Special “Adolescent” Clinics provided better education outcome than the Mixed ANC.

On the purposes of the antenatal clinic to the pregnant adolescent all of the health providers interviewed said they give them health education talks on personal hygiene, nutrition, rest and exercise. Eight of the health providers said they prepare the pregnant adolescents to breast feed the baby, normal puerperium and take good care of the baby. Eight of the health providers said they prepare the pregnant adolescents to detect abnormal condition arising during pregnancy. Eight of the health providers said they explain the importance of immunization and family planning after delivery.

#### **4.2.2. Privacy during obstetric examination**

There was generally adequate privacy provided at the clinics, with 94.8% of respondents attesting to these during the survey. However adequate privacy was provided more frequently in Mixed ANCs, 97.9% compared to 92.8% in the Special “Adolescent” Clinics. ( $\chi^2 = 4.49$ ,  $P = 0.03$ ). The result is statistically significant.

Most of the of the health providers during separate interviews confirmed that there was privacy during obstetric examinations at the antenatal clinic.

#### **4.2.3. Frequency of Antenatal visits**

A total of 368 pregnant adolescents responded, out of which 53.3% (196) did not know how many antenatal visits they were supposed to attend before delivery, while 46.7% (172) of them knew. Two pregnant adolescents did not respond. About 58% (133) of the

pregnant adolescents, who attended the Special “Adolescent” Clinic, knew how many antenatal visits they were supposed to make before delivery, compared to 27.7% (39) of those who attended the Mixed ANC (Table4.5.3).

The result was statistically significant. This means that the services provided at the Special “Adolescent” Clinic were better compared to that of the Mixed antenatal clinic.

Interview with health providers indicates that they inform the pregnant adolescents when to come for the next visit and how many ANC visits they are supposed to attend before delivery.

#### **4.2.4. Knowledge of Rest.**

There were 369 responses, and one did not respond. About 76% (279) of the respondents did not know anything about rest during pregnancy, while 24% (90) knew that a pregnant woman needs rest. The ratio of respondents who attended the Special “Adolescent” clinic to those who attended the mixed antenatal clinic, who knew that a pregnant woman needed rest was 3:1 (Table 4.5.4). The study result was statistically significant. Which implies that health providers at the Special “Adolescent “ clinic provide adequate information about risk factors in pregnancy than that of the Mixed antenatal clinic.

Separate interaction with health providers indicated that they provide adequate explanation on the need for every pregnant adolescent to have enough rest and exercise.

**Table 4.5. Pregnant adolescents perception about some specific issues on pregnancy and ANC.**

VARIABLE	RESPONDENTS ATTENDING CLINIC n(%)		$\chi^2$ (P-value)
	ADOLESCENT (A)	MIXED (M)	
<b>SERVICE DELIVERY</b>			
<b>1. Explanation of purpose of ANC by nurses</b> - Yes - No	130(58%) 97(42%)	52(37%) 90(63%)	14.6 (0.00)
<b>2. Privacy during obstetric examination</b> - Yes - No	207(92.8%) 16(7.2%)	139(97.9%) 3(2.1%)	4.49 (0.03)
<b>3. Knowledge of respondents on frequency of ANC visits before delivery</b> > 4 times 3 – 4 times 1 – 2 times - don't know	124(54.6%) 8(3.5%) 1(0.5%) 94 (41.7%)	39(27.7%) 0(0.0%) 0(0.0%) 102(72.3%)	35.99 (0.00)
<b>4. Knowledge of rest</b> - Yes - No	75(33%) 152(67.0%)	15(10.6%) 127(89.4%)	23.87 (0.00)
<b>5. Knowledge of exercise</b> - Yes - No	104(45.6%) 124(54.4%)	22(15.5%) 120(84.5%)	35.24 (0.00)
<b>6. Knowledge of danger signs during pregnancy</b> Yes No	96(42.1%) 132(57.9%)	18(12.7%) 124(87.3%)	35.45 (0.00)
<b>7. Knowledge of contraceptives</b> Yes No	28(22.3%) 200(87.7%)	8(5.6%) 134(94.4%)	4.39 (0.03)
<b>SERVICE PROVIDERS</b>			
<b>8. Rating services of nurses</b> - Excellent - Good - Satisfactory	150(66.0%) 63(27.8%) 14(6.1%)	102(71.8%) 34(23.9%) 6(4.2%)	
<b>9. Waiting time</b> <1 hour 1 – <3 hours 3+ (or more) hours	3(1.3%) 71(31.1%) 154(67.5%)	0(0.0%) 46(32.4%) 96(67.6%)	

#### **4.2.5 Knowledge of Exercise**

About 66% (244) of the respondents did not have any knowledge that pregnant women should perform some amount of exercise as compared to 34% (126) who knew. Almost 46% (104) of respondents who attended the Special “Adolescent” Clinic knew that a pregnant woman needed exercise, compared to 15.5% (22) from the Mixed ANC as shown in Table 4.5.5. ( $\chi^2 = 35.24$ ,  $P = 0.00$ ) From the above, the result was statistically significant.

#### **4.2.6. Knowledge of danger signs during pregnancy**

Generally the knowledge of pregnant adolescents on danger signs during pregnancy was relatively low. Since they need to be able to recognise these signs and act promptly to avert any misfortune. All the respondents answered on their knowledge of danger signs in pregnancy, 69.2% (256) did not know any danger sign in pregnancy, while 30.8% (114) knew some danger signs in pregnancy. There were 42.1% (96) of respondents from the Special “Adolescent” Clinic who knew some danger sign in pregnancy, whereas 12.7% (18) were from the Mixed ANC (Table 4.5.6). The study result was statistically significant.

#### **4.2.7. Knowledge of contraceptives**

The knowledge of the pregnant adolescent on contraceptives is generally poor for both types of clinics. However during interview with some of the health providers, they said they educate the pregnant adolescents on contraceptive, family planning (FP), prevention of STDs including HIV/AIDS, through health education talks and discussions at the ANC.

Out of the 370 respondents who were interviewed only 9.7% (36) of them had some knowledge on contraception and contraceptive use. The remaining 90.3% (334) had no knowledge about contraceptives. The ratio of respondents from the Special “Adolescent” Clinic to those in the Mixed ANC who knew something about contraceptives was 4:1, as in Table 4.5.7. The result was statistically significant.

During the FGD the knowledge of respondents on contraceptives before getting pregnant was good. A few responses are quoted below.

“Contraceptives help to space child birth”.

“We have been taught that contraceptives prevent pregnancy, so that you do not give birth to children you cannot cater for”.

“ They have not taught us anything about contraceptives so I don’t know.”

From the answers given above some of the pregnant adolescents knew something about contraceptives, while others did not know anything about contraceptives. On the use of contraceptives, only a few of the pregnant adolescents had used some before.

“I used condom when I started having sex”.

“I was using N-Tablet which failed me”

### **4.3. SERVICE PROVIDERS**

#### **4.3.1. Rating services of health providers**

Rating services that are provided by the health providers at the various antenatal clinics 369 respondents answered, with one abstention. About 68% (252) of the respondents said their services were excellent, 20.3% (77) rated the services as good, while 5.4% (20) said

their services were satisfactory (Table 4.5.8). In all 66.0% (150) of the total respondents who attended the Special “Adolescent Clinic”, compared to 71.8% (102) from the Mixed ANC said their services were excellent. On the other hand 27.8% (63) of those from the Special “Adolescent” Clinic, as compared to 23.9% (34) from the Mixed ANC said their services were good. However, 6.17% (14) of the respondents from Special “Adolescent” Clinic said their services were satisfactory, compared to 4.2% (6) from the Mixed ANC.

During the FGD with the pregnant adolescents the following revelations were made. On the relationship between them and the health providers there was general consensus that the health providers were handling them very well. All the respondents were of the view that the health providers were very nice to them and that they take good care of them. Moreover, most of the respondents said that the nurses treat them as if they were their sisters, while half the number said the nurses pamper them.

“They are all nice to us especially “Auntie Jane”, thank her for us, for the good care she gives us”.

“Sometimes they sympathize with us so they give us pieces of advice”.

“They explain things to our understanding and pamper us”.

“The nurses are good to us, they have good human relationship”.

#### 4.3.2. Waiting time

This is the time spent by the pregnant adolescent at the clinic before going home. The average waiting time was 2.05 hours.

There were 370 responses, out of which 0.8% (3) said they spent less than 1 hour in the hospital, 31.6% (117) respondents spend an average of 2 hour. The rest of the

respondents 67.6% (250) spent 3 or more hours as in Table 4.5.9. At the Special “Adolescent” clinic 67.5% (154) of those who attended the clinic spend three or more hours, compared to 67.6% (96) from the Mixed ANC. Moreover 31.2% (71) of the respondents at the Special “Adolescent” Clinic spent an average of 2 hours, compared to 32.4% (46) from the Mixed ANC.

Interview with health providers indicated that pregnant adolescents spend about 1.5 hours at the ANC.

#### **4.3.3. Reasons for attending a particular clinic.**

A number of reasons were given by the pregnant adolescents for attending a particular clinic during the FGD, some are in quote below. At the Mixed ANC some of the respondents were of the view that the health providers attend to them promptly so that they could do other things at home.

“They attend to us promptly so that we go back home, so that we can do other things at home”.

“I like attending the mixed clinic because the older mothers teach us what we don’t know”.

“I don’t know any other clinic apart from this”.

At the Special “Adolescent” Clinic there were a many reasons given for attending the clinic:

“I like attending the adolescent clinic because we are all of the same age group, I feel shy to attend the mixed clinic with the older mothers”.

“ I attend the adolescent clinic because at the mixed clinic if you ask the older mothers any question they shout at you, e.g. “I have not asked you to get pregnant””.

“At other places they charge as much as ₵40,000 but here they charge us only ₵2,000”.

At the Mixed antenatal clinic they were asked why they did not go to the special adolescence clinic, some had this to say:

“Because we learn from the older mothers”.

“I don’t know of any other clinic apart from this one”.

#### 4.3.4. Pregnant women diet

Most of the respondents during the FGD were able to tell what categories of food stuffs constitutes balanced diet for pregnant women ( protein, carbohydrates, fat and oil and fruits and vegetables).

Almost all the respondents, were able to give examples of all the foods that they need to eat. Some of them said, they eat different types of fish.

“We have to eat tilapia, “nsesawa” and “kobi” ”.

“ They also advice us to eat “keta school boys, eggs, meat and other types of fish.”

About half of the respondents also said they were taught to eat different types of foods.

“We also have to take oranges, bananas, apples pineapple etc”

“They tell us to eat a lot of greens like “kontomire” and try to have a balanced diet”

#### 4.3.5. Type of equipment used to examine them

All the respondents said that they use the sphygmomanometer to check their blood pressure. Half of the respondents said the health providers use the ultrasound scan to examine the foetus. All the pregnant adolescents said the nurses use a measure tape to measure their abdomen. Almost all said that they weigh them.

“The nurse uses something which she places on the abdomen and listens to it, only she knows what she wants”.

“They use computers to examine our abdomen which we can see something like fish in swimming in water”.

“They use tape measure to measure our belly”.

#### **4.4. RELATIONSHIP BETWEEN PREGNANT ADOLESCENTS AND PREGNANT OLDER MOTHERS**

At the mixed ANC the pregnant adolescents attend with the pregnant older mothers at the same time.

##### **4.4.1. Relationship between the pregnant adolescents and the pregnant older mothers.**

There were mixed feelings among the one hundred and forty-two(142) pregnant adolescents interviewed at the Mixed ANC. Some of them commented that they related excellently with the older pregnant mothers. Others said their relationship with the older pregnant mothers was good. A few of them also said their relationship with the older pregnant mothers was satisfactory. A smaller proportion was of the view that they relate poorly with the older pregnant mothers (Table4.6).

**Table 4.6. Relationship of pregnant adolescents to older mothers.**

<b>RELATIONSHIP</b>	<b>NO. OF RESPONDENTS n(%)</b>
Excellent	50(35.2%)
Good	51(35.9%)
Satisfactory	39(27.5%)
Poor	2(1.4%)
<b>TOTAL</b>	<b>142(100%)</b>

From the FGD at the mixed antenatal clinics, there was consensus about the attitude of the older pregnant mothers to the pregnant adolescents. About half of the respondents in the mixed antenatal clinic said the older mothers correct them when they do wrong. Half of them of the pregnant adolescent said the older mothers teach them what to do at times.

“They advise us to sit well.”

“When you ask them for help they explain things to you.

This shows that the relationship between the pregnant older mothers and the pregnant adolescents is cordial.

#### **4.4.2. Preference of pregnant adolescents attending the same ANC with the pregnant older mother**

A larger proportion of the pregnant adolescents said it was not good attending the ANC together with the older mothers. However, some of the respondents said they prefer attending the same ANC with the older mothers (Table 4.7).

**Table 4.7. Pregnant adolescents preference to attend ANC with pregnant older mothers**

<b>MIXING</b>	<b>NO. OF RESPONDENTS n(%)</b>
<b>Yes</b>	49(34.5%)
<b>No</b>	93(65.5%)
<b>TOTAL</b>	<b>142(100%)</b>

Interviewing the health providers a few indicated that the pregnant adolescents feel comfortable and relaxed when mixed with the older mothers. The majority said the pregnant adolescents do not feel free when mixed with the older mothers, and that they feel shy.

#### 4.4.3. Preference of Special “Adolescent” Clinic to Mixed ANC

Almost all the pregnant adolescents attending the Mixed ANC prefer to attend the Special “Adolescent” Clinic, while very few of them prefer to attend the same ANC with the pregnant older mother as shown in Table 4.8.

**Table 4.8. Preference of Special “Adolescent” Clinic to Mixed ANC**

PREFERENCE	NO. OF RESPONDENTS n(%)
YES	130(91.5%)
NO	12(8.5%)
TOTAL	142(100%)

During the interview with the health providers almost all of them preferred the pregnant adolescents should attend the Special “Adolescence” Clinic, because they feel shy to mix freely with the older pregnant older mothers, and that the health providers would have time for them. However a few of them said it was not necessary to separate the pregnant adolescents from the pregnant older mothers.

## CHAPTER FIVE

### 5.0. DISCUSSION, CONCLUSION AND RECOMMENDATION

#### 5.1. DISCUSSION

##### 5.1.1. Socio-demographic characteristics of respondents

The *level of education* may have significant influence on sexual activeness among adolescents, thereby leading to an increase in adolescent pregnancy as found from the study. JSS graduants or dropouts contributed significantly in this study (46.8%), and the other levels of education 53.2%. Interview with health providers confirmed this. In this case educational level contributed negatively to the plight of the adolescents.

This pattern compares with that in the GDHS, 1998 (GSS and MI 1999) which also shows an increasing level of sexual activeness with level of education. It therefore following from the above that sexual activities increase with increasing level of education of an adolescent. This shows that something must be done to decrease the number of adolescent pregnancy among the JSS students, JSS graduants, and the school dropouts.

*Age at first menses* - From the socio-cultural background of our present society early menarche is interpreted as the age at which an adolescent girl is sexually matured, and therefore can either have sex or marry. This implies that the earlier a woman gets her menses, the earlier she engages in sexual intercourse and also marriage. This is the time the mother should be talking to the adolescents about measures to prevent themselves from sexual activity and pregnancy. However, sexual matters are not mentioned in homes let alone telling an adolescent to go in for contraceptives to prevent pregnancy and possible STDs including HIV/AIDS.

The study showed that the majority of respondents had their first menses in the age group of 14-16years and the median age at first menses was 13.8years which compares favourable with 13.8 from GDHS,1998 (Moreland and Logan, 2000).

***Age at first sexual intercourse*** – The lower the age at first menarche, as one feels matured, the earlier the age at fist sex. This implies that the more likely there will be adolescent pregnancy. From the study it was revealed that the majority of the respondents 57.8% had their first sexual intercourse when they were between the ages of 14-16 years with a mean age of 15.7 years. The lowest age at first sex was found to be 10 years in the study which is the same as a study by Nabila and Fayorsey in Accra and Kumasi (Moreland and Logan, 2000). Moreover, during the FGD it was also observed that the majority of the pregnant adolescents 72% had their first sexual intercourse within the 14-16 year age group, with a mean age of 15.7 years. This value is on the lower side compared with 17.5 years from the GDHS, 1998 (GG and MI 1999).

***Marital Status*** - The increase in sexual activeness of the adolescents also leads to early marriage among the adolescents. Marriage is the formal union between a man and a woman. The findings of this study show an increasing trend with age of formal union. This increasing trend of age with formal union at adolescence shows that most parents give up their daughters for marriage at late adolescent age. While the earlier adolescents may be cohered into sexual relations resulting into pregnancy. The study found out that the number of married pregnant adolescents was proportional to the age. This conforms to findings in the GDHS, 1998 (GSS and MI, 1999) where the proportion of women who were married or in informal union increased with age. The mean age at first marriage in this study is 18.2 years and the median 19 years as compare to that in the GDHS, 1993

and 1998. This is also comparatively lower than that obtained by Bongaart, 1994 (Network, 1993).

***Marital Status and Ethnicity*** - Ethnic is a group sharing a common origin, culture, or language. The study shows that a greater proportion of the married 61.4% were from the Northern ethnic origins. On the other hand from the interview with the health providers it came out that about 80% of the married pregnant adolescents were of the Northern ethnic origin and the rest Akans. This can be attributed to the fact that in some of the Northern ethnic communities girls are given up for marriage at very early ages as tradition and customs demand. This has contributed to the increase in the proportion of married pregnant adolescents during the study.

### **5.1.2. Service delivery**

***Purpose of ANC*** - Some of the purposes of ANC are education, examination of the body, early identification of risk factors such as pregnancy induced hypertension (PIH), and treatment of any adverse condition during pregnancy. It was revealed from the study that pregnant adolescents who attended the Special "Adolescent" Clinic provided adequate information on the purposes of ANC, than in the Mixed ANC. This shows that the pregnant adolescents at the Special "Adolescent" Clinics receive better attention, compared to those in the Mixed ANC. Interview with the health providers showed that all of them explain the purpose of ANC to their clients. The low level of knowledge of the purposes of ANC can be attributed to the fact that some of the pregnant adolescents absent themselves from health education talks. This is because most of the pregnant adolescent feel shy of their pregnancy and also want to shun the company of the older pregnant mothers.

***Privacy during obstetric examination*** – Privacy in the Ghanaian community is very important during examination on pregnant women. This is because of the belief that when some type of people see your abdomen your baby will be a sick child when it is born. From the study there was adequate privacy at the various ANCs. The level of privacy at the ANC is proportional to the attendance at the clinics. In general the privacy in both types of clinics is very good , even though that of the Mixed ANC is on the higher side. Interview with the health providers showed that there was adequate privacy in both types of ANC.

***Reasons for attending a particular clinic*** - Whatever the reasons for choosing a particular antenatal clinic, it was observed that the reasons given by respondents from the Special "Adolescent" clinic seemed much more laudable. Reasons such as intimidation by the older pregnant mothers, and the fact that they will feel free and not be harassed by the older mothers is a big relief for them both psychologically and emotionally. This is because the pregnant adolescent is already under pressure at home and going through some kind of physical and emotional disturbances in the house. This is one of the causes of either attending clinic late to avoid the pregnant older mothers or not attending, This means that the pregnant adolescents prefer doing things together as a group. This allows them to be free to ask question at the time of health education talks at the ANC.

“I like attending the mixed clinic because the older mothers teach us what we don’t know”

“I don’t know any other clinic apart from this”

This shows that if they had known where an adolescent clinic is they would prefer.

However some of the pregnant adolescents attended the Mixed ANC because of the assistance given to them by the older pregnant mothers. Other attended because they had prompt attention from the nurses.

***Frequency of antenatal clinic*** - The frequency of ANC visits is proportional to the health of a pregnant woman. However from the study the majority (72.3%) of the respondents who attended the mixed antenatal clinic did not know how many antenatal visits they were supposed to attend before delivery as compared to 41.4% of the pregnant adolescents attending the special "Adolescent" clinic. This shows that the number of pregnant adolescents attending the Special "Adolescent" Clinic, knew the number of antenatal visits they were supposed to attend before delivery was more than those who attended the Mixed ANC.

This implies that the services rendered at the Special "Adolescent" Clinic are better than that of the Mixed ANC. This might have been attributed to the unfriendly attitude of some of the pregnant older mothers to the pregnant adolescents this forces them to stay away from the ANC health education talks. Some of the pregnant adolescents also like to come at a later hour when the queue at the early hours of the day might have gone down, so that they have quick attention from the nurses, thereby missing the health education talks.

***Knowledge of Rest and Exercise*** - Rest and Exercise help to maintain the blood circulation and well being of both the mother and the baby. It became evident from the study that 33% of those pregnant adolescents who attended the Special "Adolescent"

Clinic knew that a pregnant woman needed rest, as compared to (12.6%) who attended the Mixed ANC.

On exercise, it was clear from the study that 45.9% of pregnant adolescents who attended the Special “Adolescent” Clinic knew that a pregnant woman needed some amount of exercise, as compared to 15.5% who attended the Mixed ANC. However interview with health providers from both types of clinics reveal that they educate the pregnant adolescents on the need for exercises.

The knowledge of respondents generally about rest and exercise during pregnancy was on the lower side. However, the results from the Special "Adolescent" Clinic were far better as compared to that of the Mixed ANC. This huge disparity can be attributed to the fact that some of the pregnant adolescents feel shy mixing freely with the older mothers, and therefore came late to ANC, when most of the older mothers had left. This makes them miss the ANC health talks are given at the beginning of the clinic. Some of the pregnant adolescents also came late in order to avoid the older mother who gossip and are not friendly to them.

***Knowledge of danger signs in pregnancy*** – These are warning signs that signify the onset of some sort of disease, which needs prompt attention to forestall any uncomfortable situation for the pregnant woman. There is the need for every pregnant woman to know these signs. From the results of the study it found out that respondents who attended the Special “Adolescents” Clinics had better knowledge of danger sings in pregnancy, compared to Mixed ANC. Moreover interview with the health providers showed that all of them educate the pregnant adolescents on danger signs during pregnancy. This again indicates that the Special “Adolescent” Clinics perform better than the Mixed ANC. This can be attributed to the fact that the pregnant adolescents attend the

ANC with the pregnant older mothers where the health providers do not have time for them.

***Knowledge of contraceptives*** - Some contraceptives prevent both unwanted pregnancy and sexually transmitted diseases. Knowledge of contraceptives assures the adolescent to make informed choice on pregnancy and STD including HIV/AIDS. It was also observed from the study that there was poor knowledge of contraceptives among the pregnant adolescents from both clinics. However, the knowledge of contraceptives of pregnant adolescents who attended the Special “Adolescent” Clinics is better compared the Mixed ANC. It followed the same pattern during the FGD. The results conform to the findings of Amadu, 1987 on “Teenage pregnancies” in Tishigu locality in Tamale, This also compares favorably with findings from the GDHS 1998 (Moreland and Logan, 2000). However interview with the health providers showed that they all give talks on contraception and contraceptive use to their clients.

This clearly shows that knowledge of the pregnant adolescents on contraceptive issues is low, and perhaps contributes to increasing the risk of adolescents to pregnancy. There is the need therefore to intensify the education of the adolescents on contraception and contraceptive use during the antenatal sections and in the communities.

### **5.1.3. Service providers**

***Waiting time*** - This is the time spent in at the ANC during a visit. From the study it came out that there was no difference in the waiting time in both ANC. Results from the study show that there was no significant difference in the time spent by pregnant adolescents from both types of clinics. Interview with the health providers indicated that the time spent by clients in their various institutions ranged between 1 hour and 2 hours. This

shows that the waiting time for the respondents is high and the management of the various health facilities should find ways of minimizing it. Waiting time affect the patronage of a clinic /facility. It therefore implies that the lesser the waiting time the better the services rendered there.

#### **5.1.4. Mixed Antenatal Clinics**

##### ***Relationship between the pregnant adolescents and the pregnant older mothers -***

Findings in this study showed that the relationship between the pregnant adolescents and the older mothers is generally good. However this could not raise the level of attendance of the pregnant adolescents to the Mixed antenatal clinic to that of the Special “Adolescent” clinic.

On the other hand during the FGD at the mixed ANC there was mixed feelings about the relationship between the pregnant adolescents and the pregnant older mothers. While one-half of the respondents said that the older mothers teach them things they don't know, the other one-half said the older mothers rebuke, gossip and shout at them. Interview with the health providers indicated that 40% of them said the relationship between the pregnant adolescents and the pregnant older mothers is not good, 60% of them said there was generally good relationship. It is evident from the three groups of respondents that relationship between the pregnant adolescents and the pregnant older mothers is not all that bad. However there is the need to take a second look at the whole issue of mixed antenatal clinic for pregnant women.

***Preference of the Special “Adolescent” Clinic to the Mixed Antenatal Clinic.*** This study revealed that most of the pregnant adolescents who attended the Mixed ANC preferred to attend a Special “Adolescent Clinic. Again from the FGD almost all the

pregnant adolescents preferred to attend the Special “Adolescent” Clinic. It also became evident from the interview with the health providers that almost all the respondents preferred the pregnant adolescents attend the Special “Adolescent” Clinic.

The views of the three groups of respondents go to buttress the same point. This showed that the pregnant adolescents as well as the health providers are in favour of the Special “Adolescent” Clinic for solely the pregnant adolescents. The operation of the Mixed ANC should be reviewed and a second look should be taken in the interest of the pregnant adolescents.

## **5.2. CONCLUSION**

It can be concluded from the study that the influence of the Special “Adolescent” Clinic on pregnant adolescents in the Kumasi Metropolis is enormous even though there were some setbacks. Because of the type of services rendered and the relationship between the health providers and the pregnant adolescents, there is a higher attendance at the Special “Adolescent” Clinics. This seems to suggest that there is an increase in Adolescent Pregnancy in the Kumasi Metropolis, but this is not the case. However it is the reporting of the pregnant adolescents that has rather increased.

A higher proportion of the pregnant adolescents (77.6%) was not married, most of the respondents had their first sexual intercourse between ages 17 years and 19 years. The number of married pregnant adolescents from the three northern regions (61.4% of the married) were more than the rest of the ethnic groups put together. This is perhaps an indication that the people of the three northern regions give up their children for marriage earlier. The number of those who had had children before and attended the Mixed ANC was much higher than those who attended the Special “Adolescent” Clinic. This implies

that the Special “Adolescent” clinic was doing better than the Mixed ANC. The Special “Adolescent” Clinic is therefore a better option for the pregnant adolescents.

The services delivered at the Special “Adolescent” Clinic had a better outcome than the Mixed ANC. A larger proportion of those attending the Special “Adolescent” Clinic knew the purposes of ANC than those attending the Mixed ANC. The majority of clients who attended the Special “Adolescent” Clinic knew the frequency of ANC visits they were supposed to make, while the Mixed ANC attendants do not. The knowledge of rest, exercise and danger signs during pregnancy by clients who received antenatal services at the special “Adolescent” clinic was more than those from the Mixed ANC. The knowledge of clients on contraceptives generally was poor for both types of clinic attendants, however the result from the Special “Adolescent” Clinic was better than that of the Mixed ANC. This shows that the clients prefer the services rendered at the Special “Adolescent” Clinic to that of the Mixed ANC. There was no TV at any of the ANC for the clients to be viewing while the time past. Only one of the clinics had speakers connected to the ANC side of the block from radio (FM) station.

At the Mixed ANC the relationship between the pregnant adolescents and the pregnant older mothers is generally good. However as to whether the former prefers mixing with the later, majority were not in favour of mixing with the later. The pregnant adolescents at the Mixed ANC say they prefer attending the Special “Adolescent” Clinic.

Finally from the deduction made from the discussions, it is quite clear that the Special “Adolescent” Clinic is doing better than the Mixed ANC.

### 5.3. RECOMMENDATIONS

The special “Adolescent” clinic should be adopted for practice throughout the Kumasi Metropolis. This is because the health providers will have enough time to explain issues in-depth for them to understand. There will be no shyness or intimidation.

Deploying more staff to assist at peak hours should reduce the waiting time of clients. TV should be provided for the client to be viewing as they while away the time. A better option is video shows on information, education and communication on reproductive health issue to the client.

Special “Units” or *youth-friendly centers* should be set up in, public places and churches or mosques where youth counseling can be done. In addition counseling on reproductive health issues including family planning for the youth can be done. In schools the counselors should be trained to handle reproductive health issues including family planning

The public health units of the various sub-Metropolis should intensify health education campaigns in their communities and in the health facilities on reproductive health issues as well as family planning.

Family life education should be intensified in all the media in the Metropolis as well as public places (churches, mosques, market places, lorry stations e.t.c.)

Privacy during obstetric examinations should be strictly adhered to. Where there are space problems the Ministry of Health (MOH) should be contacted through the Metropolitan/District health directorate.

**REFERENCE**

Agyei, W. K. A. Hill, R. B. 1997. Sexual Behavior, Reproductive and Contraceptive use Among Adolescents and Young Adults in Ghana.

Ampofo, D. A. 1989. "Extent of the Problem of Adolescent in Korle-Bu." Ghana Medical Journal, Volume 23, No. 3

Ampofo, D. A. 1970. "The Dynamics of Induced Abortion and the Social Implication for Ghana." Ghana Medical Journal, Volume 9, No. 4 pp. 295-302.

Archibong, E.L. Illegal induced abortion – a continuing problem in Nigeria. International Journal of Gynecology and Obstetrics 1991; 34 Pp 261-265 Network, Family Health International, Vol. 14 No. 2, October 1993.

Bongwele, O. Nichols, D. Miatudila, S. et al Determinants and consequences of Pregnancy wastage in Zaire: A Study of patients with complications requiring hospital treatment in Kinshasa, Matadi and Bukavu. Unpublished paper. 1985. Network, Family Health International, Vol. 14 No. 2, October 1993.

Ghana Statistical Service(GSS) and Micro International Inc.(MI).1994. Ghana Demographic and Health Survey, 1993. Calverton, Maryland: GSS and MI.

Ghana Statistical Service(GSS) and Micro International Inc.(MI).1999. Ghana Demographic and Health Survey, 1998. Calverton, Maryland: GSS and MI.

Ghana National Reproductive Health Service Protocol, January 1999, Ministry of Health. Accra.

Gyepi-Garbrah, B. 1987. Some Implications of Early Childbearing in Ghana. University of Ghana, Department of Geography, Population impact project, Legon, Ghana.

Haambagi, R.Z. Wriss, I. A. Young Adult reproductive Health in Zambia: A Review of Studies and Programs. Washington: Focus on young Adults, 1999. Network, Family Health International, Vol. 20 No.3, 2000. Adolescent Reproductive Health. Pp. 32-33.

Helen, M. DuPlessis. Bell, R. Richard, T. Adolescent pregnancy, understanding the impact of Age and Race on outcomes. Journal of Adolescent Health Volume 20, No.3. March 1997

Kenney, J. Y. Reinholdz, C. Angelini, P. J. Ethical differences in Childhood and Adolescent Sexual Abuse and Teenage Pregnancy. Journal of Adolescent Health Volume 21, Number 1, 1997.

Koontz, S and Conlyn, S. R.1994. Youth at Risk; Meeting the Sexual Needs of Adolescent, Population Action International, Washington, DC.

Ku, L. Sonenstein, F. I. Pleck, J H. Factors influencing first intercourse for teenage. Pp7-11. Network, Family Health International, Vol. 14 No. 2, October 1993.

Marfo, C. Ekumah K. D. Aryee- "For why should a mother die on a delivery bed? Study into high maternal death. Tema general hospital. August 1995.

Meekers, D. et al (1993) Sex Contraception and childbearing before marriage in Sub-Saharan Africa. International Family Planning Perspective, Vol. 19, No. 1. pp. 14-18.

Meekers, D. et al 1994 Sexual initiation and pre marital childbearing in Sub-Saharan Africa. Population and development Review.

Mensah et al. 1998. The Uncharted Passage: Girls Adolescent in the Developing World. Population Council, New York.

Moreland, S. Logan, D. 2000. Modeling Adolescent Reproductive Health in Ghana: An Application of the Adolescent Reproductive Health Model.

- Nabila, J. S., C. Fayorsey, M. Pappoe. 1997. Youth and Reproductive Health in Africa: Assessment of Adolescent Reproductive Health Needs in Ghana. Accra: Median Design.
- Nabila, J. S., C. Fayorsey, M. Pappoe. 1996. Adolescent Fertility and Reproductive Health in Ghana: A Case Study of Accra and Kumasi. FADEP Technical Series No. 7. Accra: Assemblies of God Press.
- National Adolescent Health Information Center. University of California, San Francisco. May 1995, Adolescent Pregnancy Prevention Effective Strategies.
- Njogu, W. and Radeny, S. (1995) Adolescent in Kenya the Faces. The center for the study of adolescence Nairobi.
- Redican, K. Olsen, L. Baffi, C 1993. Organization of School Health Programs. USA. Wm. C. Brown Communications, Inc. pp. 219-222.
- State of the World Population, 1998. UNFPA, New York.
- Stevens-Simon, C. Kelly, L. Singer, D. and Cox, A. 1996. Why Pregnant Adolescents say they did not use Contraceptives prior to Conception. Journal of Adolescent Health Volume 19, No.1 1996.
- The Second Decade: Improving Adolescent Health and Development. World Health Organization, Geneva. 1998.
- Varkevisser, C.M. Pathmanathan, I. Brownlee, A. Designing and Conducting Health Systems Research Project. Pt.1, Proposal Development and Fieldwork. Ottawa, Ont., IDRC 1991. Health Systems Research Training Series Vol. 2.
- Weiss, E. Whelan, D. Gupta, G. R. 1996. Vulnerability and Opportunity: Adolescents and HIV/AIDS in the Developing World. Washington: International Center for Research on Women. Network, Family Health International, Vol. 20 No.3, 2000.

**ANNEX 1. DATA COLLECTION INSTRUMENTS****QUESTIONNAIRE ON PROBLEMS OF ADOLESCENT PREGNANCY AND SPECIAL “ADOLESCENT” CLINIC IN THE KUMASI METROPOLIS.****SECTION A. IDENTIFICATION**

Research Area ..... Serial No. ....

Address/Institution/Location .....

Respondents serial No. .... Age ..... Gestation period .....

Respondents nationality ..... Ethnicity .....

Name of interviewer ..... Serial No.....

(Station: .....)

**SECTION B SOCIO-DEMOGRAPHIC CHARACTERISTICS**

1. How old were you on your last birthday? .....

2. Have you ever attended school?

1) Yes                       2) No 

3. If yes, what was the highest level of schooling that you attained?

1) Primary 2) Junior Sec. School 3) Senior Sec School 4) College (Training /Nurses Training) 5) Tertiary institution (Poly. /University) 

6) Others (specify) .....

4. Are you currently in school?

- 1) Yes                       2) No

5. What work do you do/employment?

- 1) Petty trader
- 2) Seamstress/ Hair dresser/Plaiting hair
- 3) Student/apprentice
- 4) Others(specify) .....

6. At what age did you have your first menstrual period? .....

- 1) 8-10 years
- 2) 11-13 years
- 3) 14-16 years
- 4) 17-19 years

7. At what age did you have your first sexual intercourse? .....

- 1) 8-10 years
- 2) 11-13 years
- 3) 14-16 years
- 4) 17-19 years

8. Are you married?

- 1) Yes                       2) No

9. Who cares for you financially if unemployed?

- 1) Spouse/Partner
- 2) Parents/guardian
- 3) Boy friend
- 4) Others (Specify) .....

10. Do you have any other children of your own?

- 1) Yes                       2) No

11. If yes at what age(s) did you have the baby (them)? .....

1) 11 -13

2) 14 -16

3) 17 -19

12. Did you attend the Special “Adolescent” clinic when you became pregnant the previous time?

2) Yes

2) No

### SECTION C: SERVICE DELIVERY

1. Did the Nurses explain to you the purpose of Antenatal clinic?

1) Yes

2) No

2. If yes/no what are some of the purposes of Antenatal clinic?

1) Education

2) Examination

3) Identify risk factors

4) Others (Specify) .....

3. What are some of the signs of pregnancy that you know? .....

.....

.....

4. Do you have some amount of privacy during obstetric examination?

1) Yes

2) No

5. If Yes what are some of the privacies provide at the Antenatal clinic?

1) Separate room

2) Screened apartment

3) Others (Specify) .....

6. How do you rate the privacy at the Antenatal clinic?

- 1) 8-10 marks
- 2) 6-<8 marks
- 3) 4-<6 marks
- 4) <4 marks

7. Why?

- 1) Examinations done in the presence of people
- 2) People come in and go out frequently
- 3) Others (Specify) .....

.....  
.....

8. At what gestational period did you first attend ANC?.....

9. If more than four(4) months why? .....

.....

10. When are you expected to come for the next visit?

- 1) In a months time
- 2) In two weeks time
- 3) In a week time
- 4) Don't know

11. How many ANC visits are you supposed to attend before delivery?

- 1) >4
- 2) 3-4
- 3) 1-2
- 4) Don't know -bad

12. What types of drugs are you usually given at the ANC?

- 1) Oral iron/folate
- 2) Tab Chloroquine
- 3) Tab Paracetamol
- 4) Tetanol-toxoid)

13. Do you usually get all the drugs that you need from the dispensary?

- 1) Yes
- 2) No

14. If No where do you get the other drugs?

- 1) Chemical shop
- 2) Drug store
- 3) Drug peddlers

15. What are some of the good nutritional foods for Body Building?

- 1) Fish
- 2) Meat
- 3) Beans
- 4) Groundnut
- 5) Dark green vegetables

16. What are some of the good nutritional foods for Energy?

- 1) Cereals
- 2) Starchy foods
- 3) Fat and Oils)

17. What are some of the good nutritional foods for Protection?

- 1) Fruits
- 2) Vegetables

18. Were you given some education on the following?

1) Rest

- a. Yes
- b. No

2) Exercise

- a. Yes
- b. No

3) Personal hygiene

- a. Yes
- b. No

19. Were you taught some danger signs in pregnancy?

- 1) Yes       2) No

20. What are some of the danger signs during pregnancy?

- 1) Swelling of the feet, face and hands,       2) Persistent vomiting,   
 3) Severe headache and blurred vision,       4) Jaundice,   
 4) Bleeding per vagina,       6) Severe abdominal pain.   
 7) Leaking water (Rapture of membrane)       8) Others specify .....

.....

21. Have you learnt something about contraceptives since you started attending antenatal clinic here?

- 1) Yes       2) No

22. What types of contraceptives do you know?

- 1) Barrier e.g. condom       2) Spermicides e.g. shampoo   
 3) Oral/Vagina Tablets       4) Permanent e.g. Tubal ligation   
 5) Injectables e.g. Depo       6) None

23. Did you use any type of contraceptive(s) before you became pregnant?

- 1) Yes       2) No

24. If Yes which type(s)?

.....

.....

25. Was it easy for you to come by the contraceptives?

1) Financially

- a. Yes       b. No

2) Culturally

- a. Yes       b. No

**SECTION D: SERVICE PROVIDERS**

1. How do you rate the services provided by the Nurses?

- 1) 8-10 marks
- 2) 6-<8 marks
- 3) 4-<6 marks
- 4) <4 marks

2. Why?

- 1) They are not friendly to us(insult us)
- 2) They don't explain things to us
- 3) Others (Specify) .....

.....

3. How long do you usually spend at the clinic before going home? .....

- 1. < 1 hr
- 2. 1-2 hrs
- 3. 3+ hrs

4. Is the time spent all right for you?

- 1) Yes
- 2) No

5. If no how many hours would you prefer to spend here? .....

6. How do you rate the cost of services here?

- 1) >¢ 10,000
- 2) ¢ 8,000 -¢ 10,000
- 3) ¢ 5,000 <¢ 8,000
- 4) ¢ 2,000 <¢ 5,000

8. If no how much would you have preferred being charged? .....

**SECTION E: FOR THOSE IN THE GENERAL/MIXED ANTENATAL CLINIC**

1. How would you rate the relationship between you and the older mothers?

- 1) 8-10 marks
- 2) 6-<8 marks
- 3) 4-<6 marks
- 4) <4 marks

2. Why?.....  
.....  
.....  
.....

3. Do you therefore think that mixing with the older mothers is good?

- 1) Yes
- 2) No

4. Do they usually shout at you?

- 1) Yes
- 2) No

5. Would you have preferred having/attending a clinic, which caters for only teenagers?

- 1) Yes
- 2) No

6. If Yes / No why? .....

**FOCUS GROUP DISCUSSION (FGD) GUIDE**

1. a. Is this clinic good for you?
  - b. Why?
2. a. At what age did you have your first menstrual period?
  - b. At what age did you start having sex?
3. What instigated you to go into it?
4. Why do you choose to come to this clinic?
5. Why didn't you go to the "Adolescent" clinic/mixed antenatal clinic?
6. a. What are some of the signs of pregnancy?
  - b. What do you know about a pregnant woman's diet?
7. What do you know about personal hygiene during pregnancy?
8. What do you know about contraceptives?
9. a. Have you used contraceptives before?
  - b. If yes which type?
10. a. What is the relationship between you and the nurses?
  - b. What is the relationship between you and the older mothers?
11. What do you do with the nurses when you come to the clinic?
12. What type of equipment/instruments do they use to examine you?
13. How do you feel when you see your baby kicking on the screen?