

A Situational Analysis of Pregnancy Related Challenges in the Sekondi-Takoradi Metropolis, Ghana.

Elizabeth Sekyi¹, Frank B. K. Twenefour^{2*}, Kwamina Fynn³

¹Department of Hospitality Management, Takoradi Polytechnic, P. O. Box 256, Takoradi, Ghana.

²Department of Mathematics & Statistics, Takoradi Polytechnic, P. O. Box 256, Takoradi, Ghana.

³Takoradi Polytechnic Library, P. O. Box, 256, Takoradi, Ghana.

*E-mail of the corresponding author: frank.twenefour@tpoly.edu.gh

Abstract

This research article present pregnancy related challenges within the Sekondi-Takoradi Metropolis, Ghana. Identify ways of managing or minimizing these challenges to ensure a healthy pregnancy and safe delivery, and also to ascertain the prevalence of maternal mortality due to pregnancy related challenges in the Metropolis. The design employed for the study was descriptive with target population being pregnant women in the Metropolis. It was found out that, maternal deaths due to pregnancy complications had obstructed labour ranked high (80%) on the list of complications while deaths due to nutritional anemia, unsafe abortion, hemorrhage and sepsis were of average rate. It was also observed that eclampsia and pulmonary oedema, which were high, ran across all the three hospitals studied. It was recommended that, health persons be given frequent refresher programmes to familiarize themselves with new trends on the field.

Key words: maternal death due to pregnancy complications, Pregnancy related challenges, Sekondi-Takoradi Metropolis,

1.0 Introduction

It is the dream of every woman of childbearing age to get pregnant and deliver safely without any complications that can lead to death of the mother or even the child. But this dream of safe delivery is sometimes shattered as a result of a number of factors including: inadequate preparation before pregnancy, nutritional knowledge, and health status of the mothers, cultural, educational and economic backgrounds of the mothers, all of which contribute to challenges experienced during pregnancy and delivery which endanger the lives of mothers or pregnant women. If these factors are taken care of and addressed, many women, especially the expectant mothers will have safe deliveries. Pregnancy is the carrying of one or more offspring, known as a fetus or embryo, inside the womb of a female. Pregnancy, can be multiple as in the case of twins, triplets or quadruplets. Human pregnancy is the most studied of all mammalian pregnancies. Childbirth usually occurs about 38 weeks after conception; i.e., approximately 40 weeks from the last normal menstrual period (LNMP) in humans. The World Health Organization defines normal term for delivery as between 37 weeks and 42 weeks (World Health Organization 2005 Report).

Complications of pregnancy are the symptoms and problems that are associated with pregnancy. There are routine problems as well as serious and even potentially fatal problems. The routine problems are normal complications, and pose no significant danger to either the woman or the fetus. Serious problems can cause both maternal and fetal death if untreated and some of these include: hemorrhoids, anemia, severe hypertensive states etc. Today across the globe, the issue of maternal mortality has become a thing of high concern to all and sundry especially mothers, because women are considered to be the backbone of the economy and for that matter contribute to the economic growth of the nation. In 2005, there was an estimated 536 000 maternal deaths worldwide. Most of these deaths occurred in developing countries, and most were avoidable (WHO/UNICEF-Fact sheet- 2010).

According to a World Report on Women's Health by Averting Maternal Mortality and Disability (AMMD) Programme (2009), a progressive way of reducing maternal mortality is to liaise with developing countries and international agencies to improve availability, quality and utilization of emergency obstetric care. The geographic distribution of the hundreds of thousands of maternal deaths each year is telling: 99% of deaths in childbirth are in the developing world. Such disparity is mirrored within countries where poor women are more likely to die or become disabled than those with means. Many deaths, of women and their newborns, can be prevented with emergency obstetric care delivered through well-functioning health systems. Maternal and newborn death and disability are personal tragedies, symptoms of health systems in crisis, and profound violations of human rights (Report from Mailman School of Public Health; Columbia University, 2006).

Pregnancy can be a very special time for a couple. Along with the responsibility of shaping a child's health and personality, comes the prospective excitement of watching the child grow and develop. As a result, couples, especially women want to do everything possible to maximize their chances of having a healthy, lively newborn.

Despite these possibilities, women are sometimes often faced with some problems which either affect them or their babies or sometimes claim the lives of either the babies (before they are born or after) or that of the pregnant woman herself. It is for this and many other problems associated with pregnancy, that the study seeks to find out some challenges of pregnancy in the Sekondi- Takoradi Metropolis.

The aim of the study is to present pregnancy related challenges within the Sekondi-Takoradi Metropolis. The objectives was to find out some of the pregnancy related challenges in the Sekondi-Takoradi Metropolis and Identify ways of minimizing the challenges to ensure a healthy pregnancy and safe delivery. The authors introduce the questions; what are some of the pregnancy related challenges in the Sekondi-Takoradi Metropolis? In what ways can pregnancy related challenges be minimized to ensure a healthy pregnancy and safe delivery in the Sekondi-Takoradi Metropolis?

Section 2 explores the review of related literature of the study, section 3 talks about the method. Section 4 however, presents and discusses the result of the analysis. A summary of the research, the findings and the implications of the findings are presented in the last section, Section 5.

2.0 Literature Review

A large body of literature on pregnancy concept provides a basis for this study. The review of related literature under this chapter is devoted to exposition on the complications of pregnancy, ways of managing or minimizing these complications and the issue of maternal mortality.

2.01 Preconception Care

According to Insel & Roth (2000), the safe delivery of a healthy baby and the mother being alive depends in part on the mother's overall wellness before conception. A U.S. Public Health Service report on maternal mortality (2006) recommends that all women receive health care to help them prepare for pregnancy. Preconception care should include an assessment of health risks, the promotion of healthy lifestyle behaviours and any treatments necessary to reduce risks.

2.02 Pregnancy

Pregnancy occurs as the result of the female gamete merging with the male gamete in a process referred to, in medicine, as fertilization, or more commonly known as "conception". After the point of fertilization, it is referred to as a zygote or fertilized egg. Pregnancy symptoms differ from woman to woman and from pregnancy to pregnancy; however, one of the most significant pregnancy symptoms is a delayed or missed menstrual cycle. Understanding the signs and symptoms of pregnancy is important because each symptom may be related to something other than pregnancy (Carlson et al, 2004; Kitzinger, 2008).

Whitney & Rolfes (2005) makes it clear that, during weeks 1 and 2, the zygote is dividing, and implantation occurs. From weeks 3 and 4, the central nervous system, eyes, arms and leg begin to form. The fourth through to the eighth week is the embryonic period with the ninth week ending this period for the fetal period to begin.

2.03 Complications of Pregnancy

The risk of death from complications of pregnancy has decreased approximately 99% during the twentieth century, from approximately 850 maternal deaths per 100,000 live births in 1900 to 7.5 in 1982. However, since 1982, no further decrease has occurred in maternal mortality in the United States (Chang et al, 2003). Each year, according to the World Health Organization's (2005) report on Safe Motherhood, more than 20 million women around the world experience ill health as a result of pregnancy (sometimes permanently).

Kitzinger (2008) in a research conducted, indicated that, during 1991-1999, 4,200 deaths were determined to be pregnancy-related. According to him, it was evident from his study that, the pregnancy-related mortality ratio for black women was consistently higher than that for white women for every characteristic examined. Older women, particularly women aged ≥ 35 years and women who received no prenatal care, were at increased risk for pregnancy-related deaths.

According to Whitney & Rolfes (2005), medical disorders can threaten the life and health of both mother and fetus. If diagnosed and treated early, many diseases can be managed to ensure a healthy outcome. Some of these complications capable of causing maternal mortality include-Bacterial infection, Obstetrical hemorrhage, Complications of unsafe or unsanitary abortions, Gestational hypertension, Gestational diabetes, Renal failure, Anemia, Pre- eclampsia/ eclampsia, Spontaneous abortion, Placenta previa, Bleeding during pregnancy, Blighted ovum, Ectopic pregnancy, Malaria, HIV/ AIDS etc. (Khan et al, 2006).

With reference to ectopic pregnancy, Insel & Roth (2000) assert that, usually, ectopic pregnancy occurs because the fallopian tube is blocked, most often as a result of Pelvic Inflammatory Disease (PID). Almost all ectopic pregnancies occur in a fallopian tube. Rarely, it will attach to an ovary or another organ in the abdomen. As the pregnancy grows, it can cause the tube to rupture (burst). If this occurs, it can cause major internal bleeding. This can be life threatening and needs to be treated with surgery (Law, 2002).

Some other complications mentioned by Erickson (2005) include anemia, back pain, hemorrhoids, constipation, edema (swelling), regurgitation, heartburn; postpartum depression, postpartum psychosis etc. According to a report of the World Health Organization at Geneva (2005), Women die from a wide range of complications in pregnancy, childbirth or the postpartum period. Most of these complications develop because of their pregnant status and some because pregnancy aggravated an existing disease. The four major killers are: severe bleeding (mostly bleeding postpartum), infections (also mostly soon after delivery), hypertensive disorders in pregnancy (eclampsia) and obstructed labour (World Health Organization 2005 Report). The report further gives the following as causes of maternal death in Africa- severe bleeding (haemorrhage) 25%, infections 15%, eclampsia 12%, obstructed labour 8%, unsafe abortion 13%, other direct causes 8% and indirect causes 20%.

2.04 Practices Incompatible with Pregnancy

Apart from malnutrition, there are a number of lifestyle factors or practices that most expectant mothers engage in that have adverse effects on their pregnancy which include the life of the mother. People planning to have children make the choice to practice healthy behaviours during pregnancy (Sizer & Whitney, 2000). They further gave some of the practices incompatible with pregnancy to include alcohol consumption that can cause irreversible mental and physical retardation of the fetus – Fetal Alcohol Syndrome (FAS), smoking and chewing tobacco, use of herbal supplements, medicinal drugs, weight – loss dieting, etc.

2.05 Effect of Nutritional Status on the Success of Pregnancy

In developing countries, according to Worthington- Roberts & Williams (2001), many women are short and underweight and the number of low birth weight (LBW) babies is particularly high (more than 30% in South Asia, 10-20% in other regions). Low birth weight infants have less chance of survival; when they do survive, they are more prone to diseases, growth retardation and impaired mental development. A good start in life to them is important and maternal nutritional status during pregnancy has repeatedly been demonstrated to be associated with pregnancy outcomes for the infant.

Wardlaw et al (2003) stated that, evidence shows that, extra nutrients and energy are used for fetal growth as well as the changes in the mother's body to accommodate the fetus. Her uterus and breasts grow, the placenta develops, her total blood volume increases, the heart and kidneys work harder and stores of body fat increase.

Pruitt & Stein (1999) emphasized that, eating well is very important for both the baby and the mother. They further noted, the worse the nutritional condition of the mother at the beginning of pregnancy, the more valuable a good prenatal diet and /or use of prenatal supplements are in improving the course and outcome of her pregnancy. Adequate periconceptual folic acid (also called folate or Vitamin B₉) intake has been proven to limit fetal neural tube defects, preventing spina bifida, a very serious birth defect. They continue to say that, it is important for the woman to consume adequate amounts of food containing omega-3 during pregnancy and while nursing to support her well-being and the health of her infant (Wardlaw et al, 2003). Calcium food intake and supplementation, according to Atallah, Hofmeyr and Duley (2003) appear to be beneficial for women at high risk of gestational hypertension and in communities with low dietary calcium intake.

Allen (2000) asserted that, a high proportion of women in both industrialized and developing countries become anemic during pregnancy. Estimates from the World Health Organization (2005), report that from 35% to 75% (56% on average) of pregnant women in developing countries, and 18% of women from industrialized countries are anemic. The prevalence of iron deficiency is far greater than the prevalence of anemia, and iron deficiency develops during the later stages of pregnancy even in women who enter pregnancy with relatively adequate iron stores (Betrán *et al*, 2005). After controlling many other variables in a large Californian study, Klebanoff & Porcerelli (2001) showed a doubled risk of preterm delivery with anemia during the second trimester but not during the third trimester.

2.06 Effect of other Factors on Pregnancy Outcome

There are other factors that can and affect the success of pregnancy be it the mother herself or the fetus, apart from nutritional factor. Among these include low socio-economic status, teenage pregnancy, closely spaced

births, advanced maternal age, inadequate prenatal care, lifestyle factors, prenatal ketosis, body weight and weight gain, caffeine consumption, cigarette smoking etc. Regarding low socio-economic status, Wood (2003) asserted that, poverty is strongly associated with low birth weight and other poor pregnancy outcomes since pregnancy outcomes are an important predictor of ultimate child and adult health outcomes.

It has long been established that maternal smoking during pregnancy has adverse perinatal consequences. Alcohol ingestion and cigarette smoking have been widely reported as associated risk factors in spontaneous abortions. Simultaneous studies in California and New York came to similar conclusions as to the effects of smoking and drinking on the outcome of pregnancy being increased risk of second trimester miscarriages (Anokute, 2004). According to Cogswell *et al* (2003), studies have shown that vitamin C requirements increase for pregnant smokers. Studies also indicate that B-carotene, vitamin B-12, vitamin B-6 and folate concentrations appear lower in pregnant smokers than in pregnant nonsmokers.

2.07 Minimizing Maternal Deaths

The first step for avoiding maternal deaths as described by Payne *et al* (2005) is to ensure that women have access to family planning and safe abortion. This they say will reduce unwanted pregnancies and unsafe abortions. The women who continue pregnancies need care during this critical period for their health and for the health of the babies they are bearing.

Some reasons why women do not receive the cares they need before, during and after childbirth are as follows:

- (1) Apart from inadequate facilities, Betrán, *et al* (2005) stated that, most pregnant women cannot afford the services if there are, because they are too expensive or reaching them is too costly. More so, some women do not use the services because they do not like how care is provided or because the health services are not delivering high-quality care.
- (2) Furthermore, according to them, cultural beliefs or a woman's low status in society can prevent a pregnant woman from getting the care she needs.

For women to benefit from cost-effective interventions, Gunasekera *et al* (2006) clearly explains that, antenatal care both in pregnancy and childbirth must be provided by skilled health providers. This according to them is called Emergency Obstetric Care. Many social and cultural factors affect maternal mortality, such as illiteracy, early marriage, high number of pregnancies and births, and lack of health care for women. The highest rates of maternal death occur among illiterate women (76%), unemployed women (67%) and women in low-income groups (38%). The research also showed that women aged above 40 years old faced a higher risk of maternal mortality, and that, women who have had more than seven deliveries have four times the risk. (Maternal Mortality in Viet Nam, 2000 – 2001).

3.0 Methods

3.01 Research Design

The study employed both quantitative and qualitative research approaches. The justification for the choice is that both have their merits and demerits in research, and in a situation where both approaches are employed alongside, one takes care of the weakness of the other making the results very reliable. The qualitative method was used to explain the phenomenon as they exist in their natural setting and the quantitative was used to examine the frequencies and percentages to give meaning to figures. Data for the study was collected mainly from Effia- Nkwanta Regional Hospital, Essikado and Takoradi Hospitals as well as the metropolitan health directorate by the researchers. The research employed both descriptive and inferential statistics in analyzing both the secondary and primary data using Statistical Package for Social Sciences (SPSS) and Microsoft Excel.

3.02 Study Population and Sample

The study population comprised health workers as well as pregnant women in the Sekondi- Takoradi Metropolis in the Western Region of Ghana. The sample size for this study was one hundred (100) consisting of eighty (80) pregnant women at various stages of their pregnancy, five (5) doctors and fifteen (15) midwives at both the delivery wards and antenatal clinics.

3.03 Instrument Description

In collecting data for this study, two different sets of well constructed questionnaires were designed in addition to an interview guide. The use of questionnaires were appropriate for the study because, it enabled the group of respondents to be asked the same set of questions as well as serving as a guide in putting the researcher on track in asking questions and obtaining data from the respondents. The questionnaires were used to collect data from

the doctors and midwives, although, some probing via interview was made to clarify and get more understanding of some of the items in the questionnaire. The interview guide was useful in the study in obtaining data because, some of the respondents were illiterate and for that matter, could not read to answer the questions in the questionnaire by themselves. The interview aided the authors to elicit detailed information, which were not included in the questionnaire but was useful to the study.

4.0 Result and Discussion

4.01 What are some of the Pregnancy Related Challenges in the Sekondi-Takoradi Metropolis?

According to a report of the World Health Organization at Geneva (2005), Women die from a wide range of complications in pregnancy, childbirth or the postpartum period. Most of these complications develop because of their pregnant status and some because pregnancy aggravated an existing disease. From the study, it was evident that, truly women die from a number of complications in their pregnancy because all 5 doctors interviewed confirmed incidences of maternal deaths in their hospitals. According to 80% of the doctors, annual maternal deaths in their hospitals were more than 10. A number of the complications outlined by the doctors and midwives were obstructed labour, hemorrhage of all kinds (PPH & APH), puerperal sepsis, unsafe abortion, anemia, ectopic pregnancies, embolism, HIV/AIDS and eclampsia. Others included hypertensive disorders, retained placenta, pulmonary oedema among others.

It was noticed in this study that, out of the listed or outlined complications, obstructed labour was ranked high (80%) (see Table 1) and most prevalent among all the other pregnancy related complications and this confirms the World Health Organization's 2005 report, that obstructed labour is one of the four major killers of pregnant women. Unsafe abortion as one of the pregnancy complications in this study recorded an average value. According to 2005 report from W.H.O., complications after unsafe abortion caused 13% of maternal deaths in Africa. Anemia, hemorrhage, sepsis and embolism were also average recording 60% and this buttresses the report (Allen, 2000) that, a high proportion of women in both industrialized and developing countries become anemic during pregnancy. According to him, the World Health Organization (2005) reported that, from 35% to 75% (56% on average) of pregnant women in developing countries, and 18% of women from industrialized countries are anemic.

Although from Table 1 ectopic pregnancy, HIV/AIDS, family planning and untrained traditional birth attendants were individually of low percentages, it does not mean that attention must not be given them. According to the health personnel, much is being done to educate the mothers on some complications encountered especially in the use of herbs with the intention of protecting the baby and the need to let qualified health person deliver them instead of untrained or unqualified birth attendants like the TBA's. For instance, the use of locally prepared herbs by the mothers during their pregnancy to protect their pregnancy was about 40%. These herbs were mostly bark and root of trees and leaves and according to the pregnant women, these herbs help with the proper growth and easy and safe delivery of their babies.

Despite some of these mentioned pregnancy complications by the doctors and midwives a personal interview by the researchers revealed that, 76% of the pregnant women did not have any special health conditions that they were treating while only 24% confirmed they had special health conditions regarding their pregnancies that they were treating and most of them were in their first trimester. The stated conditions ranged from bacteria in urine (infections) to malaria, ectopic pregnancy, weight gain and loss as well as blood pressure. The pregnant women were not willing to divulge information regarding their pregnancy to the researchers since they considered them more personal.

Aside the direct challenges associated with pregnancy, other indirect factors also contributed to the level of pregnancy related deaths and one of these related to workload of health personnel (Table 2), especially the midwives. It was found that, the workload was heavy. Seventy-three percent (73%) of the midwives handled more than a hundred cases within a week. In agreement with this sixty percent (60%) of the doctors interviewed stated that there was not enough skilled staff to help with the management of pregnancy complications. According to 40% of the doctors, two (2) midwives are at post at any point in time. The midwives confessed that apart from tiredness they were sometimes unable to examine patients sufficiently and slowly to be able to identify any complications to help with their management. Because of the large number of pregnant women they had to attend to, they had to rush through the required procedures. The midwives asserted that, this situation coupled with awkward and irritating behaviours of some of the pregnant women got them often irritated.

Another indirect challenge had to do with frequent and timely servicing of equipment at the various hospitals. It

was evident from the study that, all doctors and midwives agreed that equipment were serviced from time to time. Although 54% of the midwives said equipment were serviced yearly, they made it clear that, the servicing could be frequent and timely because most often equipment were left subserviced for long periods before they were attended to or were never got serviced even though, they were useful to help manage complications of pregnancies.

4.02 In what ways can these Pregnancy Related Challenges be managed to ensure a Healthy Pregnancy and Safe Delivery in the Sekondi-Takoradi Metropolis?

The first step for avoiding maternal deaths as described by Payne et al (2005) is to ensure that women have access to family planning and safe abortion. This they said would reduce unwanted pregnancies and unsafe abortions. Women who continue pregnancies need care during this critical period for their health and for the health of the babies they bear.

Both the doctors and the midwives agreed that there were pregnancy emergencies in their various hospitals. They attributed these emergency cases to late referral of cases (especially from maternity homes or clinics to the main hospitals), ignorance of health facilities close to them, inadequate skilled staff and equipment. Other reasons included inadequate transportation facilities, late attendance at antenatal clinics and cultural/traditional beliefs. Betrán et al (2005) agree that cultural beliefs or a woman's low status in society can prevent a pregnant woman from getting the care she needs.

On ways to minimize pregnancy related complications, doctors and midwives interviewed stated that there was need for the husbands of these pregnant women to give them the necessary care and support in every way possible. Such support helps the pregnant women to be psychologically and physically sound and which also affect the baby positively. In order to encourage men to do this, the Takoradi Hospital introduced the "Male Antenatal School" aimed at educating males and husbands of these women on the benefits of helping their pregnant wives through their pregnancy in agreement with Payne et al (2005).

Another way suggested by the medical personnel was that mothers must regularly attend Antenatal Clinics (ANCs). Pregnant mothers were asked if they attended ANC, fifteen percent (15%) said they did not attend ANC for all their previous pregnancies due to the problem of finances and long distances to hospitals. This agrees with local TV3's report that four hundred (400) deaths recorded in the first half of 2009 in the Eastern Region alone was the result of inadequate health facilities around communities. This also agrees with Betrán et al (2005) that, most pregnant women could not afford the services if these were available because they were too expensive and to reach them was also costly.

Other ways of minimizing or managing pregnancy complications suggested were that, pregnant women should report any unusual signs and symptoms, good management and supervision by health personnel, educating the pregnant women on the essence of attending ANC, adherence to medical advice, collaborative effort between the health care personnel and the public. Pregnant mothers must consume good balanced meal, which according to Wardlaw et al (2003) were very important since evidence showed that, extra nutrients and energy were used for fetal growth as well as for the changes in the mother's body to accommodate the fetus. From the study conducted, although about 30% of the pregnant women chose cereals and grains from the food groups, they combined these with other foodstuffs in the other food groups. Some pregnant mothers (30%) indicated that they did not eat food from the fat and oils group as well as starchy roots and plantains because they had heartburns.

Early referrals to the hospitals were vital in minimizing pregnancy complications which lead to quick intervention to pregnancy complications. Whitney & Rolfes (2005) stated that medical disorders which threaten the life and health of both mother and fetus if diagnosed and treated early, avoid many diseases to ensure a healthy outcome.

Nineteen percent (19%) of the pregnant women had their deliveries at home without help or with the help of a TBA. About half of this percentage narrated what they had to go through before they were rushed to the hospital at the point of death. Improving the living conditions of the childbearing group was also another way to minimize complications in pregnancy. Wood (2003) asserted that, poverty was strongly associated with low birth weight and other poor pregnancy outcomes since pregnancy outcomes were an important predictor of ultimate child and adult health outcomes.

When the pregnant women were asked if they had heard of maternal death before, 86% answered in the affirmative and mentioned the media as the means by which they got to know. Though pregnant women knew

about maternal deaths, yet some admitted that sometimes they could not follow what their doctors and midwives told them because of financial constraints.

It was found out that, maternal deaths do occur in the three facilities used for the study and some of these pregnancy related challenges that cause maternal mortality included obstructed labour ranking high on the list of complications with 80% while those on the average were nutritional anemia, unsafe abortion, haemorrhage and sepsis all 60% rate. Others mentioned also included were pregnancy induced hypertension, retained placenta, eclampsia and others. Majority of the pregnant women (57%) made their living from the petty trading which according to them was not regular and consistent with regard to how much they get at the end of the day as against those who were engaged in a stable job such as government and private sector workers who were assured of receiving regular monthly salaries.

5.0 Conclusion

The study revealed that, there were a number of pregnancy complications outlined by the doctors and midwives and these included obstructed labour, hemorrhage, puerperal sepsis, unsafe abortion, anemia, ectopic pregnancies, hypertensive disorders and eclampsia. Others include embolism, retained placenta, HIV/AIDS among others. Although, the obstructed labour registered as a higher cause of death, the case was different from data on prevalence from the Metro Health Directorate where eclampsia and PPH were high during the years under review (2007-2010).

It was again found out that, there were not enough qualified and trained midwives to help manage pregnancy complications when they arise and moreover there was inadequate modern equipment but when they broke down there was no prompt servicing. According to the medical personnel there were no stipulated or specific periods slated for training or refresher courses for the midwives and the doctors as well. The workload for the health workers especially, midwives both at the labour ward and the antenatal clinic was too much and this negatively affected their performance.

About 63% of the pregnant women studied had an educational background ranging from vocational, primary and junior secondary through to senior secondary levels while 11% had had no education at all. Although about 85% of pregnant mothers attended antenatal clinic, some considerable number also did not see the need to attend antenatal clinic for check up to know their medical status as well as those of the babies. Meanwhile, more than half of the sampled pregnant women (81%) had their deliveries either at the hospital or clinic where they were attended to by a midwife.

About 50% of the pregnant women chose diets of cereals and grains at the expense of other food groups, even though a considerable number of them combined these with other foods from the food group. This was because there were certain foods containing fat or oil, beans, some animal proteins, sugary foods; etc which they did not eat because of their pregnant state as they either increased their blood pressure, diabetes or some other conditions like causing miscarriages and impeding the delivery process which make them uncomfortable.

Finally, it was concluded that about 40% of the pregnant mothers used locally prepared herbs to protect their pregnancy.

References

- [1] Allen, J. C. (2000). *Physiology of Pregnancy and Nutrient Metabolism*. American Journal of Clinical Nutrition 71: 1218s-1225s.
- [2] Anokute, C. C. (2004). *Epidemiology of Spontaneous Abortions: The Effects of Alcohol Consumption and Cigarette Smoking*. Journal of the National Medical Association, 78 (2).
- [3] Atallah, A. N., Hofmeyr, G. J., & Duley, L. (2003). *Pregnancy Chronic Disease Prevention and Health Promotion*. University of the Witwatersrand Press. Eastern Cape, South Africa,
- [4] Betrán, A. P., Wojdyla, D., Posner S. F., Gülmezoglu, A. M. (2005). *National Estimates for Maternal Mortality: An Analysis Based On The W.H.O Systematic Review Of Maternal Mortality And Morbidity*. Biomed Central Public Health.
- [5] Carlson, K. J., Eisenstat, S. A., Ziporyn, T. D. (2004). *The New Harvard Guide To Women's Health*., Massachusetts. USA
- [6] Chang, J., Elam-Evans, L. D., Berg, C. J., Herndon, J., Flowers, L., Seed, K. A., Syverson, C. J. N. (2003). *Pregnancy-Related Mortality Surveillance -United States, 1991—1999*.
- [7] Cogswell, M. E., Weisberg, P., Spong, C. (2003). *Nutrition As A Preventive Strategy Against Adverse Pregnancy Outcomes*. Journal of Nutrition, 133:1722S-1731S.

- [8] Erickson, J. (2005). *Folic Acid and Prevention of Spina Bifida and Anencephaly, Morbidity and Mortality Weekly Report*. 51 (2002): 1-3.
- [9] Gunasekera, P. C., Wijesinghe, P. S., Goonewardene, I. M. R. (2006). *Emergency Obstetric Care: The Key to Further Reducing Maternal Mortality in Sri Lanka*. Journal of Regional Health Forum - WHO South-East Asia Region. September 2006. Volume 6, Number 2.
- [10] Insel, P. M., Roth, W.T. (2000). *Core Concepts in Health*. 8th ed., Mayfield Publishing Company. Pp.184-186. U.S.A
- [11] Johnson, B., Christensen, L. (2008). *Educational Research: Quantitative, Qualitative and mixed approaches*. C A, SAGE Publications Inc.
- [12] Khan, K.S et al (2006). *The Lancet* (WHO Analysis of Causes of Maternal Death: a systematic review 367:1066–1074).
- [13] Kitzinger, S. (2008). *The Complete Book of Pregnancy and Childbirth* (revised Edition). Tomson Publishers, USA.
- [14] Klebanoff, J. Porcerelli, H. (2001). Journal of the American Board of Practice, 13: 353-358.
- Law, C. M. (2002). Early Growth and Coronary Heart Disease in Later Life: Longitudinal Study, British Medical Journal 322: 949-953.
- [15] Payne, W.A., Hahn, D. B., Mauer, E. B. (2005). *Understanding your Health*. 8th ed. McGraw-Hill, Inc, New York, U.S.A.
- [16] Pruitt, B. E., Stein, J. J. (1999). *Health Styles*. 2nd ed. Harcourt Brace and Company, U.S.A.
- [17] Public Health Service Report on Maternal Mortality (2006). Mailman School of Public Health; Columbia University.
- [18] Sizer, F. S. and Whitney, E. N. (2000). *Nutrition: Concepts and Controversies*. 8th ed. Wadsworth/Thompson Learning Inc, U.S.A,
- [19] Wardlaw, G. M., Hampl, J. S., DiSilvestro, R.A. (2004). *Perspectives in Nutrition*. 6th ed. McGraw- Hill, Inc U.S.A.
- [20] Whitney, E., Rolfes, S. R. (2005). *Understanding Nutrition*. 10th ed. Thomson Wadsworth, U.S.A.
- [21] WHO/UNICEF- Fact sheet- 2010.
- [22] Wood, D. (2003). *Effect of Child and Family Poverty on Child Health in the United States*. Pediatrics Journal, Vol. 112. No.3, September 2003, pp. 707-711.
- [23] World Health Organization's (2005) Report On Safe Motherhood, issue 68.
- [24] World Report on Women's Health by Averting Maternal Mortality and Disability (AMMD) Programme (2009).
- [25] Worthington-Roberts, B. S., Williams, S. R. (2001). *Nutrition Throughout The Life Cycle*. 3rd ed. McGraw-Hill, Inc. U.S.A

Table 1: Causes and Prevalence of Maternal Deaths

Causes	Doctors Responding				
	Very High	High	Average	Low	Total
Haemorrhage	-	2	3	-	5
Sepsis	-	1	3	1	5
Obstructed Labour	-	4	1	-	5
HIV/AIDS	-	-	1	4	5
Unsafe Abortion	-	-	5	-	5
Anemia	1	1	3	-	5
Embolism	1	-	1	3	5
Ectopic	-	-	-	5	5
Beliefs/Myths	-	1	2	2	5
Family Planning	-	-	-	5	5
Untrained TBA's	-	1	-	4	5
Use of Local Preparations (Herbs)	-	1	2	2	5
TOTAL	2	11	21	26	60
PERCENTAGE	3.3	18.3	35.1	43.3	100

Table 2: Number of Cases Midwives Handle in a Week

Number of Cases	Frequency	Percentages
7	1	7
50	3	20
80	2	13
100	3	20
>100	6	40
Total	15	100

Table 3: PREVALENCE OF MATERNAL DEATHS IN THE HOSPITALS

Hospital	Cases	Year				Total	Average
		2007	2008	2009	2010		
Effia-Nkwanta Regional Hospital	Eclampsia & PIH	5	12	6	8	31	7.8
	APH/ PPH	3	10	4	10	27	6.8
	Pulmonary Oedema	0	1	1	1	3	0.8
	Obstructed Labour	2	2	0	2	6	1.5
	Unsafe Abortion	3	0	6	2	11	2.8
	Puerperal Sepsis	3	1	1	3	8	2.0
	Severe Anemia	0	2	0	1	3	0.8
Essikado Hospital	Embolism	0	1	1	1	3	0.8
	Postpartum Eclampsia	2	1	1	1	5	1.3
	Anemia	1	0	1	2	4	1.0
Takoradi Hospital	Pulmonary Oedema	1	1	2	0	4	1.3
	Eclampsia	1	0	0	1	2	1.0

The IISTE is a pioneer in the Open-Access hosting service and academic event management. The aim of the firm is Accelerating Global Knowledge Sharing.

More information about the firm can be found on the homepage:

<http://www.iiste.org>

CALL FOR JOURNAL PAPERS

There are more than 30 peer-reviewed academic journals hosted under the hosting platform.

Prospective authors of journals can find the submission instruction on the following page: <http://www.iiste.org/journals/> All the journals articles are available online to the readers all over the world without financial, legal, or technical barriers other than those inseparable from gaining access to the internet itself. Paper version of the journals is also available upon request of readers and authors.

MORE RESOURCES

Book publication information: <http://www.iiste.org/book/>

Academic conference: <http://www.iiste.org/conference/upcoming-conferences-call-for-paper/>

IISTE Knowledge Sharing Partners

EBSCO, Index Copernicus, Ulrich's Periodicals Directory, JournalTOCS, PKP Open Archives Harvester, Bielefeld Academic Search Engine, Elektronische Zeitschriftenbibliothek EZB, Open J-Gate, OCLC WorldCat, Universe Digital Library, NewJour, Google Scholar

