

**FACTORS CONTRIBUTING TO LATE ANTENATAL BOOKING AMONG
PREGNANT WOMEN AT KAMPALA INTERNATIONAL
UNIVERSITY TEACHING HOSPITAL**

**A RESEARCH REPORT SUBMITTED TO
UGANDA NURSES AND MIDWIVES EXAMINATION BOARD**

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BY

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ABSTRACT

The initiation of antenatal care (“booking”) is universally recommended in the first trimester but existing evidence from developing countries indicates that few women seek antenatal care at early stage of their pregnancy and that late initiation of ANC may lead to undetected or late detection of maternal health problems and subsequently unmanaged complication among pregnant women and thus contributes to maternal mortality. This study aimed to determine the factors contributing to late booking of antenatal care among pregnant women in Kampala International University Teaching Hospital

Across-sectional quantitative study using interviewer-administered questionnaire was conducted in Kampala International University Teaching Hospital. A total number of 52 pregnant women attending antenatal clinic selected by systematic random sampling were included in the study. Data from the completed questionnaires was entered into the computer and finally analyzed with SPSS version 16.0.

It was observed that majority (65%) of the pregnant women book for antenatal services at the second through to the third trimester of pregnancy. Important socio-demographic factors associated with late ANC booking included: maternal age (younger and older age groups- 62.5% and 100% respectively); marital status (single-77.8% and separated-60%); residence (rural-79.4%); level of education (primary-86.7% and no formal education-79.4%); gravidity (grandmultigravida-100% and multigravida-94.4%); high parity (100%) and previous uneventful pregnancy (87.2%). Socioeconomic factors included: occupation (unemployment-76.9%); financial constraints (66.7%) and distance over 5 kilometers away from hospital (85.7%).

Late antenatal care attendance remains high among pregnant women indicating the need for intensified and more focused utilization of resources aimed at increasing sensitization on the importance of early booking and the holistic value of antenatal care should also be enhanced.

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AUTHORISATION

SUPERVISOR'S APPROVAL

This research report titled; **“Factors contributing to late booking of antenatal care among pregnant women at Kampala International University Teaching Hospital”** was done under my supervision and has been forwarded for consideration with my approval.

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DECLARATION

I hereby declare that, apart from other references which have been duly acknowledged, this research work titled **“Factors contributing to late booking of antenatal care among pregnant women at Kampala International University Teaching Hospital”** is my own and has not been presented to any university for the award of a Diploma in Nursing Science.

Signature Date

MERCY JOHN MMASSY

(Author)

DEDICATION

I dedicate this piece of work to my parents Mr. and Mrs. John S. Mmassy; they have been source of inspiration, engine of courage and secret of my achievements since my childhood. I also dedicate it to my beloved husband Mr. Kwandiwa George, our children, sisters and brothers all for their support.

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The lecturers, especially Mrs. Musiimenta Pamella (Exam coordinator) for her support and encouragement, and other staff in the department of School of Nursing Sciences, I would like to thank you for making my Diploma course enjoyable.

Lastly, but not the least, I am grateful to my entire family for the selfless love and support.

Above all, the ALMIGHTY GOD for life offered and my SPIRITUAL brothers and sisters for their strong endless prayers.

MAY THE ALMIGHTY GOD BLESS YOU ABUNDANTLY

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LIST OF ABBREVIATIONS

ANC	Antenatal Care
DHS	Demographic Health Survey
FANC	Focused Antenatal Care
KIUTH	Kampala International University Teaching Hospital
UNAIDS	United Nations Programme on HIV/AIDS
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Emergency Fund
WHO	World health organization

DEFINITION OF TERMS

Antenatal care: Is the clinical assessment of the mother and the fetus during pregnancy for the purpose of obtaining the best outcome for both the mother and the unborn child.

Booking: Refers to the first visit of pregnant mother to antenatal clinic.

Gestational age: means the age of the fetus in weeks from the last normal menstrual period of the mother.

Gravida: Refers to the uterus containing or being filled with a pregnancy.

Late antenatal care booking: In this study late booking for ANC is going to the clinic for the first time at or after 20 weeks (five months) of pregnancy.

Maternal morbidity: Any health condition attributed to and/or aggravated to pregnancy and childbirth that has negative impact on the woman's wellbeing.

Maternal mortality: Maternal death due to pregnancy per 100,000 live births

Multigravida: refers to a woman who has had two or more pregnancies.

Multipara: Is a woman having had two or more deliveries.

Nullipara: Is a woman who has never delivered.

Parity: The number of deliveries from 28 to 40 weeks of gestation.

Primigravida: refers to a woman pregnant for first time.

Primipara: Is a woman having had only one delivery.

CHAPTER ONE: INTRODUCTION

1.1 Introduction

Globally, there were an estimated 287, 000 maternal deaths in the year 2010. Developing countries accounted for 99% (284, 000) of the global maternal deaths, the majority of which were in sub-Saharan Africa (162, 000) and Southern Asia (83, 000), sub-Saharan Africa region alone accounted for 56% of global burden (WHO/UNICEF/UNFPA/The World Bank, 2012).

Antenatal care (ANC) is one of the components of safe motherhood (Adekanle & Isawumi, 2008). The purpose of this specialized form of care is to ensure that every pregnancy ends in birth of a healthy baby with no impairment in the mother's health (Adekanle & Isawumi, 2008; Mohammed *et al.*, 2011). Thus, early initiation of ANC is widely believed to improve maternal and fetal health.

The ANC services are usually grouped into booking and follow-up visits. The booking visit offers the clinician or midwife to assess the health status of the expectant mother. Early detection of disorders that predate the pregnancy or could be aggravated by the pregnancy is crucial to preventive, therapeutic, and counseling services. Fetal assessment and gestational age estimation are usually carried out in the booking visit. This also allows expectant mothers to assess the services available in the health care facility and help her decide whether or not to utilize those (Jimalo, 2008).

The antenatal period provides excellent opportunities to reach pregnant women with preventive and curative care. It is revealed that the higher the levels of care obtained during pregnancy, the higher the use of safe delivery service will be. This strong positive association between level of care obtained during pregnancy and the use of safe delivery care may help to explain why antenatal care could also be associated with reduced maternal mortality (Campbell *et al.*, 2008).

Antenatal care (ANC) is defined as clinical assessment of the mother and the fetus during pregnancy for the purpose of obtaining the best outcome for both the mother and the unborn child (WHO/UNAIDS/UNICEF, 2010). Timely entry to ANC has been found to have tremendous benefits for the fetus. It is recommended that pregnant mothers need to be tested for HIV early during pregnancy and get subsequent tests. This approach helps to reduce vertical transmission of the virus (WHO/UNAIDS/UNICEF, 2010).

In addition, mothers who enter to ANC early will receive testing and timely treatment for syphilis. Moreover, pregnancy by itself results in nausea and vomiting in almost half of mothers during first trimester. Unless, this pregnancy disorder is treated early and advice given; it might result in nutritional disturbance and might end up with low birth weight and intra uterine growth restriction. Also, the consequence of nausea and vomiting that is craving of non-food substances, which might have potential teratogenic effects will result in spontaneous termination of pregnancy or various congenital anomalies (Murray & Hassal, 2014).

The initiation of antenatal care (“booking”) is universally recommended in the first trimester (WHO, 2011). However, existing evidence from developing countries including Uganda indicates that few women seek antenatal care at early stage of their pregnancy (Patel *et al.*, 2015).

The definition of late booking varies between studies, some define it as booking after 12 weeks (Sunil *et al.*, 2010), 13 weeks (Oladokun *et al.*, 2010; Daniels *et al.*, 2006), 14 weeks (Ndidi & Oseremen, 2010, Okunlola *et al.*, 2006), 16 weeks (Mrisho *et al.*, 2009), 18 weeks or 20 weeks (Alderliestan *et al.*, 2007). In this study late antenatal booking will be defined as going to the clinic for the first time at or after 20 weeks (five months) of pregnancy.

According to Uganda clinical guidelines of 2010, for normal (uncomplicated) pregnancies, four routine antenatal care visits are recommended as follows: the first visit between 10–20 weeks of pregnancy; the second visit between 20–28 weeks of pregnancy; the third antenatal care visit between 28–36 weeks and fourth antenatal care visit after 36 weeks (Ministry of health, 2010). The guidelines also recommend more frequent visits and early antenatal care visits for mothers with pregnancy complications, or those with identifiable risk factors for such complications, such as complications in a prior pregnancy (Ministry of health, 2010).

Early antenatal care attendance during the first three months of gestation plays a major role in detecting and treating some complications of pregnancy and forms a good basis for appropriate management during delivery and after childbirth. Failure to

attend antenatal care early results in the potential for complications during pregnancy, delivery, and puerperium (Benage, 2015).

Therefore, late initiation of ANC may lead to undetected or late detection of maternal health problems and subsequently unmanaged complication among pregnant women and thus contributes to maternal mortality. To reduce child mortality and improve maternal health, a good understanding of factors that influence late booking of antenatal services by pregnant women is important.

1.2 Problem statement

Delayed access to antenatal care ('late booking') has been linked to increased mortality and morbidity for mother and baby (Jones *et al.*, 2011; Uganda Bureau of Statistics, 2011).

The Confidential Enquiry into Maternal Deaths in the UK (2007) found that 17% of the women who died from Direct or Indirect causes booked for maternity care after 22 weeks gestation (Jones *et al.*, 2011). The findings of the Uganda Demographic and Health survey 2011 showed that only 21% of women made their first antenatal care visit before the fourth month of pregnancy implying that 79% of pregnant women come late for their first antenatal care visit (Uganda Bureau of Statistics, 2011). Pregnant women who came late for antenatal care in Mulago hospital, Uganda were not well-informed about the right gestation age at which they should make their first antenatal care visit (72.7%) and/or of the importance of early attendance at antenatal care (53.3%) (Kisuule *et al.*, 2013). In the months of April, May and June 2016, 1410

(91%) of the pregnant women booked for antenatal care after the first trimester (KIUTH ANC records, unpublished data).

However, there is limited data about studies done to assess factors associated with late ANC booking in Bushenyi district particularly Kampala International University teaching hospital and this compelled me to conduct study ‘factors contributing to late antenatal booking among pregnant women at Kampala International University Teaching Hospital.

1.3 Purpose of the study

To determine the factors contributing to late booking of antenatal care among pregnant women in Kampala International University Teaching Hospital (KIUTH)

1.4 Specific objectives

- i. To determine the socio-demographic factors associated with late antenatal booking among pregnant women at Kampala International University Teaching Hospital (KIUTH)
- ii. To determine socioeconomic factors contributing to late booking of antenatal care among pregnant women at Kampala international University Teaching Hospital.

1.5 Research questions

- i. What socio-demographic factors associated with late booking of antenatal care among pregnant women at Kampala International University Teaching Hospital (KIUTH)?

- ii. What socioeconomic factors contribute to late booking of antenatal care among pregnant women at Kampala International University Teaching Hospital?

1.6 Justification of the study

1.6.1 Nursing practice

This study will help policy makers and stake holders to organize trainings aimed at imparting knowledge to the public about importance of early booking of ANC. Emphasis on timing and quality of care provided is necessary to establish confidence between the women and their health care providers especially the practicing nurses.

1.6.2 Nursing educators

The study findings will help in creating awareness among nursing students and educators so as to advocate for early booking of ANC.

1.6.3 Nursing researchers

The study findings will be used as reference for future researchers who will be interested in carrying out research on the same topic. This research will also be essential for continually improving standards of ANC especially early booking.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter covers literature review regarding antenatal care, socio-demographic and economic factors associated with late booking for antenatal care. The literature review was sourced from related journals, articles, textbooks and internet.

2.2 Socio-demographic factors associated with late ANC booking among pregnant women

The World Health Organization (WHO) reported that younger and older age groups are reluctant to get antenatal care because many young women are unmarried and unwilling to use ANC and older women have cultural bias against formal healthcare (WHO, 2011). A cross-sectional study involving 30 antenatal mothers at Kubang Health clinic in Malaysia showed that among the late bookers, 12(40%) were aged between 21-40 years while 9(30%) the early bookers were between 21-30 years (Hazura *et al.*, 2008). According to Okhiai *et al.* (2015), age was related to late booking of antenatal care and they found that among late bookers, about 14.0% were less than 20 years, and 6.0% were higher than 38 years. In contrast, Banda *et al.* (2012) maternal age was not associated with late antenatal care attendance.

While many cultures believe that childbirth is a natural procedure and beyond human beings control, it is reported by Lavender *et al.* (2007) that educated women understand the importance of timely check-ups during pregnancy period. Ignorance may therefore be the contributory factor to late antenatal booking. Ambreen (2015)

found that nearly more than half, 400 (62%) had no formal education while 143 (23%) attended primary school and the remaining 60 (9%) who attained a secondary and above level of education booked for antenatal care after 24weeks of gestation. This showed that women with low educational level were most likely to book for antenatal care late than their counterparts. Similarly, Wegene *et al.* (2015) in their study highlighted that educational status of the mother was associated with timing of ANC initiation which showed that the illiterate 55(77.5%), primary level education 19(51.4%), secondary and above 8(44.5%) booked ANC late. Women with tertiary level of education were more likely to book at or earlier than 17weeks of gestation. 71.4% of women with no formal education, 62.7% primary education, 58.2% secondary education and 42.6% post-secondary education booked for antenatal care late(≥ 17 weeks) (Ifenne & Utoo, 2012). Similarly, a study carried out in Riyadh showed that the education of the wife and husband affected the gestational age at booking of antenatal care (Yazdoni *et al.*, 2008).

Place of residence also exhibited association with late ANC initiation as those from urban areas, 51(45.9%) compared to rural counterparts, 20(29.9%) started ANC early (Wegene *et al.*, 2015). In the rural district of Mpongwe, nulliporous women were 59% less likely to initiate ANC late compared to multiparous women, while the proportion the urban was 48% (Banda *et al.*, 2012). According to Ambreen (2015), four hundred twenty two (66%) of the respondents who booked for antenatal care after 24weeks were from rural areas however two hundred nineteen (34%) were resident of city.

Regarding parity, Yared and Asnaketch (2009) revealed that urban women with 2-4 children ever born were twice as likely to use antenatal care as women with only one child. In contrast, although high parity women (parity 5 or higher) tend to use the service more often than parity one women, they mostly booked for antenatal care late. A study in Nigeria showed that of the 256 multiparous women, 205(80%) had booked at least one previous pregnancy late (Ndidi & Oseremen, 2010). Temesgen (2015) found that nullipara women were more likely 51.8% to book before 12 weeks of gestation and those Para one and above, 60.9% booked late (after 12weeks).Banda *et al.* (2012) established that there was a tendency of initiating ANC late amongst women of high parity and gravidity. 74.6% of women with who had given 1 or more births and 56% of those who were pregnant for 3 or more times booked for antenatal care after the first three months of pregnancy.

Research has shown that most of the maternal and neonatal deaths are avoidable. Antenatal care is one of the key strategies for reducing maternal and neonatal morbidity and mortality directly through detection and treatment of pregnancy related illness, or indirectly through detection of women at risk of complications of delivery and ensuring that they deliver in a suitably equipped facility (Adekanle & Isawumi, 2008; Mohammed *et al.*, 2011). A number of studies have demonstrated the association between antenatal care attendance and reduction of premature birth, low birth weight, congenital malformations, congenital infections, neonatal tetanus, pre-eclampsia and anaemia (Orvos *et al.*, 2012). Ambreen (2015) found that women who had no previous Caesarean section 80.19% would like to book late compared with

those who have previous Caesarean section 19.81%. Women who had no problem in last delivery 69.43 % were more likely to come late as compared to those who have problem.

2.3 Socioeconomic factors associated with ANC booking

A study done in Isra university hospital showed that the majority (78%) of the women who booked late for antenatal care were not working (housewives) compared to 22% of the working ladies (Ambreen, 2015).

Fees reduce women's use of maternal health services and keep millions of women from having hospital-based deliveries or from seeking care even when complications arise. Even when formal fees are low or nonexistent, there may be informal fees or other costs that pose significant barriers to women's use of services. These may include costs of transportation, drugs, food, or lodging for the woman or for family members who help care for her in the hospital (Gertler *et al.*, 2008).

According to Ifenne and Utoo (2012), late booking of antenatal care was strongly associated with financial constraints (9.2%) and lack of transport to the healthcare facility (2.2%). Another study involving 348 pregnant women antenatal at the Delta State University Teaching hospital in Nigeria found that 10.1% of the study population registered late due to financial constraints (Ndidi & Oseremen, 2010).

Hazura *et al.*, (2008) found that being employed was associated with late booking in which 36.7% of the employed pregnant women booked late compared to 26.7% of the unemployed that also booked antenatal late.

Kisuule *et al.* (2013) in their conducted among 400 women with a gestation age of more than 20 weeks on their first antenatal care visit in Mulago hospital showed that one hundred and ten (27.5%) agreed that they did not have money for transport to bring them to the hospital while 37 (9.3%) thought that they had to pay for the antenatal care services and they lived in a distance of greater than five kilometers from the hospital (n = 201, 50.3%).

Accessibility of health services has been shown to be an important determinant of utilization of health services in developing countries. In most rural areas in Africa, one in three women lives more than five kilometers from the nearest health facility. The scarcity of vehicles, especially in remote areas, and poor road conditions can make it extremely difficult for women to reach even relatively nearby facilities. Walking is the primary mode of transportation, even for women in labor (WHO, 2011).

A study conducted at Isra University Hospital, Hyderabad involving a total of 641 women who came after 24 weeks of gestation for antenatal care found that majority, 494 (77 %) reported that the hospital was very far from them and that early initiation meant several antenatal visits (Ambreen, 2015).

According to Okhiai *et al.* (2015), 58.0% of the women who booked for antenatal care not earlier than 3 months reported that the distance of the health facility was their limiting factor.

Kisuule *et al.* (2013) in their study conducted among women who booked for antenatal care at more than 20 weeks of amenorrhea, found that about half of late

bookers lived in a distance of greater than five kilometers from the hospital,(n = 201, 50.3%). In contrast, Hazura *et al.* (2008) in their study found that 14(46.7%) of the late bookers and 8(26.7%) of the early bookers stayed near the clinic (between 1-4km radius) implying that distance did not significantly contribute to late ANC booking.

CHAPTER THREE: METHODOLOGY

3.1 Introduction

This chapter describes the study design and rationale, study setting and rationale, study population, sample size determination, sampling procedure, inclusion criteria, definition of variables, research instruments, data collection procedures, data management, data analysis, ethical considerations, limitations of the study and dissemination of results.

3.2 Study design and rationale

A cross-sectional quantitative study aimed at examining factors that were associated with late antenatal attendance was used. In this study, each woman was interviewed once and recruitment took place in August 2016.

Data was collected on individual characteristics, including socio-demographic and economic factors.

3.3 Study Setting and rationale

The study was conducted at the department of obstetrics and gynecology of Kampala International University Teaching Hospital located in Ishaka-Bushenyi Municipality in Bushenyi district about 360km west of Kampala the capital city of Uganda. The department of obstetrics and gynecology has facilities for antenatal clinic; labor ward, post natal ward; gynecology clinic, maternal and child health clinic including family planning and immunization, and serves as site for training of students in the university.

Antenatal care services are currently provided free of charge and this attracted all expectant mothers to seek for care irrespective of the gestational age. This provides an opportunity for a large sampling population. According to the ANC clinic records (unpublished data), 516 pregnant women on average sought for ANC service per month in the last three months (April, May and June of 2016). These three months are selected for drawing of the study population and sample size.

3.4 Study population

The target population consisted of all pregnant mothers who came for ANC visits at KIUTH

3.4.1 Sample size determination

Table 3.1 Pregnant women enrolled in the Antenatal clinic in KIUTH from April to June 2016

Months	Booked in first trimester	Booked after first trimester	Total population
April	41	463	504
May	60	553	613
June	38	394	432
Total	139	1410	1549
Average monthly	46.33	470	516.33

The average monthly attendance of the women in the three months was 516 thus; this was the population the researcher targeted to get a sample from. Mugenda and Mugenda (2003) argue that for a sample to be representative enough, it should be at

least 10% of the target population. The researcher's sample size was thus 52 pregnant mothers selected using systematic random sampling technique.

3.4.2 Sampling procedure and rationale

Systematic sampling procedure was employed to recruit 52 expectant mothers attending ANC clinic. A list of ANC attendees on a clinic day was prepared and a number assigned for each attendee. Attendees were then picked at every third interval that is 3, 6, and 9 until the required number of 52 participants was reached.

3.4.3 Inclusion criteria

- All pregnant mothers who came for ANC visits at KIUTH
- Pregnant mothers willing to take part in the study

3.4.4 Exclusion criteria

- All eligible participants not willing to take part in the study
- Mothers who were sick and in need of emergency intervention.

3.5 Definition of variables

3.5.1 Dependent variables

Booking of antenatal care

3.5.2 Independent variables

Mothers' age, marital status, religion, place of residence, educational level, occupation, distance from health facility; obstetrics variables such as: previous ANC visit, parity, history of abortion and/or still birth.

3.6 Research Instrument

This study used interviewer-administered questionnaire with both open ended and closed ended questions.

3.6.1 Quality control

To achieve reliability of the questionnaire, the instrument was designed with great care matching questions with objectives for the study. The questionnaire was pretested in a different health facility (Ishaka Adventist hospital) targeting 10 expectant mothers. The responses from the pretest were used to ensure content validity by revealing inconsistencies, ambiguities and unnecessary data in the questions within the questionnaire. The questionnaire was then revised to mainly include appropriate questions.

3.7 Data Collection Procedures

The interviewer-administered questionnaire was used to obtain information from the pregnant women. The questionnaire was divided into two sections with section A containing information on socio-demographic profile and section B containing their socioeconomic characteristics.

A full explanation on the research study was given to the nursing staff and the mothers to create rapport and gain their co-operation during data collection and become familiar to the clinic as well. There after the respondents who meet inclusion criteria were recruited for the study and data collection from pregnant women via face

to face approach whereby one participant were interviewed at a time, it was conducted in August 2016.

3.7.1 Data management

All collected questionnaires were checked for completeness and consistency of responses manually prior to analysis.

3.7.2 Data analysis

The data was edited, cleaned before entry to the computer and analyzed using statistical packages of social sciences (SPSS) version 16.0. Statistical analyses included simple descriptive statistics of frequency and percentages. Data was presented in pie chart, tables and figures.

3.8 Ethical considerations

The researcher obtained ethical clearance and an introductory letter from School of Nursing Sciences of Kampala International University, then, permission to conduct the study was obtained from the hospital Executive Director, Senior Principal Nursing Officer and finally the ANC clinic In-charge before actual conduct of the study. Informed consent was sought from study participants prior to participation and confidentiality maintained at all levels of data handling and management, participant's names were not included in the data collection tools and data used for only research purposes.

3.9 Limitations of the Study

The study was conducted at the same time attending lectures and community placement but this was overcome by proper allocation of time.

3.10 Dissemination of results

The copies of the results from this study once produced were distributed to Uganda Nurses and Midwives Examination Board (UNMEB), Kampala International University Teaching Hospital ANC clinic where the study was done, Kampala International University School of Nursing and library, personal copy for future reference. The research findings will also been presented in conferences.

CHAPTER FOUR: RESULTS

4.1 Socio-demographic characteristics of participants

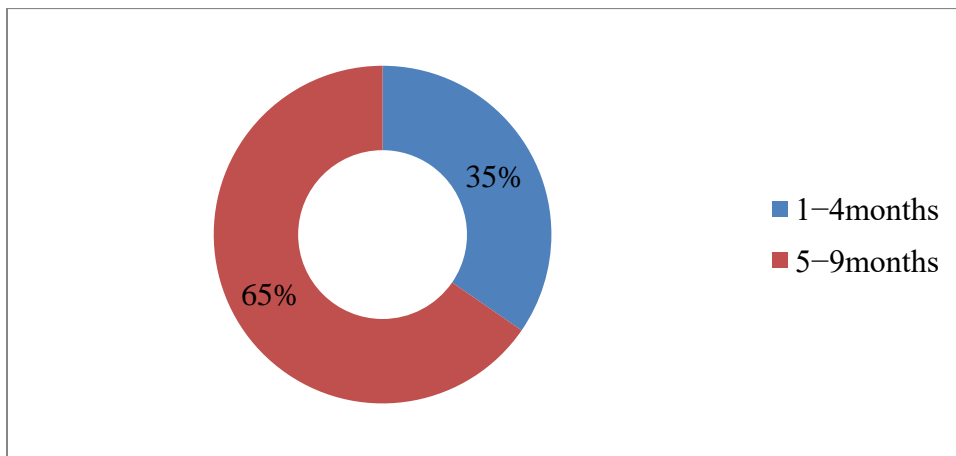
Table 4.1: Socio-demographic characteristics of respondents (n=52)

Variable	Classification	Frequency	Percentage
Age	<20	8	15.4%
	20-29	23	44.2%
	30-39	18	34.6%
	≥40	3	5.8%
Marital status	Single	9	17.3%
	Married	38	73.1%
	Separated	5	9.6%
Religion	Catholic	21	40.4%
	Protestant	17	32.7%
	Islam	4	7.7%
	Pentecostal	6	11.5%
	SDA	4	7.7%
Residence	Urban	18	34.6%
	Rural	34	65.4%
Level of education of the pregnant woman	No formal education	23	44.2%
	Primary	15	28.8%
	Secondary	10	19.2%
	Tertiary	4	7.7%
Gravidity	Prime gravida	22	42.3%
	Multigravida	18	34.6%
	Grandmultigravida	12	23.1%
Parity	Nulliparous	18	34.6%
	1	11	21.2%
	2	7	21.2%
	3	5	9.6%
	4	5	9.6%
	≥5	6	11.5%
History of at least one problem in the current/previous pregnancy	Yes	13	25%
	No	39	75%

Of the 52 respondents the majority was in the age group of 20-29 years and more than half of the respondents were married. By religion, most respondents were either catholic or Protestants. Regarding area of residence, most of the respondents hailed from rural area while a few resided in town. Majority of the respondents had no formal education or had attained primary educational level. The respondents who sought for ANC at KIUTH were mostly pregnant for the first time/primegravida and for second or more times but not more than 5 times/multigravida and majority of the women had not given birth to any live child (nulliparous). Furthermore, most of the respondents had no history of current or previous eventful pregnancy (Table 4.1 above).

4.2 ANC Attendance

Figure 4.1: Timing for ANC first booking among respondents (n=52)



Information on initiation of ANC revealed that majority of the participants in Kampala International University teaching hospital booked for ANC late while 18(35%) booked within the first trimester.

4.3 Socio-economic factors of respondents

Table 4.2: Socio-economic factors of participants (n=52)

Variable	Classification	Frequency	Percentage
Occupation	Employed	13	25%
	Unemployed	39	75%
Lack of money leading to failure to attend ANC	Yes	48	92.3%
	No	4	7.7%
Source of money	Husband	34	65.4%
	Salary	8	15.4%
	Relative	10	19.2%
Distance to hospital	Within 5kilometers	31	59.6%
	Over 5kilometers	21	40.4%
Means of transport	Walking	15	28.8%
	Hired/public vehicle	29	55.8%
	Private vehicle	8	15.4%

Socioeconomic characteristics of participants in table 4.2 showed that over half of the respondents were unemployed and majority of the respondents reported that lack of money affected ANC attendance. The results also showed that most obtained monetary facilitation from their husbands. Majority of the respondents lived within 5kilometers from the hospital while 40.4% over 5kilometers and a greater proportion of them hired/used public means of transport and 28.8% walked to and from hospital for ANC.

4.4 Relationship between socio-demographic factors and late booking of ANC

Table 4.3: Socio-demographic factors and ANC booking (n=52)

Variable	Classification	Total n (%)	ANC booking (%)	
			Early	Late
Age	<20	8(15.4%)	3(37.5%)	5(62.5%)
	20-29	23(44.2%)	18(78.3%)	5(21.7%)
	30-39	18(34.6%)	10(55.6%)	8(44.4%)
	≥40	3(5.8%)	0(0%)	3(100%)
Marital status	Single	9(17.3%)	2(22.2%)	7(77.8%)
	Married	38(73.1%)	29(76.3%)	9(23.7%)
	Separated	5(9.6%)	2(40%)	3(60%)
Religion	Catholic	21(40.4%)	11(52.4%)	10(47.6%)
	Protestant	17(32.7%)	9(52.9%)	8(47.1%)
	Islam	4(7.7%)	2(50%)	2(50%)
	Pentecostal	6(11.5%)	4(66.7%)	2(33.3%)
	SDA	4(7.7%)	2(50%)	2(50%)
Residence	Urban	18(34.6%)	11(61.1%)	7(38.9%)
	Rural	34(65.4%)	7(20.6%)	27(79.4%)
Level of education of the pregnant woman	No formal education	23(44.2%)	5(21.7%)	18(78.3%)
	Primary	15(28.8%)	2(13.3%)	13(86.7%)
	Secondary	10(19.2%)	7(70%)	3(30%)
	Tertiary	4(7.7%)	4(100%)	0(0%)
Gravidity	Prime gravida	22(42.3%)	17(77.3%)	5(22.7%)
	Multigravida	18(34.6%)	1(5.6%)	17(94.4%)
	Grand multigravida	12(23.1%)	0(0%)	12(100%)
Parity	Nulliparous	18(34.6%)	11(61.1%)	7(38.9%)
	1	11(21.2%)	7(63.6%)	4(36.4%)
	2	7(21.2%)	1(14.3%)	6(85.7%)
	3	5(9.6%)	0(0%)	5(100%)
	4	5(9.6%)	0(0%)	5(100%)
	≥5	6(11.5%)	0(0%)	6(100%)
History of at least one problem in the current/previous pregnancy	Yes	13(25%)	13(100%)	0(0%)
	No	39(75%)	5(12.8%)	34(87.2%)

Age of respondents and ANC booking: The study findings revealed that younger that is below 20years and older age that is 40years above of the respondents were likely to book ANC late.

Marital status: Unmarried or single pregnant women mostly booked for ANC late followed by those who were separated as opposed to the married.

Religion: The findings showed that there was no obvious correlation between respondents' religion and late ANC booking.

Residence: Women who were rural residents were more likely to book for ANC late than their urban counterparts.

Level of education of respondents: Women with low educational level that is no formal education and primary educational level respectively were likely to book for ANC late than those who attained secondary and tertiary educational level.

Gravidity and ANC booking: The study results in table 4.3showed that women who had been pregnant for the second or more times were likely to book for ANC late than those pregnant for the first time.

Parity versus ANC booking: The results showed that the higher the parity, the likelihood of late booking and vice versa. Majority of the respondents with 3 or more children definitely booked for ANC late.

History of previous/or current eventful pregnancy: Worth noting, all women with history of eventful pregnancy booked for ANC early while those with positive history of uneventful pregnancy booked for ANC late (Table 4.3 above).

4.5 Relationship between socioeconomic factors and late ANC booking

Table 4.4 Socioeconomic factors and ANC booking (n=52)

Variable	Classification	Total n (9%)	ANC booking (%)	
			Early	Late
Occupation	Employed	13(25%)	9(69.2%)	4(30.8%)
	Unemployed	39(75%)	9(23.1%)	30(76.9%)
Lack of money leading to failure to attend ANC	Yes	48(92.3%)	16(33.3%)	32(66.7%)
	No	4(7.7%)	4(100%)	0(0%)
Source of money	Husband	34(65.4%)	8(23.5%)	26(76.5%)
	Salary	8(15.4%)	8(100%)	0(0%)
	Relative	10(19.2%)	2(20%)	8(80%)
Distance to hospital	Within 5kilometers	31(59.6%)	15(48.4%)	16(51.6%)
	Over 5kilometers	21(40.4%)	3(14.3%)	18(85.7%)
Means of transport	Walking	15(28.8%)	5(33.3%)	10(66.7%)
	Hired/public vehicle	29(55.8%)	6(20.7%)	23(79.3%)
	Private vehicle	8(15.4%)	8(100%)	0(0%)

Employment and ANC booking: Results indicated that unemployment was associated with late ANC booking whereby majority of the unemployed expectant mothers booked for ANC late as opposed to the employed.

Financial constraints and ANC booking: Women who responded that lack of money could lead to failure to attend ANC actually booked for ANC late than those who did not.

Source of Money and ANC booking: Women who obtained money from their relatives and husbands booked for ANC late while respondents who used their own salary booked for ANC early.

Distance and means of transport to health facility: Respondents who lived over 5kilometers booked for ANC late in pregnancy as compared to those who lived within 5kilometers away from hospital; those who walked and/or hired/public transport booked for ANC late.

CHAPTER FIVE: DISCUSSION, CONCLUSION AND RECOMMENDATION

5.1 Discussion

5.1.1 ANC attendance

The observed incidence of late antenatal booking of the pregnant women under study seems to be relatively high considering the percentage booking of pregnant women in the 5th through 9th month of pregnancy. This is in keeping with a previous study among Ugandan women which showed that the average timing was usually in the second trimester (Uganda Bureau of Statistics, 2011). There seems to be an underlying belief that a woman can do without registering in early pregnancy since whatever symptoms women may have in early pregnancy are normal, mild or not serious enough to need a doctor's attention. Thus, antenatal care seems viewed by most of the women as curative rather than preventive which is in sharp contrast with the goals of antenatal care which are mainly preventive.

5.1.2 Socio-demographic factors associated with late ANC booking among pregnant women in Kampala International University teaching hospital

In this study maternal age was found to be associated with late booking of antenatal care in that the younger (<20 years) and the older (≥ 40 years) age groups booked for ANC late. This finding is consistent but higher than that of Okhiai *et al.* (2015), in which age was related to late booking of antenatal care and among late bookers, about 14.0% were less than 20 years, and 6.0% were higher than 38 years. This may be that younger and older age groups are reluctant to get antenatal care because many young

women are unmarried and unwilling to use ANC and older women have cultural bias against formal healthcare.

In regards to marital status, the findings in this study revealed that unmarried women (single) and the separated booked for ANC late. The married women mostly booked for ANC early. This may be explained in a way that an unplanned extra-marital pregnancy often translates to late disclosure to the mother/relative/friend, in fear of potential negative reaction. However, when the mother or relative is eventually informed, they show support and booking would typically follow shortly afterwards. Some boyfriends may show a total lack of support, which sometimes influence late booking. This therefore shows that social support facilitates ANC attendance as evidenced by married women booking for ANC early.

According to Ambreen (2015), four hundred twenty two (66%) of the respondents who booked for antenatal care after 24weeks were from rural areas and 219 (34%) were resident of city. In the current study, pregnant women in rural areas (79.4%) were found to be significantly associated with late antenatal attendance than those in urban (38.9%) communities. The effect of differences in attendance of antenatal care between the urban and rural areas could be due to differences in distribution of health facilities. Usually, these facilities are disproportionately distributed in favor of urban areas in most developing countries making them more available and accessible to urban women.

Educational level has been shown to influence various aspects of health seeking behavior including ANC timing. In this study pregnant women with no formal education (78.3%) and primary education (86.7%) booked late for ANC and none among those with tertiary level of education booked late. This finding is similar to previous studies that found that educational status of the mother was associated with timing of ANC initiation which showed that the illiterate 55(77.5%), primary level education 19(51.4%), secondary and above 8(44.5%) booked ANC late (Wegene *et al.*, 2015). Lavender *et al.* (2007) found that educated women understand the importance of timely check-ups during pregnancy period and that ignorance may therefore be the contributory factor to late antenatal booking. Education may impact on ANC attendance in several ways including facilitating communication with health care providers, increasing retention of information provided by health workers and thereby enhancing utilization of ANC. It is not clear however, what the optimal educational level would be to get better ANC timing but perhaps what is more important is the patient understanding of early booking on both maternal and fetal wellbeing. It is possible that patients with limited literacy might be reluctant to ask others for the kind of help they need to initiate ANC correctly. Better-educated people convinced of ANC importance, perhaps as a result of educational programmes, show a propensity towards early initiation of ANC.

This study established that there was a tendency of initiating ANC late amongst women of high parity and gravidity. This could be as result of limited resources in the family and negative perceptions resulting from previous pregnancy experiences. It is

also possible that multiparous and/or grand multiparous women feel more confident after previous experience and feel that starting ANC early is not necessary. This finding is similar with previous studies (Yared & Asnaketch, 2009; Ndidi & Oseremen, 2010; Banda *et al.*, 2012). This clearly suggests that the antenatal health education programmes the women had been exposed to in previous pregnancies had been ineffective in modifying their behaviour.

The findings of this study indicated that (87.2%) women with positive previous uneventful pregnancy/delivery booked for ANC late and that eventful previous pregnancy was associated with early ANC booking. This is similar to findings of that of Ambreen (2015) which found that women who had no problem in last delivery 69.43 % were more likely to come late as compared to those who had a problem. This knowledge most likely came from health education programs during previous pregnancies, hospitals or the news media but the booking pattern suggests that most of the women were not convinced that there was any gain in registering for antenatal care early.

5.1.3 Socioeconomic factors and late ANC booking

The current study established that unemployment was associated with late ANC booking in which 76.9% of the unemployed expectant mothers booked for ANC late as compared to 30.8% who were employed. This finding is similar to that conducted at Isra university hospital which found that 78% of the women who booked late for antenatal care were not working (housewives) compared to 22% of the working ladies

(Ambreen, 2015). Similarly, most (66.7%) women in this study responded that lack of money could lead to failure to attend ANC or actually book for ANC late. This finding is similar to previous studies which found that late booking of antenatal care was strongly associated with financial constraints and lack of transport to the healthcare facility (Ifenne and Utoo, 2012; Ndidi & Oseremen, 2010). This clearly suggests that a range of factors also mediated women's access to the means necessary to meet the direct and indirect costs of ANC. Women without direct access to cash often relied on their husbands or relatives to meet costs, which further complicates decision-making about ANC initiation.

Also in this study, 85.7% of the women lived at a distance of over 5 kilometers from the health facility coupled by walking or use of public transport booked for ANC late. This fact is justified as a study has previously showed that, where women have to travel long distance and scarcity of vehicles, especially in remote areas, and poor road conditions makes women reluctant to take antenatal care services (WHO, 2011). This finding is also consistent with that of Kisuule *et al.* (2013) which found that half of late bookers lived in a distance of greater than five kilometers from the hospital.

5.2 Conclusion

Late antenatal care attendance remains high among pregnant women indicating that the importance of early initiation is yet to be appreciated. A number of factors were found to contribute to this problem. Socio-demographic factors associated with late ANC booking included maternal age, marital status, residence, educational level, gravidity and parity, and history of previous uneventful pregnancy/delivery. Religion

was not associated with late ANC booking. The socioeconomic factors included unemployment coupled with financial constraints and long distance to the health facility.

Therefore, an approach that involves all stakeholders should be used to address the matter at hand. Resources could be effectively utilized if efforts to increase early antenatal attendance are focused on identified high risk groups.

5.3 Recommendations

The study has provided information on the various aspects of late antenatal attendance. Therefore, the following recommendations if implemented may improve timely accessing of health services and the quality of service provided;

- Ministry of health and District Medical Offices need to provide continuous health education on the importance of timely accessing of ANC services through the media and community sensitization meetings. The focus should be on promotion of booking in the first trimester, the value of early antenatal care.
- Kampala International University teaching hospital should extend antenatal care services to the communities that are far from the health care unit by creating ANC outreach services.
- Furthermore, government through Ministry of Health should construct more health facilities to improve availability and accessibility especially in rural areas.

5.4 Implications to nursing practice

To ensure appropriate design and effective delivery of ANC, attention should be paid to the *on the-ground* implementation of ANC and women's understanding of these local forms of ANC at health facilities, how women deal with reproductive uncertainty and the efforts that women make to care for themselves and their pregnancies.

Information, education and communication strategies promoting health seeking behaviors should be enhanced both at health facility and community level. Some of the issues to be intensified should be dispelling myths associated with pregnancy, informing communities that any pregnant woman is at risk and requires medical attention during the entire pregnancy period. Communities should further be informed that regardless of age of the woman and parity all pregnant women must be supported to initiate ANC early.

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APPENDICES

Appendix I: CONSENT FORM FOR STUDY PARTICIPANTS

My name is MERCY JOHN MMASSY. I am a Diploma student at Kampala International University, school of nursing sciences. I am carrying out a research to determine the factors contributing to late antenatal booking among pregnant women at Kampala International University Teaching Hospital. You are hereby invited to participate in the study.

Your responses will be of great importance to inform policy makers and other stakeholders on how to ensure focused antenatal care plan is implemented. The information you give will be used for this purpose only. Confidentiality will be guaranteed throughout the interview and you will not be required to identify yourself by name or any other personal identification details. There are no direct benefits or risks anticipated in this study. You are free to choose to participate or not to participate in this study and your decision will not interfere with the services you are provided at Kampala International University.

I confirm that this study has been explained to me and all the questions satisfactorily answered to me by the researcher, I am happy and free to take part in the study.

Signature of participant..... Date

Investigator's signature..... Date.....

CONSENT FORM AS TRANSLATED IN RUNYANKOLE VERSION

Appendix 1: OKUHAMYA NGU WAIKIRIZA KUZA OMUMUSHOMO.

Amazaina gagye nibanyeta MERCY JOHN MMASSY, Nd'omwegiwa dipuroma ahari Kampala International University-School of Nursing; "Ndiyoninkora okukyondoza kumanya enshonga ezirikuretera abakazib'enda bakyereerwa k'uza kukyebeza enda zabo ahari Kampala International University-Teaching Hospital." Mwabani mushabwa kwaija kwejumbira omumushomo ugu.

Eentekateka zangu nizaija kuba ez'omugasho kumanyisa abakozi bamateeka n'abandi abukiri kukwataho kureba okukyebeza enda kwateebwa omunkora. Enshonga ezimuratuhereze nizaija kukoze sibwa ahabwomushomo ugu. Enshonga zanyu ezimurahe tizirije kumanyisibwa ondiho muntu wena kandi torahandikweho eizina ryawe. Tihariho magoba gahoraho omukwejumbira omumushomo ugu nginga akabi kona akarikwaija kukubaho. Oyine obugabekusharaho kwejumbira omumushomo ugu nginga okareka kandi nawayanga tikirije kurabanisamu obahereza bwawe aha Kampala International University.

Nimpamya ngu omushomo ugu bagushoborera kurungi kandi n'ebibuzo yabigarukamu gye. Nyowe nshemerirwe kandi nyine obugabe bwokwejumbira omushomo ugu.

Omukono gwo owabuzibwa..... Ebiro.....

Omukono gwo wabuza..... Ebiro.....

**APPENDIX II: QUESTIONNAIRE FOR PREGNANT WOMEN IN
ENGLISH/RUNYANKORE VERTION**

SECTION A: SOCIO-DEMOGRAPHIC CHARACTERISTICS

1. How old are you?

OR. Oyine emyakaengahi?

<20 years ☐ 20-29 ☐ 30-39 ☐ Above40 ☐

2. What is your marital status?

Single ☐ Married ☐ Separated ☐ Divorced ☐

OR. Ebyo busherebiribita?

Tinshwirwe ☐ Nshwirwe ☐ Nkarugaomumaka ☐ Nkangana ☐

3. Which religion are you?

Catholic ☐ Protestant ☐ Islam ☐ Pentecostal ☐ SDA ☐

Others (specify)

OR .Noshaba dinikiy?.

Abakaturikiy ☐ Abakuristayo ☐ Abasiramu ☐ Abarokore ☐ Abakcanga ☐

Agandiamadini.....

4. Where do you stay?

Urban ☐ Rural ☐

OR. Noturankahi? Mutawuni ☐ Mukyaro ☐

5. What is your highest level of education?

None ☐ Primary ☐ Secondary ☐ Tertiary ☐

OR. Okashoma kukomankahi?

Tindashomire ☐ Primary ☐ Secondary ☐ Mwitendekyero ☐

PREGNANCY HISTORY AND ANC ATTENDENCE

6. Which number of pregnancy is this?

OR. Egyinda neyakangahi?

7. How many deliveries have you ever had (irrespective of living status)?

None ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ ≥ 5 ☐

OR .Oyine amazaraangahi?

Tinkazaragaho ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ atano nokukyiraho ☐

8. Did you ever experience any problem during the previous pregnancy (if this is second pregnant or more)?

Yes ☐ No ☐

OR. Okatunga ekyizi bunendayo bwahwire (kera beery ndayakabiri)?

Ego ☐ Ingaha ☐

9. At which month of pregnancy did you start antenatal care (if already started)?

a) 1-4months ☐ b) 5-9months ☐

OR. Okatandika ryari kukyebeza?

a) Okwezi 1-4 ☐ b) Okwezi 5-9 ☐ Tindikumanya ☐

SECTION B: SOCIOECONOMIC FACTORS

10. What is your occupation?

Employed ☐ Not employed ☐ Others (specify)

OR. Nokora murimokyi?

Ninkozesibwa ☐ Tinyinemurimo ☐ Ebindibigambe.....

11. Have you ever failed to come for antenatal care due to lack of money?

Yes ☐ No ☐

OR. Abuzire kwijakukyebeza habwokura sente za turansipota?

Ego ☐ Ingaha ☐

12. Where do you get the money for transporting yourself to the clinic?

.....

OR. Sente nozihankahe zaturansipotakuzahirwariro?

13. What is the distance from home to this hospital?

Within 5km ☐ Over 5km ☐

OR. Notambura orugye ndorukwingana kyikuruga mukakuhirwariro?

Mayiro 5 ☐ Higuru yamayiro 5 ☐

14. What means of transport do you use to and from the hospital?

Walking ☐ Board vehicle/motor cycle ☐ Private vehicle ☐
Others (specify)

OR. Nokozesa ntamburakyi?

Kuribata ☐ Boda/egari ☐ Motokayanje ☐
Ezindi ntamburaozigambe.....

Thank you very much for taking part in this study

Appendix III: LETTER OF APPROVAL



KAMPALA INTERNATIONAL
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OFFICE OF THE DEAN SCHOOL OF NURSING SCIENCE

TO WHOM IT MAY CONCERN

Dear sir/madam,

RE: MERCY JOHN MMASSY DNS/E/0031/152/DF.

The above mentioned is a student of Kampala International University undertaking Diploma in Nursing Sciences Extension program and she is in her final academic year.

She is recommended to carry out her data collection as a partial fulfillment for the award of the diploma in nursing.

Her topic is **FACTORS CONTRIBUTING TO LATE ANTENATAL BOOKING AMONG PREGNANT WOMEN AT KIU-TEACHING HOSPITAL.**

Any assistance rendered to her will be highly appreciated

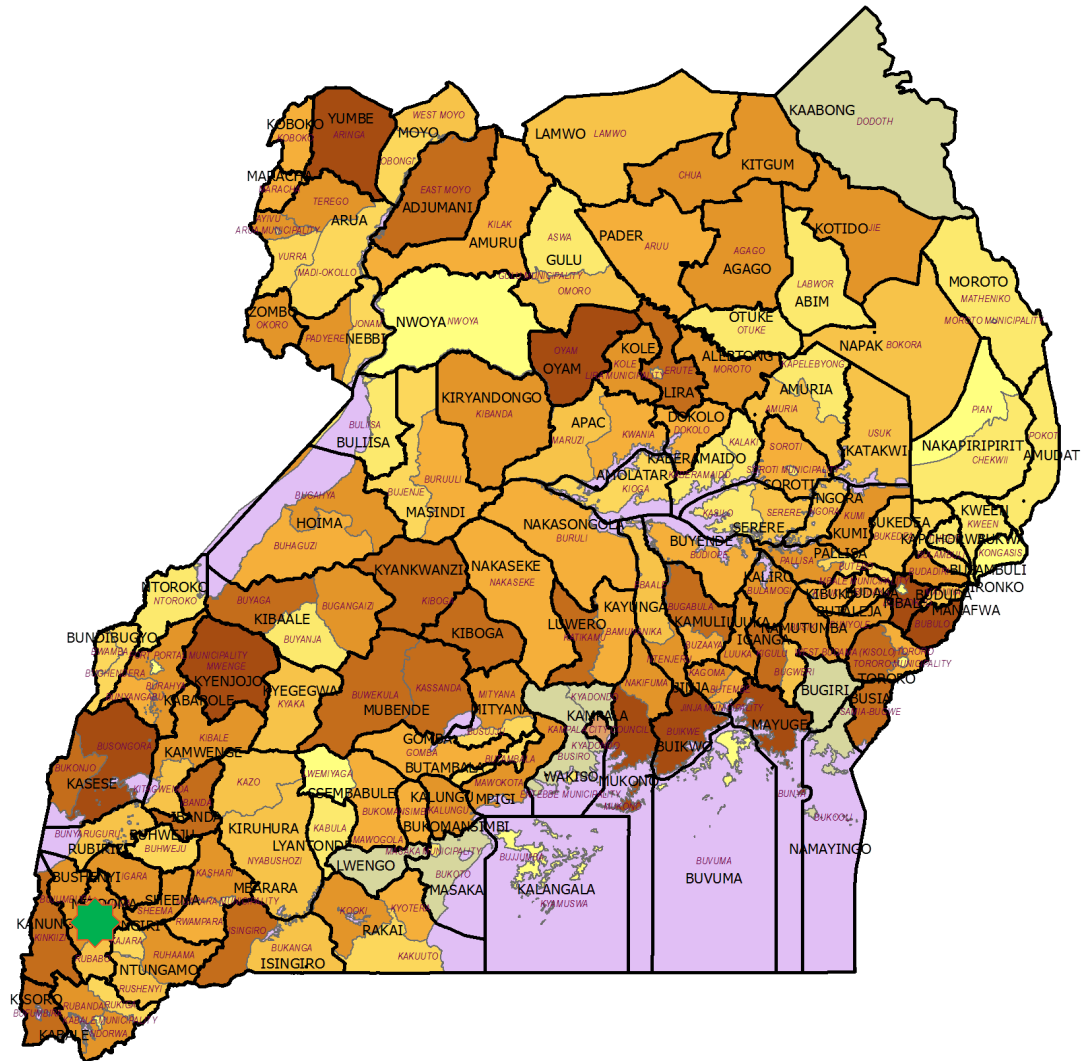
Thank you in advance for the positive response

APONDI WINIFRED
ADMINISTRATOR SCHOOL OF NURSING SCIENCES.



"Exploring the Heights"

Appendix IV: MAP OF UGANDA SHOWING LOCATION OF BUSHENYI DISTRICT



KEY



Bushenyi district

Appendix: V: MAP OF BUSHENYI DISTRICT SHOWING LOCATION OF KIUTH



KEY



KIUTH